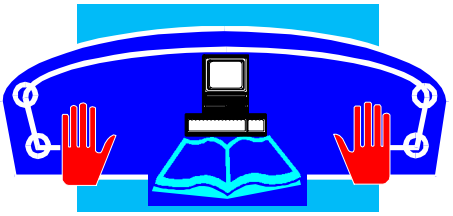
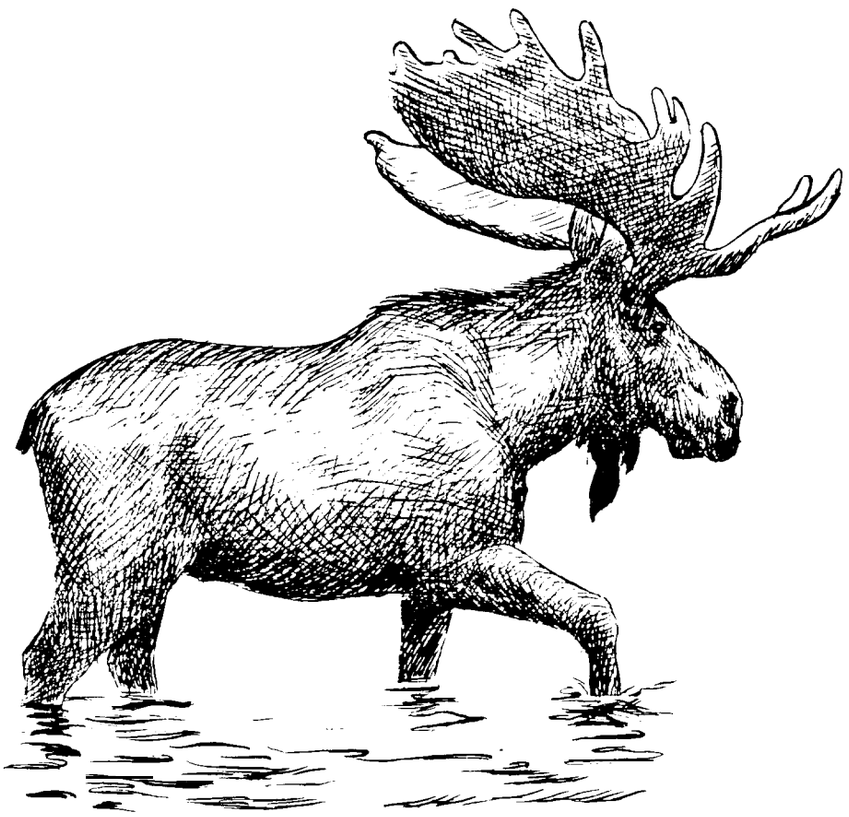


The North - Growth Of A Nation Series
Type of Study: Reference Material
Date of Report: 1980
Author: Fitzhenry And Whiteside
Catalogue Number: 9-5-431

THE NORTH

Stan Garrod
Daniel R. Birch, Coordinating Editor



GROWTH OF A NATION SERIES

Fitzhenry and Whiteside

THE NORTH

GROWTH OF A NATION SERIES

The North

Printed in Canada

Editor-in-Chief Robert Read
Editor: Sheba Meland
Picture Research: Elizabeth Reid
Design: Word & Image: Sandra Meland
Illustration: Richard Halstead
ISBN 0-88902 -184-8

CANADIAN CATALOGUING IN PUBLICATION DATA
Garrod, Stan.
The north

(Growth of a nation)
For use in schools.

[The North ISBN 0-88902-184-8)

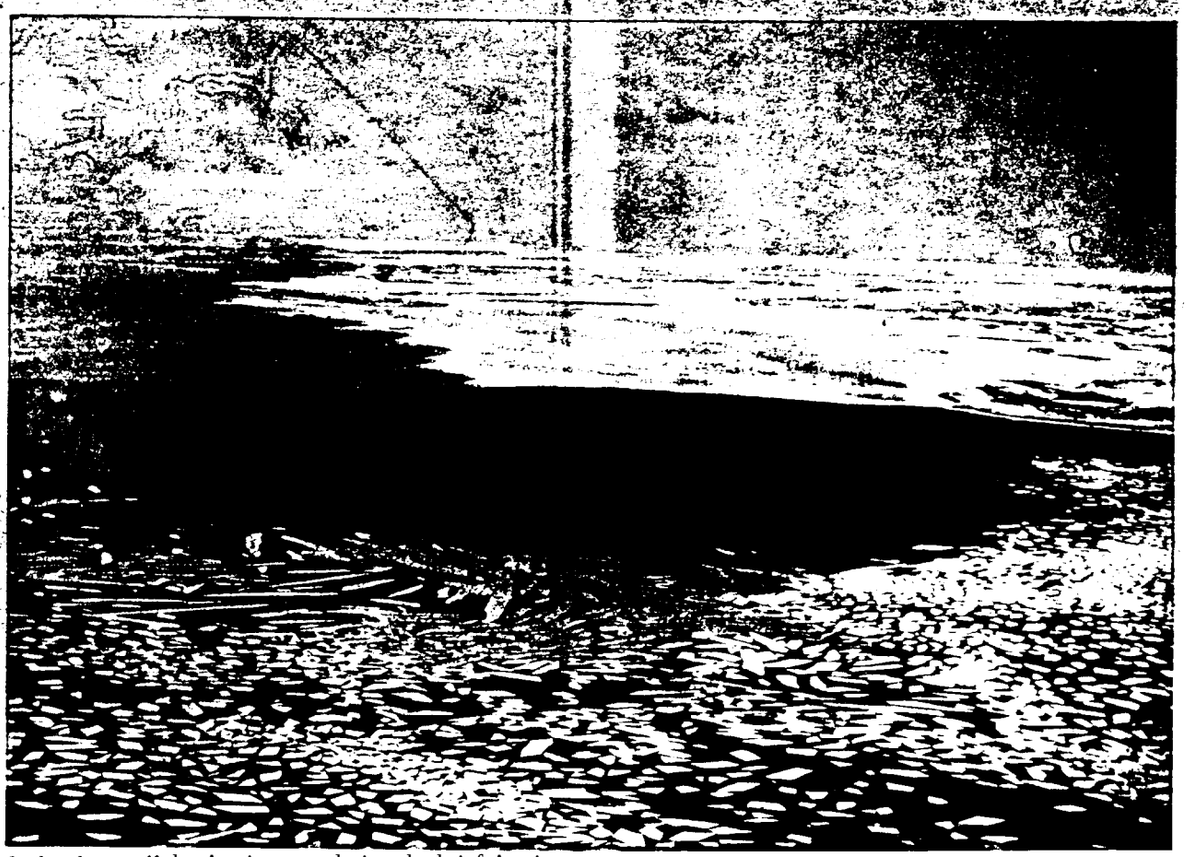
1. Canada, Northern." 2. Arctic regions I. Title.
11. Series: Growth of a nation series.
FC956.G37 971.9 C80-094532-8
F109O,5.G37

PICTURE CREDITS

Art Gallery of Ontario 25 top: Steven Bradley 3, 7, 9 top. 11-13.14 bottom: British Columbia Archives 76: Fred Breummer 66: Hudson's Bay Company 45 bottom right; Imperial Oil 61, 63-67: Department of Indian and Northern Affairs 21: Manitoba Archives 10 middle right. 60 top. 75: Metropolitan Toronto Library Board 6 top, 19. 20 bottom. 22 bottom. 23 bottom. 24 top. 45 top left. 46 top. 48.60 bottom: National Museums of Canada 24 bottom: Newfoundland Tourist Bureau 34: Ontario Archives 10 top right and bottom left. 59.74 bottom: Penthouse Studios 33: Public Archives of Canada 5. 27 top, 29 right, 31.36, 37 right, 38.39,44 top, 46 bottom, 47, 50. 51 right and left, 52.53.54.55, 57: RCMP Collection 6 bottom, 36.51 centre. 56: Royal Ontario Museum 27 bottom, 28. 29 left, 37 left. 45 bottom left and top right: Saskatchewan Archives 4.9 bottom. 14-15 top, 15 bottom right, 18. 20 top, 56, 71, 72 top, 74 top. 78. 80; Universitets Oldsaksalming, Oslo 35.

The author thanks Rosemary Neering. and Lyn Hancock. who brought the drama of the Berger Hearings to his attention.

INTRODUCTION



Ice breaks up *off* the Arctic coast during the brief Arctic summer

NAMES **GIVEN TO** THE NORTH

White *Hell*
The *Ultimate* Desolation
The Land God *Forgot*
The Land God *Gave* to Cain
The Howling Wasteland
The Land *of* the Midnight Sun
The Barren Grounds
Canada's Last Frontier
The Land *of* No Tomorrows *(Inuit* name *for* the *North)*

1. How do you think these names came to be given to the North? What things about the North do they describe?
2. Do you feel that all of these names apply to the North today? Which are the most applicable? Answer this question again when **you've** finished studying this book, and compare **your** two sets of answers.

Forested subarctic landscape in Saskatchewan

Canada is a northern country. It covers the northernmost part of the North American continent. To many people, this fact makes all of Canada "the North."

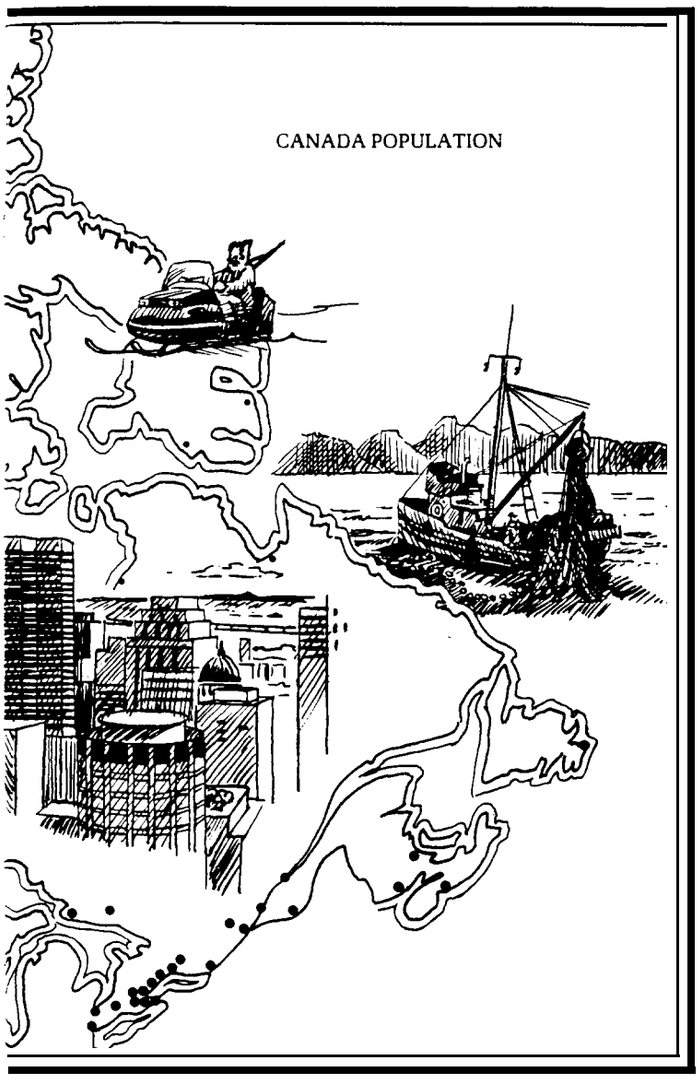
Most Canadians live in the southern parts of Canada. The population map on this page shows that they occupy a 300-500 km-wide band along the length of the southern border. To people living in southern Canada, all the rest of Canada is "the North."

The southern parts of Canada have warmer climates than the rest of the country. The good farm lands are in the south. The southern part was settled first. early in Canada's history. Those early settlements have grown into large towns and cities. In those towns are the big offices and factories of the country. Easy transportation routes link the cities and towns of southern Canada.

The North is colder. It is harder to grow crops: sometimes impossible. There are no big cities and few transportation routes. Settlements are scattered hundreds of kilometres apart. It can take several days to go from one place to another by truck or train. Some places cannot be reached by land routes at all. It is necessary to use a plane or ship to reach these more isolated settlements.

Many of Canada's natural resources are located in he northern part of the country. There are arge mines. vast forests for lumber and paper. and major rivers for hydroelectric power.

Each province has its own North and its own share of resources, Northern British Columbia has copper. asbestos. lumber. gas. oil, and hydroelectric power dams. In northern Alberta there is abundant oil and gas. Uranium and other important minerals are found in northern Saskatchewan. Mines in northern Manitoba produce nickel. an important metal. Northern Ontario is rich in forests and minerals. Quebec's vast northern region



contains iron, uranium. and rivers for hydroelectric power. Newfoundland has forests and minerals. and hydroelectric power in Labrador.

Canada's two northern territories are also rich in natural resources. Minerals including gold, copper. asbestos and uranium have been found in the Yukon and Northwest Territories. The far northern islands of the Canadian Arctic are the scene of a major search

The bleak, arctic Bathe *Peninsula*, Northwest Territories

for oil and natural gas. vital energy sources.

The North has played an important part in Canada's history. The history of Canada's growth as a nation is one of movement north and west. Early explorers travelled from the Maritimes and the St. Lawrence River valley westward into Ontario, the great Plains, and across the mountains. They explored north to Hudson Bay, into the Mackenzie River valley, and searched the high Arctic for the Northwest Passage. Many explorers were first drawn to the North by a quest for valuable furs. This rich northern resource was trapped and traded by the native peoples of Canada's North.

As explorers pushed further north and west, and as the settlers followed them, the Canadian frontier was slowly pushed further north. Now many consider the Far North, the high Arctic, as Canada's last frontier.

The North has been home to its native peoples for many thousands of years. Long before the first European explorers reached the area. many groups of native peoples lived in Canada's North. These included both Inuit and native Indian peoples. These peoples consider the North to be their own, The northward expansion of exploration and settlement has had a strong impact on the old ways of life of native peoples in the North.

The North means many things to many people. Its meaning has changed over time as Canada has grown.

CHAPTER ONE

THE LAND

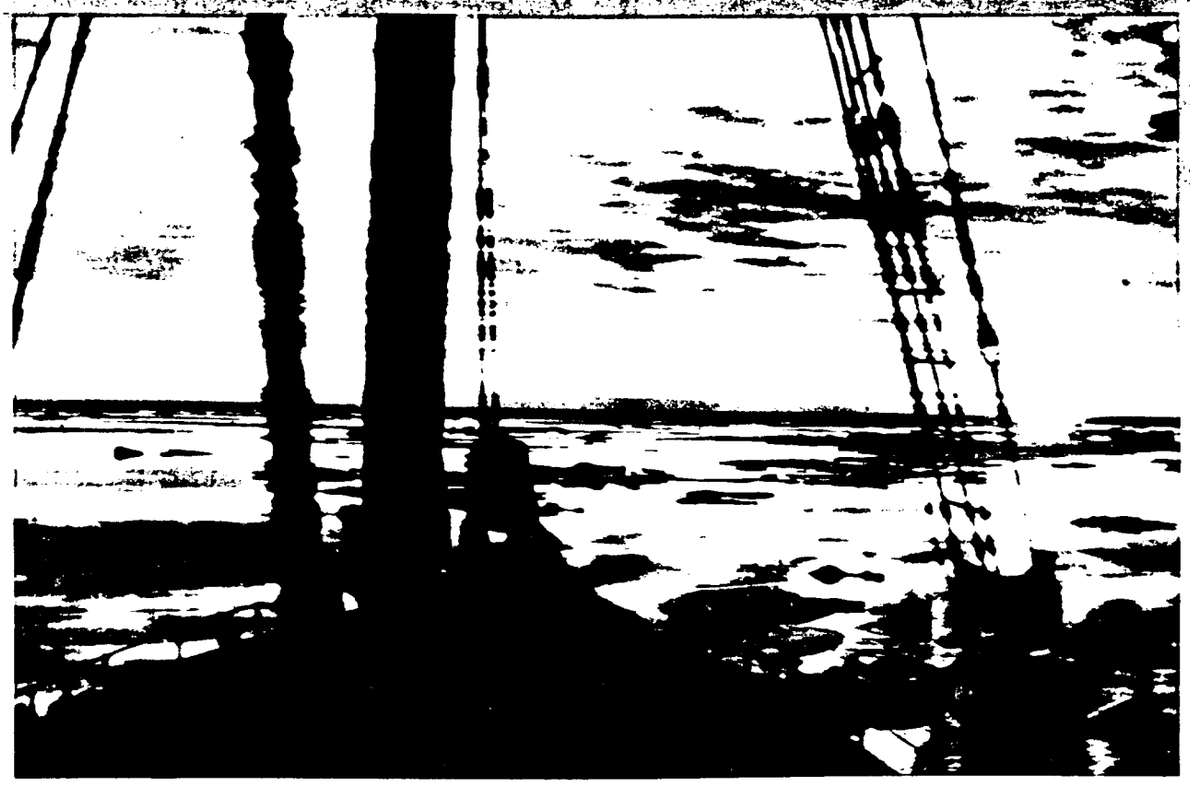
Martin Frobisher was one of the first Europeans to explore the Arctic. He describes the Arctic:

The sun sets in the evening at a quarter of an hour after ten of the clock. It rises again at three quarters of an hour after one of the clock. In summer, the sun shines twenty and a half hours a day. Although the sun is absent three and a half hours, it is not dark then. The sun is just a little under the horizon. . .

To conclude, I find in all the country nothing either of pleasure or of account. The only things there are minerals: gold and silver, iron and black lead. There are also many pretty stones, and there is no doubt that if the country is explored, it will make our country both rich and happy. Which God in his goodness grant. . .

adapted from the writings of Martin Frobisher

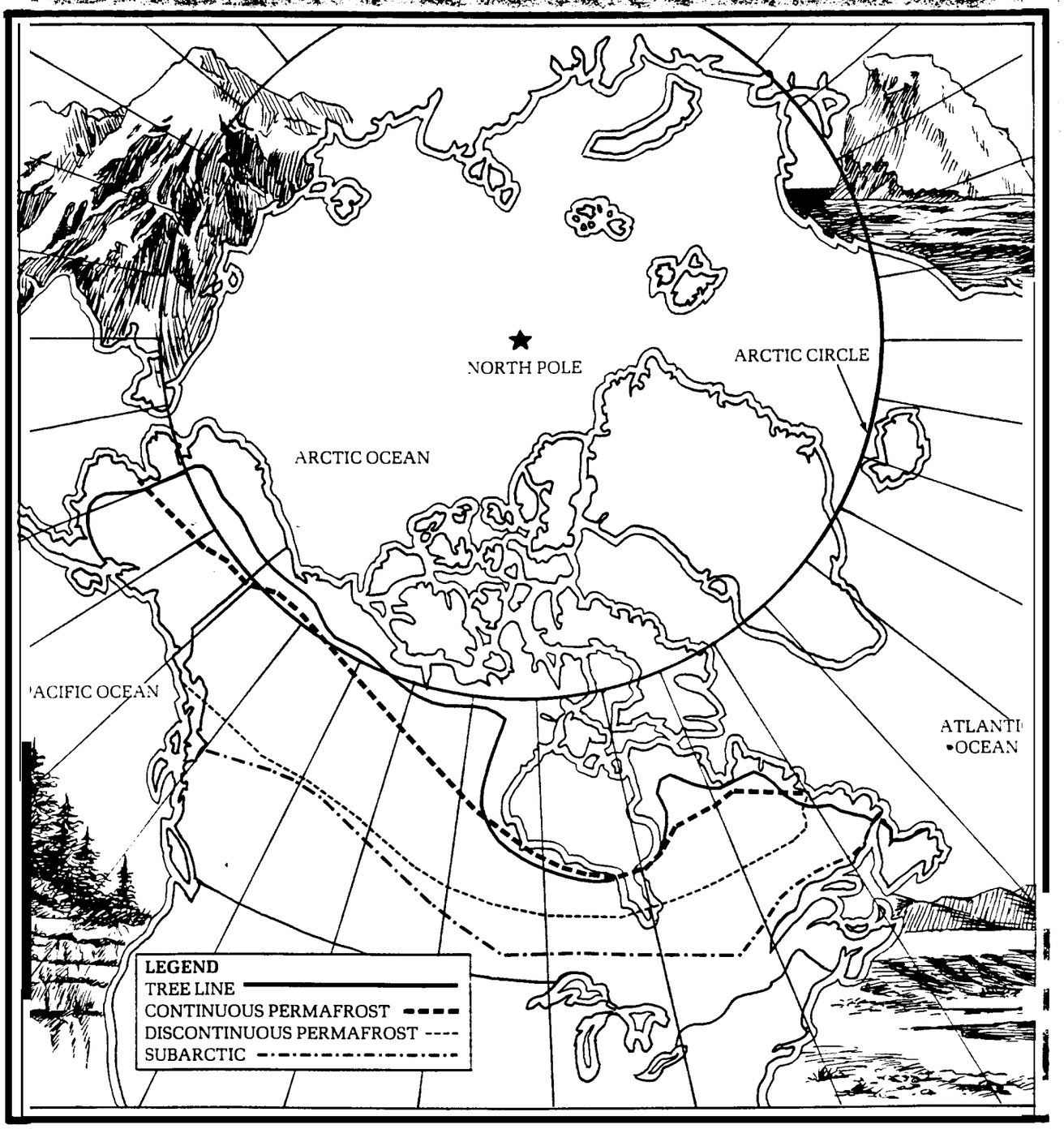
Martin Frobisher



SPRING BREAK-UP AT HUDSON BAY

On the 12th of May, Hayes River gave way before floods brought on by the melting snow. The river has been covered for eight months with ice up to one and a half metres thick. All the people in the fort rushed outside when they heard the river was "going." You can't imagine what it looked like! The river here is almost three kilometres wide. It was covered with huge blocks of ice, rolling and dashing against each other as the flood heaved them toward Hudson Bay. In one place, they were too close together to hit each other. Here, they ground up against one another, and their edges curled up like paper. The smaller lumps were ground to powder. The others crashed on towards the Bay with a noise like thunder. Block climbed on block. They made, as if by magic, a huge icy castle in the air. Suddenly the castle fell back into the boiling flood. Soon after, the mouth of the river jammed up with ice. The water behind the ice rose three or four metres. It stayed this way for a week. Then it all floated quietly out to sea.

adapted from Everyday Life in the Wilds of North America. Robert Ballantyne. 1879


NORTH POLE
ARCTIC CIRCLE
ARCTIC OCEAN
'ACIFIC OCEAN
ATLANTI
•OCEAN
LEGEND
TREE LINE
CONTINUOUS PERMAFROST
DISCONTINUOUS PERMAFROST
SUBARCTIC

NORTHERN ENVIRONMENTS

There are two major types of northern environments. One is covered with vast areas of evergreen forest. This region is called the Subarctic, and it covers much of Canada. The other type of northern environment is treeless, This region is known as the Arctic, and it covers the northernmost part of Canada.

The map on page 8 shows the Subarctic and Arctic regions of Canada.

THE SUBARCTIC

The Subarctic is the largest single region of Canada. It stretches from Labrador to northern British Columbia. In places it reaches south to within a few hundred kilometres of the Canada-United States border. The northern boundary of the Subarctic is called the *treeline*. Few trees can grow north of this line, The area north of the **treeline** is the Arctic.

The forests of the Subarctic are made up of coniferous, or evergreen trees. These trees include fir, spruce, pine and larch. Coniferous trees are able to stay alive through the long, cold winters of the Subarctic.

The forests of the Subarctic are home to many types of animals. Great herds of elk, deer, moose, caribou and wood buffalo live in the northern forests. Many fur-bearing animals live here also — wolves. foxes, mink, marten and beavers. Birds such as ducks and geese are found on the rivers and lakes of the Subarctic. Other **game** birds. including grouse and quail. live in the forests.

Moose graze through the snow in a subarctic forest

An aerial view shows part of the northern treeline, and, beyond it, Arctic tundra

Landscapes of the Subarctic

The Subarctic was once a series of rugged mountains. These were worn down by the grinding glaciers of the Ice Ages that imprisoned northern Canada. The moving ice also stripped away most of the soil. leaving behind bare rock, especially in the Canadian Shield. When the ice retreated. the land was freed of its immense weight. Rolling hills rose up to break the flatness of the Subarctic. When the glacier ice melted. it filled the great dips it had gouged in the land. These water-filled dips formed the thousands of lakes that dot the region.

Despite a fairly flat landscape, the Subarctic region has a number of major rivers. River systems flow both north and south out of the Canadian Shield. South-flowing rivers include the Ottawa. the St. Maurice. and the Manicouagan systems. The most important of the northward-flowing rivers is the Mackenzie. It is Canada's largest river. and is the main water transportation route to the Arctic. Many other rivers also flow north from Ontario and Quebec into Hudson Bay.

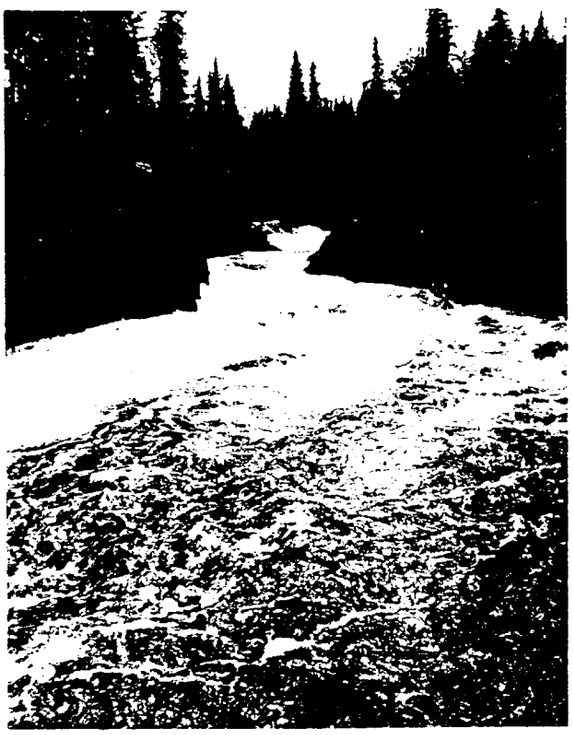
Climate of the Subarctic

Because of its size, the Subarctic has many different climates. However, it can be divided into two main zones. The area east of the Manitoba-Ontario border is one. The other is the interior area west to the Rocky Mountains,

The eastern zone of the region has cool summers and cold winters. Both summer and winter temperatures become cooler as one moves north. In the north. average temperatures are −25°C in January and 12°C in July. In the south. average temperatures are –19°C in January and 16°C in July. There is enough rain for tree growth and other vegetation, but the climate limits agriculture to a few areas,

The interior zone of the Subarctic also has cool summers and cold winters. Summer temperatures are slightly higher than in the eastern zone, particularly in northern areas. Winter temperatures are similar to those of the eastern zone, except along the western side of Hudson Bay, where average January temperatures are −30°C.

The greatest difference between the interior and eastern climatic zones is in rainfall. The interior zone is much drier. It receives 400 to 500 mm of moisture a year, compared to 600 to 1000 mm in the eastern zone.



Make a wall map showing the major rivers of Canada's North.

THE ARCTIC

The area north of 66-2/3° N Latitude is known as the Arctic. The imaginary line around the globe that marks this latitude is called the Arctic Circle. Because of its high latitude, the Arctic is truly the "Land of the Midnight Sun." On June 21st, the longest day of the year, there are 24 hours of sunshine north of the Arctic Circle, In winter, the days are very short.

Landscapes of the Arctic

Islands make up most of the land in the Canadian Arctic, Some of the islands are mountainous. Others are flat. There are permanent ice caps on far northern islands such as Axel Heiberg, Devon and Ellesmere. These ice caps are many hundreds of metres thick. Long arms of the ocean, called fjords, cut deep into these islands. The fjords are the paths that glaciers gouged in their movement from the ice caps to the ocean.

Only a third of the area within the Arctic Circle is land. The rest is ocean. For much of the year, the Arctic Ocean is covered with ice. Some of the ice never melts. The ice in the Arctic Ocean is always moving. Large blocks of floating ice, driven by winds and ocean currents, are dangerous to ships. The water of the Arctic Ocean is always very cold. Even in summer it never gets warmer than −4°C, the temperature at which salt water freezes.

