

# CANADA

TODAY / D'AUJOURD'HUI

## The Long, Long Shore



Our ancestors lived on the edge of the sea. The first explorers moved around on salt water — the Mediterranean, the North Sea, the Atlantic — and when they got to land they settled at the water's edge. In Canada they found the most extensive shoreline in the world. Only Canada touches three oceans — the Atlantic, the Arctic and the Pacific.

The combined coasts — mainland, bays, inlets, islands and gulfs — are more than 150,000 miles long. All living Canadians could build houses, side by side facing the sea, without being crowded; though those who built on the shores of Ellesmere Island would be very short of lumber.

Sixteen million Canadians live within reach of the sea, in big cities, in villages and on farms; and many stay, not only because home is home, but because, directly or indirectly, they earn their livelihoods from the sea. There is great wealth in the water — the traditional wealth of fish and shellfish and the more recently recognized wealth of oil and gas. The sea sustains fishermen, sailors, longshoremen, scientists, shippers, lighthouse keepers, shopkeepers, oil drillers, helicopter pilots and lifeguards.

In this issue of CANADA TODAY/D'AUJOURD'HUI we look at the shorelines, the people, the communities, the economies, the perils, the opportunities, the past, the present and the future.







## The Long Way Round

The sea touches much of Canada: the cities and villages — Montreal, Quebec City, Halifax, Argentina, St. John's, Port-Menier, the Magdalens, Joe Batt's Arm, Churchill, Tuktoyaktuk, Victoria and Vancouver; the royal islands — Prince Edward, the Queen Elizabeths, King William, Prince Patrick and the Queen Charlottes; and the pebble beaches, ice cliffs, coastal hills and rain forests.

A coast is seldom the shortest line between two points. Along the Atlantic there isn't a straight fifty miles from the mouth of the St. Lawrence, around New Brunswick, Nova Scotia and the islands to the coast of Labrador. From Hudson Strait west to Mackenzie Bay is 2,100 miles, but the corresponding Arctic coast, in and around the bays and islands, is 37,000 miles long. The Pacific coast, from the Alaska Panhandle to the Strait of Juan de Fuca, is just over 500 miles as the tern flies, but with dips, straits, capes and estuaries, it is ten times that.

Below we take a quick trip all the way around, from the bottom of Quebec to the bottom of British Columbia. Let us begin.

*Top cover: Jacques Cartier arriving at Stadacona (Quebec City) in 1535. Bottom cover: Hearst Village, Nova Scotia. Page two: Fishermen cleaning the day's catch at Indian Harbour, Nova Scotia.*

[MONTREAL]

In terms of the richness and variety of cosmopolitan life, Montreal is perhaps the second city of North America. At its founding in 1642, Father Vimont compared it to a grain of mustard seed. It has grown to a city of three million people and is bursting with productivity. It is first of all an ocean port, although it is 17 metres (58 feet) above the sea and a thousand miles from the Atlantic. It ships more wheat than any other port (23,000,000 bushels can be held in its elevators), and icebreakers keep its St. Lawrence channel open even when ice encases its wharves.

Montreal's modern core of magnificent hotels, halls and office buildings reaches deep in the earth, and on the lower floors the shops, theatres and restaurants are linked by underground promenades and the blue enamel, rubber-tired cars of the Metro.

Around the shining new buildings are old ones, seventeenth century walls and eighteenth century churches, great restaurants and huge markets with loaves of crusty bread, herbs, vegetables, fruits and seafood — clams, mussels, crabs, langouste, octopus, squid, red snapper, cod, salmon, dorée, char, sardines, perch and herring.



In the river, on Ile Ste.-Hélène, is the permanent *Man and His World* exhibition left over from Expo '67, the great centennial world's fair; and off Sherbrooke Street is the gigantic Olympic stadium, an elliptical doughnut supported by thirty-six cantilever beams, large enough to hold St. Paul's cathedral.

Still, the harbour, the buildings and the show-places are not the essence of the city. The essence is the people. Over two-thirds are French speaking (Montreal is the second largest French-speaking city in the world); about twenty per cent speak English, and the remainder, languages from around the world. As part of Quebec, they have all survived a series of quiet revolutions. Premier René Lévesque has promised them a referendum within two years on the subject of Quebec's future. It is an illusive subject, provoking comments as long and sometimes as convoluted as Canada's coastline.

