

A HOMELAND

landscape and people

It is late winter and the temperature is minus 40 degrees Celsius. The sea is frozen over for a mile from the shore. Far out on the ice a solitary hunter inches forwards towards a seal which has come up for air through a hole in the ice and is resting on the surface. In front of him he pushes a rifle hidden behind a white screen of canvas. There is no sign that there is anyone hidden behind the screen, except for a small cloud of condensation above him as he breathes. If he is skilful and lucky, the seal will not notice him until it is too late.



Figure 1 Kyrmysh-Di forest island near Kolva-Vis river, Nenets Autonomous District. Photo taken by Joachim Otto Habeck, May 1999

Meanwhile, thousands of miles away inland, three reindeer herders wait on a windswept hilltop, scanning the surrounding mountains with binoculars. In the distance, they see two other herders riding reindeer and weaving their way through the thin larch trees which seem drawn with black ink against the snow on the ground. They have found part of the herd and are driving it toward the waiting men. At last, the sound of men whistling and deer grunting can be heard. The first reindeer filter through the surrounding trees, the camouflage of their fur blending closely with the snow and the tress' rough, grey-brown bark. Suddenly, the waiting men burst into action with their lassos, separating some deer and bunching others in order to drive them off later to different pastures.

The hunter on the ice belongs to a people called the Inuit, a name which in their language means simply 'people'. The Inuit are the Canadian section of a people who are still known to outsiders as Eskimos, though this is a name they do not like. Groups with different names but related to the Inuit live along the coasts of Greenland and Alaska as well as Siberia, in Russia. The reindeer herders belong to the Eveny, a quite different people who live in the Northeast Siberian mountains. The Inuit and the Eveny are just two of the dozens of indigenous, or Native peoples of the Arctic. This means that they have lived there for so long that they feel that it is their land. Though many of them now live in towns, most still follow a life which still depends largely on hunting seals and whales, or else on herding reindeer.

To live like this, you must see nature not as something to fight against, but as something to work with. You need a sensitive understanding of the behaviour of your animals. The landscape also has its moods, which it is essential to understand. In the short Arctic summer, the Inuit hunter paddles his kayak silently across the mirror-like smoothness of the open sea, watching for the tell-tale signs of a seal's movement. He must think like the seal and imagine in advance where it will come up. One hasty movement and he will miss it. But this sea is also dangerous and many hunters are drowned when their kayaks capsize in sudden squalls. The reindeer herders spend the summer, when it is light all night, protecting their new-born deer from being pounced on by wolves and bears, which they may have to fight. The pace of Arctic life is one of long, slow periods requiring patience, interspersed with sudden bursts of action requiring extreme skill.



Figure 2: Young Even reindeer herder holding down a reindeer while the other herder treats the animal's feet. Bystrianski Park, Kamchatka, Russian Federation. Photo taken by Emma Wilson 1998



Figure 3 Near Hornsund, Southern Spitsbergen. Photo taken by Andrzej Kaim July 1998

People who live outside the Arctic are generally impressed by its vastness and apparent emptiness. They often think of it as a wilderness, hostile to human life. Yet small communities of humans have lived in this region for thousands of years, moving across these spaces in regular

cycles as they follow the animals with which their lives are closely involved. This landscape can support only a very thinly spread-out population and most of these peoples number a few hundred or a few thousand each. But if one includes the much recent, much larger communities of outsiders in the mining and administrative towns, the Arctic and the neighbouring sub-Arctic between them contain several million inhabitants. This region is full of natural, cultural and political diversity — and of beauty and drama. Immigrants from the south generally stay for only a few years, but for the indigenous population this region is their home.



Figure 4: A doe with her calf. She gave birth just a few hours before the picture was taken. Near Kolva-Vis River, Nenets Autonomous District, Russian Federation. Photo taken by Joachim Otto Habeck, May 1999

There are various ways of defining the Arctic. The boundary between the temperate zone and the cold zone is unclear and the term sub-Arctic is used for a wide band which shares the Arctic pattern of long, cold winters and short, often quite warm summers. The two regions together are often called the circumpolar North. The Arctic is sometimes defined as the region where permafrost is found, which is the name for ground which remains permanently frozen and does not thaw out even in summer. It can also be defined as the region which lies north of the point beyond which the forest will not grow, or treeline.



Figure 5: Reindeer herders crossing Yarel-Shor River, Nenets Autonomous District, Russian Federation. The thawing period is in full swing, and the current quite dangerous. One after the other, the sledge convoys pass the obstacle. Photo taken by Joachim Otto Habeck, June 1999

By either of these definitions, the boundary of the Arctic would extend further south than what is called the Arctic Circle. This is an imaginary line which is drawn on the map at latitude $66^{\circ} 33'$ north. Here, for one night at midsummer the sun sinks down to the horizon but does not actually set below it. This is the famous midnight sun. As you go further north towards the north pole, the summer nights get lighter and lighter so that in the far north the sun does not set for weeks or even months and it never gets dark at all. During this period the weather is often warm. People feel vigorous and active and children can play games outside all night long.

In winter there is a corresponding period of darkness. Right on the Arctic Circle, there is just one day in midwinter when the sun does not rise at all. Further north the polar night lasts for weeks or months during which there is no daylight at all. This period is also bitterly cold. Many hunters and herders remain out on the trail, but most other people stay indoors much of the time. They often feel sluggish and depressed. At the end of the winter, people in some areas go to a nearby hilltop and wait eagerly for the first sunrise of spring.



