



Far Far North

The North, be it far or extreme, is as captivating as it is disconcerting. Disconcerting because here distance takes on its full meaning. The North, being disconcerting and unexpected, can appear daunting. In any case, it gives one a sense of just how small humans are! (H. Rougier)

Canadians and the North

The Canadian North is a legendary land, a sort of little-known wild giant whose geography, at first glance, gives one the impression of vast frozen expanses.

While Quebec poet Pierre Morency feels that «the North is not in the compass, it is here», geographer Louis-Edmond Hamelin asserts that «the North is a state of mind».

Simply put, the North is an area beyond the populated zone that borders the United States. For geographers, it is defined by three things: a cold climate, a widely-scattered populace and a predominantly Aboriginal population. So, the North is much more vast than the Yukon-Northwest Territories-Nunavut triad. And it is much more than frigid temperatures worsened by the long Arctic winter nights.

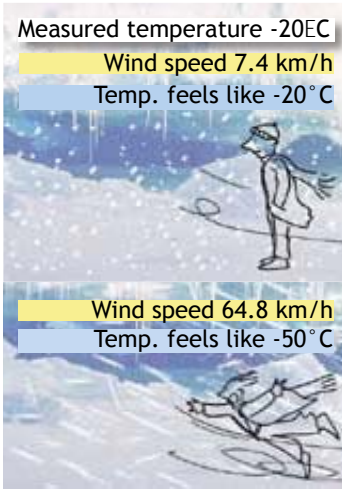
In this vast expanse, where any normal concept of scale seems unimaginable, there is a wide variety of geomorphological landscapes: ice-encrusted mountains on the upper reaches of the fjords on Baffin Island, fjords dotted with glaciers that calve sizeable icebergs into the thawed ocean in the summer, the Shield surface riddled with lakes separated by thousands of tundra-covered square kilometres. In the summer, the permafrost releases its grip on a thin layer of thawed soil where earth mounds appear, while in the Mackenzie Delta, the largest pingos (mounds of soil-covered ice) in the world are found (for example, Loyuck Hill, 40 metres high, with a 900 metre circumference at the base).

Yet, despite all these geomorphological rarities, the climate is often what makes the greatest impression in the North.

The foremost climate feature is the extremely low and seemingly interminable winter temperatures, made worse by the dismal impression left by the Arctic night. Add to that the “wind-chill factor” (fig. 1) and the climate becomes even more unbearable.

But it would be wrong to think that northern regions do not experience summer (fig. 2). Certainly, the length of summer days north of the Arctic Circle (fig. 3) cannot be given more credit than it really deserves. Nevertheless, it enables the average July temperature at Aklavik to hover around 13°C, while at Holman Island on Victoria Island, despite its higher latitude, the

(fig.1)



average temperature still reaches 6-8°C. That being said, from Cambridge Bay to Dawson City, Iqaluit to Churchill, it is the same combination of frigid temperatures, violent and long-lasting blizzards and insignificant amounts of precipitation (136 mm/year at Resolute Bay) that dominate the North's annual climate.

On the whole, the cold, the frozen soil and the tundra come together to create northern expanses of presumably barren lands—but they are not a total desert. It is, however, much too vast an expanse to be able to generalize its condition.

Louis-Edmond Hamelin, inventor of the concept of “nordicity,” describes three divisions of North :

The Middle North covers the northern part of the provinces and constitutes a sort of transition area between the populated and more or less unpopulated regions of Canada. Beyond the 60th parallel, it encroaches upon the Territories (Yukon and NWT) and includes the Mackenzie Corridor.

The Far North is generally identified with the area of Arctic climate above the tree line. It includes continental and island shorelines that are free from sea ice in the high summer season.

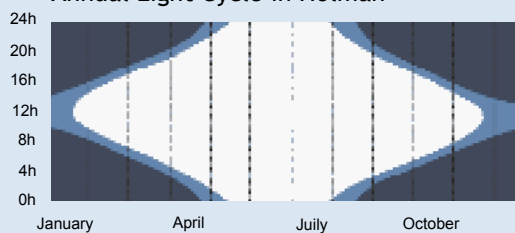
The Extreme North includes most of the Arctic islands around which the pack ice is more or less permanent.