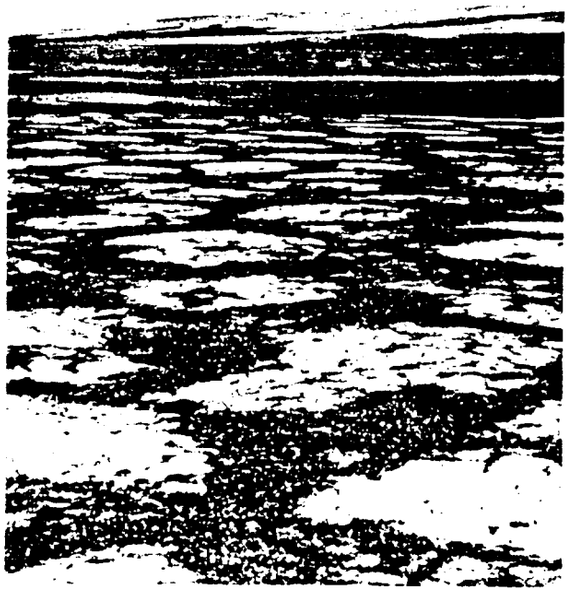
Most of the land area of the Arctic is covered with a thin layer of tundra. Tundra is the only type of vegetation that can live in the cold, dry climate of the Arctic. It is made up of

simple, primitive plants such as lichens and mosses. There are also small flowering plants that bloom during the short Arctic summer. Few trees are to be found. Those that exist are forms of willow and birch that are more like low bushes than trees.

Under the Arctic tundra is permafrost. Permafrost is ground that is always frozen. It never thaws, not even in summer. In the southern Arctic, the permafrost is only a few centimetres deep. In the Far North, the permafrost is much deeper – over 400 m deep at Resolute on Cornwallis Island. The top few centimetres of soil over the permafrost thaws in the short Arctic summer. It is in this soil that the plants of the tundra grow. But if you were to dig into this oil with a shovel, you would hit ice just below the surface.

A river cuts, fjord-like, deep into the tundra

Wolf chasing a snowshoe rabbit .

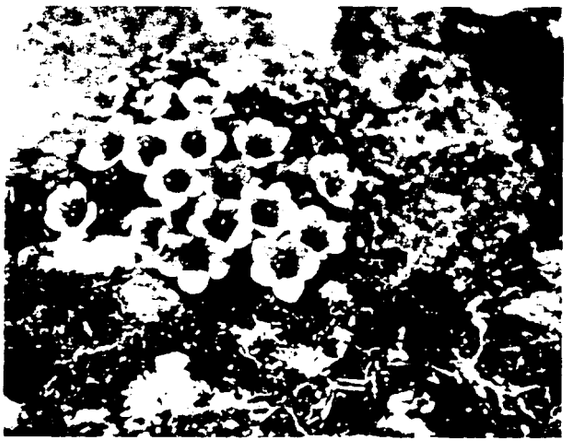


Lumps in the tundra, tailed *polygons*, form because *of* the freezing and thawing *of soil* over the permafrost

The Arctic landscape is a drab grey-green in summer and a snow-covered wasteland in winter, Only the flowering plants provide brief flashes of colour during the Arctic summer.

The land animals of Canada's Arctic depend on the plants of the tundra. Some, such as the musk ox, scrape through snow and ice to eat lichens and mosses in winter as well as summer. Others, such as the caribou. move south of the Subarctic forests for the winter. Arctic birds also go south for the winter. Some Arctic animals, such as the seal, walrus and whale, live all year round in the ocean.

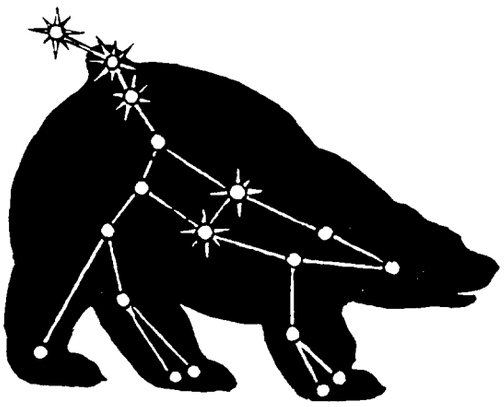
Seen *from* high above, a wedge *of* white snow geese approaches a small lake on Banks island



Top: An Arctic flower *blooms* in summer • Above: Arctic desert sands

Climate of the Arctic

Arctic temperatures are very cold in winter and remain low during the short summer. Interestingly, there is not very much snow during the Arctic winter. Canada's Far North is so dry that it is sometimes called a cold desert. Temperatures vary, but average –27°C in winter and 8°C in summer at Frobisher Bay, for example.



THE GREAT BEAR

The word Arctic comes from the Greek word *Arktos*, meaning "bear," Arktos is another name for the Great Bear Constellation. This constellation, made up of over 50 stars, is most easily seen in far northern lands. The seven brightest stars in Arktos-form the Big Dipper. The star at the end of the Big Dipper's handle is the North Star. The North Star is also called the Pole Star.

1. Find the Arctic Circle on the globe in your classroom. How much of Canada lies within the Arctic Circle? Find the other countries of the world with land north of the Arctic Circle.
2. How did the North Star get its name? Why is it also called the Pole Star? Find out about the importance of the North Star to early navigators and explorers. Some clear evening try to find Arktos, the Big Dipper and the North Star.
3. Find out why the Canadian Arctic is sometimes called a cold desert. Are there other cold deserts in the world?
4. Canada's Arctic is very dry. Compare the reasons for the dryness of the Arctic with the reasons why the Prairies are dry. Display the results of your research.
5. Make a map showing the islands of Canada's Arctic.
6. Go to the library and do further research on permafrost . What are the problems of building on permafrost'?

Caribou crossing a frozen river

ANIMALS OF THE NORTH

When *full grown, the musk ox* is us *large* as *the* middling size *of English black cattle*. but their *legs* are *not* so *long*. Their *tail* is shorter than *a bear's, and* it is *entirely hid by the long* hair *of* the rump. Their heir is *very* long. The *longest hair, particularly the bull's*, is under *the throat, extending from the chin* to the lower port *of the chest. It hangs* down *like a* horse's mane *inverted, and* is *fully as long*.

adapted from Samuel Hearne, *Journey to the Northern Ocean*, 1795

Musk oxen grazing on tundra

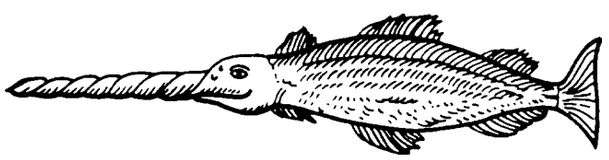
1. Suggest some reasons why the hair of the musk ox is so long, especially around its front and legs. What protection does this hair provide in summer?
2. Musk oxen use their large antlers as protection against their enemies, What

northern animals do you hink would attack musk oxen ?

3. The picture shows a group of musk oxen standing in a semi-circle facing out. Why do you think they might be standing this way?

Upon a small island we found a large dead fish that had been preserved in ice. It was round like a porpoise, about four metres long, and had a horn two metres in length growing out of its snout or nostrils. The horn is straight and looks like a candle made of wax. This animal may truly be thought to be the Sea Unicorn. The Queen commands that this horn is to be kept as a jewel in her wardrobe of robes.

adapted from *The Three Voyages of Martin Frobisher*, 1578



Narwal drawn in *Frobisher's* journal

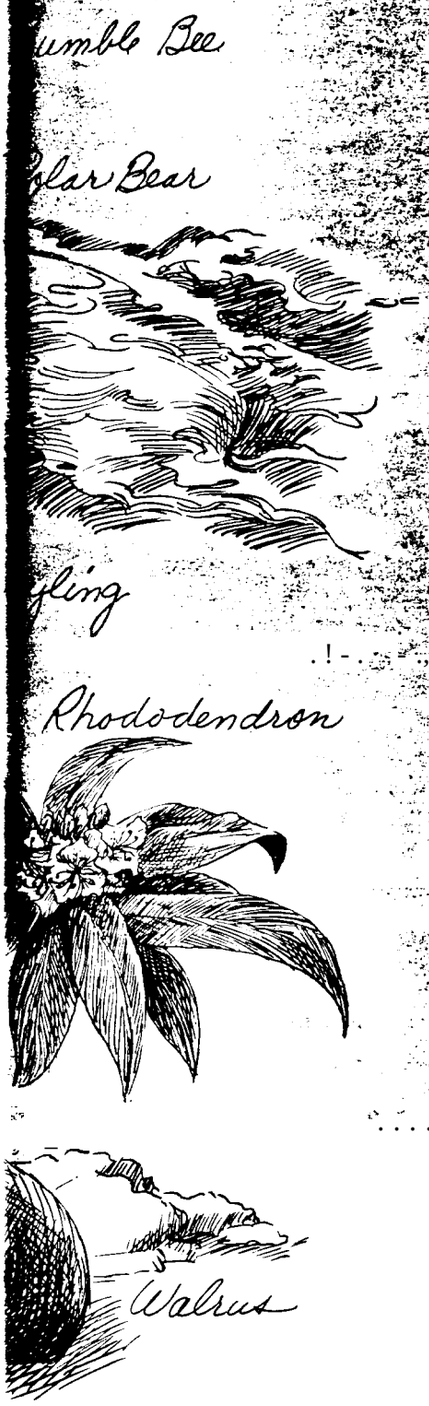
1. The fish Frobisher and his crew found was a narwal. Is a narwal really a fish? What type of animal is it?
2. Find out who was the Queen of England in 1578. Why would she beep the narwal's horn as a jewel?

The **Inuit** and their Indian neighbors made use of every part of the caribou they hunted. The following is a list of various parts of a caribou and the ways they were used.

PART	USE
Flesh	Food
Intestines	Food
Eyes	Food, a special **delicacy**
Sinews	Cords, threads, dog whips
Bones	Tools, buttons, knives, handles, rattles, games, sleds, spears
Antlers	Tools, knives
Hide	Tents, clothing, gloves, boots, sacks, drum heads

Dressed in caribou-hide *clothing*, this bruit is using a bow *drill* made *of* hard bone


FLORA AND FAUNA OF THE NORTH.
Musk Ox
Arctic Willow
Kittiwake Gull
Moose



PLANTS OF THE NORTH

Arctic crocus
Arctic poppy
Arctic wallflower
Arctic willow
Avens
Arnica
Bladder campion
Cotton grass
Cress
Equisetum
Groundsel
Lousewort
Orange lichen
Rhododendron
Purple saxifrage
Sedge
Sour-dock
White heather
White lichen
Wintergreen
Yellow lichen

MAMMALS OF THE NORTH

Arctic fox
Arctic hare
Barren Ground grizzly bear
Barren Ground wolf
Beluga whale
Cachalot (toothed) whale
Collared lemming
Moose
Musk ox
Parry's ground squirrel
Peary's caribou
Narwal
Polar bear
Seal
Timber wolf
Walrus

BIRDS OF THE NORTH

Arctic tern
Black-bellied plover
Brant
Buff-breasted sandpiper
Curlew
Glaucous gull
Greater snow goose
Gyrfalcon
Horned snowy owl
Ivory gull
King eider
Kittiwake gull
Knot
Lapland longspur
Old **squaw duck**
Parasitic jaeger
Peregrine falcon
Phalarope
Pomarine jaeger
Purple **sandpiper**
Raven
Red-throated loon
Rock ptarmigan
Sanderling
Snow bunting
Spotted grosbeak
Thayer's gull
Tufted puffin

FISH OF THE NORTH

Char
Grayling
Trout
Whitefish

INSECTS OF THE NORTH

Bumblebees
Black flies
Mosquitoes

Make two wall murals showing Arctic and Subarctic landscapes. Include in your murals pictures of the plants and animals found in each setting.

CHAPTER TWO

THE PEOPLE

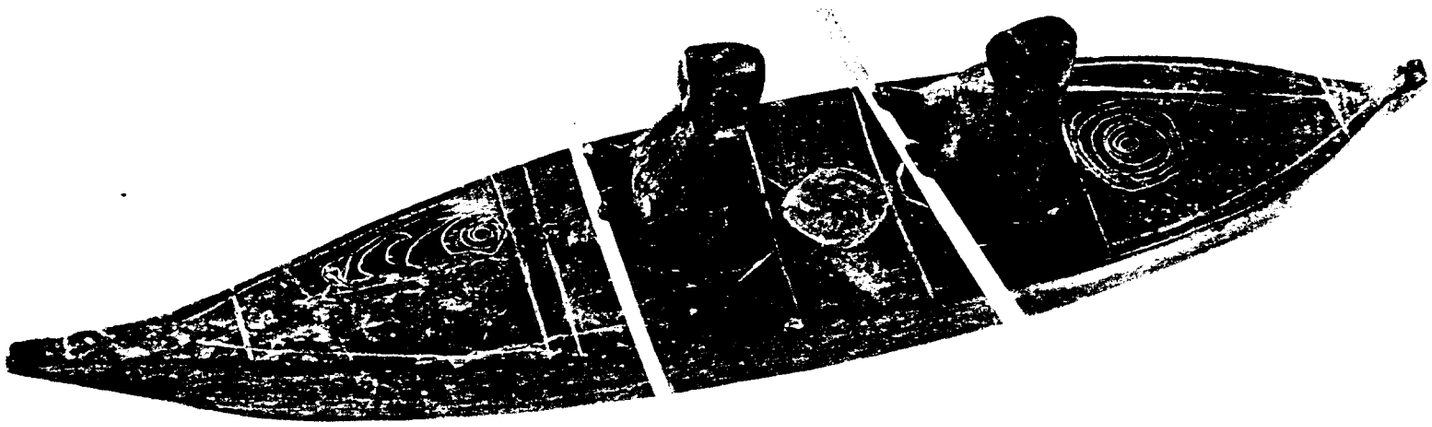
INUIT DRUM SONG

Listen to my **words, all** you children!
The kayak is **very small** and dangerous;
Waves and winds have great strength.
But when your thoughts have become **used** to them,
you can **travel among them.**

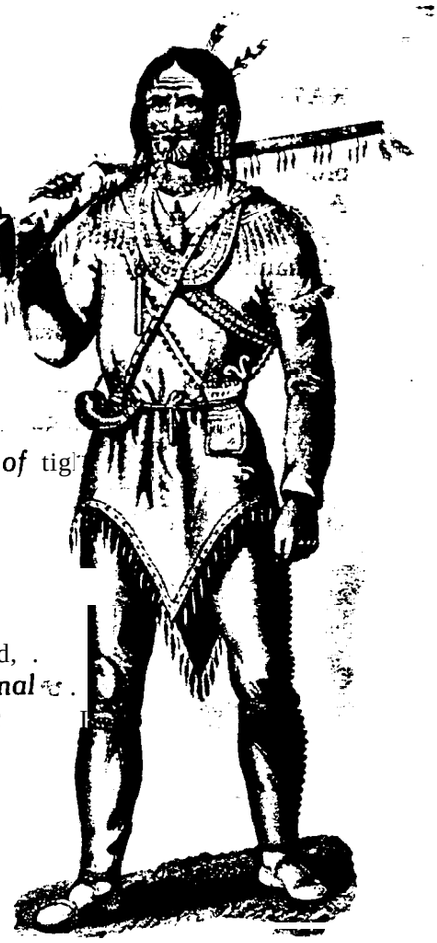
Only then **will you** be good hunters **of seals,**
Strong when you have to be.
On the **look-out** in the kayak you **will** strike with the **harpoon,**
And even in winter, when the **cold** is strongest,
You **will** proudly succeed with it.

Listen to the old,
The experienced **counsellors;**
The orders they give, you must obey.
Then, even in winter,
You **will** proudly succeed with it.

adapted by **Ivor** Jones



MACKENZIE DESCRIBES THE SUBARCTIC PEOPLE



They are of moderate stature, well proportioned, and of great activity. Their complexion is of a copper colour, and their hair black, which is common to all the natives of North America. It is cut in various forms, by different tribes, and by some is left in the long, lank, flow of nature. They usually extract their beards. Their eyes are black, keen, and penetrating; their faces open and agreeable, and they give every-possible decoration to their persons. An important article in their toilettes is vermilion, which they contrast with their native blue, white and brown earths, to which charcoal is frequently added.

Their dress is at once simple and commodious. It consists of tight leggings reaching near the hip; a strip of cloth or leather, called assian, about thirty centimetres wide, and a metre and a half long, whose ends are drawn in-wards and hang behind and before over a belt tied round the waist for that purpose; a tight vest or shirt reaching down to the assian and tied with a broad strip of parchment fastened with thongs behind; and a cap for the head, consisting of a piece of fur, or small skin, with the tail of the animal as a suspended ornament. A kind of robe is thrown occasionally over the whole of the dress. These articles, with the addition of shoes and mittens, constitute the variety of their apparel. The materials vary according to the season, and consist of dressed moose-skin or beaver prepared with the fur. The leather is neatly painted, and fancifully worked in some parts with porcupine quills and moose-deer hair. These clothes are put on, however, as fancy or convenience suggests; and they will sometimes go hunting in the severest frost, covered only with the slightest of them.

Their head-dresses are composed of the feathers of the swan, the eagle, and other birds. The teeth, horns and claws of different animals are also the occasional ornaments of the head and neck. Their hair, however arranged, is always besmeared with grease. The making of every article of dress is a female occupation; and the women, though by no means inattentive to the decoration of their own persons, appear to take even greater pride in attending to the appearance of the men, whose faces are painted with more care than those of the women.

adapted from the journals of Alexander Mackenzie. c 1790

What does the poem and the description tell you about the Inuit and Dene wavs of life? Do they give you any clues as to how they survived-in the harsh northern environment ?

NATIVE PEOPLES OF THE NORTH

The first people to come to North America probably came first to Canada's North. Archaeologists believe that the first native people came from Asia about 35000 years ago. At that time, ocean levels had dropped because of an Ice Age. A land bridge emerged in the Bering Sea, connecting Asia and North America. Siberian hunters may have followed giant bison or other animal herds over the land bridge across the Bering Sea, and into Alaska.

From Alaska they moved east, into the delta of the Mackenzie River. Then they followed the Mackenzie southward. Over time, these first peoples spread across North America and into South America. The native people who live in Canada's North today were probably among the last to arrive, The Inuit, Canada's northernmost natives, are thought to have arrived about five thousand years ago.

Below: Snowshoe dance of the Ojibwa Indians. Right: Inuit woman photographed around 1900

THE FIRST WOMAN

They have a tradition among them, that the first person upon earth was a woman. After having been some time alone, in her search for berries, which was then her only food, she found an animal like u dog-, which followed her to the cave where she lived. The dog soon grew fond and domestic. This dog, they say, had the art of transforming itself into the shape of o handsome young man, which it frequently did at night, but as the day approached, it always resumed its former shape. Soon the first woman upon earth became pregnant.

Not long after this happened, u man of such a surprising height that his head reached up to the clouds, came to level the land, which at that time was a very rude mass. After he had done this, by the help of his walking-stick he marked out all the lakes, ponds, and rivers, and immediately caused them to be filled with water. He then took the dog, and tore i t to pieces: the guts he threw into the lakes and rivers, commanding them to become the different kinds of fish; the flesh he dispersed over the land, commanding it to become different kinds of beasts and land-animals; the skin he also tore in small pieces, and threw it into the air, commanding it [o become all kinds of birds. He gave the woman and her offspring full power to kill, eat, and never spare these animals, for he hod commanded them to multiply for her use in abundance. After this injunction, he returned to the place whence he came, and has not been heard of since.

adapted from a Dene legend related in *A Journey to the Northern Ocean*, Samuel Hearne, 1769-1772

Compare this Dene story of creation to that of Adam and Eve in the Bible. How are they similar? How are they different?

Sculpture by **Myles Charles**, a Cree artist

NATIVES OF THE SUBARCTIC

The native people of the Subarctic called themselves the Dene. This means "the people" in their own language. They were nomadic hunters. They moved with the animals that they hunted. Moose, elk, deer, caribou and other animals fill the forests of the Subarctic. Most of these animals move with the seasons. They travel north as spring comes, then, with winter's cold, move south again. The lakes and streams of the region are home to many fish. The fish too travel with the seasons. They return to the same streams each year to spawn.

The Dene rarely stayed long in one spot. They set up a hunting or fishing camp, and lived there as long as the catch was good. When the game or fish ran out, they moved on.

The people of the Subarctic had to be able to move quickly and easily. They had several ways of traveling after game. In winter, they used toboggans and snowshoes. In summer, their birchbark canoes took them along the rivers and lakes of the region,

Nomads like the Dene of the Subarctic travel light. They cannot have many heavy possessions. Heavy wooden boxes or clay pots would slow them down. For these reasons. the people of the Subarctic relied on the light but sturdy bark of birch trees. They used birch bark to make pouches for cooking and storing food. They covered the frames of their dwellings and canoes with it. A birch bark canoe was light enough to be carried over a long portage.

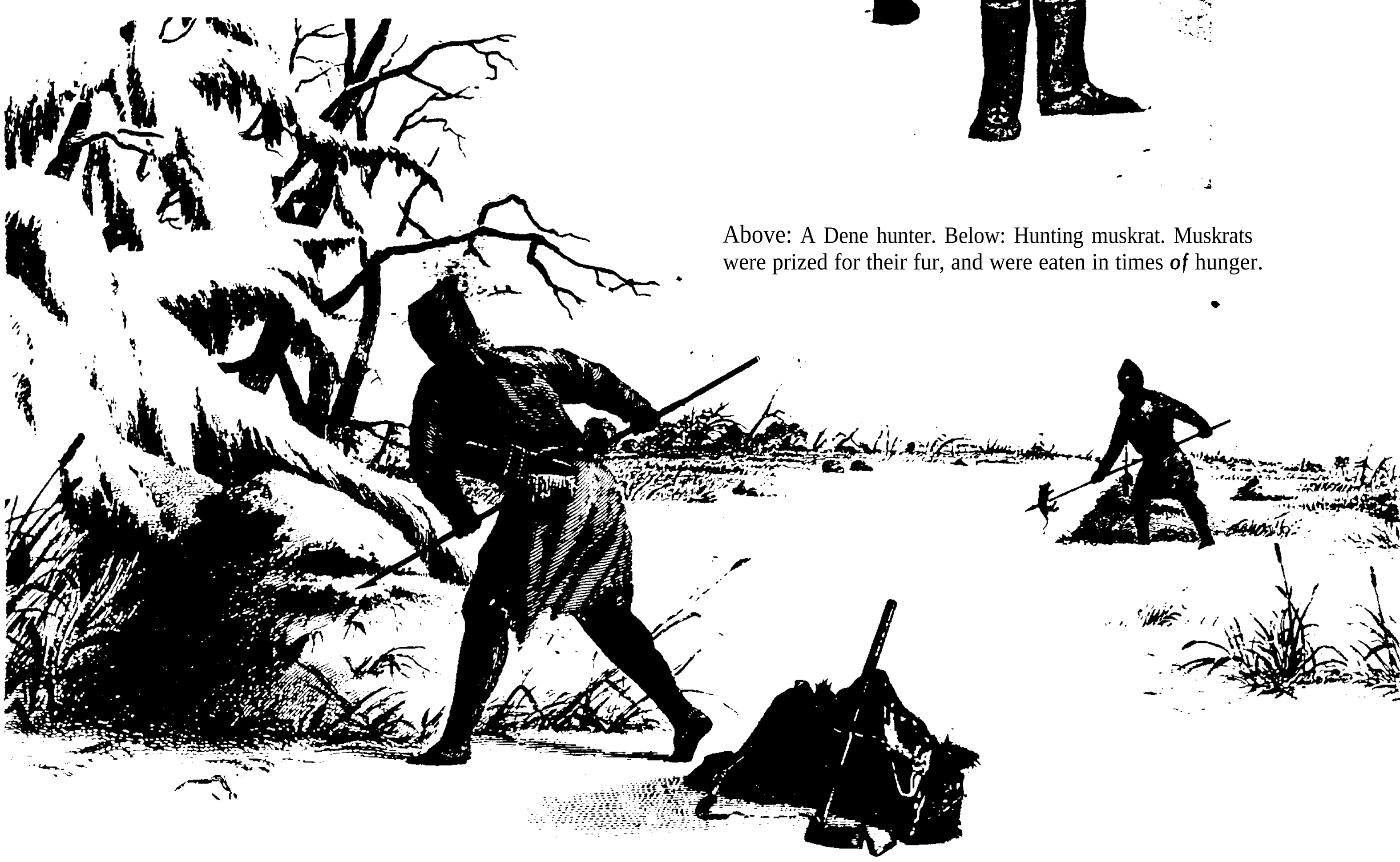
Birchbark cooking pot

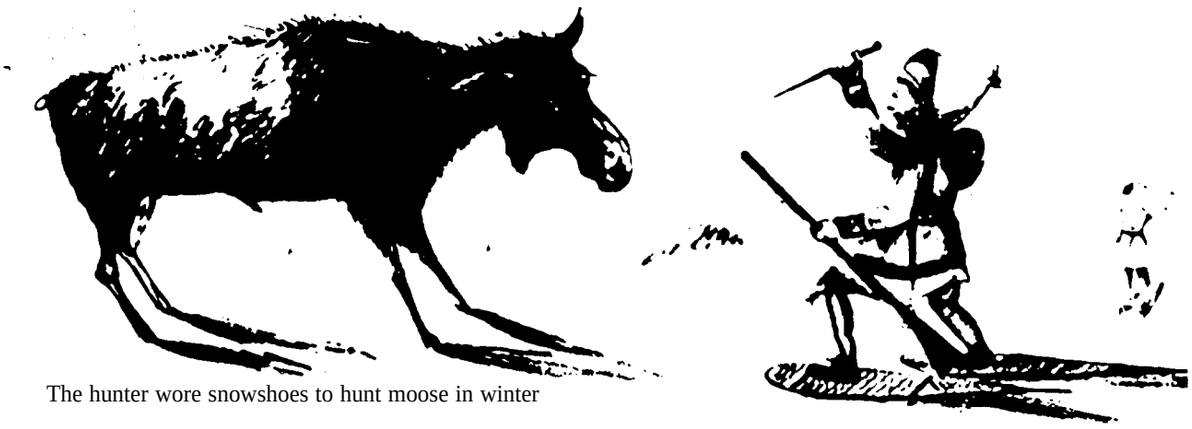
Women gathering *wild* rice. *All* food resources were used to the fullest: one *could* never be sure *that* there *would* be enough game.

There is a black, hard, crumply moss, that grows on the rocks and large stones in those parts, which is of infinite service to the natives, as it sometimes provides them with a temporary subsistence, when no animal food can be procured. This moss, when boiled, turns to a gummy thickness, and is more clammy in the mouth than sago. It may, by adding either moss or water, be made to almost any thickness. It is so tasty, that all who try it generally grow fond of it. It is remarkably good and pleasing when used to thicken any kind of broth, but it is generally most esteemed when boiled in fish-broth.

Adapted from the journals of Samuel Hearne [illegible]

Above: A Dene hunter. Below: Hunting muskrat. Muskrats were prized for their fur, and were eaten in times of hunger.





The hunter wore snowshoes to hunt moose in winter

The Dene tribes of the Subarctic lived in small hunting bands. These bands lived far apart from each other. Each hunting band had an area of several thousand square kilometres in which to track moose and other game. They used bows and arrows for hunting, and wooden spears and nets for fishing.

The fur trade brought the people of the Subarctic into contact with Europeans. The region is home to many fur-bearing animals, including beaver and muskrat. Native people quickly became an important part of the fur trade. They served as guides and paddlers for the traders. and trapped animals for them. Many of the Subarctic people gave up their nomadic lifestyle and relied on the fur trade to support themselves. They moved to villages near the trading posts. Even today, many native communities of the North are still located at the sites of old fur trading posts. Trapping for furs such as marten and fox is still an important source of income for native peoples of the North.