Figure 7: Arctic Ocean near Spitsbergen. Photo taken by Andrzej Kaim, July 1998



Figure 6: Hansabreen Iceberg, Southern Spitsbergen. Photo taken by Andrzej Kaim, July 1998

For human populations, too, the Arctic Circle does not provide a clear dividing line and both the Arctic and sub-Arctic will be considered here as one continuous region which contains diverse smaller regions, under the general heading of 'the North'.

The heart of the Arctic is the Arctic Ocean. This ocean is largely landlocked, like a northern Mediterranean. There are narrow gaps through the islands of the Canadian archipelago and between Alaska and Siberia, with a wider opening to the North Atlantic. The central

part of the ocean, which contains the north pole, is covered with a permanent layer of ice which advances and retreats with the seasons, increasing the area of ice by tens or even hundreds of square miles.



Figure 8: Larch forest on the Kuyukhta Ridge, 60 km from Noril'sk city, Russian Federation. Photo taken by Olga Tutubalina, July 1997

The land between the shore of the Arctic Ocean and the treeline is called the tundra. Here, extremely strong winds sometimes blow off the ocean and the vegetation is made up entirely of low-growing plants such as grasses, mosses, lichens and dwarf shrubs. The Inuit described at the beginning of this section live at the farthest edge of the tundra, right on the coast. South of the treeline is the forest, which in Siberia is called the *taigá*. The trees here are largely evergreen conifers, with some deciduous birches and willows. Here, far from the coast, the wind is less fierce but the continental climate means that winter temperatures may be much

lower than in the tundra. The coldest temperatures in the northern hemisphere, around minus 70 degrees Celsius, are recorded in Verkhoyansk and Oymyakon in north-eastern Siberia, which lie on either side of the Arctic Circle. The Eveny who were also described above live in this area.

Eight countries have territory which lies within the Arctic Circle or almost touches it: Russia, the USA, Canada, Greenland, Norway, Sweden, Finland and Iceland. By far the largest of these is Russia (formerly the USSR or the Soviet Union). The Russian North occupies about half of the former Soviet Union's 8.75 million square miles and contains a high proportion of the region's entire human population, as well as most of its cities. Next in size is the Canadian North, which occupies 2.73 million square miles, or about 70% of Canada. Alaska is one of the states of the USA and has 586,400 square miles, practically all of it northern in character.

Geographically, it forms a continuation of the Canadian North and is separated only by the national boundary. Alaska was originally colonised by the Russians, who found it too remote from the capital at St Petersburg and sold it to the Americans in 1867 for a mere 6 million dollars.

Greenland has a population of 55,000, most of them Inuit. It was colonised by Denmark in the eighteenth century and in 1979 achieved 'Home Rule', which gives the population a limited degree of independence. Norway, Sweden and Finland all contain northern regions where their incoming southern populations mix with the local Saami (also known as Lapps). The rugged Norwegian coastline faces Northeast towards the Arctic and it was from here that Iceland was colonised by the Vikings, whose descendants still live there. Vikings also settled for a while in Greenland.

All these countries (except for Finland and Sweden, which do not have an Arctic coastline) face each other directly across the Arctic Ocean. It is only in the second half of the twentieth century that air travel and the development of intercontinental nuclear missiles has made this orientation an important one, since the shortest route between Russia and the USA lay across the north pole. Until that time, the northern regions of these countries had lain at the extreme outer edges of another world which centred on the south. So the Arctic was the world's ultimate frontier, since there seemed to be nothing beyond. As a result of recent political changes, we are now living at a moment when for the first time in history this region is developing a strong identity of its own, and one which pulls against the south. There are several reasons for this and two of these will be discussed in the final section. One is our new understanding of the special role of the Arctic in the study of global warming. The other is the opening up of Russia to the outside world since *perestroika* began in 1985.



Figure 9: In the traditional Even reindeer herders' tent. Newspapers are not delivered on a regular basis. From time to time visiting relatives, tourists and researchers bring reading matter, medicine and supplies. Bystrinsky Park, Kamchatka, Russian Federation. Photo taken by Emma Wilson, 1998

The northern environment is exceptional. There are fewer species of plants and animals than in any other region of the world, but these can occur in enormous quantities in one place. The low temperatures and short summers allow plants to grow for only a few weeks a year. The lichen on which reindeer graze in the winter may take thirty years to grow back and a dwarf willow 'tree' a few inches high in the tundra may be a century old.



Figure 11: Strongly damaged forest-tundra vegetation in the Noril'skaya River valley. Vehicle tracks and dead larch trees in the foreground and the Noril'skaya Railroad in the background. Photo taken by Olga Tutubalina, July 1998

This slowness makes the environment fragile and vulnerable. The permafrost in the tundra soil is protected from melting by its thin layer of plant life. If this vegetation is stripped by the tracks of even one vehicle, the permafrost may thaw and erode, leaving a gully which widens year by year. The vehicle then has to drive round this gully the next time it passes and in some areas where oil and gas are extracted, the tracks of heavy vehicles have made 'roads' half a mile wide. The environment is also exceptionally sensitive to pollution. The molecules of oil spilt in accidents can take years to break up into harmless substances, rather than months as they would in a warmer climate.

As the land stretches southwards from the Arctic Ocean towards the temperate zone, different bands can be distinguished. Each of these has its own particular vegetation, animal life and human culture. The coast is a world of rock, sea and ice, in which the land is poor but the sea sometimes rich. Whales and seals pass along here during their yearly migrations from warmer waters and some areas are rich in fish. Inland, the treeless tundra is full of birds and provides grazing for herds of wild animals and domesticated reindeer. Further south, below the treeline, lies a landscape of rivers, lakes and forests where the winter snow piles up deep. Here there are large wild animals like reindeer (called caribou in North America), elk (or moose), brown bears and numerous small furry animals. The rivers and lakes contain freshwater fish.