So, understanding the North is more complicated than it appears to be at first glance. The North cannot be exactly equated to the Arctic Circle, since that term applies to the parallel above which daylight lasts 24 hours at the summer solstice. In addition to climate data, the landscapes



(fig.3)

Annual Light Cycle in Holman

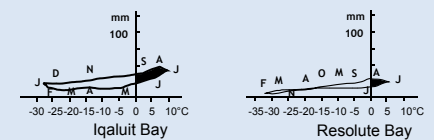


Distribution of Permafrost



(fig.2)

The two sketches below are climographs, which give an overall view of the climate in a given location. The summer period appears in black and shows above-zero temperatures. The Arctic climate is characterized by a long, particularly cold winter and very low levels of precipitation.



Permafrost: Permafrost is defined as a state when the ground, whether soil or rock, remains at or below a temperature of 0°C for a minimum period of two years. However, most permafrost has existed for much longer. The thickness of the permafrost is controlled by the balance between the heat emanating from the earth's interior and cold atmospheric conditions at the ground surface. Permafrost thickness ranges from a few decimetres at the southern limit of the permafrost to over 700 m in the Arctic Islands. The mean annual temperature of permafrost in the upper 10 m of the ground ranges approximately from 0°C to -20°C. The upper part of the ground that thaws each summer and refreezes each winter constitutes the active layer.

Reference: <http://www.atlas.gc.ca>

and the way of life of the people best describe the North: an ensemble of many kinds of relationships between natural expanses and human society, it spills out onto the Shield and into the Cordilleran system. The North is a transcendental space, a land where there is still much to discover; in that sense, it is typically Canadian!

Population and Territory

With fewer than 100,000 inhabitants, the North remains very sparsely populated by humans. Here more than anywhere else in the vast expanse of Canada, the random nature of human habitation must be pointed out. This is why using figures to represent population density per square kilometre would have no meaning. Indians (the Dene) and Inuit are the two main population groups, and it wasn't until much later that colonists were attracted by the vast regions akin to the edge of the world. Yet, Louis-Edmond Hamelin believes that nothing can muffle the call of the North...

The still-strong birth rate among the Aboriginal peoples explains why population pyramids have a broad base, which, added to a fairly large proportion of "young adults", signifies a generally young population.

There are three types of settlements found in the North:

– Inuvik, Iqaluit, Whitehorse and Yellowknife are true cities, despite their modest number of residents. Only Inuvik is not a «capital» city, and therefore has a lesser share of «administration.» Spatially, the urban landscapes differ according to local geographic conditions: Whitehorse is located in a fairly compact manner along the left bank of the Yukon River on an alluvial terrace, while Yellowknife, despite the grouping of its Central Business District (CBD), has scattered the surrounding neighbourhoods between rows of rock outcroppings—sculpted into «whalebacks» by glaciers—down to the shore of Great Slave Lake.

As for Iqaluit, which has been taking full advantage of its promotion to the rank of capital of Nunavut since April 1, 1999, the familiar look of a large encampment is still evident in the landscape bordering the arm of the sea. These cities also serve another key function, that of gateway city, thanks to their respective airports. This conveys a fundamental reality: despite its vastness and the scattered nature of its inhabitants, the North is completely connected to the rest of Canada.

– A second category of human settlements groups together small communities with populations that are often well under 1,000 people. These settlements are found primarily on the sea coasts or along the edges of deep fjords, and during part of the summer they are accessible by boat, but their existence and their upkeep owe a great deal to progress in air transportation. The airport - a facility that is at times fairly basic - is the central element of local land-use planning: in Pangnirtung (Baffin Island), the gravel landing strip cuts right through the middle of the village.

– Finally, the third type of settlement stems from the pioneering spirit of the North: settlements connected with mining or energy resource extraction. So we often find ex nihilo creations, kinds of "portable" cities, with most of their residents from the South. Norman Wells, on the right bank of the Mackenzie River, is a good illustration of this kind of human settlement in a northern region: the oil refinery, the storage tanks and the airport take up much more space than the identical "mobile homes" built facing the artificial islands on which the work shafts are located.