[THE ST. LAWRENCE]

The St. Lawrence River is only some six hundred miles long, from the tip of Lake Ontario to the outer lip of the Gaspé Peninsula, but it is the vital link between the Great Lakes and the gulf, or to put it more grandly, between the continent's

western waters and the eastern sea. Its traffic is more than double that on the Rhine and five times as great as at Suez. Its basin, the third largest in North America, is computed at 365,000 square miles, but that does not include the 95,000-square-mile surface of the Great Lakes, which drain into it and are as much a part of it as the tides, the seaweed and the salty water.

The basin was shaped by the great masses of ice which covered the top of the continent 12,000 or 13,000 years ago when a glacier 2,400 metres thick spread down from Labrador, its unimaginable weight compressing the earth. As the glacier receded, the sea rose. The Atlantic rushed in to form an inland sea of brackish water which covered much of the northeast for 4,000 years. The Great Lakes were lost in it, and New England, New Brunswick and Nova Scotia were a single island surrounded by it.

With the great compressing weight lifted, the rocks beneath expanded like sponges until they were higher than the ocean, and the inland sea drained back into the Atlantic. It left the lakes, the rivers and the mighty gulf. The gulf could hold all the Great Lakes, and its length, from Quebec City where the river first widens to the Strait of Belle Isle, is 700 miles, as great as the distance from Montreal to Milwaukee.

*The many faces of Montreal include the Marie-Reine-du-Monde church completed in 1886 (front left, below the CN building); Place Bonaventure (to the right of the CN building); the CP train station and tracks (front right); harbour facilities and Ile Ste.-Hélène with the Man and His World exhibition.*





## [ANTICOSTI ISLAND]

Anticosti Island, 360 miles northeast of Quebec City, is as large as Prince Edward Island, which is a province, but it has only about three hundred year-round residents. They live in Swiss-chalet-style cottages and other wooden buildings dating back to the turn of the century. The island has the Jupiter River, one of the best salmon streams in the world; thirteen other rivers and eight lakes, also crowded with fish; the spectacular Vaureal Falls and vast forests of spruce and balsam. The woods are alive with Virginia whitetails, mule deer, elk, moose and beaver, and the open valleys are heavy with wild strawberries and raspberries. According to Rita Viau, a nun and resident nurse, its children "are the healthiest children I've seen, and they have the fewest complexes."

Until 1926 Anticosti was the private domain of Henri Menier, a French chocolate tycoon, who bought it in 1895 to entertain his friends. The people who came with it were restricted to Port-Menier, the village at the southwestern tip, and were required, under pain of expulsion, to doff their caps when M. Menier went by. In 1926 M. Menier's surviving brother, Gaston, sold the island to a group of paper companies which continued the system of benevolent control. A few years ago the Quebec government bought it from Consolidated Bathurst Ltd. and made it into a provincial park. Although visitors still fish for salmon and trout and hunt deer, they now stay in lodges with four bedrooms, a dining room with fireplace and a bathroom. Reservations are essential, and it is expensive.

## [NOVA SCOTIA]

The gulf and the Atlantic meet at Cabot Strait, and Nova Scotia dangles below like a lobster in the sea. Halifax is more or less halfway down on the ocean side. For much of its long life, its basic businesses were fish and war.

*Loading containers in Halifax harbour.*



*Puffins swim and dive well, but have difficulty getting airborne. They prefer uninhabited islands since they are easy prey for many small mammals. The one on the right is carrying capelin for its young.*

Until 1905 it was the summer station of the British North American squadron. Every serious British sailor came to it at least once, and some, off and on, spent their lives there. It is now headquarters for the Canadian Maritime Command.

On two occasions its war business came home. During the First World War a French munition ship, *Mont Blanc*, coming into the harbour collided with a Norwegian ship, *Imo*, going out. The *Mont Blanc* exploded into blocks and fragments of steel. A half-ton anchor shank sailed two miles, into the woods on the northwest shore. Fire and a tidal wave demolished a square mile in the north end, and the rush of air damaged every building in Halifax and broke windows at Truro, sixty miles away. Sixteen hundred and thirty people were killed, and several thousand injured.