The idea of growing and eating grain and vegetables, let alone of vegetarianism, could never have arisen in the North. No-one can stay alive here except by using these animals and fish. In any case, meat gives people the high proportion of protein and energy which they need in this climate. Animals are also the main source of clothing and of materials for making tools, equipment and housing. Hunting, herding and the daily routine of life in this environment make tough demands on men, women and children. People suffer a lot from tuberculosis and bronchial diseases. This is also a landscape of sudden catastrophe and there are many deaths from accidents. You could get caught in a blizzard on a hillside; while sledging across a frozen lake, you could disappear through a crack in the ice; and even if you are a good hunter you may simply fail to catch an animal for days on end, so that you and your family could starve. Not surprisingly, all Arctic cultures place a very high value on detailed local knowledge of the environment, as well as on sharing food and helping others — as do hunting peoples throughout the world.



Figure 10: Dead forest, 55 kilometres south-east from Noril'sk - result of sulphur-dioxide emissions from the Noril'sk Mining and Metallurgical Combine. Photo taken by Olga Tutubalina, July



Figure 12: Old Even lady working with reindeer skin. Reindeer skin is used for making clothes and boots, which are worn mainly by the local dance troupes. The skins are used also for making bags and souvenirs. Ezzo village, Kamchatka, Russian Federation. Photo taken by Emma Wilson 1998

The next two sections will explore the basic differences between these Native peoples and the Europeans who have gradually come to control the area over the past 300-400 years. Europeans began to settle in the North only during the last 300 years, as part of the same colonial expansion which took them to the tropics. For Native peoples, the Arctic is their homeland, while for outsiders it is a frontier land where most of them do not expect to remain all their lives. This distinction has become

more and more important since the 1960s, as immigration and industrialisation has increased and local peoples have increasingly become outnumbered in their own homeland. Section 5 will show how most of them are now demanding a degree of self-government and control over the land and resources in the areas in which they live.



Figure 13: Fishing on Kamchatka River, Russian Federation. The Association of Native People of Bystrinsky District catches fish to distribute to poor and elderly native people in the districts. Photo taken by Emma Wilson, 1998

the Arctic as a homeland

a) Introduction to Native groups

It would be a mistake to divide the history of the Arctic simply into two periods, before and after the arrival of the Europeans. The Europeans came gradually and have affected different areas in different ways at different periods. The traditions of the peoples themselves, as well as the findings of archaeologists, show that the populations which are now called indigenous had already migrated extensively themselves during the previous few thousand years. Some Inuit reached Greenland from Canada about 1,000 years ago, not long before the Vikings reached there from Europe. The Vikings brought with them a culture based on farming. They could not adapt to the colder conditions in Greenland and so died out there, while the Arctic hunters did

adapt and became the ancestors of the modern Greenlandic population. In the Asian North, to take another example, the largest northern people are the Sakha, who number 382,000. They speak a language related to Turkish and migrated from central Asia into the Lena valley only in the middle ages. When they arrived, they found the valley already occupied by the Eveny and pushed them out of this valley and up into the mountains where they now herd reindeer. But even the Eveny too were not originally residents of the North and had earlier migrated from northern China. There, they are related to the Manchu who until the beginning of the twentieth



Figure 14: Komi herders with their herd. Nenets Autonomous District, Russian Federation. Photo taken by Joachim Otto Habeck 1999

century were the rulers of the Chinese empire.

Because of the growing demand for local self-government the trend in modern politics is to draw a sharp line between people of European origin and any groups who were in the region earlier and can therefore claim to be indigenous. The outsiders are themselves divided into Russians, Americans, Norwegians, Danes and many others (for example, Alaska contains many people of Japanese, Korean, Philippino and Mexican origin), and they can be seen as just the latest wave of peoples to have moved to the North. And it should be remembered that in earlier times, as today, there were also many mixed marriages between different Native groups and between local people and outsiders.

However, there is an important difference between the outsiders and all the other groups taken together. Outsiders do not for the most part depend on the land for their living, but come as representatives of a global industrial culture which continues to feed them by airlifted supplies. For humans to survive and thrive on this landscape as the indigenous peoples have done, requires extraordinary adaptation. This adaptation is not just the physical one to the change of climate, which every newcomer has to make. It is also a cultural adaptation, which has evolved over thousands of years. This culture is based on a particular view of how nature works in this environment and of how humans fit into it.

For all their other differences, northern peoples are very similar in the way they have adapted local materials to make their life possible. This applies not simply to their hunting techniques. Throughout the region,



Figure 15: The girl is a dancer in a local dance troupe. Her grandmother proudly shows off the costume, which she made for her. Esso village, Kamchatka, Russian Federation



Figure 16: Even reindeer herders trying to make radio contact with the village. This is their only form of communication with the outside world in case of emergency. Bystrinsky Park, Kamchatka, Russian Federation, Photo taken by Emma Wilson, 1998



Figure 17: Young Nivkh girl with a fresh salmon catch. Salmon is a very important part of the local diet. Nyivo bay, north-eastern Sakhalin, Russian Federation, Photo taken by Emma Wilson, 1998

animal skins are the only local material which can be spread out and are used for clothing and footwear, as well as for the coverings of tents and boats. All peoples have developed some kind of ski, sledge, toboggan or snowshoe. Many have domesticated dogs or reindeer and trained them to carry baggage or pull sledges. In Siberia, reindeer are also used for riding. And of course, all northern peoples have worked out ways of catching and controlling the animals which would otherwise roam across the landscape out of their reach: traps, corrals, bows and arrows, and weirs and nets for fish. Bones and antlers are used everywhere as a hard material, as well as wood wherever it is available. Northern peoples have always survived by being

adaptable and taking advantage of any technology which becomes available. So now they combine skinboats with outboard motors and guns, since all of these are useful and practical.