A Dene ***family.*** Note the sled leaning against the *tipi.* ond the snowshoes *and metal* trap *hanging from the* branch. *Which* items in the picture show the influence of *non-natives on* the Dene *way of* life?

Paul Kane painted this Indian encampment on Lake Huron around 1845. What does it say about the Dene lifestyle?

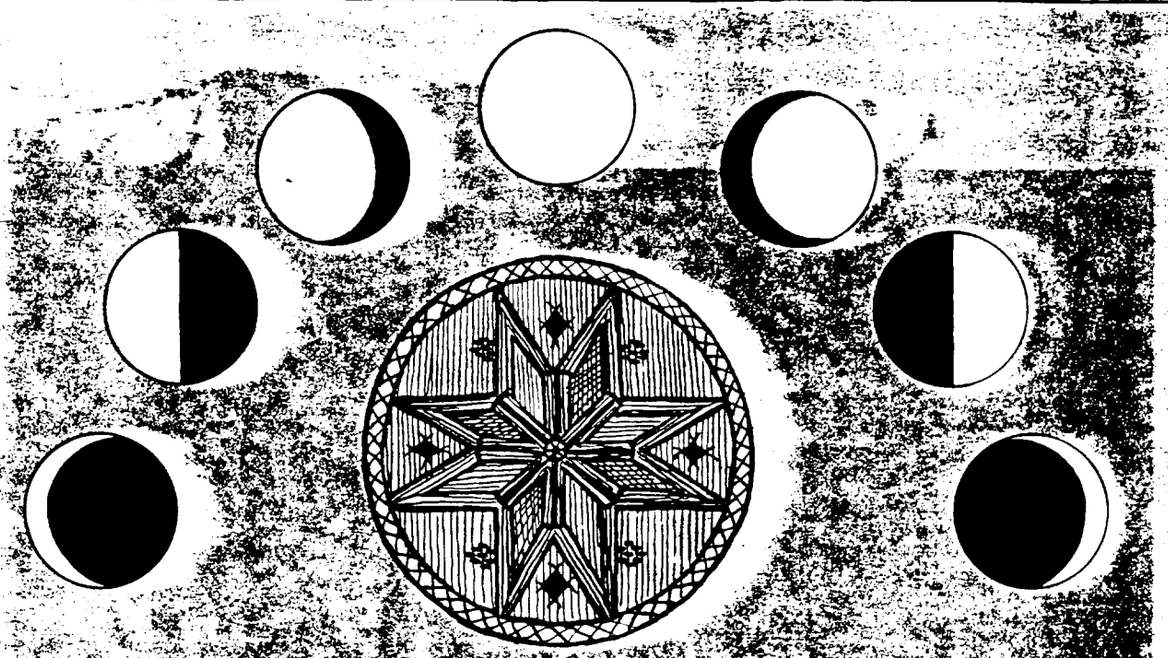
When a young man marries, he immediately goes to live with the father and mother of his wife. They treat him as a perfect stranger, till after the birth of his first child: he then attaches himself more to them than to his own parents, and his wife no longer calls him by any other name than that of the father of her child.

The profession of the men is war and hunting, and the more active scene of their duty is the field of battle, and the chase in the woods. They also spear fish, but the management of the fishing nets is left to the women.

The females of this nation are in the same subordinate state with those of all other tribes, but the hardness of their labour is much diminished by their situation on the banks of lakes and rivers, where they employ canoes. In the winter, when the waters are frozen, they make their journeys, which are never of any great length, with sledges drawn by dogs. They are, at the same time, subject to every kind of domestic drudgery: they dress the leather, make the clothes and shoes, weave the nets, collect wood, erect the tents, fetch water, perform every culinary service; so that when the duties of motherhood are added, it will appear that the life of these women is an uninterrupted succesion of toil and pain.

Adapted from the journals of Alexander Mackenzie, c1790

Can you think of any other nomadic peoples who have lived in Canada? How were their lives similar to those of the Subarctic people?



A DENE CALENDAR

MONTH	DENE NAME	TRANSLATION
May	*Atheiky o Pishim*	Frog Moon
June	*Oppinu o Pishim*	The Moon in which birds begin to lay their eggs
July	*Aupascen o Pishim*	The Moon when birds cast their feathers
August	*Aupahou o Pishim*	The Moon when the young begin to fly
September	*Waskiscon o Pishim*	The Moon when the moose-deer cast their horns
October	*Wisac o Pishim*	The Mating Moon
November	*Thithigon Pewai o Pishim*	Hoar-Frost Moon
	Kuskatinayoui o Pishim	Ice Moon
December	*Pawatchicananasis o Pishim*	Whirlwind Moon
January	*Kushapawasticanum o Pishim*	Extreme cold Moon
February	*Kichi Pishim*	Big Moon; some say, Old Moon
March	*Mickysue Pishim*	Eagle Moon
April	*Niscaw o Pishim*	Goose Moon

The Dene calendar above was recorded by the explorer Alexander Mackenzie during his travels in the Subarctic. The Indians used the term "Moon" for month. Why do you think they did? What does this calendar tell you about the Subarctic and the Dene's way of life there? Why, do you think, does the calendar start in May?

THE INUIT

The Inuit are the native people of Canada's Arctic. Here, on the cold and treeless tundra, they developed a rich culture, They learned to use well the resources of the area.

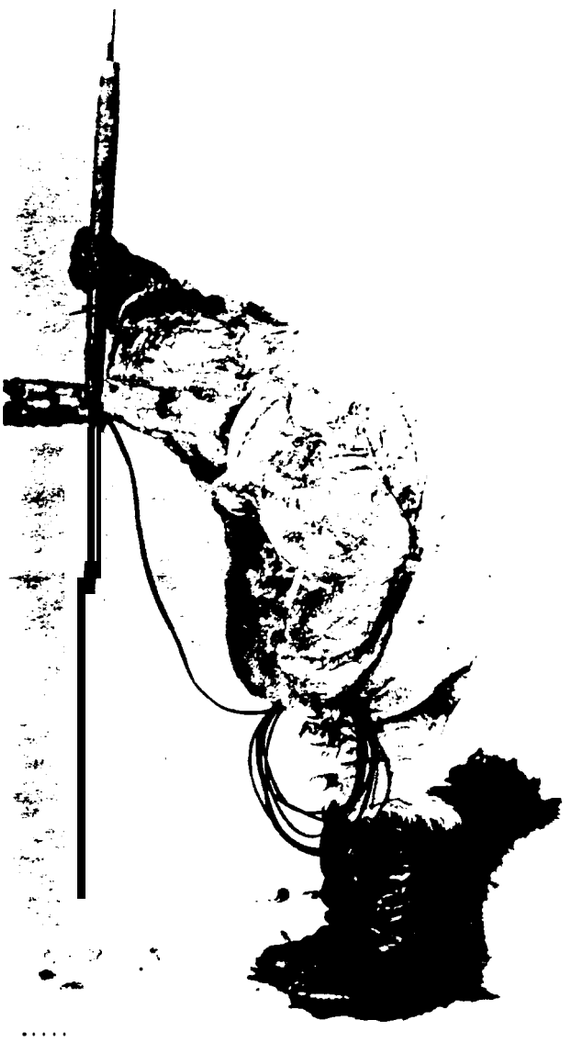
The Inuit are often called Eskimos. The word Eskimo comes from the Athapaskan Indian phrase wigas-ki-mowak, meaning "eaters of raw meat, " The Inuit consider the term an "outsider's" name. They call themselves Inuit. which means "the people" in their own language.

This people of the Far North were hunters, whalers and fisherfolk. They sheltered in their villages through the long Arctic winters. In summer, they followed the migrating herds of caribou in hunting bands. The Inuit hunted animals both on land and on the sea. They used bows and arrows to hunt caribou, bears and other land animals. Seals, whales and walrus were hunted with harpoons from skin boats. In winter the Inuit hunted seals through holes in the ice where the animals came up to breathe, A hunter would often have to wait a full day by one of these breathing holes until a seal appeared.

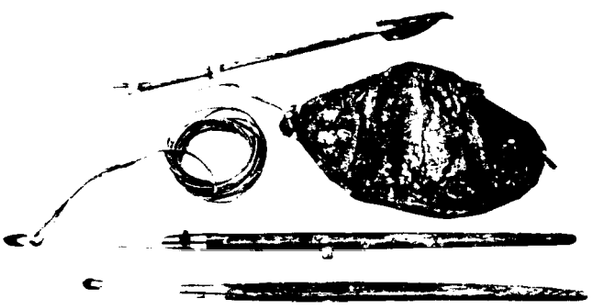
Most of the Inuit's food came from these animals. from birds and from fish. In summer, the Inuit picked berries. which they preserved in seal oil for the winter months. Food was stored in pits dug in the permafrost, Permafrost makes a natural deepfreeze. Hunters and berry pickers worked hard during the summer to gather and store enough food to last through the long winter.

The Inuit ate some of their food raw. They usually cooked their meat over wood fires and seal-oil lamps, or on stoves made of stone.

The Inuit were excellent craftspeople. They made needles. scrapers and knives from wood and bone. Bows. harpoons and other weapons were made of wood and bone lashed together with animal skins, The Inuit travelled by boat or sled. Small boats. called kayaks. and larger boats, called umiaks. were made of skins stretched over wood frames.



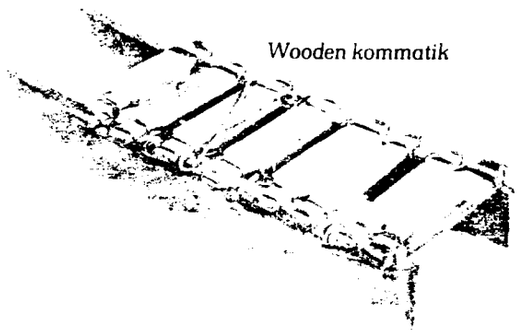
Above: An ice-encrusted hunter waits patiently for o seal to surface. Below: Inuit harpoon



Inuit boys in a kayak

The sleds, called *kommatiks*, were made of wood or bone, lashed together with rawhide. Teams of husky dogs pulled the sleds.

Warm, well-made clothing was very important to the Inuit. In the freezing cold of an Arctic winter, proper clothing could mean the difference between life and death. The Inuit wore two layers of clothing. The inner layer was of fur, turned toward the wearer's skin. The outer layer was of caribou hide or fur turned outward. The clothing was loose but fitted tightly at neck, wrists and ankles, to keep in body heat.



Wooden kommatik

The women would prepare the animal hides by scraping and tanning them, then sewed tunics, parkas. leggings and boots. All this was done in the summer months. Inuit men carved themselves goggles out of bone or wood to protect their eyes from biting winds and blinding snow-glare.

Wooden snow goggles

The Inuit word for house is *igloo*. All houses are called igloos by the Inuit, not just the snow house that is usually called an igloo. The dome-shaped snow house was most often used as a temporary shelter by winter hunting parties, (A snow igloo could be built in an hour using blocks of snow cut on the spot.) Permanent winter houses were sometimes built below the surface of the permafrost. The Inuit used posts and beams of whalebone or wood to support a roof of sod or animal hides. Some Arctic people built their permanent winter houses of large stone slabs. In summer. the hunting parties lived in skin tents, which could be easily taken apart and carried to the next hunting camp.

Above: *Inuit* woman pounding meat *for* the winter, Right: Sculpture *by* the *Inuit* artist *Philipusse*

Compare the ways of life 01 the **Inuit** ana Subarctic **people.** How were they **similar? How** aid **thev differ?**

THE FIRST MAN

He was squatting in the darkness.

He was quite alone on earth. When suddenly he became conscious and discovered himself. He had no idea where he was. He did not know how he had come there. But he breathed and there was life in him. He lived!

But who was he? A being — something living. More than that he could not understand. All about him was dark, and he could see nothing.

Then he groped about with his hands. His fingers brushed over clay, wherever he felt. The earth was clay. Everything around him was lifeless clay.

He let his fingers guide him himself. He knew nothing of how he looked, but he found his face and felt that he had a nose, eyes and mouth. His body had arms and legs. He was a human being — a man!

adapted from a legend told by the Iglulik Arctic explorer Knud Rasmussen

Compare this Inuit legend of creation to the Dene legend on p.21. How are thev similar? How do thev differ?

THE DIARY OF DIAMOND JENNESS

Between 1913 and 1918, a Canadian Arctic Expedition travelled the North. A man named Diamond Jenness was part of the expedition. He lived with the Copper Inuit for a time. Here is a part of his diary:

May 10: *Avranna* went *off alone* to hunt. *Ikpakhuak* and *I* climbed a ridge to watch *for* caribou crossing the strait. *Ikpakhuak* made a *low half-circle* snow *wall* on top, *It* kept the wind *from* us, but we *could still look* out. , . .

May 11: *Ikpakhuak* feathered some arrows *for Haugak*. Then he gathered together the things he wanted to cache here. *Avranna* began the day by *filing* down some primers to *fit Ikpakhuak's rifle*, which he had been using. Later he joined *Tutsik* and *myself* hunting. The women were busy drying *clothes* in the sun. Toward evening, *Milukkattak* went *off* to visit two *fox* traps she had set the day *before*. The children wandered away with their bows and arrows to hunt ptarmigan. They joined *Tutsik* and *myself* just *after* we had shot a deer. They were sent home with the head and hindquarters.

May 12: The Eskimos *planned* to migrate *inland* the next day. Everyone was busy packing and *laying* aside what was to *be left* behind, *Each family* had its own separate cache. . . The goods were piled on the ground in a heap and covered with skins. The skins were weighed down around the sides with a *few* stones,

May 13: We migrated north *about 20* km. ... The sun was now so warm that skins *had* to *be* hung over the sides *of* the *sled* to keep the runners *from* melting. *In* the *evening*, the other Eskimos raised their tents on snow *blocks*. *Ikpakhuak found* a *place* where the snow was very *shallow*. *He cleaned* it away *and* pitched his tent on bare ground. *Milukkattak* cooked some deer meat outdoors over a *small* wood *fire*. *It* was *sheltered from* the breeze *by* some snow *blocks* that *Avranna* set up *for* her.

Mother and child

May **15:** The men divided into three parties and went hunting. *Milukkattak* went with her husband, *Avranna*. Two caribou were shot. The skins were carried back to camp. The carcasses were *left* to be brought in *later* on a *sled*. The women and children *fished all day* in the *lake*. They caught about two dozen trout.

May 17: The children shot two *ptarmigan with* their bows and arrows. The *adults* hunted and fished as *usual*.

May 18: We migrated north, about 10 km as the crow flies. . . . In many places the snow was soft and deep, One of the sleds capsized three times. The Eskimos kept away from the glare ice as much as possible. Their sleds slid in all directions on it. Then they would stick on a tiny patch of snow. It was difficult to start them again, as both the dogs and Eskimos would be standing on smooth ice.

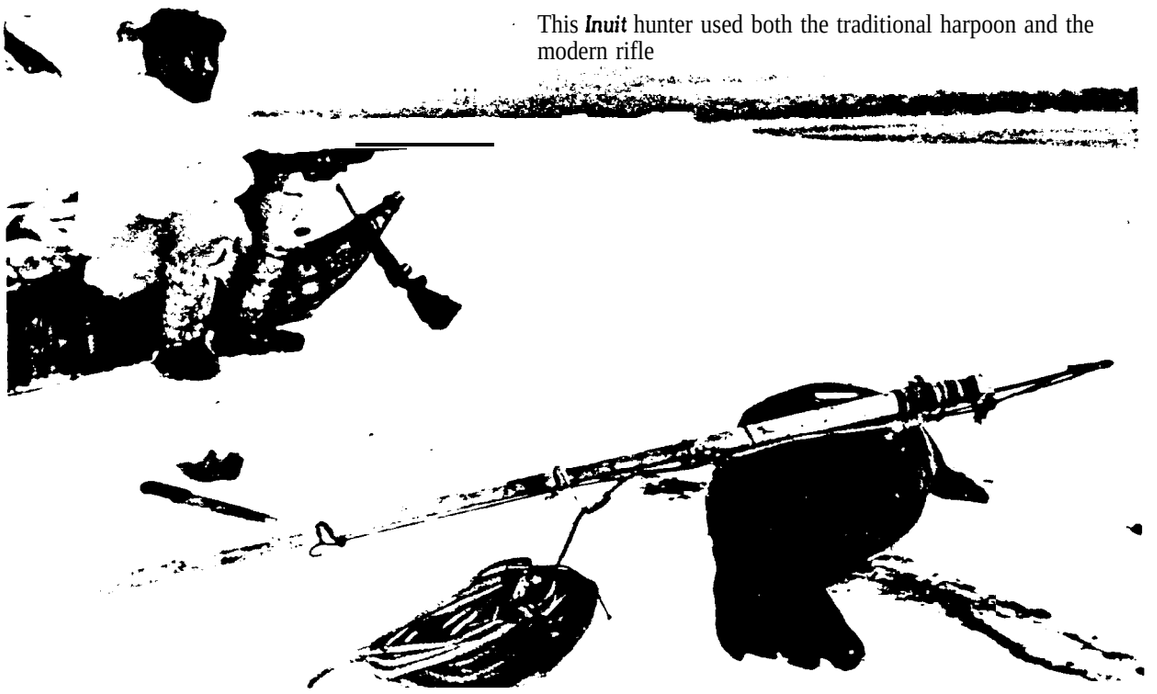
May 19: For the first time this spring Higilak was able to cook a pot of deer meat over an okaukak fire. Before, the women had used their stone lamps and blubber as in winter.

May 22: . . . Ikpakhuak and others went off to bring in some caribou he had shot two days before. As the hills were in many places bare of snow, they took a polar bear skin instead of a sled. Most of the meat was wrapped in the skin. The dogs dragged it home to camp.

May 23: Some of the men went hunting. Others fished near the camp. The women were busy all day, cutting up caribou meat and setting it out to dry, scraping skins and feasting. . . . At this period, it was usually midnight before we went to bed and noon before we rose. Higilak held a shamansitic performance. She wanted to find out if we would find any Prince Albert Sound natives if we went on to Lake Tahiryuak.

adapted from the diary of Diamond Jenness. The Life of the Copper Eskimos.

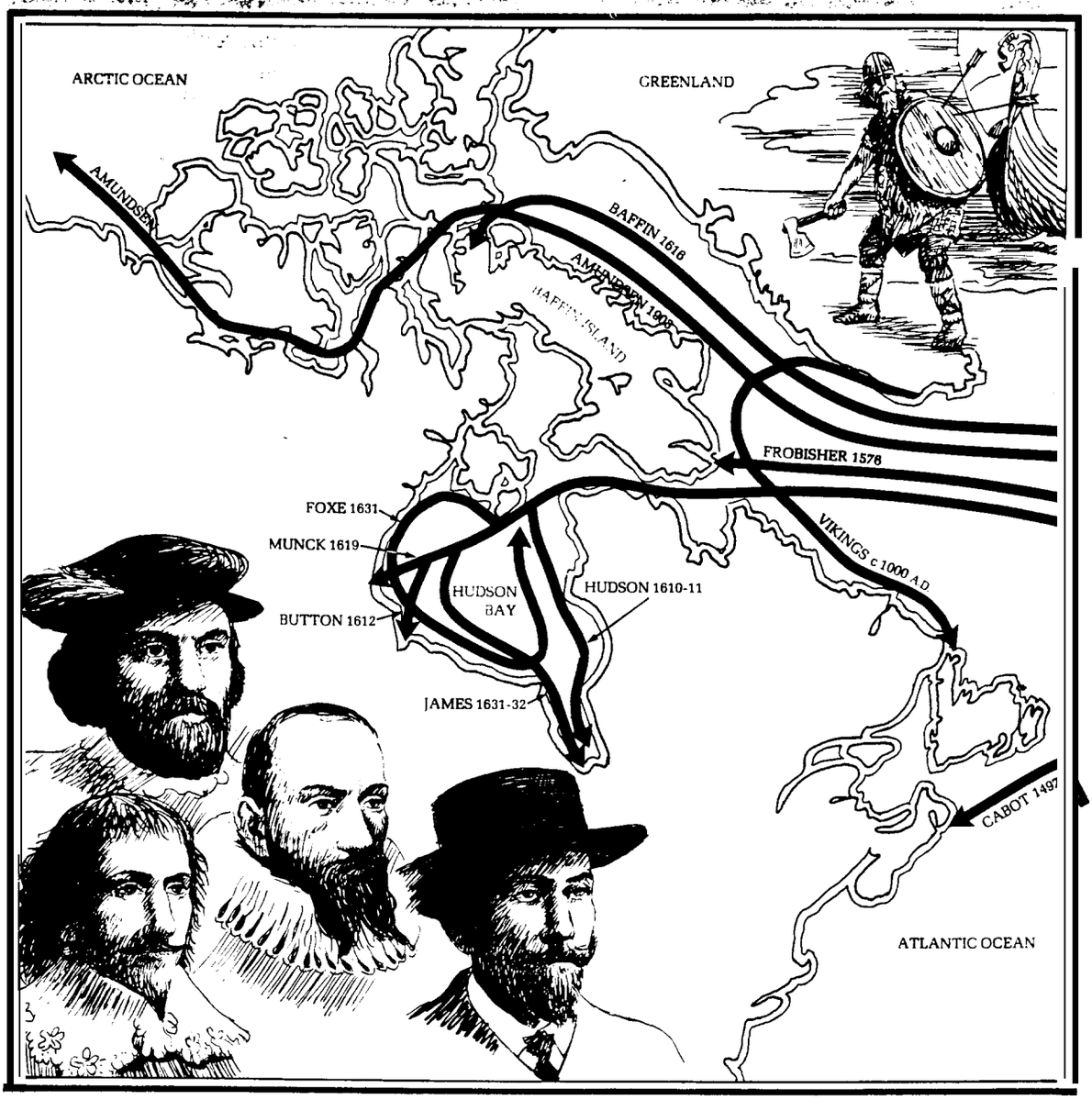
1. How can you tell that Diamond Jenness was not the first European to visit the Copper Inuit?
2. What were the most important things in the life of the Copper Inuit? How can you tell?
3. Pretend you are one of the children in this group of Copper Inuit. Write a diary that covers the time covered by the Jenness diary. What do you do each day?
4. What is there in Jenness's diary to suggest that both Inuit men and women took part in hunting?



This Inuit hunter used both the traditional harpoon and the modern rifle

CHAPTER THREE

THE NORTH EXPLORED

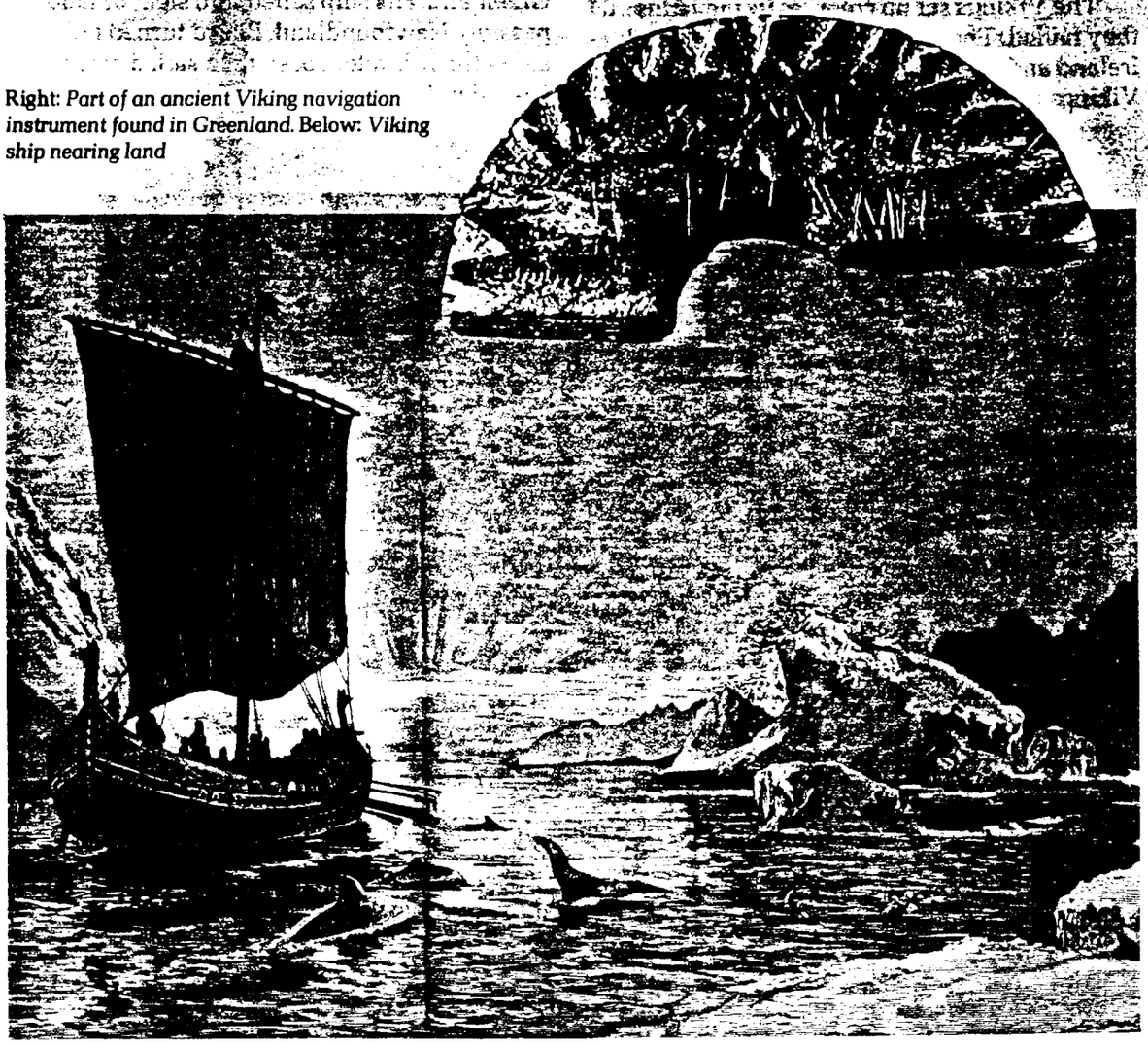


SAILING DIRECTIONS TO GREENLAND

According to learned men, it is seven days' sail from Stad in Norway to Horn in the east of Iceland; and from Snaefellsness on the west coast of Iceland it is four days' sail to Cape Farewell in Greenland. From Hern Island, off Norway, one can sail due west to Cape Farewell, passing north of Shetland close enough to see it in good visibility, and south of the Faroes half sunk below the horizon, and a day's sail to the south of Iceland.

adapted from *The Vinland Saga*
c1000 A.D.