In 1945, at the close of the Second World War, there was another explosion. It was, by comparison, almost minor. An ammunition barge blew up at a magazine jetty and set fire to exposed dumps of ammunition which continued to explode for more than twenty-four hours. This time no one was killed.

Today Halifax is more concerned with fish and grain. It has thirty-two merchant berths and a modern container terminal. The greatest fishing banks in the world — Grand, St. Pierre and Banquereau — are off Nova Scotia's coast. Underwater hills that rise from the continental shelf, they are almost islands. Fish by the millions slip through the shallow cold waters above them.

The fishermen of Nova Scotia (and ninety-five per cent of all Canadian fishermen) fish inshore.



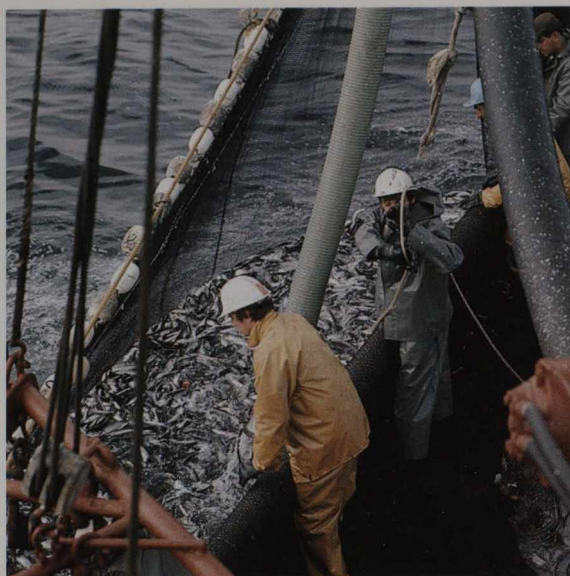


*Commercial fishing boats come in many sizes.*

They go out in small boats in the morning and come back at sunset. Unlike the offshore trawler-freezer fleets they leave more fish in an area than they take. In recent years their catch has declined, and they hope to benefit from Canada's January 1977 declaration of a limited jurisdiction over the waters within 200 nautical miles (230 statute miles) of its coast. The new rule permits ships from all nations to fish but gives Canada the responsibility for setting quotas.

Similar limits have been set by other coastal nations, and there are North Atlantic boundary problems. Two tiny French islands, St. Pierre and Miquelon, lie fifty miles off the southeast coast of Newfoundland, and the 200-mile extension from their coasts is entirely within the Canadian claim. There is another area of overlap between Greenland, which is owned by Denmark, and Baffin Island. The area of most significant practical disagreement occurs off Maine, New Brunswick and Nova Scotia where a large rectangle of water, containing some of the best fishing grounds in the world, is within 200 miles of all three coasts. It may well contain buried oil and gas as well as fish. One hundred and twenty-six wells have been drilled since 1966 at a cost of \$550 million. There have been nine or ten "small" discoveries but no "commercial" ones. There are, however, an estimated 1.5 to 2.4 billion barrels of oil still waiting in the adjacent Atlantic shelf and another 2.1 to 3.4 billion barrels in the shelf off Newfoundland and Labrador.

There is another possible source of energy closer inshore. After decades of fruitless discussion, the governments of Canada, Nova Scotia and New Brunswick have committed \$30 million for studies on the possibility of damming the mighty 54-foot tides of the Bay of Fundy.