Figure 19: Ammassalik district, Eastern Greenland. Making bead jewellery based on traditional patterns. Photo taken by Andrzej Perzanowski, 2000

Within these similarities, different groups have adapted very specifically to their surroundings. The Inuit and their relative, such as the Yuit and Inupiat in Alaska and the Kalaalit in Greenland, live along much of the Arctic coastline. Here, the land is unproductive and they live from the sea by fishing and by hunting seals and whales. With this way of life, the sea links islands rather than divides them. Inuit travel by kayak and other forms of boat in summer while in winter they can move very quickly by dogsledge or snow-scooter over the frozen surface of the sea.

The numerous other groups live mostly south of the treeline, by catching freshwater fish and hunting land animals. In addition, most groups in Europe and Asia also herd reindeer. These inland groups include those called 'Indians' in North America and many different peoples in Russia's Siberia.

The American Indians are the northernmost representatives of the large and varied range of Native groups who already inhabited North America before the coming of the Europeans. Members of the Athabaskan language family who live in Alaska and Canada's Yukon Territory include the Tanaina, the Kuchin and the Copper River bands.

Traditionally, many of these lived extensively on salmon and other river fish. Central and eastern Canada are the home of the many Cree groups, who form part of the Algonquian language family which also extends far to the south, to the Blackfoot and Cheyenne in the USA. One of the main northern Cree groups are the Naskapi of Quebec, who traditionally followed the huge herds of wild caribou.



Figure 21: The winners of the Little Beringia race, Avangai, Kamchatka, Russian Federation. Photo taken by Emma Wilson 1998



Figure 18: Dog-sled racing originated centuries ago in Siberia and Chukotka, but has been adopted by the Alaskans and Canadians since. Ten years ago, dog-sled from Kamchatka enthusiasts decided to revive this tradition by starting up the Beringia race, which has taken place every two or three years since then. The race is run from a village in Kamchatka region (e.g. Esso) through Palana in the Koryak region to a village in the far north (e.g. Markovo). The Esso-Markovo route, at 1,980 km, is the longest dog-sled route in the world and takes three weeks



Figure 20: Little Beringia dog-sled race for children was organised recently to encourage children to take part in this age-old tradition of their people.. The little boy is wearing traditional clothes - perfect for this cold weather. Avangai village, Kamchatka. Photo taken by Emma Wilson 1999

The Russian North contains three peoples of several hundred thousands each, the Komi, the Karelians and the Sakha. Each of these has an administrative territory of their own, though in fact they are generally outnumbered there by Russians and other European settlers, such as Ukrainians. Then there are 26 smaller groups who belong to several language families and are spread right across Siberia. These peoples number from a few hundred to a few thousand each, totalling some 186,000 in all. The Khanty are one of these people. They live along the River Ob in western Siberia. Their traditional economy was based on fishing in the wooded streams and river meadows, but this has been very badly disrupted by the pollution from oil wells nearby. Further to the north, around the mouth of the Ob, live the Nenets who herd the reindeer in the region where the forest meets the tundra. The Eveny, who also live mainly by herding reindeer, live much further east towards the Pacific.



Figure 22: Even dance troupe performing at the opening of the Little Beringia sledge race. Avangai, Kamchatka, Russian Federation. Photo taken by Emma Wilson 1999

A distinctive and unusual group, the Saami, live in the north of Norway, Sweden and Finland. They number around 35,000 and have probably lived there for 4,000 years. The Saami on the coast were sea fishermen while those in the interior were reindeer herders or freshwater fishermen. The Saami have a long history of close contacts with the Scandinavian population and only about 10% are now involved in reindeer herding.



Figure 23: Reindeer herders camp, summer. Nowadays tents are made from canvas and reindeer skin is used as mats on a ground. Bystrinsky Park, Kamchatka, Russian Federation. Photo taken by Emma Wilson 1998



Figure 24: In front of herders tent. Nenets Autonomous District, Russian Federation. Photo taken by Joachim Otto Habeck, 1999



Figure 25: Even family with a race dog. Photo taken by Emma Wilson, 1999

b) Family life

Though families of parents and children generally live in separate houses or tents, they also depend on a wide range of relatives and even other people whom they call relatives. They share and help each other as part of daily life.

Earlier, children always learned adult tasks through watching their fathers hunt or their mothers preparing meat and skins. Now some of them live in towns and must learn town skills. But for those who live in the tundra and forest, there is a problem. In order to learn to survive in the modern world as well, they must go to school. But the schools are often in villages and towns, far away from where their parents live. So the children must live away from their parents much of the time in boarding schools. There they learn subjects which have little to do with their life at home and they lose touch with the



Figure 26: Even mother and baby on horseback. Bystrinsky park, Kamchatka, Russian Federation. Photo taken by Emma Wilson, 1998

world of their parents. They are also often taught in English, Russian or Danish and so lose the ability to speak their own language. Among the Eveny, for example, children leave the village to join the herds only for the summer holidays, and so they never learn how to herd reindeer through the winter months.

c) Religion

All northern peoples believe that there is a close relationship between humans and nature. Humans and animals are said to be able to understand each other. Animals were said to have spirits which affect the fortune of humans. Angry spirits caused illness and benign spirits helped the hunter by guiding animals into his path.