Right: *Part of an ancient Viking navigation instrument found in Greenland.* Below: *Viking ship nearing land*



THE VIKINGS

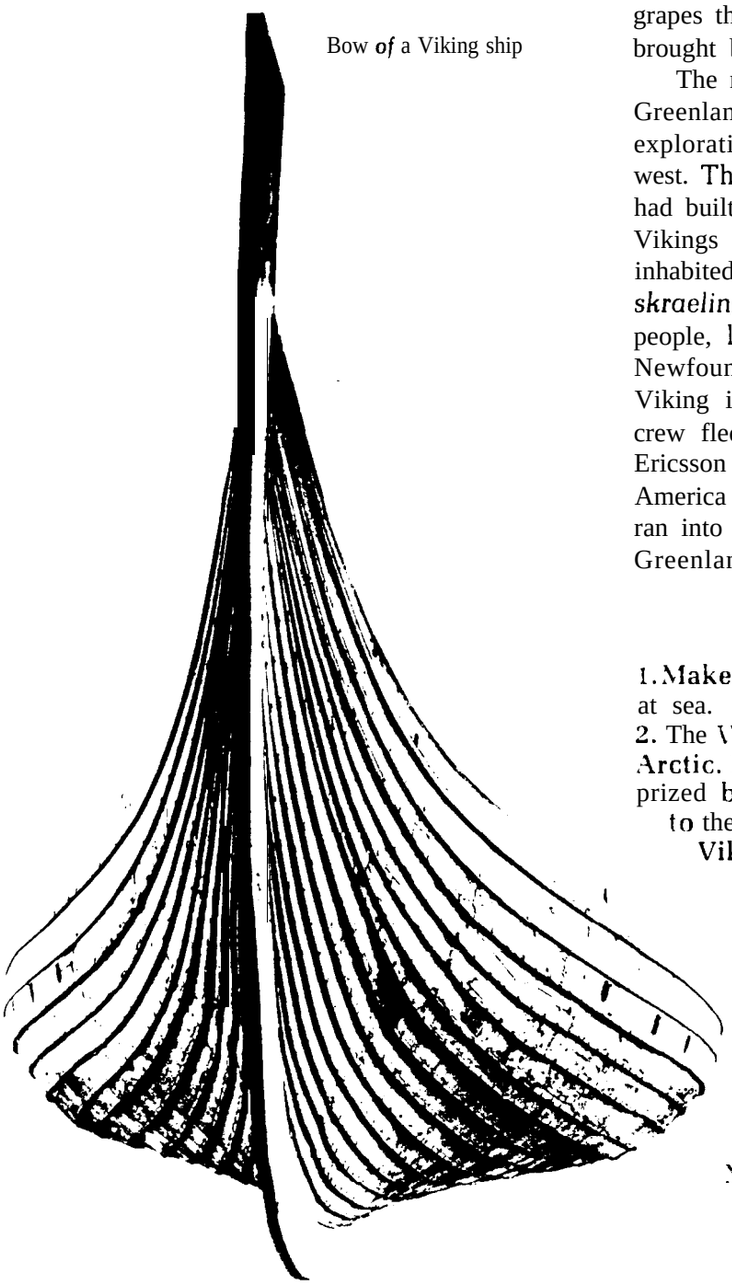
The first Europeans known to have come to Canada were the Norsemen – or Vikings. They were excellent sailors and built fine ships. From their homes in Norway, Sweden and Denmark, the Vikings sailed long distances. Viking ships sailed to the Mediterranean Sea, down the Danube river and across the Atlantic Ocean. The Viking seamen were traders and warriors. Their feats were recorded in histories called sagas.

The Vikings set up colonies in the lands they raided. There were colonies in England, Ireland and France by 900 A.D. Next the Vikings turned their attention to the west. By 93o A.D. they had settled Iceland. Bold Viking sailors pushed even further west. Braving the stormy Atlantic in their small open boats, they reached Greenland. The Vikings, led by Eric the Red, established a colony in Greenland in 985 A.D.

Bjarni Herjolfsson, a year later. may have been the first European to see Canada. While sailing from Iceland to Greenland, Bjarni was blown off course. The Icelandic sagas tell how Bjarni was driven to the south and west of Greenland. His ship sailed into sight of land, possibly Newfoundland. Bjarni turned north along the Labrador coast, then sailed east to Greenland.

The remains of a Viking Long House found at *L'Anse-aux-Meadows*, Newfoundland. Norse artifacts from around 1280 *A.D.* have also been found on *Ellesmere Island* in the Canadian Arctic

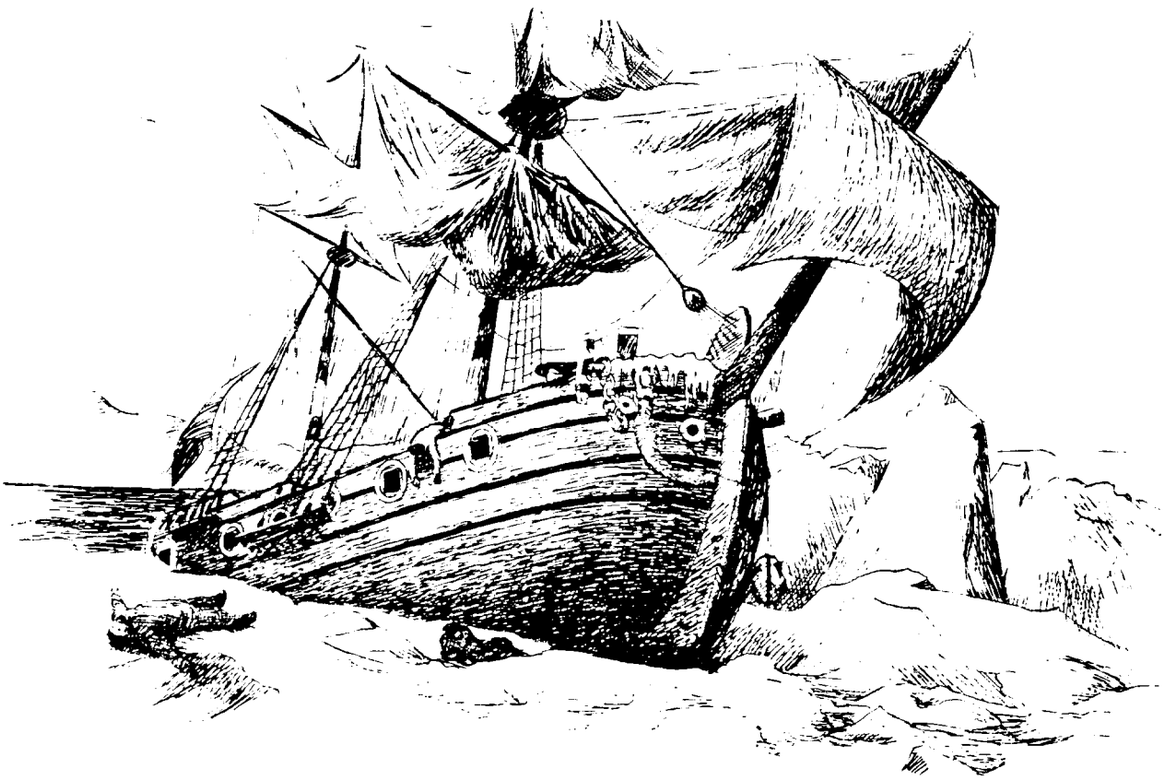
Bjarni brought back news of the lands he had seen to the west. The news excited the curiosity of the Vikings in Greenland. One who heard Bjarni's story was Leif Ericsson, the son of Eric the Red. Leif bought Bjarni's boat and he too headed west. Leif and his crew of some thirty-five men sailed west into the waters of the Arctic, then turned south. The Icelandic sagas tell us that Leif's ship passed Helluland (Baffin Island?) Markland. (Labrador?) and landed at Vinland. No one knows the exact location of Vinland. Probably it was somewhere between Nova Scotia and New York. When they returned to Greenland, Leif's crew told of the mild climate and wild grapes that grew in Vinland. They also brought back a profitable cargo of timber.



Bow of a Viking ship

The news of the new lands to the west of Greenland inspired further Viking exploration. Leif's brother Thorvald sailed west. Thorvald found some houses that Leif had built on his earlier voyage. This time the Vikings found that the western lands were inhabited, They called these native people *skraelings*. The *skraelings* were likely Inuit people, living in Labrador or northern Newfoundland. The *skraelings* attacked the Viking intruders. Thorvald was killed. and his crew fled back to Greenland. Another Ericsson brother, Thorstein. set out for North America a year or two later. Thorstein's ship ran into bad weather and was forced back to Greenland.

1. Make a model or display of a Viking ship at sea.
2. The Vikings brought back furs from the Arctic. Furs such as polar bear skins were prized by kings as far away as Egypt. Go to the library and find out about Viking trade routes and how furs from the Arctic would travel to Egypt.
3. The Vikings didn't stay in the Canadian North. but they did make permanent settlements in Iceland and Greenland. Go to the library and research these two northern lands. Compare and contrast their history and geography to that of the Canadian North.



THE SEARCH FOR THE NORTHWEST PASSAGE, PART I -

The Arctic wind howled angrily through the ship's rigging. Ice hung heavily from ropes. sails. spars and masts. There was ice in the beards of the sailors. The sailors, shivering in their wet and freezing clothing, moved carefully along the ice-coated decks. Beneath their feet. the ship's timbers creaked and groaned as the ice pressed against the wooden hull. The sailing ship move slowly, cautiously, through the ice-filled Arctic waters.

Suddenly there was a loud noise. The ship stopped dead in its path. throwing the frightened sailors to the decks. Now the only sounds they could hear were the icy Arctic wind and the flapping of the tattered canvas sails. The ship was stuck fast in the closing Arctic ice. One of the crew began to pray out loud.

If they were fortunate, some of the crew would survive the long Arctic winter. If not, they would join the many other European sailors who had died in the search for the Northwest Passage.

Europeans sailed westward in the fifteenth century, hoping to reach Asia. But the continents of North and South America blocked the way. Some English navigators felt there had to be a northern route to Asia around the top of North America. They called this northern route the Northwest Passage.

John Cabot is the first English explorer known to have entered Canada's northern

John Cabot sighting the New Found Land. *1497*

waters. In 1497, Cabot sailed west from Bristol, England, hoping to reach China, or Cathay, as it was then called. He passed along the coast of Newfoundland and landed on Cape Breton Island. claiming the area for the king of England. Cabot set out again the next year with a fleet of five ships. They were never seen again.

Cabot believed that he had reached the coast of Asia, The seamen who followed discovered that he had not found the riches of the East. Nevertheless, the information Cabot brought back from his first voyage led other sailors into Canada's northern waters in search of the Northwest Passage.

The first to search for the fabled northern passage was the English explorer Martin Frobisher. Frobisher spent 15 years trying to get money for a trip through the Northwest Passage. In 1576, Frobisher made his first trip to Canada's Arctic.

Frobisher did not find the Northwest Passage, but he did find some rocks that he thought contained gold. Over the next two years, Frobisher returned twice to the Arctic. This time he was looking for gold. not the Northwest Passage. On both trips, he took miners with him. The ore they brought back to England turned out to be "fool's gold." Frobisher gave up in disgust.

Frobisher may have been the first European since the Vikings to come into contact with the Inuit. The contact was not friendly. The Inuit attacked Frobisher and his crew. Frobisher captured some of the natives. These hostages were taken back to England as a curiosity. They died there, far from home.

Frobisher also brought back information that hinted at a large body of water further to the west. We now know that this large body of water is Hudson Bay.

Frobisher's discoveries suggested that the Northwest Passage did indeed exist. English merchants encouraged further exploration. They hired John Davis to find a northern route to the riches of the Orient. Davis made three trips to the Arctic between 1584 and 1587, but failed to find the Northwest Passage.

Left: A drawing of the Inuit made in 1675 for a history of Frobisher's voyages. Below: John Daws (standing) studies the globe

Henry Hudson

The next important explorer to search for the Northwest Passage was Henry Hudson. Hudson. a Dutch sailor. was trying to find a Northeast Passage, eastward over Russia to China. Hudson had to turn back from the icy waters north of Norway. He decided immediately to sail in the opposite direction. and reached the shores of North America. There he discovered the Hudson River, and followed it as far as he could. Hudson hoped it might lead to Asia. This hope was not met. but the trip led to the founding of the Dutch colony of New Amsterdam — today. New York.

Backed by England. Hudson set out again in 1610 to find the Northwest Passage. Hudson had the maps and reports brought back by Frobisher and Davis. Using their information, Hudson pushed westward through the Arctic waters. He passed through the ice-filled Hudson Strait and into a large, open body of water. Hudson sailed down the coast of this body of water. thinking it was the west coast of North America. In fact. Hudson and the crew of his ship. the Discovery, were sailing along the eastern side of Hudson Bay.

The Discovery and its crew became stuck in winter ice. The ship remained stuck until June of 1611. Provisions ran low over the winter. When the ice broke Lip. Hudson's crew wanted to go back to England. Hudson wanted to continue the search for the Northwest Passage.

Hudson's crew mutinied. They placed him, his 18-year-old son and seven sick crew members in a small boat. and set it adrift. Hudson and the others were never seen again.

The mutineers managed to sail the Discovery back to England. Their reports convinced many that Hudson had succeeded in finding the Northwest Passage.

"The Company of the Merchants of London Discoverers of the Northwest Passage" was formed in 1612 to continue the search for the Northwest Passage. Explorers like Baffin and Bylot were sent out by the Company in the hope that they might find the northern route to Asia.

Others followed. The Danish captain Jens Munck came to the Canadian Arctic in 1619. Thomas James tried to find the passage in 1631. Neither Munck nor James got any further than Hudson Bay.

The last voyage *of* Hudson

The early searches for a Northwest Passage ended in failure. They had cost many lives and much money. By the middle of the 17th century, the search was abandoned. It was not to be seriously pursued for another hundred years.

However. ships still came to the Canadian Arctic waters. The information brought back by the explorers told of rich furs. and of walruses and whales in the northern waters. Soon the explorers were followed by whalers and fur traders,

1. Write a story about spending a winter trapped in the ice while searching for the Northwest Passage. In your story use information you have learned about the Arctic environment.

z. Write a sea-charity about the search for the Northwest Passage (see p. 42).

3. Prepare a list of things you would want to take with you on a trip through the Northwest Passage, How many of these things were available in Martin Frobisher's day ?

4. Do you think it was fair for captains like Henry Hudson to make their crews sail into the North? Would the rewards have been as great for the crews as for Hudson? What might make a crew mutiny against a man like Hudson?

A drawing made around 1700 shows the Arctic riches of sea and fund (hat drew traders to the New World's northern extremes

NORTHWEST PASSAGE GAME

Materials:

ship marker for each player
1 die

Rules:

The object of the game is to make it safely through the Northwest Passage by ship. At the start of the game, all of the players place their ship markers on the *Start Square*. Each player throws the die to see who starts first. The player with the lowest throw goes first.

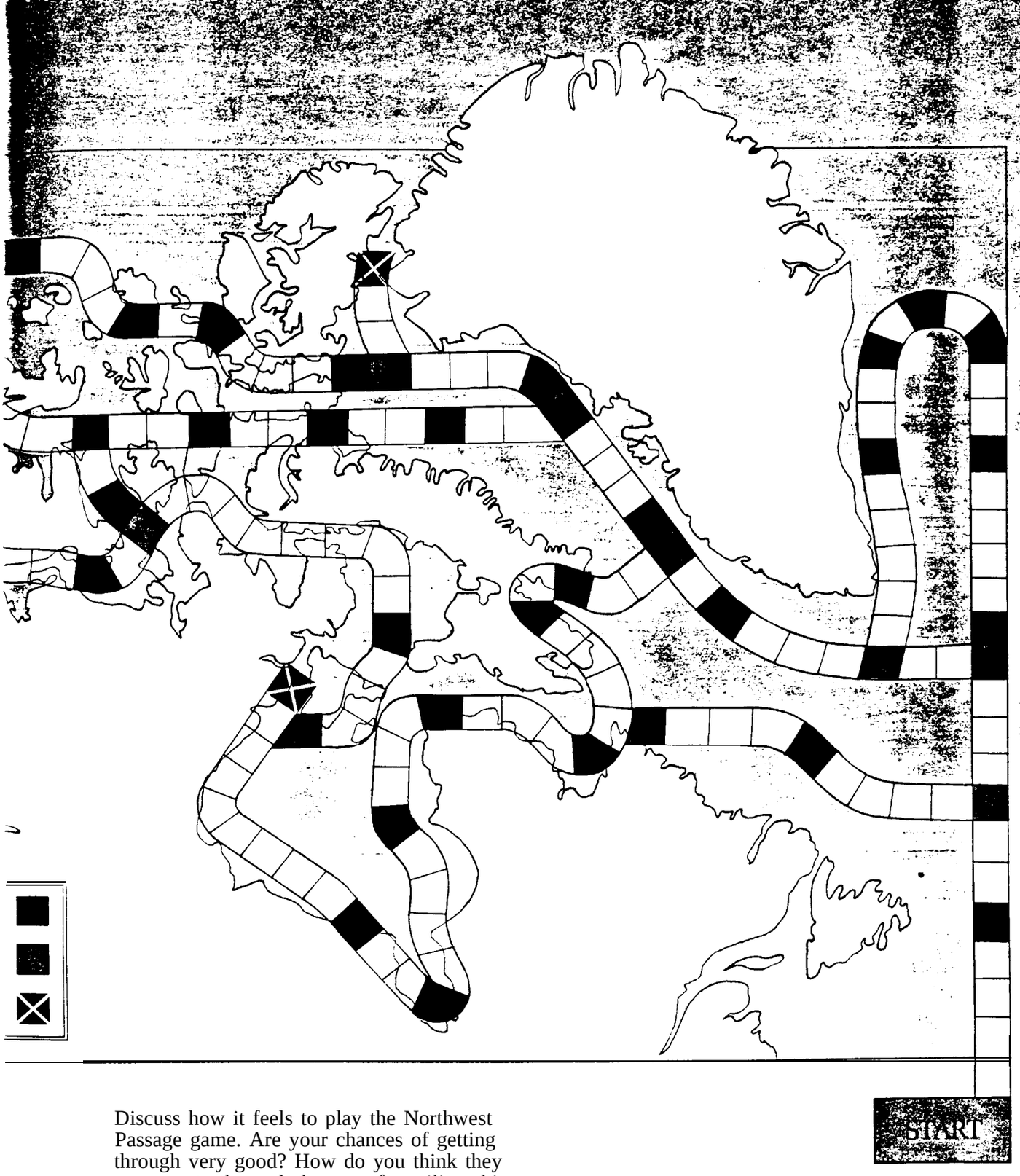
Play:

Each turn, the players throw the die once (unless required to miss a turn: see *Fate Squares* instructions). Each player then moves the number of squares shown on the die. Players who land on a *Fate* or Wind Change *Square* must follow the instructions given below before taking their next moves. If you reach a dead end, you miss one turn and then move according to the next throw of the die back onto the route.

Fate *Squares:* A player who has landed on a Fate Square throws the die once again. The following table tells the player's fate based on the throw of the die.

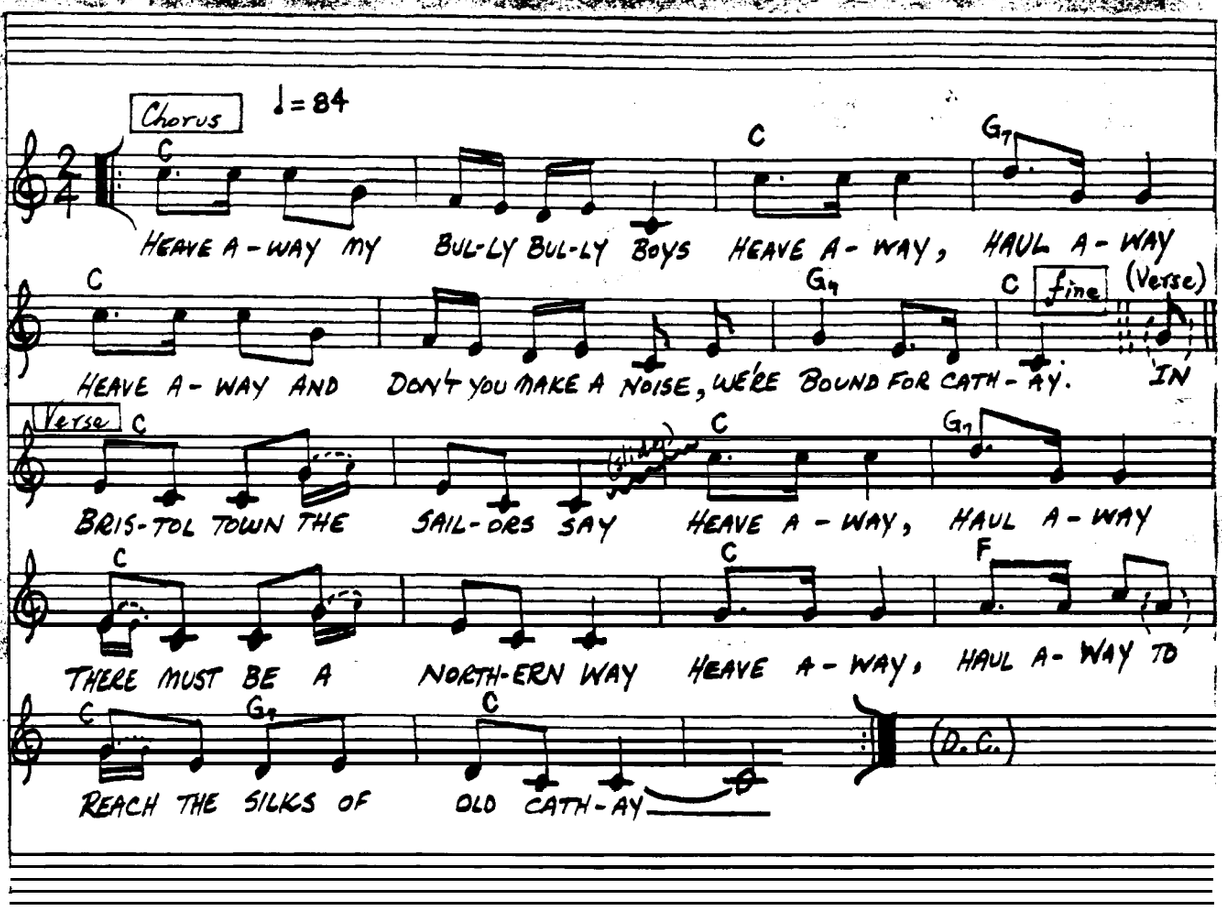
Throw	Fate
1	*Good* Winds – move twice the distance shown on the throw of the die this turn
2	*Ice* damages your ship – lose two turns while it is being repaired
3	Crew mutinies – return to Start Square and start over again with a new crew
4	Stuck in ice *for* the winter – miss 6 turns
5	Supplies run *low* – miss one turn for hunting trip
6	*Ice* breaks up – throw die twice this turn then move combined distance

Wind Change Squares: If a player lands on a Wind Change Square, the die is thrown again. If the number shown on the die is even (2,4, or 6), the player moves to the right (or straight ahead if the turn is to the left). If the number shown is odd. (1, 3, or 5), the player turns to the left (or straight ahead if the turn is to the right). The player then takes the normal next turn, moving the number of squares thrown.



Discuss how it feels to play the Northwest Passage game. Are your chances of getting through very good? How do you think they compare to the real chances of a sailing ship going through the passage?

NORTHWEST PASSAGE SEA CHANTY



HEAVE AWAY, HAUL AWAY

Heave away, my bully bully boys
Heave away, haul away
Heave away and don't you make a noise
We're bound for Cathay

In Bristol town the sailors say
Heave away, haul away
There must be a northern way
Heave away, haul away
To reach the silks of old Cathay

(chorus)

We're sailing north of Hudson Bay
Heave away, haul away
'cross the sea where the whale-fish play
Heave away, haul away
Across the North to old Cathay

(chorus)

Northern seas are dark and grey
Heave away, haul away
'' Guide us Lord, " the sailors pray
Heave away, haul away
Through the ice to old Cathay

(chorus)

Keep us safe through the frozen day
Heave away, haul away
Many have died along the way
Heave away, haul away
Trying to get to old Cathay
(chorus)

S. Garrod

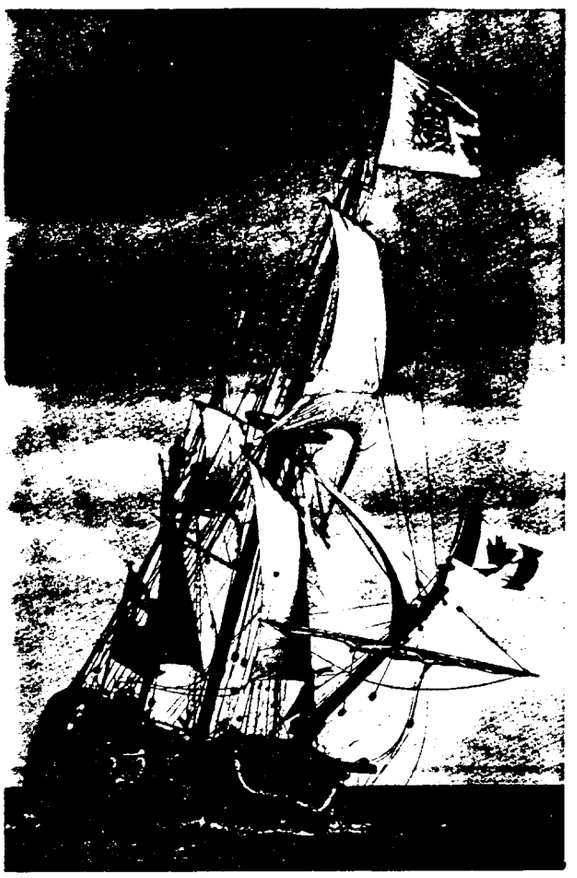
THE FUR TRADERS EXPLORE

The fur trade brought Europeans into the North, starting in the seventeenth century. Two things led to this northern search for furs. The first was the growing scarceness of fur-bearing animals along the St. Lawrence River, where the trade had gone on for many years. The second was the fierce competition between the French and English for furs,

Two French *coureurs de bois*, Radisson and Groseilliers, opened up the northern fur trade. They spent the late 1650s and early 1660s traveling through the Canadian Shield. There they found native peoples willing to trade for furs. Instead of being welcomed on their return to New France, they were arrested, All the furs they had were taken away. The reason ? They were not members of the company that had a monopoly on the fur trade in New France.

Radisson and Groseilliers turned to the English. They told English merchants in Boston about the furs of the North. The English provided them with two ships and, in 1668, they sailed north to Hudson's Bay. Radisson had to turn back, but Groseilliers sailed on in the *Nonsuch* into the northern waters. He spent the winter at Hudson's Bay. The next spring he returned with a rich cargo of furs. The English were convinced that the North was the source of furs they were looking for. The result was the forming of the Hudson's Bay Company in 1670.

Traders from the Hudson's Bay Company travelled throughout the North. setting up trading posts. The first fur forts they built were on the shores of Hudson's Bay, at places such as Fort York, Fort Severn and Fort Prince of Wales (now Churchill. Manitoba). Later. Company traders pushed further inland from the Bay in search of furs. The first to explore inland was Henry Kelsey. who travelled through the Canadian Shield area of northern Manitoba in 1690. Other traders followed Kelsey into the Shield.

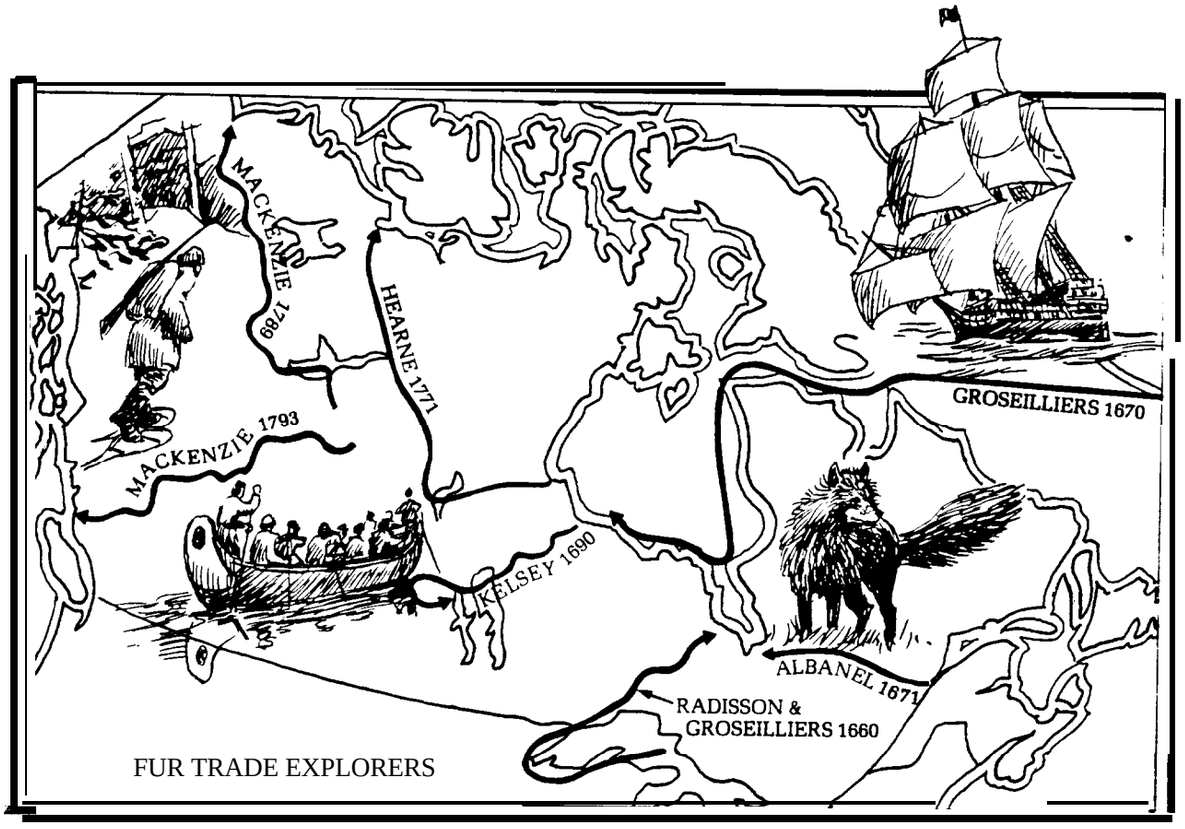


Groseilliers ship, *the* Nonsuch

Samuel *Hearne*

The search for furs was pushed even further north by men like Samuel Hearne. In the early 1770's. Hearne explored the area north and west of Fort Prince of Wales. His travels took him as far north as Coppermine on the Arctic coast. Then he travelled south along the Coppermine River to Great Slave Lake. Hearne's explorations added greatly to knowledge of the geography of the North.