#### [NEWFOUNDLAND]

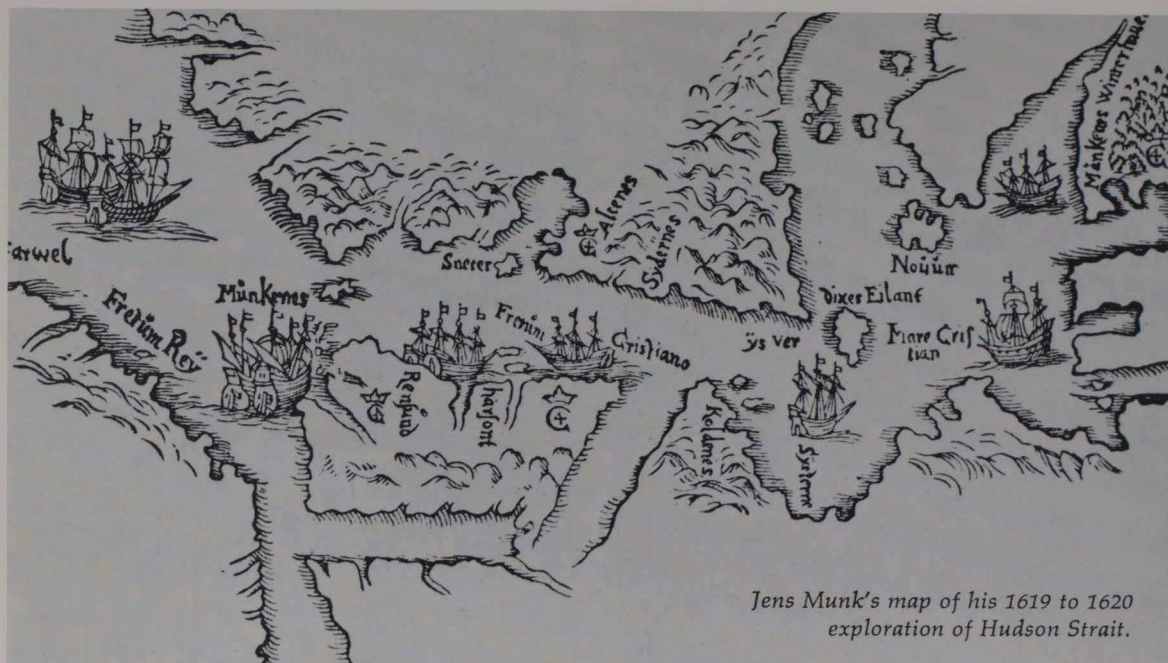
Norsemen from Greenland discovered Newfoundland in 968, and Basque and Portuguese whalers and fishermen sailed to its deep harbours fifty years before Columbus left Spain. By the early 1500s, "masterless men," squatters from the fishing ships, were living hard lives in sod huts along its coast. The descendants of these men from Ireland, the Channel Islands and the southern counties of England live there today.

Newfoundland is old, but to say it is the oldest part of Canada requires a few words of qualification. Most of its thousand-year history was spent as a separate colony of Great Britain, sometimes dependent, sometimes semi-autonomous, and it waited seven decades before joining the Confederation in 1949.

*The Narrows, entrance to St. John's harbour.*







Jens Munk's map of his 1619 to 1620 exploration of Hudson Strait.

It is composed of both the big island, which everyone recognizes as Newfoundland, and the large triangle of Labrador on the mainland above.

The island is subject to great winds and frequent fog, but the Gulf Stream keeps the temperatures along the southern coasts between the twenties and the seventies. A half million people are spread thinly over the island triangle. They are the most ethnically homogeneous in Canada; over ninety per cent are of English, Irish or Scottish descent. St. John's, the capital has about 110,000 and Corner Brook more than 25,000 inhabitants; Stephenville, Wabana and Gander, have fewer than 10,000 each.

St. John's harbour on the eastern edge of the Avalon Peninsula is a marvel. One mile long and nearly a half mile wide, it is surrounded by steep, sometimes precipitous rocky slopes and approached by a single entrance, the Narrows, 250 yards wide and flanked by 500-foot cliffs.

St. John's first permanent residence was built in 1528, when Henry VIII was on the throne, and the governor was a fishing admiral — the captain of the first ship to arrive each season. The town endured, huddled around the harbour, through difficult centuries, and today it is uniquely charming, dominated by the beautiful Romanesque Catholic and the Anglican cathedrals, both built in 1850. The city has grown since the extension of the Trans-Canada Highway and the inauguration of mainland jet plane service. The harbour offers side-loading containerized freight services, and there are large new buildings outside the old town. The unlovely but imposing Confederation Building, which houses the provincial government, was built in 1960, and the Arts and Culture Centre, in 1967.