Traditionally, the wishes of the spirits could be found out by a spirit medium called a shaman. In a special ritual performance, the shaman would go into a trance. It was thought that the shaman's soul had left his or her body and flown to the land of the spirits. Here, the shaman would try to get back the soul of a sick person which had been captured by the spirits, or to get the spirits to promise that the hungry community would catch an animal.

Among some Inuit, for example, it was said that seals were provided for humans by a spirit called Sea-Woman who lived at the bottom of the sea. If people behaved badly she would punish them by not allowing the seals to be caught. Once a seal was killed, it was offered a drink of water and its soul was returned to the sea, so that it would be re-born in the body of a new seal. Since he had treated it with respect the previous time, the 'same' seal would then allow itself to be killed by the same hunter on another occasion. Even though many of these beliefs have been modified by contact with Christianity, hunting is still thought to depend on a mutual respect between seal and hunter.

This kind of thinking reinforces the ideal of sharing which is vital to keeping everyone alive in this harsh environment. Since the seal has given itself to the hunter voluntarily, he in turn has to give a share of its meat to others. Under a custom called in some areas *nimat*, it is good manners for a hunter in Siberia who has killed an elk or other large animal to give the entire animal to someone else. This is especially expected of a teenager who has caught his first animal, and it is also a way for him to prove to others that he has become a proper hunter. In this region, though not everywhere, women as well as men can be great hunters.

Some of these beliefs have grown weaker during this century under the influence of Christian missionaries, teachers and government officials. For a long time, indigenous peoples themselves turned their backs of these beliefs in order to appear 'modern'. But many ideas about the relationship between humans and animals remain strong. Some Inuit in Greenland still whisper 'thank you' to a seal they have just killed. Now, with the appalling example of industrial society's destructive attitude to the environment in front of them, many of the younger generation of Native peoples are looking again at the ideas of their parents and grandparents and often seeing them in a more favourable light. Even those who can no longer believe in spirits, often feel that there is something sacred in the landscape and that you can feel this when you are alone face to face with the power of the forces of nature.



Figure 27: First day back to school. Ezzo village has a mixed population of mostly Evens and Russians. Native people make up 30 % of the inhabitants. Bystrinsky Park, Kamchatka, Russian Federation. Photo taken by Emma Wilson, 1999



Figure 28: Tasilaq, Eastern Greenland. In a workshop where sculptures based on traditional patterns are made. Photo taken by Andrzej Perzanowski 2000

the Arctic as a frontier

Europeans came to the Arctic as part of the process of their expansion in other parts of the world. During their big expansion overseas in the 16th and 17th centuries, the Far East became an important source of gems, spices and luxury cloth. Huge profits could be made by trading and when the usual routes round Africa and through the Middle East were seen as too long or dangerous, merchants started seeking a northwest passage to the Far East through the islands of the Canadian North. At the same time, Russian navigators were exploring the northern coast of Siberia in search of a northeast passage to Asia via the Bering Strait.

During the 17th century, Russian adventurers swept across Siberia, conquering the small groups of peoples who they met on the way. They reached the Pacific coast, a distance of several thousand miles, in only 60 years. They forced the indigenous peoples to trap the smaller species of animals for the fur trade on a scale which soon almost wiped these animals out.

There were other kinds of plundering. From the 17th to the end of the 19th centuries, Europe was supplied with soap and lubricating oil made from whales. Thousands of whales were killed annually in various parts of the Arctic seas, mostly by the British and the Norwegians. At some periods the annual kill was higher than the total number of whales living in these areas today.

Siberia became a 'Wild East', a place of exile, crime and violence. The imperial government in St Petersburg used it in the 19th century to exile their opponents, while in the 20th century the communist government, by then in Moscow, used the area for the world's largest-ever chain of prison camps called the Gulag. (*monument.JPG Caption:*) In the 1890s there were gold rushes in Alaska and the neighbouring Yukon district of Canada. 100,000 rushed north to Yukon alone and Dawson City, still famous in films, sprang up instantly with a population of 30,000. Since the second world war, there has been an increase in the number and size of modern industrial towns in every country throughout the North, based on the extraction of minerals. All of these uses have been extremely damaging for peoples already living there.

The indigenous population lived off the land at an extremely low population density. When the Europeans first arrived, they often had to rely on local people just to teach them how to survive. But the Europeans lived largely by trading and as they began to settle more or less permanently they brought with them their own habit of living in concentrated settlements, that is, in towns. Now they are often paid large extra bonuses to come and work there. Some of these towns, like Inuvik in Canada or Noril'sk in Siberia, have grown into large cities. The huge distances mean that these settlements depend on air transport and extensive logistic support, since there are almost no roads or railways and they cannot be supported from the land around them.

These newcomers cannot cope with the all-meat diet which the land provides and they need a lot of support from the outside world to keep them healthy and happy, in the form of special food and comforts. Naturally, a few of these people have adapted to the Arctic and even live off the



Figure 29: Monument to Polish political prisoners, who took part in a construction of the Budinka-Noril'sk railway. Noril'sk old city, Russian Federation. Photo taken by Olga Tutubalina August 1997

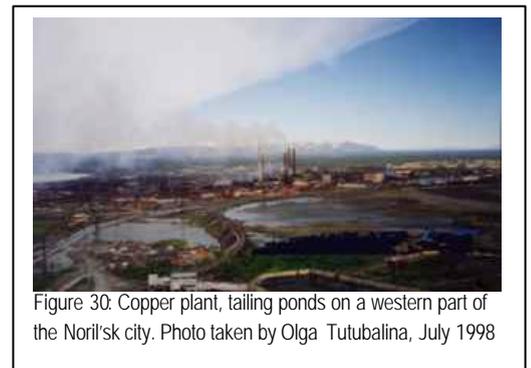


Figure 30: Copper plant, tailing ponds on a western part of the Noril'sk city. Photo taken by Olga Tutubalina, July 1998

land, just as there are some indigenous people who depend entirely on food and supplies which have been flown in from the south and sold in the village shop.