Apart from its apparently haphazard appearance, the placement of human settlements in the Canadian North follows a perfectly logical human-nature interaction, which is increasingly dependent on what form the modern economy is taking and how it is being developed. It must be remembered that not too long ago, life in the North often meant mere survival: «land is not money, land is life.»



Norman Wells

A large part of the landscape is devoted to communication infrastructure (airport) and industrial developments (refinery)

INUITS

Although they make up only a tiny portion of the Earth's inhabitants, they have an incredibly widespread reputation. This undoubtedly comes from the totally unique nature of their culture and their specific way of life in relation to the constraints of the natural environment.

It is, in fact, a truly extraordinary example of human adaptation to a singularly demanding physical setting. Adapting to the climactic regions of the Far North is not easy, and those who travel and observe Inuit there come immediately to the conclusion that "you have to be born here to live here!"

It must be noted that Inuit of the Canadian North account for only slightly less than 30% of the world's Inuit population. They are grouped together in slightly fewer than fifty often-microscopic communities that are extremely far from one another. They are found along the sea coasts as well as on the islands of the Arctic world. That being said, modern means of communications—led by the aeroplane—have put an end to a particularly long stretch of isolation. And one cannot help but be surprised upon arrival in Pelly Bay or Gjoa Haven to find receiver dishes that make it possible to get TV programs via satellite! In large part, snowmobiles and quads have replaced dog-sled teams, and traditional igloos have given way to comfortable houses whose occupants proudly show (with a touch of irony) that they own a freezer.

Nevertheless, familiar aspects of traditional life have not completely disappeared: hunters out for several days still build igloos as shelter for a night or two, and when a herd of caribou is reported in the area, life stops and the hunt reigns supreme again. Be that as it may, the pervasive way of modern life does raise some acclimatization problems, since it involves systematically reaching compromises guaranteeing that social and cultural roots will be preserved.

This must be done because the modern Inuit population is the product of a long history that is far from being known in its entirety. It is known that Inuit came from Asia by crossing the isthmus that connected the two continents during the last ice age, known as the Wisconsin Stage (the equivalent of the Würm in the European Alps). From the beginning, there have been human hunters, and caribou, seal and walrus have been the prey. All of Inuit society is built around this practice.

Throughout the centuries, Canada's Inuit have lived in near-total isolation, apart from a few contacts with European whale hunters in the 19th century. The fur trade also provided an opportunity for contact with the outside world, and the major role played by the Hudson's Bay Company, founded on May 2, 1670, should not be forgotten.

It was after the Second World War that Inuit relations with other Canadians intensified: it was the era of landing strip construction and the establishment of the DEW Line. It was also (and especially) the era in which the government recognized Inuit as Canadian citizens.

More recently, Inuit have also become involved in politics. It must be noted that development of the North led to some property and land rights disputes. Inuit contended that the icy expanses belonged to them because they had lived there for centuries. Extensive negotiations stemming from that contention resulted in the creation of Nunavut on April 1, 1999.

Finally, it must be noted that today environmental protection also involves the Inuit world. From time immemorial, they have lived in harmony with nature and they are well aware of its fragility. This has become even more important now that the North is no longer a remote land, and has led to a universally shared awareness that the concept of sustainable development must take root in both the physical locations and the mindsets of those involved.

In its Nordic regions east of Hudson Bay, Quebec has an Inuit population scattered among small communities. Geographically, they are located along Hudson Bay, in Ungava and on the shore of Hudson Strait. This region, called Nunavik, includes not only the mainland but islands as well. This region of



Satellite and Internet communications have helped to open up the North

The DEW Line (Distant Early Warning Line) is the advanced warning network made up of a number of radars. It was designed in the middle of the Cold War, during the 1950s, to prevent any potential attack against North America.