[THE OUTPORTS]

The people in the Confederation Building have made various efforts to modernize Newfoundland, some more successful than others. The first program of community centralization was inaugurated in 1953 for the purpose of moving families from isolated outports. It was replaced by a joint federal-provincial program in 1965.

The outports are tiny fishing villages that are accessible only by water. Most are on the southern coast and, therefore, "out" of St. John's. The government moved some three hundred communities — people, buildings and boats — and added them to larger settlements, such as Come By Chance. The people of the outports approved the theory but frequently resisted the application. As one official said, "the resettlement centres are like heaven. Everyone wants to go there, but not just yet."

The program cost about \$10 million and ended March 31, 1977. The official emphasis is now on the development of resources in the outports that remain.

L'Anse au Meadow is a grassy cape at the top of the island, and a thousand years ago the Vikings briefly established Vinland there. The remains of eight turf houses and an iron works were discovered in 1960, and the whole village is now being excavated. It is surrounded by wind-swept muskeg and is appealing, though it may well have been pleasanter in 1000 AD. It is across the Strait of Belle Isle from the mainland part of Newfoundland, the cold coast of Labrador.

The few Inuit men, women and children who live along that cold coast, follow the patterns of their ancestors, with modifications. Nain, 300



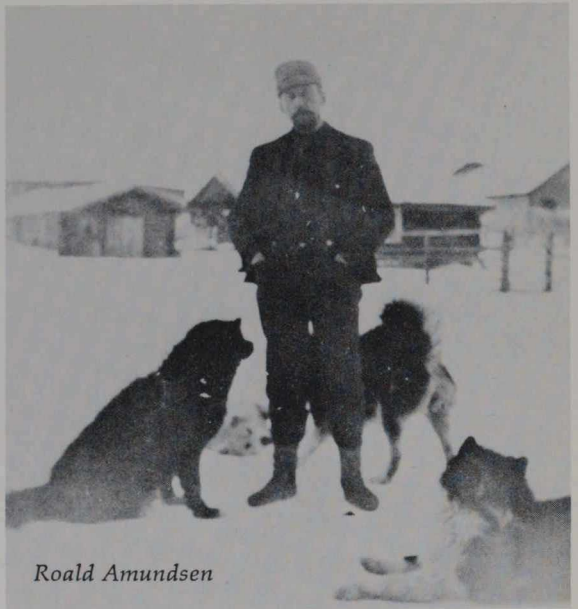
miles up the coast, has fifty prefab houses, surrounded by cliffs and mountains. Its people hunt with snowmobiles and rifles.

[THE BAY]

At the top of the Labrador coast is Hudson Strait, leading into Hudson Bay. The words *strait* and *bay* minimize the truth. A strait suggests a narrow passage. Hudson Strait, between the bay and the Atlantic, is 500 miles long and, at its narrowest point, 100 miles wide—bigger than Lake Superior. The bay is an inland sea, 600 miles across, 1,000 miles from top to bottom.

The sailors of previous centuries found both inhospitable. Abacuk Pricket, an unfrocked priest who sailed with Henry Hudson, kept a diary and described his entrance. "About the last of June we raised land to the north of us and we took the same to be that island which Captain Davis set in the chart at the west side of this strait. . . . Into the current we went and made our way northward of west until we met with ice which hung upon this island, wherefore we cast about to the south and cleared ourselves and then stood to the west into a great sound, amongst a store of floating ice upon which there was a store of seals. We still made our way north-west, meeting sometime with ice and then again clear water. Thus, proceeding betwixt ice and ice, we see a great island of ice tumble over, which was good warning to us not to come near them."

Churchill, on the west side of the bay, was founded as a shipping point for furs. It now ships grain in its ice-free months. Above it, for 800 miles to the top of Foxe Basin, are scattered small Inuit settlements—Eskimo Point, Rankin Inlet, Repulse Bay. Below to the southeast, on the coasts of Manitoba and Ontario, are reminders of the fur traders—York Factory, Fort Severn, Fort Albany. At the bottom, in the area around James Bay, are six thousand Cree and four thousand Inuit hunters, fishermen and trappers.