The very reason for these settlements' existence is to exploit the region's resources in order to take them down south again. A high proportion of the newcomers stay in these towns for only a limited time before returning, perhaps much richer, to the south. In the Soviet Union, especially from the 1960s to the 1980s, a white person would receive double or treble wages for working in the North and could also jump the queue for scarce housing when they got home to Moscow or other cities in the western part of the country.



Figure 31: Noril'sk, Leninsky Prospekt. City's anniversary celebration

conflicts over land and resources in the modern world

a) The distinction between renewable and non-renewable resources

The different cultural backgrounds, and the different time-span of their involvement with the Arctic, leads to a difference in attitudes to nature and natural resources. For Native peoples, nature is something to be respected, sometimes even feared. The Inuit in Canada have a word *ilira*, meaning a sense of awe. Nature gives her wealth to humans, but only in exchange for respect. Within the European tradition, on the other hand, nature is often thought of as something to be conquered. Many outsiders believe that the landscape and the animals are there for humans to use without saying 'thank you' to anybody.

It is helpful to distinguish between resources as renewable and non-renewable. Renewable resources are those like animals and plants which up to a certain level can safely be 'harvested', since they will grow back and replace themselves. So if animals are hunted at the same rate at which they breed, and trees cut down at the rate at which the forest regenerates, they will not die out and they can continue to support a human population. Non-renewable resources are minerals like oil, gas, coal and metal ores. Once these have been used up, they are finished for ever. Humans who depend on them for a living must leave the area and move on somewhere else.

This distinction between renewable and non-renewable resources corresponds broadly to the indigenous and outsider use of the Arctic today. In particular, an emphasis on renewable resources corresponds to the perspective of a community who expect to remain there for generations and who manage their resources for the sake of their grandchildren as much as for themselves. This cannot be the perspective of a miner who comes for a few years to an unfamiliar land to which he has no long-term commitment. Of course, Native communities do affect their environment and even damage it. All human societies, and even groups of animals, may do this. But the scale of the impact of modern society can be uniquely destructive because of the effect of its machines. There is also an economic reason for this. As shown below, there is in the Arctic a particular incentive to exploit resources on a gigantic scale.

b) The needs of industrial society



Figure 32: Medvezhka mine, south of Noril'sk. An example of extensive surface nickel and copper mining. Nowadays almost completely replaced by underground mining. Photo taken by Olga Tutubalina, 1997

As a resource base, the region's riches are being exploited at an ever-increasing rate as the twentieth century moves towards its end. These resources are varied. For example, they include vast forests which run right around the globe. Now that the forests of Indonesia have already been depleted, Japanese industry is starting to import timber from eastern Siberia. The largest field of oil and natural gas known in the United States was discovered in 1968 at Prudhoe Bay in the north of Alaska and helps to keep the cars of California on the move. The world's largest oil and gas reserves in the world were first discovered in 1960 in a vast swamp in western Siberia, and they now provide most of the precious foreign currency earned by the entire Russian economy. It has also been

estimated that Siberia contains half of all the world's coal reserves. There are other valuable commodities there and in other parts of the Arctic. One Sakha has complained that his part of Siberia reminds him of a huge ship, laden with treasure and boarded by pirates. When they have finished with the minerals, they will tear down the forests. 'As they shovel diamonds, tin, gold,

coal and mica feverishly into chests,' he writes, 'they cast their greedy eyes still further at the piles of timber which like a giant float keep this ship from sinking.'

c) Political and economic control

All of these examples show how raw materials from the Arctic, where life is exceptionally tough, are sent to somewhere else where they make possible a life of relative comfort. Here, the Arctic plays a role in relation to the industrialised world which is similar to that of 'third world' countries in the tropics. Within each country with territory in the Arctic, just as within the global economy as a whole, the Arctic regions lie out on the edge. The entire area lies in a more or less colonial relationship to centres of power further south, where attitudes are formed and policies made. This is part of a pattern of unequal development or power, in which the inhabitants of the Arctic have very little control over what happens to their territory and their lives. So long as the industrialised world continues to depend on supplies of oil and other resources to maintain its high level of consumption, the extraction of resources is likely to continue at a destructive rate.

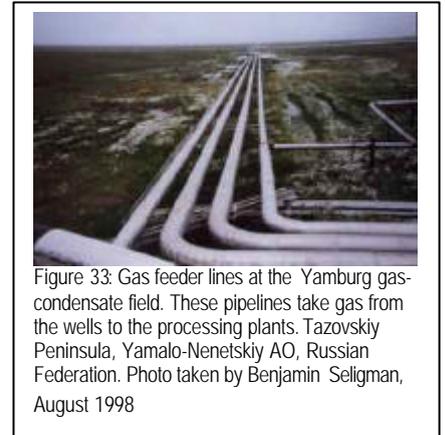


Figure 33: Gas feeder lines at the Yamburg gas-condensate field. These pipelines take gas from the wells to the processing plants. Tazovskiy Peninsula, Yamalo-Nenetskiy AO, Russian Federation. Photo taken by Benjamin Seligman, August 1998

d) Costs and benefits

Because of the harsh climate and huge distances the costs of exploiting resources in the Arctic can be enormous. For example, drilling an oil well in the Beaufort Sea can cost 50 times as much as in the warmer, more accessible Gulf of Mexico. Equipment is lost in storms. Even the buildings housing homes and offices can collapse as their heat travels downwards, thaws the permafrost under their foundations and turns the hard ground underneath into a bog. For the same reason, roads and railways are sometimes impossible to build and maintain, or are prohibitively expensive. Workers must be given special housing, special clothing and high bonuses as an incentive to work in the region at all. People and equipment often have to be flown in. The air fare just to go into town can run into hundreds of pounds.