In 1780. the northern fur trade became even more active. The Northwest Company was formed to compete with the traders of the Hudson's Bay Company. The traders of the Northwest Company set out boldly to find new sources of furs. They travelled far and wide into the north and west of what is now Canada,



FUR TRADE EXPLORERS

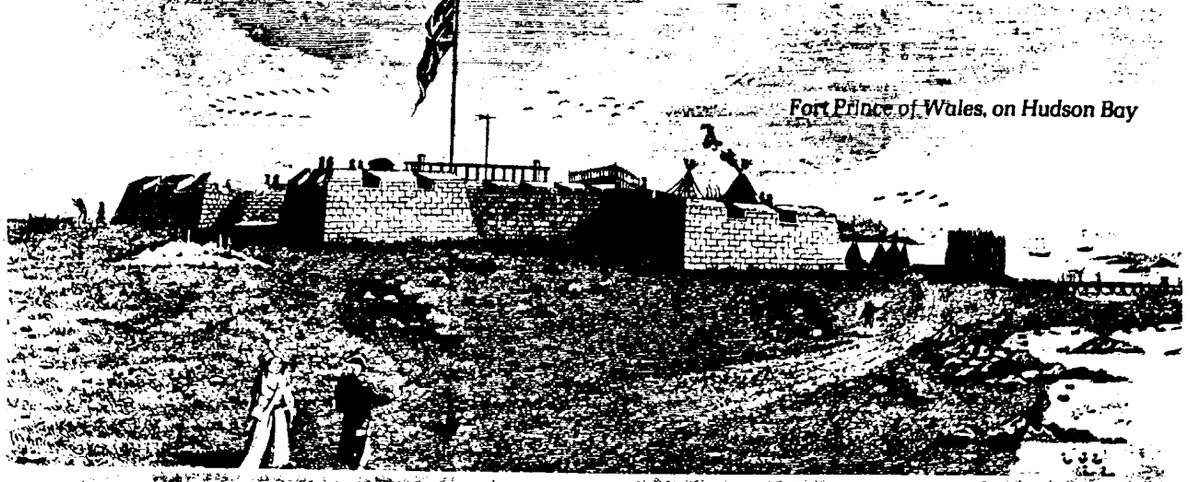
Alexander Mackenzie

1. Find out what a monopoly is. How does a monopoly affect the development of new ideas or exploration?
2. Why, do you think, were the English so eager to help Radisson and **Groseilliers?**
3. Make a large map of the Mackenzie River and the surrounding area. On your map show Mackenzie's route to the Arctic Ocean.
4. Furs are still valuable for high-fashion clothing. Today there are many people who oppose the trapping of fur-bearing animals. Find out some of the reasons for this opposition.

One of the greatest traders and explorers o: the Northwest Company was Alexander Mackenzie. In 1789, Mackenzie set out in search of a route to the Pacific Ocean. At the western end of Great Slave Lake. he and his voyageurs found a river that flowed west. Thinking that the river might lead to the Pacific. they decided to follow it. After a hundred kilometres. the river swung north. Swept along by its fast flow. Mackenzie followed the river to its mouth. But it was the Arctic Ocean. not the Pacific he had reached. Mackenzie called the river along which he travelled the "River of Despair." Today it bears his name. Four years later. Mackenzie would be the first European to travel overland to the Pacific,

Forbearing animals as drawn by an early visitor to Canada. What animals are shown ?

Inside a Hudson's *Bay* Company trading post



Fort Prince of Wales, on Hudson Bay

CHRISTMAS DINNER AT THE FORT ON HUDSON BAY

Roast wild goose
Roast Beef (from one of the draught oxen)
A dozen white partridges
A large piece of salt pork
Two large decanters of port wine
Two small decanters of Madeira

A trader at Fort Chipeweyan sorts *fox*, beaver, mink and other *furs*

THINGS TRADED TO THE HUDSON'S BAY COMPANY:

Beaver skins
Bear skins, black
Bear skins, brown
Bear skins, white or polar
Bear skins, grizzly
Badger skins
Buffalo robes
Castorum
Deer skins, rein
Deer skins, red
Deer skins, moose or elk
Deer skins, parchment
Feathers of all kinds
Fisher skins
Fox skins, black
Fox skins, silver
Fox skins, cross
Fox skins, red
Fox skins, white
Fox skins, blue
Goose skins
Lynx skins
Marten skins
Musquash skins
Otter skins
Oil. seal
Oil, whale
Salmon, salted
Seal skins,
Swan skins,
Walrus tusks
Wolf skins
Wolverine skins

THE SEARCH FOR THE NORTHWEST PASSAGE, PART II: THE MYSTERY OF THE FRANKLIN EXPEDITION

By the end of the 18th century, explorers were once again trying to find the fabled Northwest Passage. Many men died in this renewed search for the passage. Ships sailed into the Arctic waters and simply vanished, leaving no traces. They were exploring unknown waters. They had no radios to keep in touch with the outside world. They could not leave charts for search parties to follow.

Some ships were lost in collisions with icebergs, or crushed in grinding pack ice. The collisions and the cold must have killed the crews quickly. But other ships were caught by winter freeze-up. Their crews, while fortunate to still have their ships and supplies. had to face the hardships of an Arctic winter. Few had maps to guide them out of the North overland, Those who did have maps had to face the cruel hazards of winter travel in the Arctic – cold and hunger. Many probably clung to the security of their ship and perished. No one at home knew the fate of these men if they failed to return.

Sir John Franklin was an officer in the Royal Navy. He had led a number of expeditions to the Arctic in search of the passage. Franklin had surveyed more than 1000 km of Arctic coastline. His findings had convinced him that the passage was possible.

In 1845. Franklin was given the command of yet another expedition to find the Northwest Passage. By this time, the quest was no longer for a fast route to China. It had become a matter of British pride: the British government wanted to make sure no other country succeeded in finding the passage first. On May 18.1845, Franklin's expedition left England. He had two ships, the *Erebus* and the Terror, and 130 men.

On the 13th of July. Franklin met a whaling ship off the coast of Greenland. An entry in the whaler's log said that all Franklin's men were well and in good spirits. Franklin was

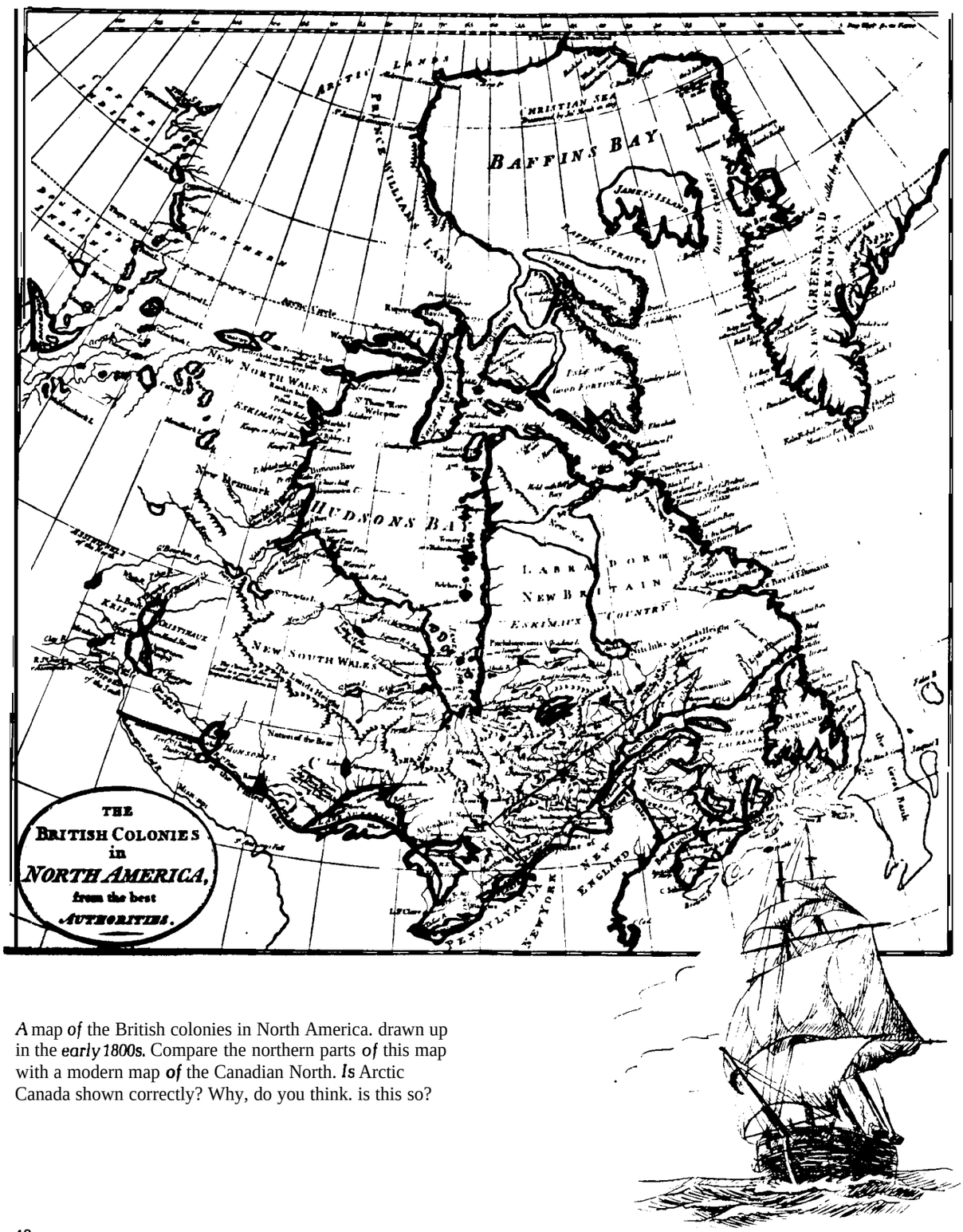
Sir *John* Franklin

confident that they would find the passage in good time.

By the fall of 1846. no one had heard from Franklin, No one had expected to. so there was no great alarm. When no word of Franklin had been received by November of 1847. the navy decided to send out three search parties the following year. Franklin's wife offered a reward of £2000 for the discovery of her husband.

In 1848. three searches were launched. One sailed across the Pacific, through Bering Strait. and into the western Arctic. Another sailed into the eastern Arctic, exploring Baffin Bay and Barrow Strait. A third search party was sent overland. They travelled along the Mackenzie River. then eastwards along the Arctic coast. All three searches failed to find any sign of Franklin, his men, or their ships.

In 1850. the search for Franklin was continued. Captain Robert McClure was in command. He sailed from the Pacific into the western Arctic Ocean. McClure failed to find Franklin. but his trip added valuable information about the geography of the North. Above all. McClure proved that the Northwest Passage did exist.



A map *of* the British colonies in North America. drawn up in the *early 1800s.* Compare the northern parts *of* this map with a modern map *of* the Canadian North. *Is* Arctic Canada shown correctly? Why, do you think. is this so?

McClure and his crew sailed east along the coast of Banks Island. From his charts, McClure knew that he was only about 100 km from Melville Strait. Explorers entering the Arctic from the east had sailed as far west as Melville Strait. McClure pushed on, even though it was September and the ice would soon be upon them. After 50 km their ship was stopped by ice. McClure and seven of his men travelled over the ice to see if they really had found the passage. After three days, they climbed a mountain. From its peak, they saw Melville Strait and Prince Albert Land to the east. To the west lay Banks Island. In between they saw water covered by ice. McClure was looking at proof that the legendary passage did exist,

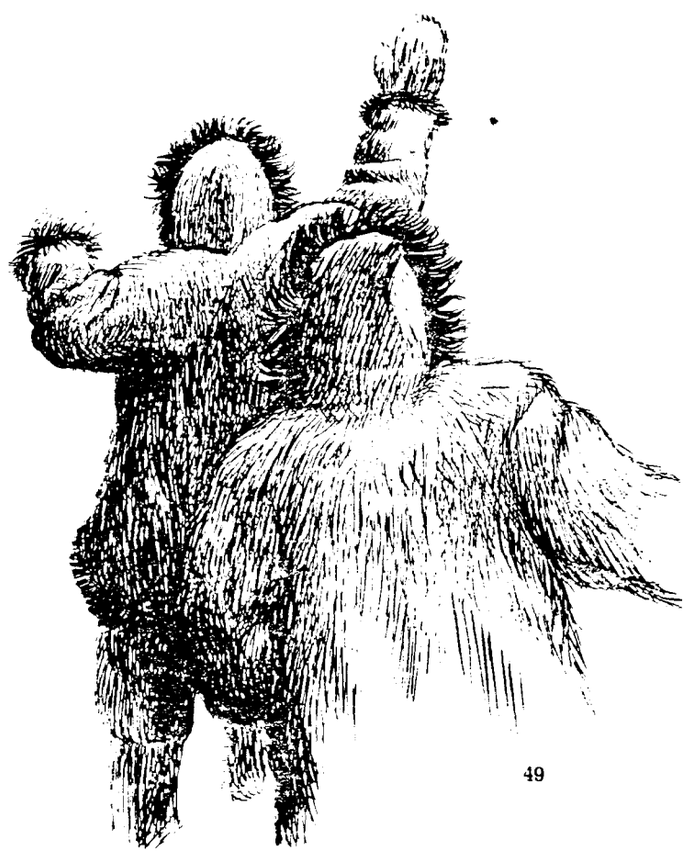
The following year McClure tried to reach Melville Sound but again was blocked by ice, only 40 km from his goal. He and his crew spent a second winter in the ice.

By now it was 1852. McClure, like Franklin. was considered lost and most likely dead. But Lady Franklin had not yet given up hope of her husband's life. Another search was mounted. this time for McClure as well as Franklin. McClure had left a letter on Melville Island saying he planned to travel to the west of the island. The letter was found by the search party. commanded by Captain Henry Kellett in the Resolute. McClure and his men were still alive! It was September, 1852. Kellett realized he would have to wait until the following spring to reach McClure by sea.

Meanwhile. McClure was unaware that there was a search party at Melville Island to the east. He was making plans to abandon his ship. stuck in the ice. McClure decided to set out in two parties. one going south. the other east, in hopes of finding rescuers. They would leave on April 14,1853.

A week before the planned departure. McClure and his first mate were walking on the ice near their ship. Theirs was a gloomy conversation. One of the ship's crew had died the night before, The two officers failed to notice a figure walking towards them from the rough ice at the entrance of the bay. As the man saw them he began to shout. They first thought he was a crew member being chased by a bear – but there was no bear to be seen. Then they realized that he was a stranger.

They ran to meet him. The man called out, "I am Lieutenant Pyre, of the Resolute. Captain Kellett is with her at Dealy Island." McClure rushed forward to shake his hand. They had been rescued.



Erebus Bay, *Beechey Island*, N. W. T.; the *last* winter *quarters of Sir John Franklin, as* photographed in 1904

Twelve days later, McClure was on board the *Resolute*. He wanted to stay in the Arctic and continue the voyage through the Northwest Passage. But the Resolute's doctors told McClure that all but two of his crew were suffering from scurvy. McClure reluctantly returned to England. There he received a hero's welcome as the finder of the Northwest Passage. But he had not sailed through it, only travelled over the ice that covered it.

Meanwhile, the fate of Franklin was slowly being discovered. The first real news came from an employee of the Hudson's Bay Company. Dr. John Rae. Dr. Rae met an Inuit who told him a startling story,

Four years before. some Inuit had seen many white men trying to make their way over the ice from King William Island. Later, the Inuit had come across the bodies of 35 of these men. They found a telescope, a gun and ammunition. But the white men had not found game on the mainland. From the evidence they saw. the Inuit learned that the white men had turned to cannibalism as they starved to death,

The Inuit who told the grim story to Dr. Rae had something to show him. He had found it at the white men's camp. It was a small silver plate. On it were the words "Sir John Franklin. K. C. H,"

Slowly. other pieces of the puzzle fell into place. A campsite was found, with tents and equipment. In it was a piece of wood on which was printed Terror, the name of one of Franklin's ships. But there was still no final word on the fate of Franklin and his men.

In 1857, Lady Franklin funded a final search for her lost husband. She bought the pleasure steamer Fox, and hired Captain Francis McClintock to lead the search. On King William Island. McClintock came across a frozen form lying on the beach. It was the skeleton of a young British sailor. Not too far off the search party found a journal that told them the fate of Sir John Franklin.

The *Erebus* and the Terror had been caught in the ice during the winter of 1847. Franklin had died during that winter. Early in 1848 many of the crew men were sick, and food was running short. The crews abandoned the ships and set out for the mainland. Ill-prepared and poorly equipped for the Arctic, they had all starved to death or died of sickness in the months that followed. Of the 105 men who had survived the winter of 1847. only 30 or 40 made it to the mainland, Soon they too were dead.

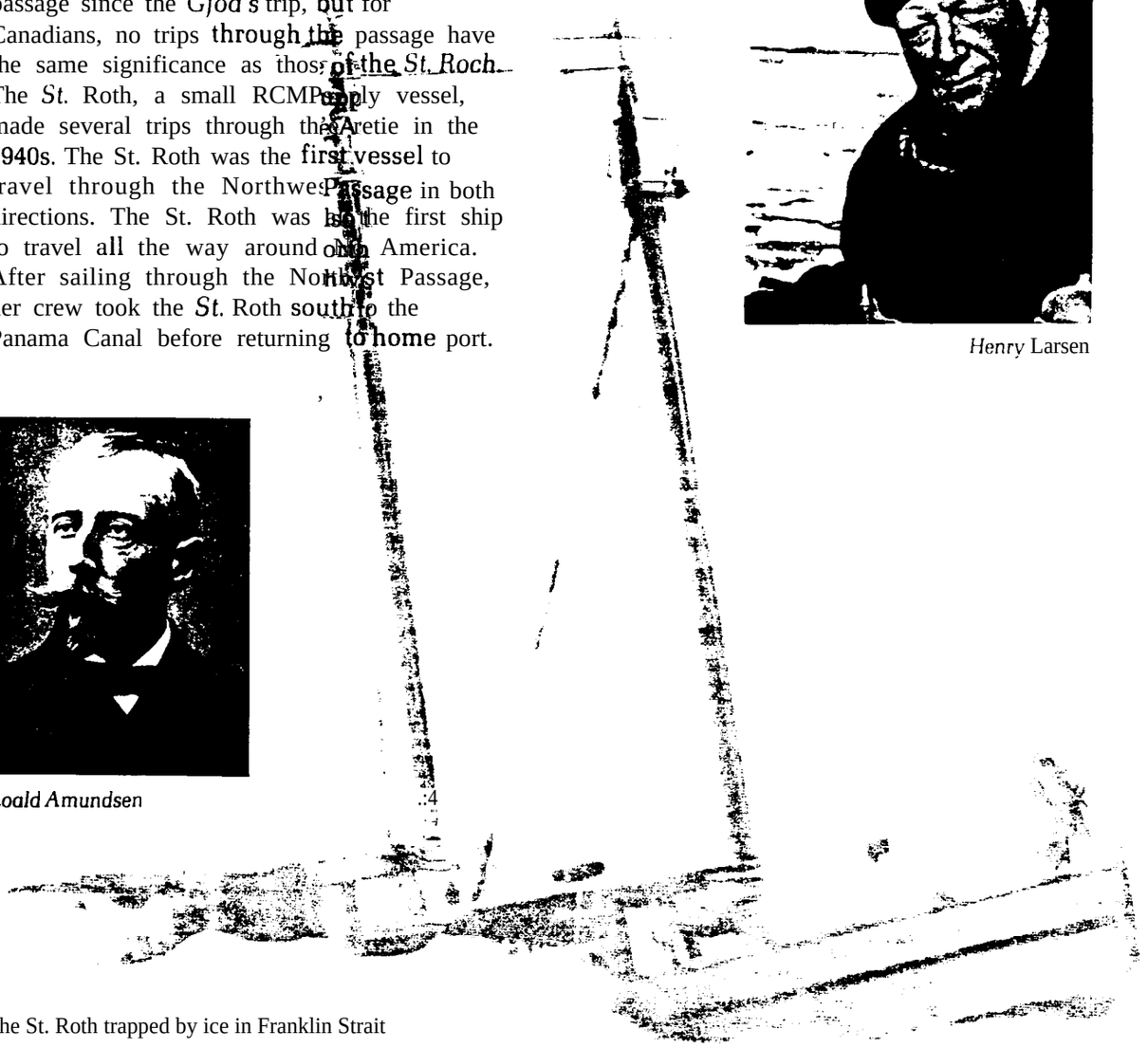
Compare the attempts by people like Franklin to find the Northwest Passage with space exploration today. How are they alike? How are thev different?

THE ST. ROCH

The Northwest Passage was not conquered until 1907. In that year, the Norwegian Roald Amundsen and six companions completed their voyage through the passage. They had taken four years to make the trip in a small yacht, the *Gjoa*. Following Captain Francis McClintock's advice, Amundsen had followed the southernmost route westward. McClintock's prediction was correct. The passage was navigable.

Other ships have sailed through the passage since the *Gjoa*'s trip, but for Canadians, no trips through the passage have the same significance as those of the *St. Roch*. The *St.* Roth, a small RCMP supply vessel, made several trips through the Arctic in the 1940s. The St. Roth was the first vessel to travel through the Northwest Passage in both directions. The St. Roth was also the first ship to travel all the way around North America. After sailing through the Northwest Passage, her crew took the *St.* Roth south to the Panama Canal before returning to home port.

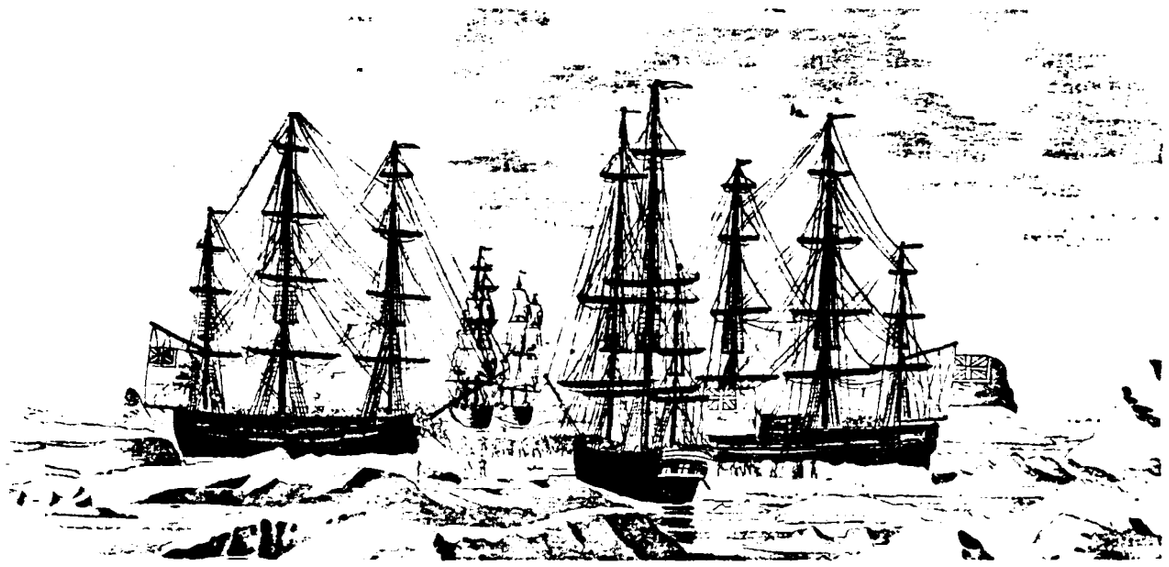
Roald Amundsen



The St. Roth trapped by ice in Franklin Strait

1. Find out about the voyage of the supertanker Manhattan through the Northwest Passage. Why was its trip important ?
2. People have proposed using submarines to ship goods through the Northwest Passage. What advantages would submarines have over regular ships ?

Henry Larsen



Arctic exploration ships meet Hudson's Boy Company vessels in an inlet hemmed by ice

DIARY OF AN ARCTIC SAILOR

Many of the people who went to the Arctic kept diaries. Here is part of one of them:

15 August: Wherever one looks from the crowsnest, there is nothing but heavy ice. No open water. In the evening, heavy rain.

16 August: Today, calm and rain. . . . At 8 a.m., the ship was freed from the ice. Five boats took her in tow through the masses of ice until 12 noon. Then we came to pack ice and could go no further.

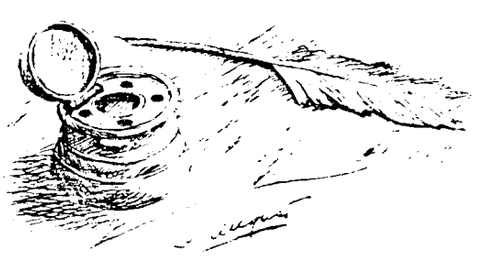
17 August: At 12 noon. came the north wind, We made sail and had a terrible time in the drifting ice masses. At 6 p.m.. we came into open water and sailed east.

18 August: The captain decided to go into the ice and sail straight to the pole. The wind was strong and fair. The lanes between the ice were very narrow. The copper plating and splinters of wood were torn from the ship's sides. The wind drove us at 14 to 15 kilometres an hour. Many things were smashed and thrown about by the heavy blows of the ice.

19 August: Last night was sleepless. I was twice thrown from my bed by the thunderous shocks of the ice. Today, snow. ruin, and fog, so that one can barely see 200 paces. The ice grows ever heavier and the lanes narrower. The ice rose 4 to 5 metres above the sea. Many blocks are so big you could build a city on them. Now there was no more hope of going to the north through the ice. Yet we could not go back, but lay there quite helpless.

20 August: Thick snowy weather and calm. From 3 to 8 a.m., the ship was freed from the thick-packed ice-blocks. It was towed back by five boats through the ice – the work of galley-slaves. At 4 a.m., we finally came into open water, The sailors had worked very hard. They had spent eight hours at the oars. They could do no more. The ship was anchored.

adapted from the diary of Johann Miertsching. 1850-1854



THE KLONDIKE GOLD RUSH

The prospector Robert Henderson told his friends, "Go to Bonanza Creek, boys. You're sure to find gold there." George Washington Carmack followed Henderson's advice. Carmack and two native friends, Tagish Charlie and Skookum Jim, began panning for gold in Bonanza Creek. On August 17,1896, they found what they were looking for. There was gold in the Yukon.

News of the Bonanza Creek discovery soon spread. Newspapers in Toronto. New York, London and San Francisco carried stories of Yukon gold. Thousands of men and women read the stories eagerly. The lure of gold and riches to be had in the Yukon pulled them north. By train and ship thousands of gold-seekers travelled to Seattle and Victoria, the jumping-off points for the Klondike.

In those two cities, the would-be miners loaded up with supplies, then boarded small ships to take them north. Life aboard ship was rough. Many of the gold-seekers were seasick.