Roald Amundsen

The province of Quebec, which controls the long eastern shore of the inland sea, is building a huge hydro electric network on the rivers flowing into James Bay. By the 1980s it will be generating 13 million kilowatts. In 1975 the governments of Quebec and Canada and the development and energy corporations agreed to pay the Crees and Inuits \$225 million over the next twenty years and to guarantee their permanent, exclusive hunting, fishing and trapping.

[THE NORTHWEST PASSAGE]

The brave men who first ventured into Hudson Bay were looking for the Northwest Passage; many were called and some were frozen, but none found the route to the Indies.

Between 1845 and 1847, Sir John Franklin and 129 officers and men died trying. The expedition left England in the *Erebus* and the *Terror*, both equipped with steam auxiliary power. They hailed some whalers off Greenland in July and then vanished.







One of the houses being excavated at L'Anse au Meadow was built over Archaic fireplaces predating the Norse by about 4,000 years (the scattered stones on the right). The buildings surround a peat bog, which may once have been a lagoon. In the centre is a drain built by the archeologists.

In the next five years many other ships and men went looking for Franklin and his crew. They came from the Atlantic and from the Pacific, and together they almost proved that there was, indeed, a continuous stretch of sea across the top of the continent. (It was there but blocked by ice and impenetrable to their vessels.)

They found no trace of Franklin. Franklin had intended to sail south of Lancaster Sound, abreast or below Baffin Island. The Admiralty, for some odd reason, instructed the searchers to search only the sound itself.

Remnants of the Franklin party were finally found by Leopold M'Clintock. In the spring of 1859, he and his party came to Prince William Island, 400 miles south of Lancaster Sound, and found relics — seven or eight pairs of boots,

*Sewn birch bark containers, such as this one found in the L'Anse au Meadow bog, were used as net sinkers by the Norse.*



towels, soap, a sponge, a tooth brush, hair combs, nails, saws, powder, bullets, a small amount of tea, 40 pounds of chocolate and two human skeletons sitting in a boat, along with eleven large spoons, eleven forks and four teaspoons, all silver. Chocolate alone cannot sustain life in the Arctic; the party had starved to death.

Roald Amundsen, the greatest of the Arctic explorers, finally took a ship through a northwest passage in 1906, and the Royal Canadian Mounted Police ship, *St. Roch*, under Captain Henry Larsen sailed from sea to shining sea, twice, between 1940 and 1944.

[THE TERRITORIES]

The ice that stopped the first explorers is still there, part of a great mass ten to twenty feet

*Inuit fishing in the high Arctic.*







*A Hudson Bay iceberg.*

thick covering 1,800,000 square miles. Some melts every summer, but most of it remains. A small part of the permanent pack — the ice nearest land, called fast ice — is stationary, but most is in motion, as restless as the liquid sea below, moving with the winds and currents, breaking up and crashing together again to form great ridges, ten to twenty feet high.

The ice is sea ice and not like the ice in your drink. Salt water freezes at 28.6° F, 3.4° below the point at which fresh water freezes. When it is new, it contains little pockets of frozen brine which make it possible to bend a thin sheet of it. Summer's thaw leaches out the brine leaving puddles of drinkable water that will become fresher, harder ice.

At the northern tip of Baffin Island, 400 miles above the Arctic Circle, the lakes melt in July,

*A carved stone is used to make prints at Baker Lake, Northwest Territories.*



and the char, which have been imprisoned, head up the Robertson River to Koluktoo Bay. The bay water is then fresh on top and salt below. The char swim, clearly visible and vulnerable, where the two layers meet, five feet down. Inuit fishermen with three-pronged spears wait for them in the endless daylight.

There are only some 17,000 Canadian Inuit, and they are all coastal people. Most live in small family groups, spread over thousands of miles. They have known the white man for centuries; seventeenth century Norwegians from whaling ships are remembered by occasional names and blue eyes.