It is not just that all supplies must be flown in. The raw materials extracted must be sent down south to be processed. 1.7 million barrels of oil from Prudhoe Bay on the north coast of Alaska are carried every day for 800 miles through the Trans-Alaska Pipeline System to the port of Valdez in the south, which remains free of ice all year round. Here, it is loaded onto tankers and sent further south to the west coast of the USA. The cost of the pipeline in 1974 was \$8-9 billion and would be far higher today. But the environment in Alaska cannot support refineries, so some of the oil which has been refined in the south is sent back as petrol. But by now this petrol costs five times as much in Barrow, where it came out of the ground, than in Seattle, far to the south.

There are few opportunities in the Arctic today for any of non-renewable resources on a small scale. It is not worth doing at all unless it is done on a massive scale and it is simply not economic to work many known large deposits of valuable minerals. However, the calculation of costs and returns can be complex. For example, it is even more difficult and expensive to build pipelines in the Siberian oil and gas fields than in Alaska. But this cost is compensated for by the fact that part of this cost can be paid in roubles, while the income from selling fuel abroad comes in the much more valuable foreign currency. So for Russia, it can seem worthwhile to build these pipelines at almost any cost.

e) **Another kind of cost: local and incoming pollution**

The extraction of resources causes pollution and environmental degradation. Valdez was the site of a disastrous oil spill in 1988, when a drunken captain drove his tanker onto the rocks and thereby destroyed marine life over an enormous area. A representative of the Khanty in the west Siberian oil fields has described the cumulative long-term pollution caused by oil floating two inches thick on the rivers, killing all life on the way. In this one small area, he calculates that this has ruined 28 rivers which were previously used for commercial fishing and 25 million acres of reindeer pasture. Part of the tragedy is that oil and gas deposits often occur in exactly the same places as the best fishing grounds.

Local military activity has also damaged the environment. The Arctic became increasingly militarised during the 'Cold War' between the early 1950s and the late 1980s. Military bases have restricted the movements of Native peoples and in some places have even forced them out of their homes altogether. They have also often littered the landscape with rubbish. During this period, nuclear testing on the Soviet island of Novaya Zemlya heavily contaminated most reindeer pastures across the whole of Russia and Scandinavia with pollution.



Figure 34: A young herder is forcing his reindeer to cross the pipe-line. Near river Sandibeï, southern border of Nenets Autonomous District, Russian Federation. Photo taken by Joachim Otto Habeck May 1999

But not all the pollution in the Arctic is created locally. Much of it is produced far away, in the industrial cities of the temperate zones. These airborne pollutants may be carried to the Arctic by prevailing winds or by the Earth's rotation. An 'ozone hole', like the one discovered in the AntArctic, may be forming in the Arctic too. Smoke drifting from industrialised countries causes 'Arctic haze', while toxic chemicals are absorbed by plant and animal life. The reindeer pastures in Scandinavia were contaminated in 1986 by radioactive fallout from the meltdown at the Chernobyl nuclear power station, far to the south in the Ukraine.

These poisons enter the food chain, where they pass up from plankton to whales, or from lichen to reindeer, and ultimately into the human body. At each stage, the toxic substance becomes more concentrated. Along the coast, seals are now found which contain a higher percentage of mercury than the ore from which the mercury has been obtained in the first place. Heavy metals and other toxins pass through Inuit mothers' milk into young babies. Inland, radiation in the meat which they eat has caused a sudden increase of cancer in the younger generations of Siberian reindeer herders.

the future: the internationalisation of the Arctic

a) Introduction

The 1990s witnessed an ever-increasing upsurge of interest in the Arctic, which will not be confined only to countries with territory in the North. There are several reasons for this.

In the first place, scientists are coming to realise how important the Arctic is for their understanding of global warming, a problem which concerns the whole of humanity. If it is true that the temperature of the earth is gradually rising, then this, they say, may be seen most clearly in the gradual melting of the Arctic ice.

Another reason is that the liberalisation of Russia has opened up a large proportion of the Arctic which was effectively closed before. A whole new area has dawned in international research, diplomacy and trade. Instead of US and Soviet nuclear missiles facing each other across the north pole, both sides can now put their efforts towards overcoming the technical problems in making the Arctic Ocean an international shipping area. In a famous speech in 1987 at Murmansk, Mr Gorbachev suggested that Arctic countries should join together to create a nuclear-free zone, to work out a common plan for using natural resources and protecting the environment, as well as for guaranteeing the rights of Native peoples. The climate of this international co-operation, he said, should be 'determined by the warm Gulf Stream of general European development and not by the polar breath of accumulated suspicions and prejudices.'

But no grand international plan can succeed without taking account of the needs and wishes of local people themselves. The subordination of Native people to outside interests for over three centuries has led to severe social disruption, often with problems of depression, alcoholism and early death. For the past three decades, Native groups have begun fighting legal battles for control of their own land. They are insisting as best they can on royalties for minerals extracted, on adequate protection from pollution to safeguard their children's health, on having their children taught at school in their own language and on maintaining their right to hunt.