Hopeful miner panning *for gold*

Thousands struggled through the steep *Chilkoot* Pass to get to the *Klondike* gold fields

Actresses ford a river on their way to the Klondike

Some gambled away all their money and supplies during the trip. Some of the prospectors never reached the North. Many ships were lost on the stormy seas of the north Pacific.

The Klondike-bound miners who survived the sea voyage set foot on dry land again at Skagway. Alaska. From there they travelled over the steep Chilkoot Pass into the Yukon. On the shores of Lake Bennett they stopped to build boats. Traveling north along Lake Bennett, they reached the Yukon River, which carried them north to Dawson.

The great rush of miners made Dawson the largest town in Canada west of Winnipeg by 1900. The boom of the gold rush ended a few years later, and Dawson became little more than a ghost town. But the few years of the gold rush were exciting ones in Dawson. There were fortunes made and lost — both in the mines and at the gambling tables in the saloons.

Sternwheelers travelled up the Yukon. They brought not only miners. but also professional gamblers. tourists. thieves, journalists and entertainers. People came from all over the world to visit the gold capital of the world. Today. people still come to visit the town of Dawson and remember the Klondike Gold Rush.

Klondike miners "working a claim"

1. Find out why gold is so valuable. What is it used for besides jewelry and money?
2. Prepare an oral or written report about life in Dawson during the Gold Rush.
3. If there were a major new discovery of gold in the North today what do you think would happen ?

CHAPTER FOUR

THE MODERN NORTH

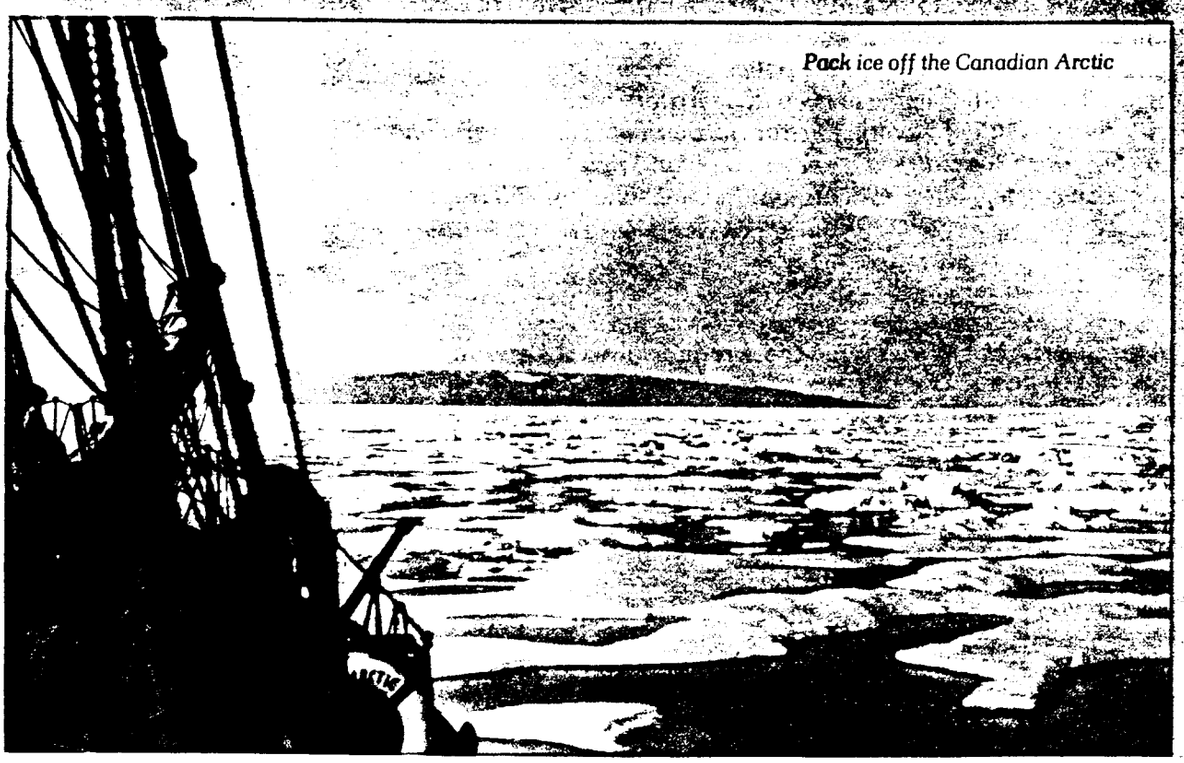
CANADA CLAIMS THE ARCTIC

The Arctic islands became part of Canada in 1909. In that year, the famous Quebec sea captain and explorer Joseph-Elizear Bernier claimed all the islands north to the Pole for Canada. In a speech given in Toronto in 1926, Captain Bernier told the story of how Canada claimed the Arctic as its own:

I have taken possession of all the Arctic Islands that belonged to England. Some of them had been surveyed by Franklin, McClure, McClintock and many others.

I am now 75 years old and still going strong. I spent a lot of energy in conquering those islands in the North. But I was helped by the knowledge I got from others. No credit is due to me. I followed those other famous explorers whose records I read.

In order to navigate the North, you must have a good ship. The Canadian government bought my ship, the Arctic. I made twelve trips to the North with her. With a good ship and a proper crew, working together with nature, you can succeed. There is no other way.



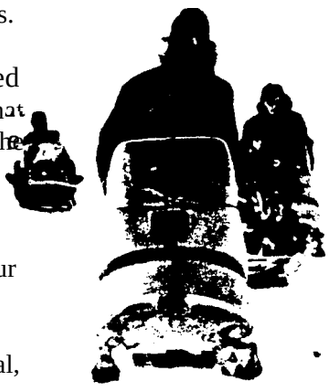
Pack ice off the Canadian Arctic

We travelled through heavy ice near Baffin Island. This island was given to us by Great Britain in 1880. Today I tail it Canadian territory. The natives there are no longer Eskimos. They are Canadians and we must look after them.

I first took possession of Baffin Island in the presence of several Eskimos. After firing 19 shots, I instructed an Eskimo to fire the 20th, telling him he was now a Canadian. A similar ceremony was observed on Jul y Ist, 1909, when I took possession of all Arctic Islands between Canada and 900 North Latitude. I setup a table on a rock the explorer Peary had carved with his initials. It marks the obtaining of this territory for Canada.

We then held a vaster land than Canada had been before. I have always taken the position that the Arctic up to the Pole belongs to Canada. This is not a place of desolation, as you may regard it, but a territory of great value to Canada.

The reason we claimed the area was to protect our fishing rights. We used to let the Americans hunt and fish for free in these lands. Now we ask them to pay $50 for a permit. In 1922, the Arctic dropped off police to protect our h un ting and fishing rights in the North. What was the use of making the American fishermen pay? Well, when the matter of who owned the Arctic came up in court, we could say the Americans had paid Canada for the right to fish there. The land must belong to Canada.



Since 1922 we have kept the police on these islands to protect our rights, The time has come to keep this territory secure for our children. It is full of wealth, like the northern parts of Ontario and Quebec. We have claimed a vast area of land rich in deposits of coal, iron, and copper. There is abundant fishing, whaling and trapping.

adapted from a speech to the Empire Club of Canada. 1926

Who else might have claimed the Arctic Islands if Canada had not done so?

An RCMP patrol in the North

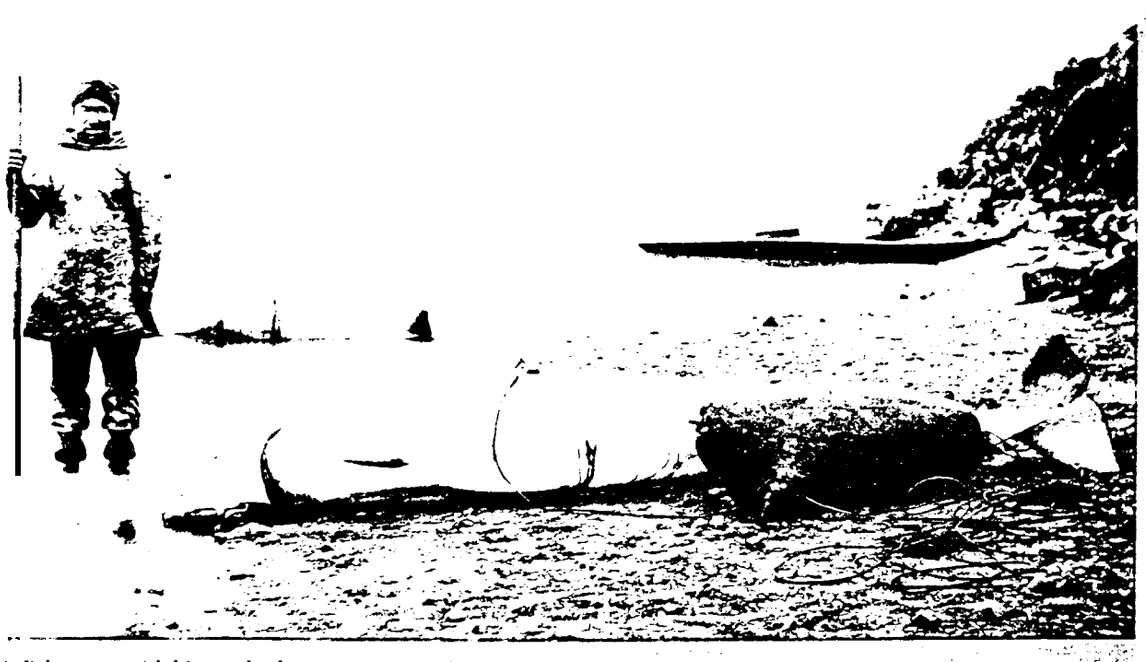
AN INUIT VIEW OF THE HISTORY OF THE NORTH

A lot of people seem to wonder why the Eskimos don't take the white man's word at face value any more . . . Well, from my point of view, it goes way back, right back to when the Eskimos first saw the white man.

Most of them were whalers, and the whaler wasn't very nice to the Eskimo. He just took all the whales he could get and never mind the results. Who is paying for it now? The Eskimo. There is a quota on how many whales he can kill now.

Next, following the whaler, came the white traders and the white trappers. The white traders took us for every cent they could get. You know the stories in every history book where you had to trade a pile of furs as tall as a rifle to buy a rifle from the trader. Those things were not fair. The native lived with it — had to — to get that gun, to make life easier for himself.

Then there was the white trapper. He came along and he showed the Eskimo how to use the traps, steel-jawed traps, leg-hold traps. For the first 70 years when they were being used, there were no complaints down south about how cruel those traps are — as long as there were white trappers using them. Now for the last five years they are thinking of cutting us off, but they haven't showed us a new way of how to catch those foxes.



Inuit fisherman with his catch of porpoises, around 1865

. After them, after the white trappers and fur traders, we have all the settlements, all the government people coming in and making settlements all over. Telling the people what to do, what is best for them. Live here. Live there. That place is *no good for you,* Right here is *your* school. So we did — we all moved into settlements, and for the 195os and 1960s we nearly starved. Most of us lived on rations because we were not going out into the country to hunt any more. Our kids had to go to school. '.

'Then the oil companies. Well, the oil companies, I must say, of all of them so far that I have mentioned, seem to have the most respect for the people and their ways; but it is too late. The people won 't take a white man 'i''word at face value any more because they fooled us too many times. They took everything we had and gave us nothing. They took all the fur, took all the whales, killed the polar bear with aircraft. . . . All that we pay for.

Now they want to build a pipeline and they say they're not going to hurt the country while they do it. They're going to let the Eskimo live his way, but he can't because the white man *has* taken *over,* taken everything out of the coun try, and he's also taken the culture, half of it *anyway,* . . . For the Eskimo to believe now that the white man is not going to do any damage out here is just about impossible, He hasn 't proven himself worthy of being believed *an y* more. . . .

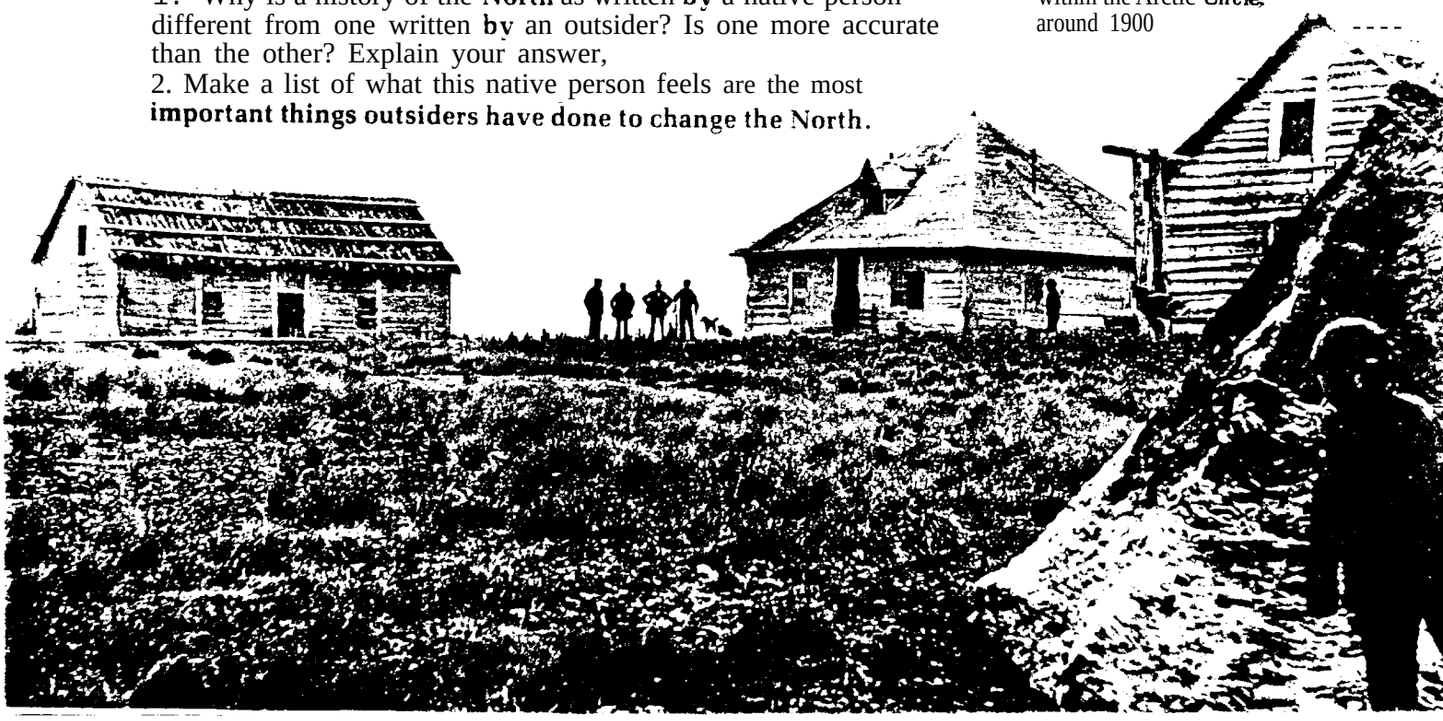
The Eskimo is asking for a land settlement because he doesn 't trust the white man any more to handle the land that he owns, and he figures he's owned for years and *years.*

adapted from the Berger Commission Report. 1977

Inuit child carries a box of detergent home from the store

1. Why is a history of the North as written by a native person different from one written by an outsider? Is one more accurate than the other? Explain your answer,
2. Make a list of what this native person feels are the most important things outsiders have done to change the North.

Fort McPherson, a Hudson's Bay Company tradir post within the Arctic Circle, around 1900



MINERALS

Everywhere there was fire, the ancient element. Hot gases swirled, releasing the energy of millions of shattered atoms. The fires cooled. and the elements came together again. Rock flowed, molten from the early fires, then, cooling, became solid. The Earth's crust was formed. Volcanoes erupted and the land rose. Rains fell and great seas surrounded the highest points of land,

One billion years ago and more, all there was to North America was a ridge of high land, Where the Canadian Shield lies today. there was a high and rugged mountain range. Higher than the Rocky Mountains, it was surrounded by the waters of ancient seas,

Earthquakes rocked the land, shattering rocks as these young mountains rose above the seas, Deep in the heart of the earth, the ancient fires had not cooled. Hot liquid rock, called magma, flowed into cracks of the shattered mountain rock. The liquid magma contained gold, silver, lead, zinc. copper and many other minerals,

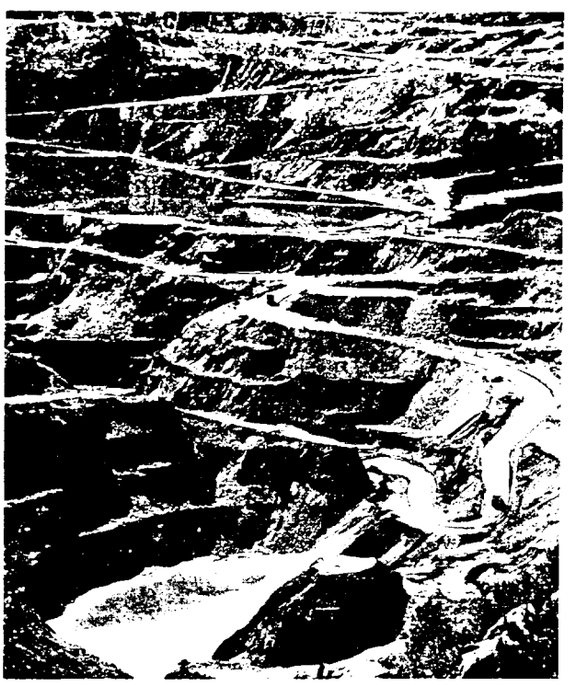
During the hundreds of millions of years that followed. the high mountains were worn away by erosion. Ice. snow. heat. wind and water. working slower than the human eye can see, chipped away at the mountains. Rivers and glaciers cut their way through the mountains. They carried the mountains piece by piece out to sea. deposited as a sediment. Then came the Ice Ages. Great sheets of ice slowly moved across the land like giant bulldozer blades. leaving a flat landscape of lakes and low rolling hills. And. in many places. bare rock.

Bare rock. The oldest. hardest rocks on earth. Where towering mountains stood, the Canadian Shield crouches, made up of the oldest exposed rock on earth. Exposed too are the pockets where the magma flowed. leaving behind its rich deposits of minerals.

A lone Indian hunter stops and camps for the night. In the rocks that surround his campfire. he notes one rock that stands out. It glows a rich. dull orange in the firelight. Curious, the hunter taps it with another rock. The reddish rock changes shape, flattening beneath his blows. He shapes the rock into a knife blade and wears the new knife proudly, He calls it yellowknife.

A European fur trader recognizes the metal of the hunter's knife blade, It is copper. The trader knows the many uses of copper, Combined with tin and other minerals, it can be made into brass or bronze, He tells others of his discovery.

The search began in earnest. The lure of precious minerals brought men to search the Shield for minerals. First on foot. on snow shoes and by dogsled the prospectors came to the forests of the Shield. They found not only copper, but also silver. gold. iron and nickel. Over time, mines were opened up, and the Shield became the world's leading producer of many important metals. Cities such as Sudbury grew up around the mines. and more Canadians moved into the Subarctic,



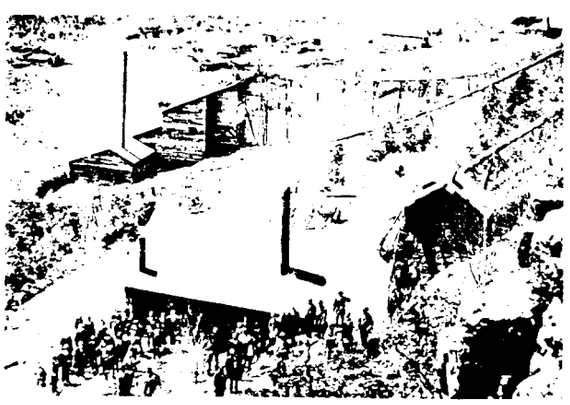
Strip mining at Atikokan, Ontario. This type of mining is done above the ground. stripping layers of minerals away from the surface instead of digging them out of a mine.

The Subarctic contains some of Canada's most important mineral deposits. They include iron ore, nickel, copper, gold, platinum, and uranium. Major mining operations have been established at many sites across the Canadian Shield. The accompanying construction of roads or rail lines have helped in the development of other resources such as nearby forests.

The Quebec area of the Shield contains a number of major mineral deposits. Mining first became important in Quebec in the 1920s, and is now worth about $800 million a year. Major iron ore deposits have been found in the Ungava area. straddling the Newfoundland border in Labrador. Most of this iron ore is shipped by rail to iron and steel mills for processing.

Most of the value of mining in Ontario comes from metals such as nickel, copper, zinc, and gold. Sudbury is the leading centre of both copper and nickel mining, the two most important minerals produced in Ontario. Iron mining has grown steadily in importance in Ontario since the Second World War, Iron ore from Steep Rock Mines is shipped by boat to steel mills in Hamilton. Gold was once the most valuable mineral mined in Ontario. But it has declined in importance as mines have become exhausted.

The northern areas of the Prairie provinces also lie within the Canadian Shield area. Here



Silver Mountain mine, *Algoma.* Ontario, 1899

Chunks *of* ore-bearing rock spew *off* a conveyor *belt* at a modern mine in Manitoba

are major mining operations for copper, nickel, and uranium at places like Flin Flon. Manitoba and Uranium City, Saskatchewan.

The Northwest Territories contain some of the most promising mineral deposits of the region. including gold and uranium. Major lead and zinc deposits at Pine Point have led to the construction of a railroad north from Alberta.

Commercial development of the Far North's mineral resources has been slow. The costs of development and transportation are very high. In 1977. the first mine in the Canadian Arctic was opened on Baffin Island. Lead and zinc ores from this mine are shipped by an ice-breaking cargo ship to markets in the south. The mine was opened with the help of federal government money. At least 60% of the employees must be native people.

1. Why, do you think, would the government want 6070 of the workers at a mine on Baffin Island to be native people?
2. How might working in a mine for high wages affect the life of a native person ?

OIL AND GAS

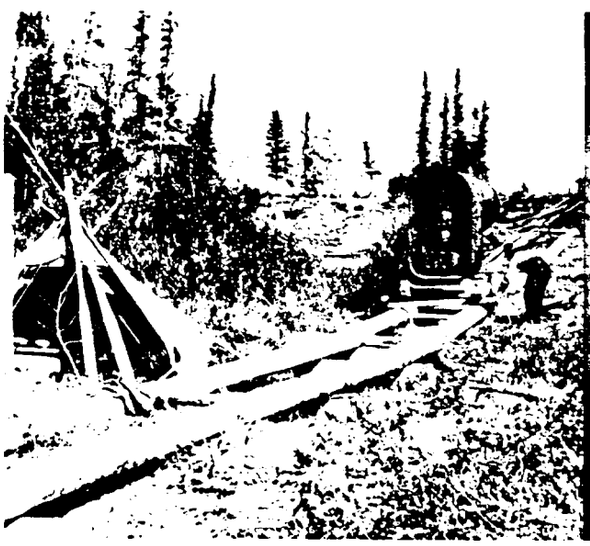
It is not only the rock of the Shield's ancient mountains that contains wealth. So does the sediment that was carried from the mountains as they were worn away.

During the time when the mountains stood high in the Canadian North, the climate was warmer. Tropical plants and lush green trees grew on their slopes. In the seas that covered what are now the prairies, millions of small plants and animals thrived. As the mountains wore away, the sediment from the erosion mixed with the plants and animals of the shore and sea. Beneath the pressure of sediment and sea water, the decaying plants and animals turned into oil and natural gas. As the seas dropped. some of the sediment became land – forming the great plains to the west and the Arctic coastlands to the north. These areas are rich in oil and natural gas.

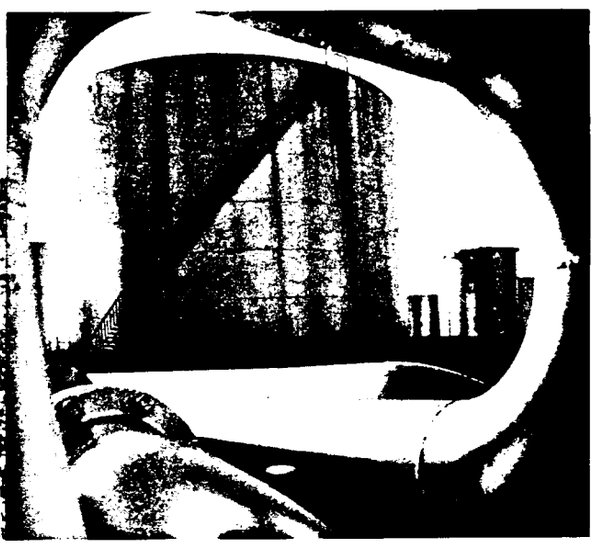
The northern search for oil and gas began in the Mackenzie Delta and the Arctic islands. Over the years it reached even the floor of the Arctic Ocean, using drilling ships. Much oil and natural gas have been found. But these resources have not yet been developed. First, a vital question must be answered: Can northern oil and gas resources be tapped without seriously damaging the northern environment and the lives of the native people of the region ?

Many ways of transporting oil and gas from the North have been suggested. Some oil companies would like to move the oil in giant supertankers from Alaska to refineries in British Columbia, Washington, or California. Others have proposed shipping the gas and oil through pipelines running from Alaska and the Northwest Territories down to Alberta. One company would like to see a railroad built from northern British Columbia into Alaska and the Yukon to carry oil southward.

Any one of these ways of shipping oil and gas requires very careful consideration. Often the newspapers are filled with stories about pipeline or oilport hearings. These hearings. held by the government, let people affected by the proposed oil pipeline or tanker route express their thoughts and feelings.