AN AGREEMENT IN PRINCIPLE was signed between the Nunavik Inuit and the government of Quebec in October 2002. It addresses the offshore region known as the Nunavik Marine Region claimed by Inuit. It is a key site for the harvesting wildlife resources.

approximately 25,000 km² is entirely under the jurisdiction of the governments of Canada and Quebec. In 1975, the signing of the James Bay and Northern Quebec Agreement clarified the land claims of the Nunavik Inuit.

April 1, 1999...



This is the date on which Nunavut, the brand new Canadian territory that is four times larger than France, came into being. It was the first major change to the map of Canada since Newfoundland joined the country half a century earlier.

Nunavut, in the Inuktitut language, means “our land.” The territory was created by dividing the Northwest Territories in two. It includes the coldest regions in Canada.

The population of Nunavut was 29,384 on July 1, 2003. Compared with the surface area, it is one of the least densely populated regions on the planet—it has even been calculated that if residents were equally spread throughout the territory, each would have 80 km²!

It should be noted that Nunavut covers not less than a fifth of the surface area of Canada. Geographically, the region comprises both continental and island regions. Since the North itself is still not very well known, we really have only an inkling of its distinctive features. These are a few:

Baffin Island, with a surface area of 507,451 km², is the largest of Canada’s many islands. Its size is equivalent to 92% of the area of France! Its mountain vistas, particularly in the Auyuittuq Park region, are reminiscent of the Alps.

Apart from the high mountains of the Western Rockies, Nunavut has the highest summit in the rest of Canada. Mount Barbeau (2,616 m) on Ellesmere Island is the highest mountain in all of eastern North America.

Because of the high latitude (80°N near Alert), the same Ellesmere Island is covered in glaciers whose overall area is greater than the surface area of the province of New Brunswick.

The capital of Nunavut is Iqaluit, formerly Frobisher Bay. With nearly 6,000 residents, it is little more than a large town, but it has all the administrative structures necessary to carry out its duties.

In February 1979, the Eureka weather station on Ellesmere Island recorded the lowest average monthly temperature in Canada: -47° C!

Grise Fjord is the most northerly town in Nunavut. From April 22 to August 20, the sun never sets; in winter, it disappears below the horizon on October 31 and does not reappear until February 11.

Nunavut’s island region stretches far to the south in Hudson Bay; the most southerly town is Sanikiluaq, in the Belcher Islands.



Iqaluit, capital of Nunavut



Baffin Island in mid-winter, on the edge of day and the Arctic night



The tundra trail

In some of its regions, Nunavut's Extreme North receives far less precipitation than the Sahara. It is an ice desert whose soil remains permanently frozen several hundreds of metres deep. The permafrost thaws only a few centimetres in the summer, and it is in this active layer that vegetation takes root: the tundra has no fewer than 200 species of plants. Between Iqaluit and the small hamlet of Apex (where one of the first Hudson's Bay Company trading posts was established), you can travel along the educational tundra trail, a path marked out, not by painted signs, but by small clusters of stones called «inukshuks» (similar to the cairns on Alpine hiking trails).

It all seems to give rise to the notion that Nunavut is an isolated place, encased in ice and snow, far from everything, suspended in time...

What may have been reality little more than half a century ago is now completely in the past. Progress in air transportation has meant that no Inuit community is cut off from the rest of the world; Boeing 737 aeroplanes land every day in Iqaluit, Cambridge Bay and even Resolute, bringing with them everything residents need. It should come as no surprise, though, that the cost of living is particularly high, with certain goods being imported from the South at great expense. Two litres of milk in Cambridge Bay cost \$5 (= i3.40). It is understandable why hunting and fishing remain essential activities among the Aboriginal peoples...

Nunavut's 25 communities (the smallest of which has only 18 residents), the absence of bona fide roads (21 km in the entire territory!) and the special atmosphere created by the natural conditions are highly attractive features. Discovering Inuit and their culture and sharing a way of life so different from that of the South are also areas of interest. Here more than anywhere else, the call of the North takes on its full meaning!

"Those who perceive the Canadian Arctic as all the same demonstrate the large disparity between contingent reality and the image that they hold."

(L-E Hamelin)

Suggested reading:

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