The smaller Native peoples who live within larger industrialised countries say that they are living in a 'fourth world'. This term is based on the poor countries of the tropics who form the 'third world' and is intended to emphasise their powerlessness. They have started to form groups which unite smaller peoples in order to increase their strength and bargaining power. The Indians in the Mackenzie Valley in Canada united during the 1970s and called themselves the Dene Nation. Many of these movements cut across the boundaries between countries. In the 1980s the Saami of Norway, Sweden and Finland united to form a Saami Parliament. The branch of the Inuit called Yuit in Alaska and Siberia, had been separated by a closed border since the second world war. They were finally allowed to visit each other in 1988. Until then, the Yuit teenagers in Siberia spoke only Russian, which was the language of the cinema, magazines and discos. They considered the language of their parents and grandparents old-fashioned and provincial. When the first delegation of American Yuit arrived from Alaska, the old people could converse with them fluently while the young people were unable to speak with them directly at all. They suddenly realised that, unlike Russian, their parents' language was an international language. When school began the following autumn, the local language classes suddenly turned out to be the most popular of all!

Perhaps the most important fourth-world organisation is the Inuit Circumpolar Conference (ICC) which unites the 100,000 Inuit spread over Alaska, Canada, Greenland and Russia. This was founded in 1977 and has since grown into an organisation which fights to promote Inuit rights and to make sure that their voice is heard in decisions which affect them. Their policies

cover a range of issues, from the management of wildlife as a renewable resource to their own campaign to make the entire Arctic a nuclear-free zone. The Inuit know that the Arctic coastal areas will remain the homeland of their grandchildren and that they cannot trust anyone else to make sure that this environment is looked after properly. Their own approach to this landscape is not to poison it as industrial society would do, nor to cordon it off as a wildlife reserve as some environmentalists would do, but to keep it as an area which will remain habitable and usable by humans who know how to maintain it.

In the modern world, the Arctic poses a particular challenge to humanity. The arduous environment, the huge distances and the remoteness of the state capitals in the south, all create the need for special understanding and special policies. A fair system must be worked out of rights to the ownership and use of land, rivers, lakes, seas, forests and other natural resources. Who has the right to say whether these should be used for mining or for fishing? Everything depends on how local people can take part in making decisions and how clashes of opinion can be resolved. The key to this approach is to strengthen representative local government. This may be through local councils, such as the Inupiat-controlled North Slope Borough in Alaska which receives at least some income from the exploitation of oil on their land; or through the creation or strengthening of new, separate territories, as in Canada's new province of Nunavut, the Inuit homeland where the indigenous peoples are in the majority, or in the Siberian republic of Sakhaia, where a third of a million Sakhas are outnumbered two to one by Russian settlers but still retain a strong influence in the government.

The special problems of the Arctic centre round the fact that its environment is at the same time both harsh and fragile. One must work hard to live there and yet one can easily cause damage by being careless. The population density is low and distances are enormous. The challenge under these conditions is to create and maintain a setting which is good for humans to live in and which combines the best of the traditional and modern worlds into one way of life. Of course people want higher incomes and greater comfort, better public health and pollution control. But the way to obtain these lies through the demand of local populations for a greater degree of control over their own destiny through greater self-government.

This kind of local control is closely tied in with issues at the national and international levels. The needs of the big cities in the south have a direct effect on the village communities, hunters and herders of the North. Through the quest for oil, timber and other raw materials, they affect their physical environment. But the southerners also affect their mental world through the school curriculum, television and all the trappings of consumer culture. Northerners, in turn, must choose how to respond to this since they cannot avoid it. Sometimes they respond with apathy and despair, and indeed the suicide rate in the North is disturbingly high. But the successes of organisations like the ICC and Russia's new Association of Northern Peoples show that the peoples of the North are also standing firm.

Like the rest of the world, the Inuit, the Eveny and the other northern peoples of this planet want to live a full and satisfying life now as well as to bequeath to their children a good chance that they will still be able to find a way to live well on their own landscape. Their traditional views of the relationship between humans and animals seems increasingly like a good future model for everyone, as the world turns gradually away from the idea of the *conquest of nature*, towards the idea of a *partnership with nature*.

Links

Russian Association of Indigenous Peoples of the North (RAIPON)

<http://www.raipon.org/>

Center for World Indigenous Studies

<http://cwis.org/>

Arctic Circle

<http://arcticcircle.uconn.edu/>

Arctic Council

<http://arctic-council.usgs.gov/>

Scott Polar Research Institute (includes pages on indigenous peoples)

<http://www.spri.cam.ac.uk/>

Inuit Gallery of Vancouver

<http://www.inuit.com>

Inuit Tapirisat of Canada

<http://www.tapirisat.ca>

Inuit Circumpolar Conference

<http://www.inusiaat.com>

<http://randburg.com/gr/inuitcir.html>

International Whaling Commission

<http://ourworld.compuserve.com/homepages/iwcoffice/iwc.htm>

Native Peoples of Siberia

<http://www.geocities.com/Athens/Oracle/8226/sibnative.html>

Valdez Oil Spill

<http://valdezscience.com>

<http://exxonvaldez.org>

The Yamalo-Nenetskiy Autonomous Okrug

<http://www.yamal.ru>

<http://www.geocities.com/benselig/>

The Saami

<http://sametinget.se/>

Indian and Northern Affairs, Canada

<http://www.inac.gc.ca/>