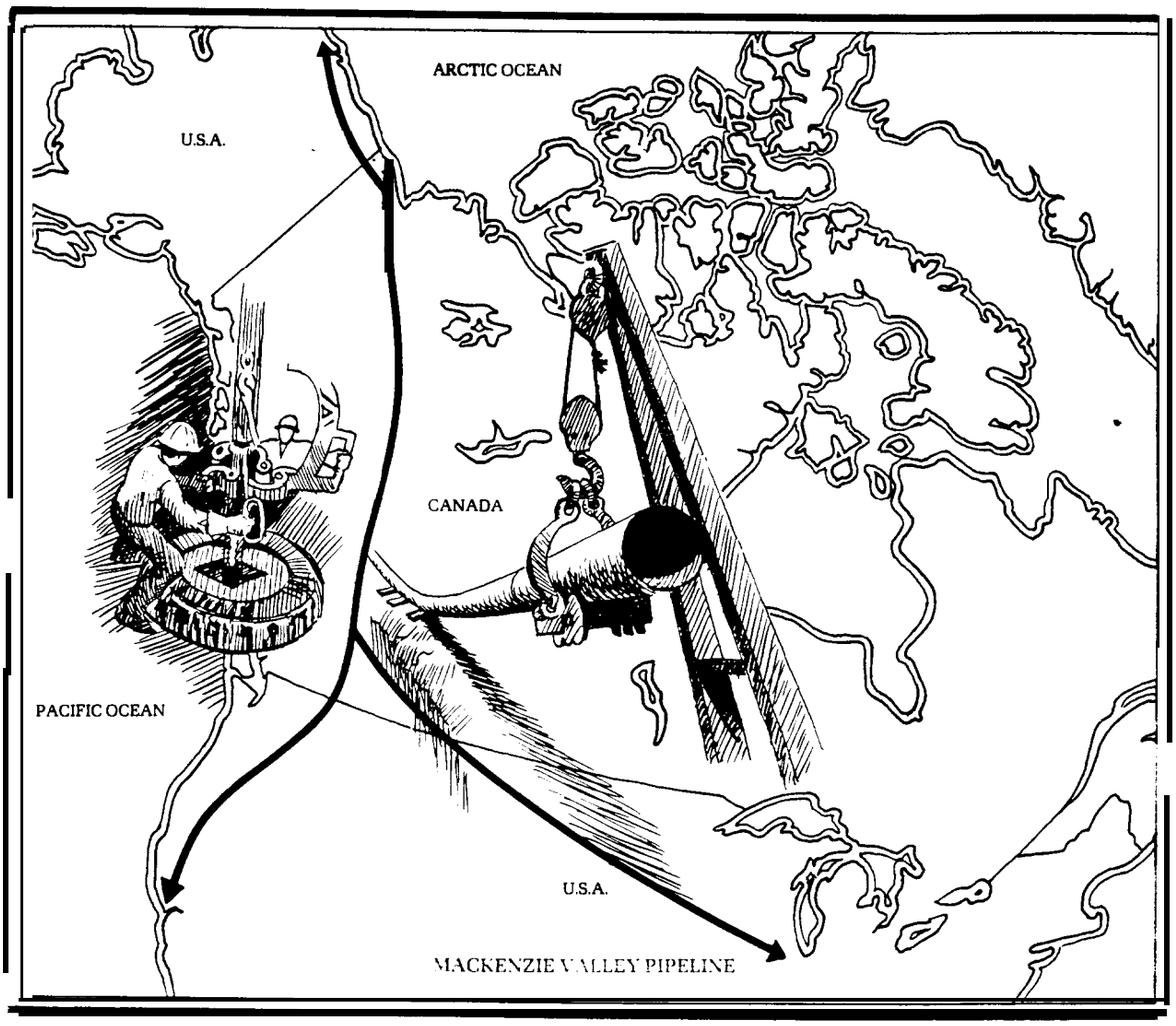


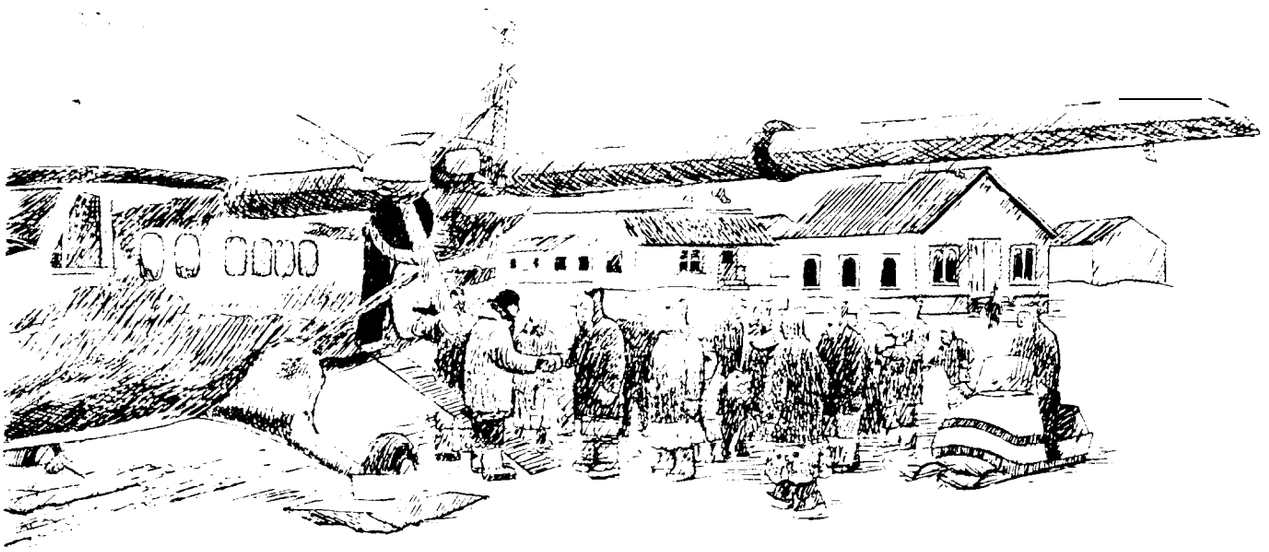
Moving equipment onto the oil-drilling site ot Norman Wells. N.W.T., 1919



Massive piping and storage tanks at Norman Wells today

One of the most important projects. the proposed Mackenzie Valley Pipeline. required three years of hearings. The hearings were conducted by Judge Thomas Berger. Judge Berger listened to Inuit hunters and trappers, to Indians and Métis. to business people, oil company officials and scientists, He heard these people talk about the effects the pipeline would have on the North. Many things were discussed: the effect on small villages. on the wild animals. on the native way of life. on the economy of northern towns.





JUDGE BERGER IN SACH'S HARBOUR

The small twin-engined airplane passed over the village. As it began its final approach, it passed over the village school. Hearing its engines, the children rushed to the door. They pulled on their parkas and ran out into the cold Arctic afternoon. As they ran over to the airfield, they were joined by the adults of the village. Some were riding on snowmobiles, Others were walking or running.

The Twin-Otter landed. As its skis touched down. the propellers sent a fine cloud of powdery snow swirling. The weak sun of the early March afternoon sparkled on the blowing snow as the plane came to a halt,

The propellers spun slowly and then stopped. The door of the plane opened, Everyone looked to see who was getting out, Men and women, dressed in parkas and heavy gloves. stepped down from the aircraft. They unloaded cameras. tape recorders and typewriters from the plane. A second plane landed. taxiing over to join the first.

The passengers on the second plane included the man everyone had come to see. Judge Thomas Berger. of the Supreme Court of Canada. stepped down onto the snow-covered runway.

The village meeting hall in Sach's Harbour was packed with people. Extra chairs had to be brought over from the school. At the front of the room. tables had been set up. There were microphones set up for people to speak into. Wires from the microphone ran across the floor to tape recorders. Photographers moved around the room. taking pictures. People leaned towards their neighbors, chatting excitedly as they waited for the meeting to begin.

Judge Thomas *Berger*

Judge Berger rapped gently on the table. The room suddenly became very quiet. "We will call our meeting to order now, " he said. "' am Judge Berger and I am going to take a minute or two to tell you why I'm here.

"Two companies want to build a pipeline. They want to bring natural gas from the Arctic to southern Canada. The pipeline may also bring gas to the United States. The government of Canada has to decide if they will allow the companies to build the pipeline. So they've sent me here. They want me to find out what will happen to the North if a pipeline is built.

"If the pipeline is built, oil and gas exploration will reach all parts of the Arctic, We are told that the pipeline will be the largest private construction project in history. Six thousand workers will be required to build the pipeline. Twelve hundred more workers will be required to build gas plants. The job will take three years to complete.

"We are told there will be many jobs for native people. There will be jobs for you building the pipeline. There will also be jobs for northern people in the exploration and drilling for gas and oil. I want to know what you think about all these things.

"I want to know what you think will happen to the North if the pipeline is built. I am here to listen to you and to tell the government what you say. We have already listened to the people of 23 other northern communities. Your words will be joined with theirs in a report to the government. The government has said that it will not let the pipeline be built before it has received my report.

"I have invited some people from the oil and pipeline companies to the meeting. Some government people are also here. I want them to hear what you have to say. This way they will know what you think and feel about the pipeline.

"I am ready to hear from you as soon as Mrs. Albert has translated my words."

[Mrs. Rose Albert repeats Judge Berger's words in the Inuit language,]

Interpreters translate from English into *Inuktituk* and vice-versa

THE SPEAKERS:

Peter **Esau**: Building the pipeline is a big decision to make. Especially if they start working in the ocean, We count on the animals that live there for our food.

Walter Lucas: I first came to Sach's Harbour in 1958. There used to be lots of animals then. Since the oil companies started working here these last few years, there are hardly any seals around.

I'm worried about my children. They are learning a lot of English. They may forget their own language and our way of life. I'm worried about what they are going to do after the oil companies come.

I'm worried about myself too. I live here. This is the only place I know how to live.

Fred Carpenter: I moved to Sach's Harbour in 1938. Jim Wilkie and I bought a schooner named the "North Star, " We sailed her to this harbour. It was a good place to fish and to live. I've been here ever since.

It was good until the oil companies came. Now it's so bad there are hardly any seals around. The polar bears are starving too. A couple of polar bears came right into the village and ate a live dog. A live dog! That's how hungry they were.

The future looks kind of scary to me. I'm scared of what's going to happen. I think there are going to be very few animals in the water.

I know it's pretty hard to live without oil. Everybody probably needs oil for one thing or another. We use it too. in our outboard motors and skidoos. But I'm worried about the ocean if all the animals die. That's what I'm really worried about — what will happen if they all die?

When they drill for oil on land. I don't think all the animals will disappear. But. I'm worried about the water. Since they started blasting in the ocean. the seals vanished. Some die from fright. scared by the blasting. Others are killed by the explosions.

We try to teach our kids how to grow up right. We try to teach them how we lived, But. if the government keeps on doing the kinds of things it's doing now. I don't know what kind of future our kids will have,

Peter Esau: The seismic crews are causing trouble along our traplines. Some of the crews spoil our traps. I think they even do it on purpose. When we talk to the oil companies. they don't seem to care. They don't listen to us.

I shot a caribou that had seismic wire caught in its horns. I took pictures of the caribou. If you'd like I could show them to you later.

Susie Tiktalik: People have asked me to talk because I have lived on Banks Island since I was very small.

Long before you were born, many generations before you were born, people lived here. Even before my parents came, there were many people here.

I will tell you about my parents and their names. My father's name was Kulapik and my mother's name was Nirijug. They travelled to this area long ago. This I remember even though I am now very old. They came here because they wanted to live off this land. There were many musk ox in this area and there were lots of geese at that time in this part of the country.

My parents came to the Egg River to collect eggs and hunt geese. [Interpreter points out the

Oil-drilling operation *on Kugmallit Island* in the Canadian Arctic

Egg River on map of Banks Island]. They found the snow geese here, In those days there were so many of them that you could stand at one end of the flock and not see the other side. Now their numbers have become much smaller.

The people would set their snares and wait. They would snare the females first. When the females were caught, they would shoot the males with bows and arrows. This is how they hunted on Banks Island in my grandparent's time. There were no white men here then.

After my husband died, I had to do all the hunting. I used to sit at the seal hole waiting for the seal to come up. I was cold in my old parka. It was not the best time of my life – I really suffered in those days.

I have travelled all over this land since I was a little girl and could first remember. Now I am getting old. It is getting harder to hunt all the time.

William **Kuptana**: I am worried about what would happen to the animals if there was an accident. Animals like polar bears and white foxes will die if there is an accident. Will the government or the oil company be able to provide the things the people need if there is an accident?

The people of this area have no jobs. They live by what they get from the land, If there is an accident and the animals die, how will they be able to survive ? This is our only food source, If it is gone, how will we be able to eat?

David **Nagogaluak**: What is going to happen if they ever have an oil spill in the ocean? They can't even clean up a little bit of seismic wire left on the ground.

I want the oil companies to answer that. Ever since the oil companies started coming up here they've promised to clean things up. But they still never do. How are they ever going to do it if there's a spill in the ocean?

Judge **Berger**: We have a representative of the oil companies here. Mr. Hnatiuk is with Gulf Oil. We can ask him these questions. I am sure he will be happy to comment, won't you, Mr. Hnatiuk?

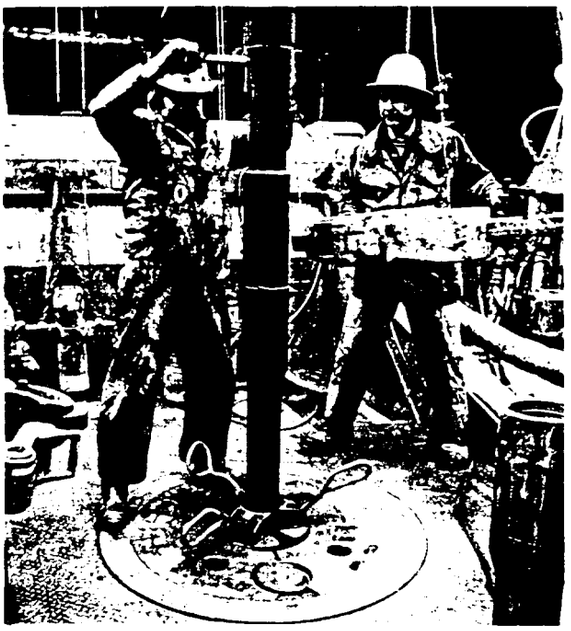
John **Hnatiuk**: I have been here before and it is a pleasure to be back again, We are proud of our drilling operations. We welcome anybody who wants to come out and see them. We are proud of how we clean our operations up.

Judge Berger: I understand you are drilling a well in the Beaufort Sea.

John **Hnatiuk**: The drilling is done during open water period. If the ice moves in. the ships move away and wait till the ice has moved north.

The best and latest equipment is used to prevent a blowout. The government is watching to make sure that a blowout is prevented. Most blowouts are gas. not oil. There is very little chance of a blowout occurring. In the 20000 wells drilled offshore. there have been very few blowouts. There has been only one oil blowout in every 3300 wells drilled.

If the oil from a blowout is not all cleaned



Readying the oil-drill *for* action

up before it freezes, it will be tracked by airplane and satellite. The oil will be burned when it comes to the top of the ice in the spring,

Judge Berger: How big an area might be covered by an oil blowout?

John **Hnatiuk:** An oil spill or blowout on ice? It might cover an area seven kilometres by seven kilometres with a layer of oil a centimetre thick.

Agnes Carpenter: The government gave the oil companies the right to explore various parts of the Island around 1958. The strangest part was that they acted as if there were no people living on Banks Island. Neither the Federal government nor the Territorial government told us what was happening. They never asked us how we felt or told us what to expect.

Mary Elias: I have been living here a long time. I remember how Banks Island used to be a good place to live. In those days we had no government telling us how to run our business . or what to do. We just lived by ourselves and never had any problems. Since the government started coming here, everything we have to do is government all the time.

I remember long ago we did not have much. We didn't know about the outside world or what was going on in other places. We just lived in Sach's Harbour and we were happy. Nowadays that's all changed. The government bothers people. I think that people who are run by the government are just like children.

I'm watching the kids growing up today. It's O.K. for them to go to school if they want to learn. But most of the kids today are mixed up. They want to live like their parents lived before. But they also want to learn in school. Sometimes they learn enough that they think that their parents don't know much. Then they don't listen to them any more. That's the really bad part.

School isn't the answer for everything. There are a lot of Inuit people who had no education at all and they are good workers.

I'm not really against the government. I know they help people when they are sick. I'm glad about that, glad they help people who can't help themselves, people who are poor. But they also spoil some people, people who don't need help.

Alexandria Eli as: A long time ago, the way of the Inuit was to help one another. They never left anyone out. Every time somebody needed something, somebody helped them.

In those days you only went to Herschel Island once a year for the groceries. Everyone went to get their groceries and brought them back to the bush to spend the winter.

We used to go down to Kendall Island every summer. We went there for the whaling. Lots of people went there. Once they got a whale everybody got together and ate.

Nobody looked down on anyone else. Everybody helped one another – the poor. and those who had some. and those who had none. We were just like one big family.

On Kendall Island in the summer, we looked for whale oil and food for the winter. After we had enough food and oil to last us all winter. we went home to our camps in the Mackenzie Delta.

The delta used to be full of people then. I don't remember the government having to help us. We never asked for government help. Everything we had was what we got for ourselves, and what we shared with each other. I never remember being poor. I didn't know what poor meant.

Now it's so different. People are not the same any more. There are people right beside you and you don't know if they need help or not. Nowadays too, every time somebody does something for another person, they expect to be paid. You don't do anything for free any more. We've learned this from the white people. Ever since the white people came, that's what we've learned – nothing for nothing.

I feel bad about this, especially for the young kids and what they are learning. The people who used to be good are going — some are dead already. I guess our old ways are gone.

Inuit people picking up supplies bought inb y cargo ship from the south

But, to this day, Sach's Harbour is still well off. People say Sach's Harbour people are well off; they're rich. When they say we are rich people, it's not like having money in the bank. We don't have money in the bank. We are rich because we have food here. We hunt foxes here. There is good hunting; we get everything off the land. White people have banks. For the Inuit in Sach's Harbour. the land is their bank. That's our bank.

Les Carpenter: I believe that if the pipeline goes through, the native way of life will change for the worse. It will affect the young people more than the old. because the young have to carry on after the old people are gone. If the pipeline comes to the North, there will be a lot of money involved. This will attract all the young people.

After work on the pipeline is finished, the young people won't know about the land and how to live on it. They'll only know how to do labour work, to work for the oil companies. They'll be drawn away from their native culture. Even without the pipeline today, this problem is bad enough.

If the pipeline is built. businessmen from the south will move north. They'll move into all our little towns and settlements. They'll build all around us. Everything will be modernized.

The way 1 see it. it may be like living in a ghetto. It won't be our native life because we won't be free. Once you take our freedom. you take most of our life. I'm satisfied with my life now and the way I live. I donut think I really need a pipeline to brighten up my day. I have the feeling that if the pipeline goes through it won't really stop there. There will always be something else. They will always be after the land and whatever else is there. We may end up with nothing in the end.

I don't really like to think about it or talk about it. A person has to face up to it, I suppose when it becomes a reality. I'm scared because I

don't know where it's all going to stop. That's all I have to say. Thank you.

Stanley Carpenter: I think that the Inuit culture should be taught in all schools, all our ways and everything that goes with northern living,

Judge **Berger:** Thank you. Is there anyone else who wants to say anything? Well, I would like to close this meeting by saying that all of the people who came with me to Sach's Harbour have enjoyed our visit, All of us enjoyed it very much. It is nice to come on a day when the sun is shining and we can see your village and the country around it.

I think having seen the village and the land around it has helped me. Having heard all of you. the old people and the young people. the trappers and the women, I think I know better why you feel the way you do about the land and the living you get from the land. I will be keeping in mind the things you have said. I won't forget them.

I want to thank you again. As soon as Mrs. Albert has translated what I've said. we will stand adjourned.
[Mrs. Rose Albert translates Judge Berger's comments.]

Judge **Berger:** The hearing stands adjourned.

adapted from the Berger Commission Report, 1977

After hearing all of the different points of view, Judge Berger decided that the Mackenzie Valley pipeline should not be built for at least ten years. Following his 1977 report, the Canadian National Energy Board decided that the best route for a pipeline would be along the Alaska Highway. Because the Alaska Highway route runs through Alaska. the Yukon. and British Columbia, it had to be approved by the governments of both Canada and the United States,

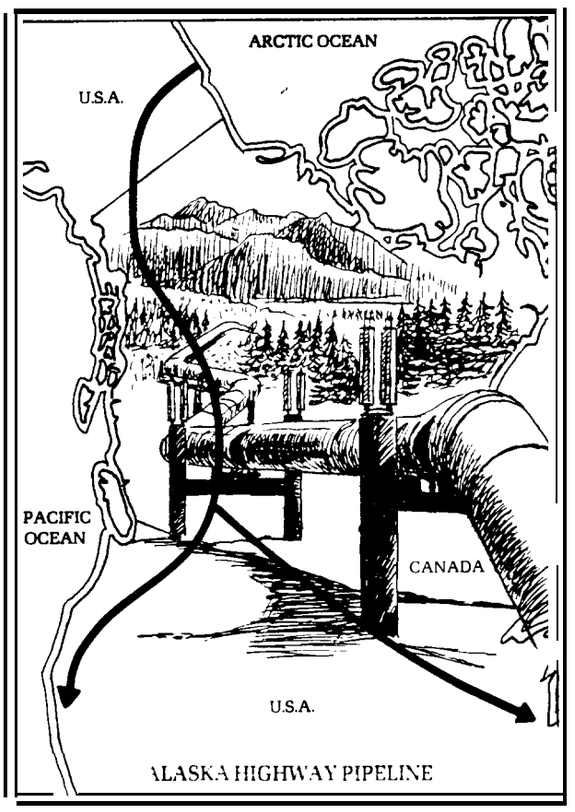
1. What is an energy crisis? How did it come about? What are some of the things that we can do to conserve energy?

2. After reading the excerpts from the **Berger** hearings and the map of the Alaska Highway pipeline route, suggest some reasons why Judge **Berger** did not approve the Mackenzie Valley pipeline. What are the advantages of the Alaska Highway route?

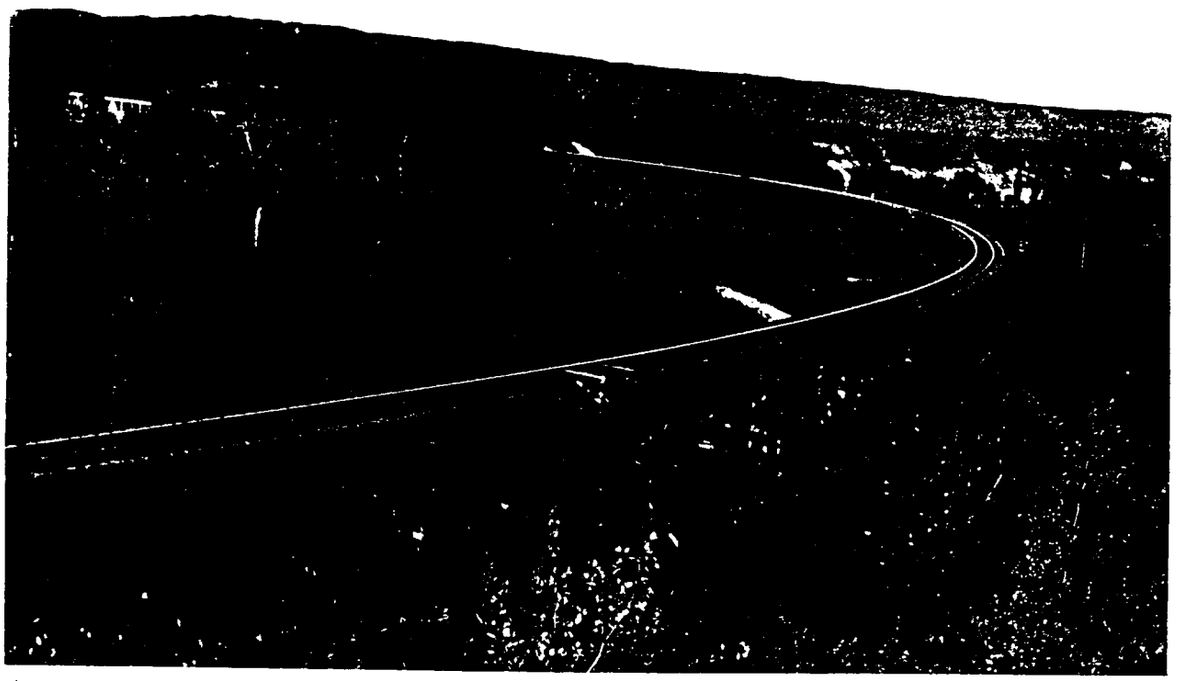
3. Why, do you think, did the Canadian government hold hearings about the northern pipeline routes? Why can't the oil companies build pipelines wherever they want to? Were there similar hearings when the Canadian Pacific Railway was built a century ago? What has changed?

4. Write a brief report on changes in **Inuit** life over the last 50 years as described by the speakers at the **Berger** Commission Hearing in Sach's **Harbour.**

5. How would you feel if someone wanted to put a shopping-centre, factory or mine in your **favourite** park or in your backyard?



ALASKA HIGHWAY PIPELINE



A trestle bridge rises high above the trees on this section of railroad track in northern British Columbia

TRANSPORTATION IN THE NORTH

The North has always been a difficult place to get into. You have already read of the hardships faced by the early explorers in the search for the Northwest Passage. And you have learned of the difficult route the miners had to travel to the Yukon gold fields. Great distances. dense forests, icy seas and cold weather have all made travel into the North difficult.

It has only been in the twentieth century that travel to the North has become easier. Today it is possible to reach the North by ship, train, car or airplane,

TRAINS IN THE NORTH

The first rail line into the North was the White Pass and Yukon Railroad. It was built in 1898 and follows the route the gold miners took into the Klondike. The White Pass continues to be an important means of bringing minerals out of the Yukon and supplies into the region.

Other railroads have been built to reach the minerals of the North. A rail line has been built north from Edmonton to the mines at Pine Point in the Yukon. In the easternmost part of the Canadian Shield. a railroad has been built from Sept Isles. Quebec. to Schefferville. in Labrador. This rail line connects the iron mines of northern Quebec and Labrador to docks along the St. Lawrence River.

Two railroads run to the shores of Hudson Bay. One carries grain from the prairies to the port at Churchill. Manitoba. The other runs north to Moosonee, Ontario, on James Bay, Railroad service to the gas and oil fields and forest industries of northern British Columbia is provided by the British Columbia Railway.

The Alaska High way, near Rancheria, Cassiar Mountain

HIGHWAYS TO THE FAR NORTH

With the opening of the Dempster Highway in 1979, it became possible to drive to the shores of the Arctic Ocean, The Dempster Highway runs from Dawson in the Yukon to the mouth of the Mackenzie River.

But there were roads into the Far North before, The first major highway into the North was built during the Second World War. Called the Alaska Highway, it was built quickly to carry American troops and supplies to protect Alaska from enemy attack. Today, the highway is still largely unpaved, but it is the major route into the Yukon. Along it travel huge trucks carrying mineral ores and forest products south. Other trucks carry food and manufactured goods from the south to the people of the Yukon. Despite its rough surface, the Alaska Highway, with its spectacular scenery, is a popular tourist route.

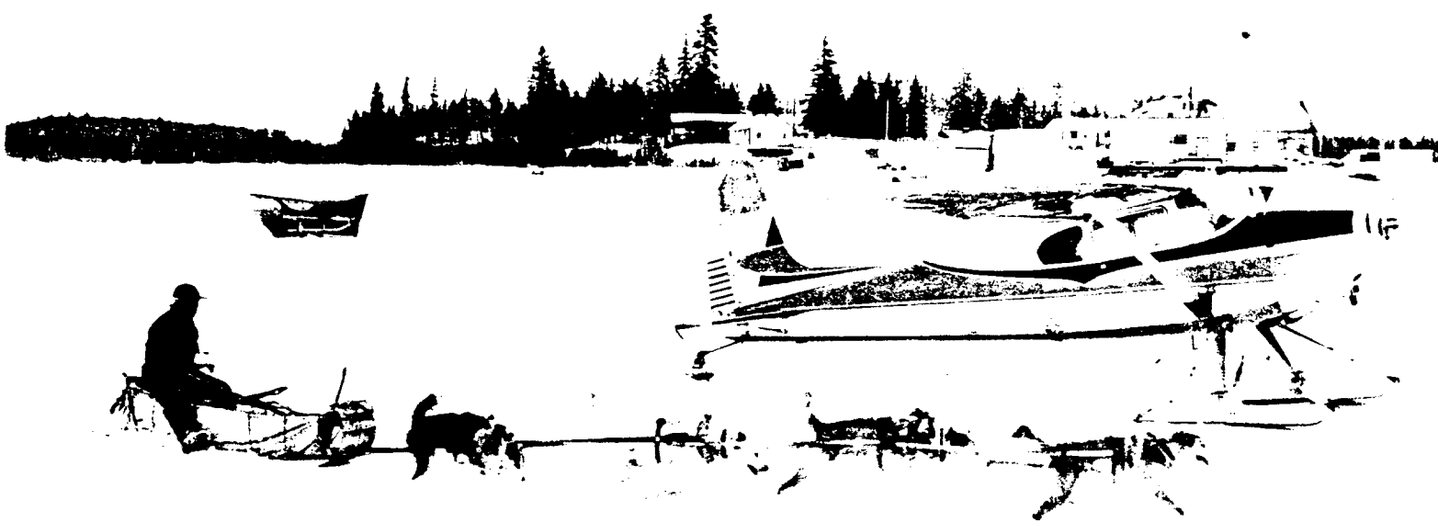
A third major northern highway runs from Peace River, Alberta, into the Northwest Territories.

FLYING INTO THE NORTH

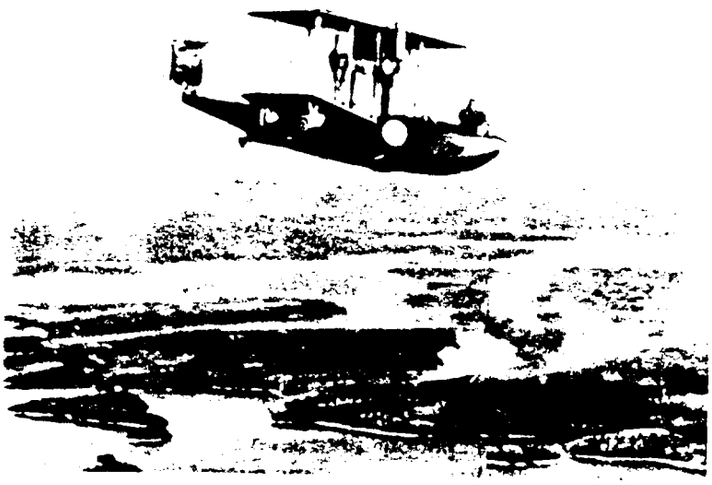
Today, scheduled air service reaches nearly every part of Canada's North. Jet airliners fly regularly into Whitehorse. Yellowknife. Inuvik and Frobisher Bay. Smaller aircraft – on wheels or floats in the summer and on skis in the winter — can reach nearly all of the smaller communities in the North. Planes are used to bring mail, supplies and people into the North. They are also used for mineral exploration work. They carry sensitive instruments and take aerial photographs which are used to find mineral deposits.

[n the North. the value of aircraft has been felt almost as long as people have been flying. Ever since World War I, the airplane has played a major role in the North.

1. With the help of a travel agent, plan a trip from your town to one or more of the following places: Dawson City; Tuktoyaktuk; Frobisher Bay; Alert; Fort Chime.
2. Prepare a tourist brochure for either the Yukon or the Northwest Territories. Illustrate it, and include maps.



In northern Saskatchewan, one *of* the *oldest* forms *of* transportation, and one *of* the newest: dog team and airplane



An early bush plane flies over a forest fire around Lac La Ronge, Saskatchewan

BUSH PILOTS IN THE CANADIAN NORTH

The sounds of aircraft engines began to break the silence of Canada's northern skies soon after World War 1. In 1919, Curtis HS2L Flying Boats began service surveying and patrolling the forests of Northern Quebec. The courageous pilots who flew these planes were called bush pilots. From the air. bush pilots could easily spot forest fires and other problems. Mapping the vast forest lands was easier from the air.

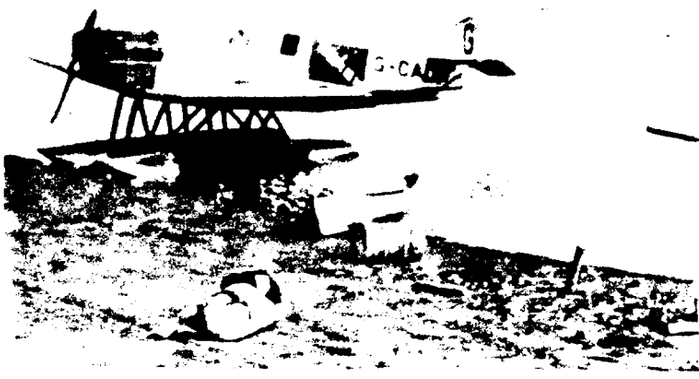
The first Curtis HS2L to be flown into northern Quebec was called "La Vigilance." Its pilot was Stuart Graham. who had flown in World War I in Europe. On board were an engineer and a navigator, The navigator was Graham's wife, who was also a nurse, A more conventional pilot disapproved of the Grahams' daring: "Flying in a seaplane overland is suicidal. but to drag a woman along is criminal. "

In the 1920s. aircraft were flying into many wilderness areas of northern Canada. Small planes carried prospectors into northern Ontario. the Yukon and the Northwest Territories. Often flying in open aircraft. the bush pilots braved the cold winds and unmapped wilderness to carry medical supplies. food and equipment to lonely outposts. In 1927. airmail service came to the Yukon. By 1929 there was airmail service to the Northwest Territories. The airmail service took two weeks to cover the 2000 km from Edmonton to Fort Simpson.

The first Canadian pilot to reach the Arctic was "Punch" Dickens. Dickens flew his Fokker Universal seaplane from Edmonton to Aklavik in July, 1929. Aklavik is on the Arctic Ocean, at the mouth of the Mackenzie River. 2500 km north of Edmonton.

Bush pilots like "Punch" Dickens, "Wop" May and Fred Stevenson faced death on every flight. There were no radios or instruments in their planes. Often their cockpits were open to the freezing northern winds. There were no airports in the North. Pilots had to be able to repair their own planes if something went wrong, Crashes were common events.

The crashes of two Junker monoplanes in 1921 near Fort Simpson in the N.W.T. showed just how resourceful northern pilots were, The two Junkers were owned by the Imperial Oil Company. Imperial Oil had found oil near Norman Wells, N. W. T., and was using the aircraft to find other drilling sites.



The two Junker monoplanes – nicknamed "Vie" and "René" by their pilots

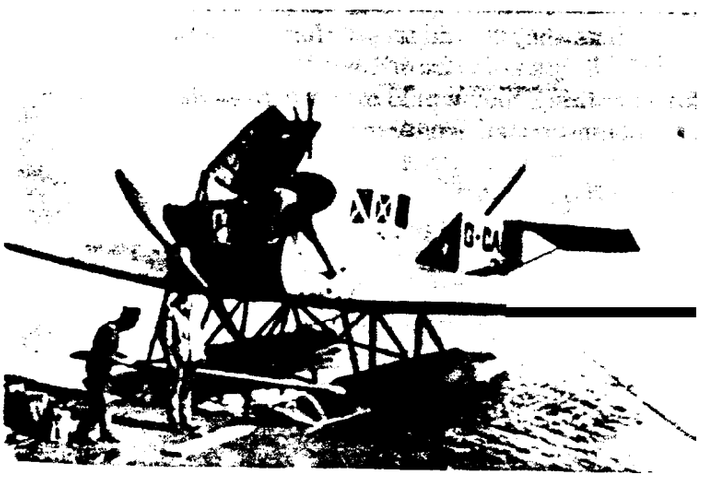
Flying into Fort Simpson, the pilots found their intended landing place on the Mackenzie River was a mass of jagged ice blocks. One plane landed safely, but the second struck a frozen snowdrift, shattering the propellor and landing gear.

On take-off, the Junker that had landed safely developed engine trouble. The plane was quickly landed again. Its propellor and landing skis were fitted to the damaged aircraft, The speedily-repaired Junker began taxiing for take-off. While taxiing, the plane struck another frozen drift, destroying its landing gear and propellor for the second time, Both planes were stuck on the ground now.

The pilots decided to make new propellers for their planes. They went to the Hudson's Bay Post at Fort Simpson in search of materials. There they were able to obtain oak boards, used to make sleigh runners. At the nearby Roman Catholic Mission, they found a well-equipped workshop. They joined the oak boards together with babiche glue – glue made from the hide and hooves of a moose. Two weeks later, the new propellers were finished and fitted to the airplanes.

There were never any routine trips for a northern bush pilot, One trip might find him carrying an injured miner or a pregnant woman out to hospital, Another trip he might be carrying a cow or horse into some remote trading post. Passengers on his flights included geologists and prospectors, police and their prisoners, and even the occasional tourist. News of a lost or downed aircraft would send him quickly into the air. A bush pilot would cover many thousands of square kilometres of wilderness looking for a lost fellow-pilot. No one ever complained. Every pilot knew all too well it could easily be his own plane that was missing.

Pilot Bill Hill posed *at* Fort Simpson with the new homemade *propeller for* his bush *plane*



A Fort McPherson couple make snowshoes *following* the old traditions

THE MODERN DENE

Because of their isolation in the great forests of the Subarctic. the native peoples of the area have been able to keep their old ways of life longer than Indians in more southern parts of Canada, The Dene are no longer nomadic, They haven't been since the days of the fur trade when villages grew up alongside the forts and trading posts. But most Subarctic native communities continue their traditions of hunting, trapping and fishing.

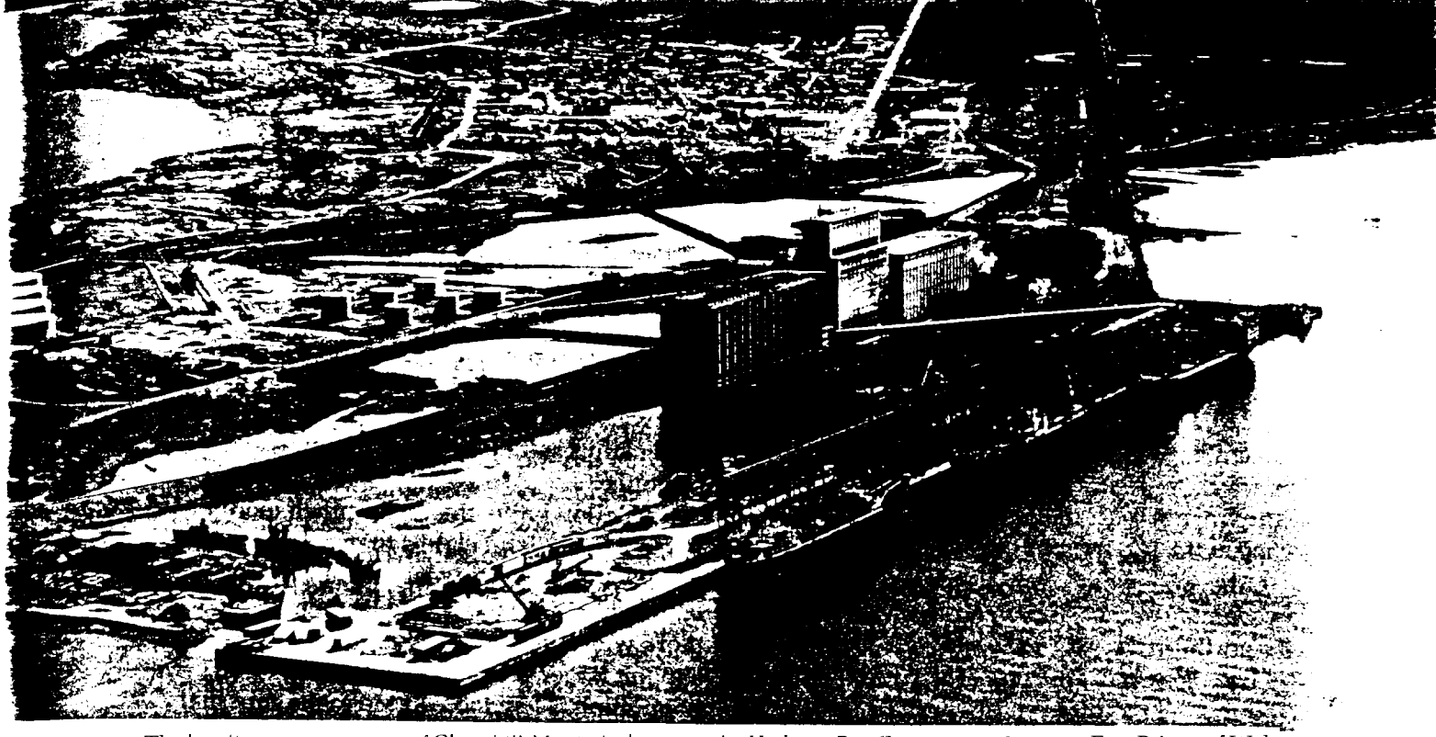
Subarctic native communities are proud of their independence, They want to feed themselves and make their living from the land. The Subarctic people want to keep their traditional lands and their traditional ways of life.

This has become increasingly difficult. Contact with outsiders since the fur trade has brought guns, outboard motors. skidoos and other things that make it easier to hunt or trap or fish, But this contact has also brought serious health and social problems to some communities of the Subarctic.

The expansion of mining, forestry, highways and hydroelectric power projects into the Subarctic has also created problems for native peoples trying to live off the land, The W.A.C. Bennett Dam in British Columbia cut off the flow of water to the Peace River Delta in Alberta. This upset the traditional hunting and fishing activities of the native people of the delta. In Yellowknife. arsenic from mines dumped into lakes has been found in the fish caught by native people of the area. The native people of Grassy Narrows, Ontario have been afflicted by Minamata disease caused by mercury pollution: mercury waste from a nearby pulp mill got into the fish they catch for food, In Quebec, the giant James Bay hydroelectric power project forced the Cree people from their traditional hunting and fishing lands.

But the James Bay project had one other important effect. It forced the government of Quebec to recognize the rights of the Cree people to their traditional land. The Cree were paid a large amount of money and given other lands in return for their traditional lands. Other native groups across the North are claiming the rights to their lands. As you saw from the Berger Commission Hearings, native people are strongly attached to their traditional lands. They want their rights recognized. and they feel that, just like other Canadians. they should receive fair payment if their lands are taken from them. But, more than anything, they would prefer to have their land claims recognized. After all. the native people say, "We were here first and have never left our lands. "

A young *Cree* artist, Moosonee, Ontario



The bustling prairie seaport of Churchill, Manitoba began as the Hudson's Bay Company trading post Fort Prince of Wales

TOWNS AND CITIES OF THE NORTH

There are few towns and cities in the sparsely populated Canadian North. But they play an important part in the life of the North. Today more than half the northern population lives in villages, towns and cities.

Before the Europeans came, there were no towns and cities in the North. The nomadic and semi-nomadic lives of the people of the Subarctic and Arctic meant small groups of people living together in easily-moved villages, The towns and cities we find in the North today grew up around the activities outsiders brought to the North. Fur forts, missionary churches, RCMP posts, mines and logging camps were the centres around which northern towns grew.

Today, the largest towns of the North are in the southern part of the Subarctic. (So far south that many do not consider them part of the North.) They are found in the Canadian Shield in Ontario and Quebec. There, a few towns, such as Thunder Bay, have developed around transportation. But most of the settlements are company towns that developed around mining or other resource activities, Often a company town will die when the mine or forest operation which supported it ceases operation,

A company town is often small in population, housing workers, their families, and a few essential services. But a company town can be large: Sudbury, the largest city in the region. is a company town.

Sudbury grew up around the giant mining operations of the International Nickel Company. Like any other company town, Sudbury is seriously affected by changes in the company's fortunes. A drop in world nickel demand in 1977-78 and a lengthy strike in 1978-79 severely affected the economy of the city. Another major company town in the" region is Arvida. Quebec. created by the Aluminum Company of Canada. The world's largest aluminum smelter is located at Arvida. It uses the abundant hydroelectric power from the region's rivers as its source of energy.

Chicoutimi. Quebec. is a centre of the forest industry in the Shield area of Quebec. Here there are several pulp and paper mills. Chicoutimi is linked by road and rail to the forest region to the north and to the port at Quebec City.

Thunder Bay. Ontario. is an important centre for both rail and ship transportation. The Thunder Bay docks are lined with grain elevators, filled with wheat waiting to be shipped by water to the flour mills of central Canada. The city is also an important centre for the shipment of pulp and paper and wood products. With annual shipments of more than

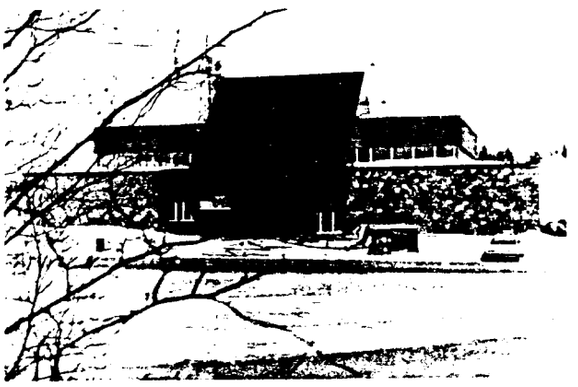
20 million tonnes, Thunder Bay ranks with Vancouver and Montreal as one of Canada's leading port cities. Another important port city in the Shield is Churchill, Manitoba, located on Hudson Bay. A rail line links Churchill with Prairie grain producers, Both Thunder Bay and Churchill are seasonal ports: they are blocked by ice in the winter months.

Other urban centres have grown around government activities. Since 1905 when the two northern Territories were created, each has had its own capital city. The capital of the Yukon is Whitehorse. Yellowknife is the capital of the Northwest Territories, These are the two largest cities in the Territories. Both are important transportation and mining centres.

As capitals, they have special functions not found in other northern cities. In them are located the government offices where important decisions are made. Vocational schools, hospitals, and other government services are found in Whitehorse and Yellowknife.

In Yellowknife and in Whitehorse you will find many people discussing the future of the North, But they are not all in agreement about what direction that future should take, Many Yukoners would like their territory to become Canada's 11th province. The territories have limited powers of self-government. which have increased steadily over the years. But, under the BNA Act, final control over the territories rests with the' federal government in Ottawa. Native people of the Yukon want their land claims settled before it becomes a province.

In Yellowknife, the talk is much more likely to be of land claims than of becoming a province. The Northwest Territories is much larger than the Yukon, and its population is more widely scattered. Native people make up a much larger proportion of the territorial population. They too want to make sure that their traditional lands remain theirs, whatever the future of the Northwest Territories.



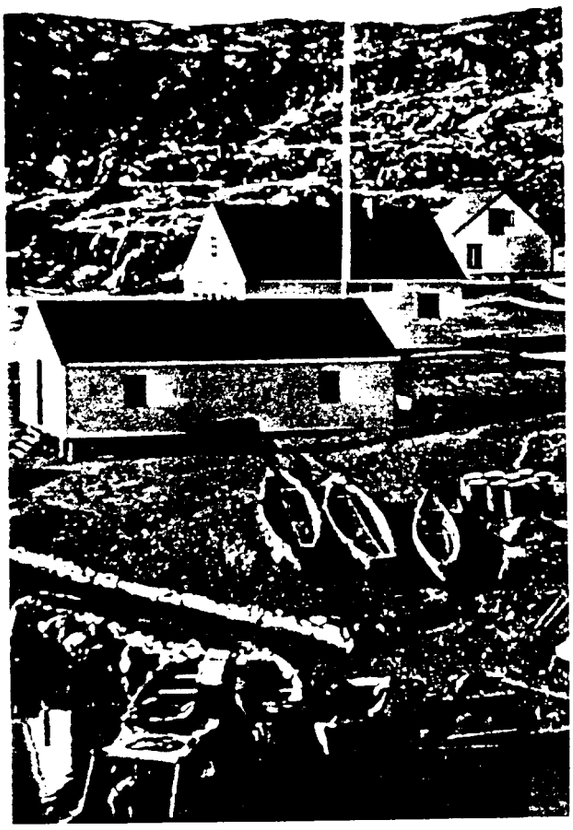
Above: The CBC Northern Service building in *Yellowknife, N.W.T.* Below: View *of Yellowknife* as *it* was in *1938*

SETTLEMENTS IN THE FAR NORTH

The old semi-nomadic way of life of the Inuit has almost completely disappeared. Most now live in permanent villages. usually near trading posts. Wooden houses, skidoos and other modern conveniences have replaced traditional aspects of the Inuit way of life. Many villages have small airstrips and radios to maintain contact with the outside world.

Larger urban centres have also grown up within the Arctic Circle. Places like Inuvik. Tuktoyaktuk and Frobisher Bay have become important centres of government and business activities. These towns have regular scheduled airline service to southern Canada. They also have modern hotels and office buildings. and hospitals and schools which serve surrounding areas.

A large number of native people have left their traditional lands and moved to these larger centres. A lack of employment opportunities has created serious problems for some of the native people who come in from their villages.



Above: An isolated Arctic outpost. Left: CBC Inuvik announcers. Below: School lets out

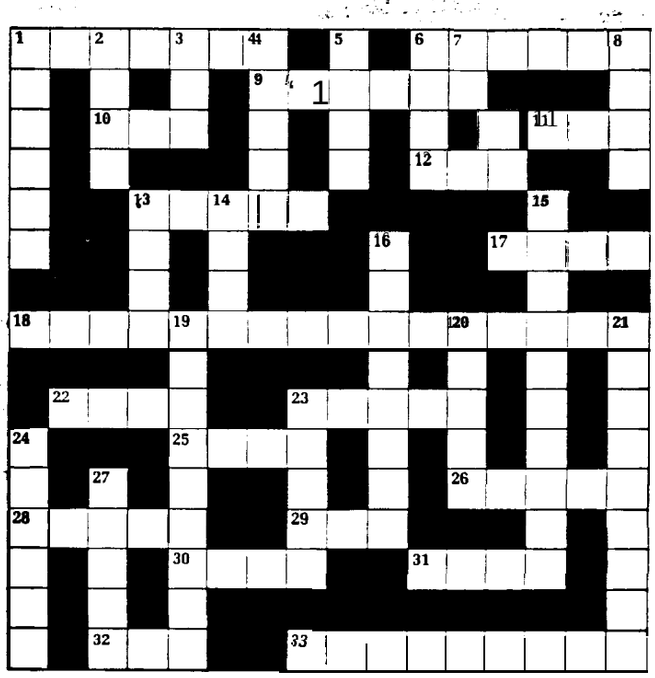
Adjustment to life in towns and cities has not been easy for the Inuit. Some have found jobs as highly skilled professional and technical workers. in government and industry. Others have not been able to cope with modernization. especially those with little education and no jobs. Contact with outsiders and changes in diet have caused sickness and other health problems. For example. the Inuit ate no sugar before they came into contact with Europeans. Now sugar, candy bars and soft drinks are causing health and dental problems for many young Inuit.

Some Inuit leaders are worried about other effects of southern culture on the young people of the North. Since the ANIK satellite was put into orbit, southern television programs are beamed directly to northern communities. Older Inuit fear that radio and television may lead to the end of their native languages and values. One response to this concern has been special radio and television programs broadcast in Inuktituk. the language of the Inuit.

Other Inuit have made a successful business out of keeping their traditional culture alive. Inuit artists and sculptors have become famous around the world for their beautiful prints and carvings.

1. What effects might southern television programs have on the children of Canada's North? Why do you think northern native leaders are so concerned about these changes ?
z. Suggest some reasons why native people in the North are moving to the towns, even though there are few jobs available.
3. Write to the Yukon or the Northwest Territories Department of Education for the name and address of a school with students in the same grade as vou. Write to that school and exchange-information about life in your community for similar information about their northern community. Send maps, pictures. tapes, etc. Include information about school, recreation, jobs. home, transportation and entertainment.

NORTH CROSSWORD PUZZLE



ACROSS:

1. This animal provides the Inuit with food, clothing, and many other necessities.
6. This large sea mammal has two ivory tusks.
9. Large, shaggy northern land animal.
10. A female moose is called a _____
11. Offshore oil drilling is taking place in the Beaufort _____
12. Arctic _____: small northern animal prized for its valuable fur.
13. Type of dog used by the Inuit to pull their sleds.
17. The most northern point in the Canadian Arctic is the North _____
18. Frobisher. Baffin and Hudson were all trying to find the _____
22. Martin Frobisher thought he had found this mineral, He was fooled, but it was found in the Yukon in the 1890s.
23. Inuit word for house.
25. Native peoples of the North made clothing of animal skins _____ together with sinews and bone needles.
26. Mink, fox, and other fur-bearing animals are caught in _____
28. One of Canada's two northern territories.
29. Some parts of Canada's Arctic are covered with _____ all year.
30. Henry Hudson was set adrift in a small _____ by his mutinous crew.
31. The Hudson's Bay Company sent explorers into the North to trade for _____
32. The Aurora Borealis or Northern Lights make a spectacular display in the Arctic _____
33. Explorer who reached the Arctic Ocean in 1789. The river he followed is named after him.

DOWN:

1. Second-largest country in the world.
2. The first boat to make an uninterrupted voyage through the Northwest Passage was the RCMP . . . " Vessel" St. _____"
3. The rifle has replaced the _____ for northern hunters.
4. Large skin-covered boat used by the Inuit
5. Canada's native peoples originally came from this continent.
6. The Barren Grounds _____ eats lemmings and other small animals.
7. Northern native peoples obtained the iron _____ from European traders.
8. Inuit hunters wait for this animal to appear through holes in the ice.
13. Harpoons are used to _____ whales and other sea mammals.
14. The Dene wore _____ shoes when hunting in winter.
15. Largest animals in the Arctic, prized for their white coats.
16. The Berger Commission hearings were held to decide whether a _____ should be built.
19. Large body of water in northern Canada – named after the man who was set adrift in it after his crew mutinied.
20. The Dene used bows and arrows to _____ the animals they hunted.
21. Large island farthest north in Canada's Arctic.
23. Word meaning "the people." used by Canada's Arctic native people to describe themselves.
24. One-passenger skin boats used by Inuit hunters.
27. Inuit igloos were lined with furs and _____ to keep them warm.

THE WORDS

abundance in great numbers. plenty
archaeologist scientist who studies the way people lived long ago
arsenic poisonous chemical. used in processing metal ores
besmeared thickly covered
cache storage or hiding place
capsized turned over m deep snow or water
commodious large, spacious
complexion skin colour
composed made up
coniferous tree tree that has cone shaped seeds and stays green all year long
constellation group of stars
convenience something that makes life or work easier
counselors wise men or leaders of a tribe or nation
culinary having to do with cooking
culture a way of life - language, religion, clothing, etc. — shared by a group of people
delicacy a special treat, usually food
diminished make smaller
domestic *1)* having to do with the house or home *2)* tame: a pet dog or a milk cow is a domestic animal
dressed treated or worked animal hide (to make soft leather)
drudgery hard. boring work
erosion wearing away of soil or rock caused by wind, rain and ice
extract take out from. remove
fabled told about in stories and legends
fancifully imaginatively. creatively
fancy the imagination
fool's gold iron pyrites. whose crystals shine like gold but are worthless
founding setting up. establishing
galley slaves ancient Roman ships. called galleys, were rowed long distances by slaves. It was hard and painful work.
glacier large **body of slowly moving** ice
hindquarter one half of the back portion of an animal. including half of the rump and one leg.
horizon line where the earth and sky appear to meet
inattentive careless. unaware
injunction an order telling someone not to do something
interior inland. away from the coast or borders
inverted inside out or upside down
latitude location determined by angular distance north or south of the Equator. The Canadian border is the 49th parallel of latitude. 49 degrees north of the Equator
log diary or record kept by a ship's captain
migrate move. travel
moderate not given to extremes; able to see both sides of an issue
modernization process of change where new ways or tools replace older ones
monopoly having complete control over trade without anv competition
mutineer person who rebels or takes part in a mutiny
mutiny the act of a crew trying to take over a ship using force against the captain and officers
natural resource material found in nature. such as timber. water or minerals. which human beings have found a way to use
nomadic having no fixed home: moving from place to place
occupation job
pack ice large cakes of ice floating together in a mass
parchment paperlike material made from animal skin
penetrating piercing. entering deeply
portage n. place where canoes have to be carried around a barrier such as a waterfall or rapids; v. to carry a canoe
primitive simple, of an earlier time
profession a person's chosen life's work
profitable bringing in financial gain, making money
proportioned relationships between the parts of a whole; a person with a pleasing figure is said to be well-proportioned

prospector person who goes looking for valuable mineral deposits such as gold
provisions supplies: usually food
sago thick pudding made from palm flour
scheduled happening or taking place at a given or fixed time
sediment fine matter that settles to the bottom of a liquid; erosional material deposited by water
self-government control of a place or territory by the people wbo live there
severest harshest, worst
shamanistic having to do with native healing or religious leaders
situation place. location
social problems problems resulting from people living m close groups m cities, etc.. including crime. alcoholism, and marriage break-up.
sod clump of earth and grass held together by the roots of the grass
sparsely lightly or thinly
strait narrow body of water
subordinate under the control of some other person
subsistence food needed to stay alive
succession events taking place one after the other
survey measuring and mapping of land
suspended hung from
system set of parts linked together in an orderly way to forma network or pattern as a whole
temporary existing for a short time only
territory area over which a group or nation has control. In Canada. those parts of the country which are not provinces but which have limited self-government under the control of the federal government in Ottawa
tradition something done in the same way for a iong period of time
transforming changing from one shape or thing into another
treeline the limit of tree growth caused by extreme elevation or cold climate
unicorn mythological animal that looks like a white horse with a long ivory horn growing from its forehead.
vegetation plants and trees
vermilion bright red paint
vital needed for life or existence
wasteland place where nothing grows or lives: barren ground
whence old term meaning "from where'

Buckskin contest at La Ronge, Sask. win ter festival