For example, some thirty families — about 250 people — winter at Holman Island, 70° 43' north and 117° 43' west, in the Amundsen Gulf. The people live in prefab houses, but the men off

*Inukshuk are built by Inuit hunters to control caribou movement. This one is on Hudson Bay.*







*The Deepsea Miner II (left), a converted ore carrier, is used for tests on deep-ocean mining of manganese, nickel, copper and cobalt nodules. The Canmar Explorer III is a Dome Petroleum oil exploration rig.*

hunting in the winter build snow igloos in which to stay for a night or two. The Holman Island people are among the most famous of the Inuit artists. They carve stone blocks and make coloured prints on rice paper. The prints are sold through the Inuit cooperative, and their numbers and prices are carefully controlled. Though the Inuit have always carved ivory and soft stone, they learned print-making in 1957 from a Canadian artist, James Houston, who came to Cape Dorset on west Baffin Island.

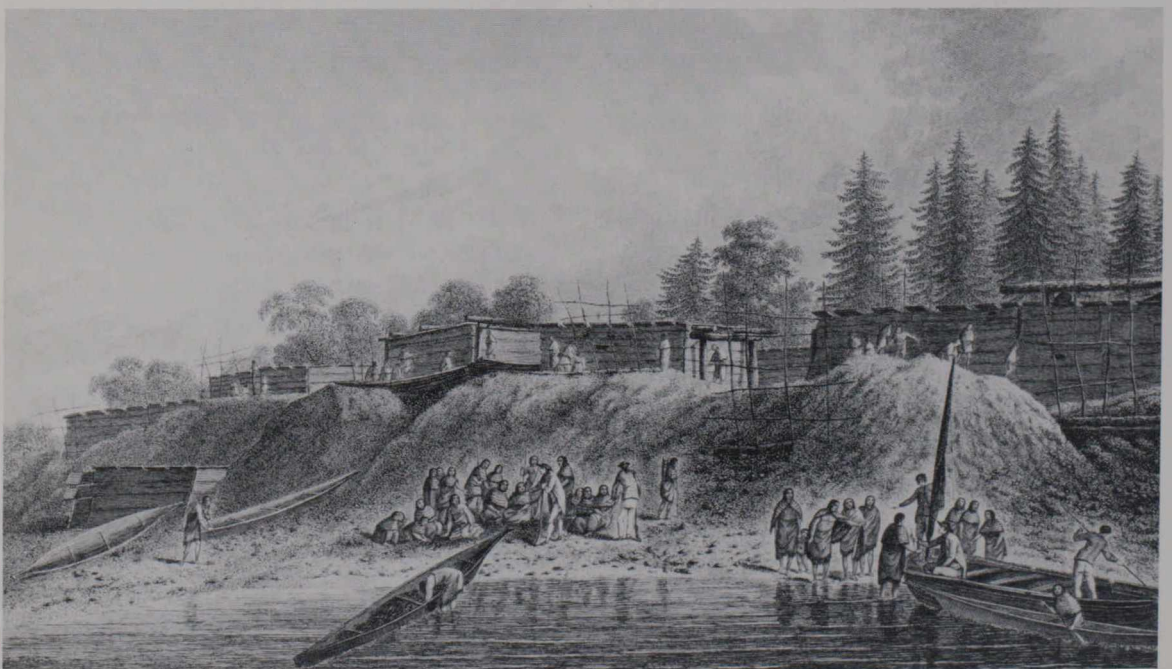
The recent influx of whites has had other, less obviously desirable results. The largest Inuit settlement now is the artificial town of Inuvik near the Beaufort Sea, which is also the headquarters for the engineers and technicians from the south who are searching for oil. It has modern conveniences including a hospital, a high school and a heated, above-ground sewage system.

The search for northern oil and gas began in earnest in the 1970s. In 1972 and 1973 Imperial Oil built the first artificial island designed to support drilling equipment. It was made of gravel dredged from the bottom of the Beaufort Sea and transported by pipeline to the site. The drilling had to be stopped because of unmanageable pressure in the well. Exploratory drilling continues each summer in the Beaufort Sea under strict government regulations.

#### [BRITISH COLUMBIA]

Alaska interrupts the Canadian coastline between Mackenzie Bay and the Hecate Strait. British Columbia's coast stretches from the Queen Charlotte Islands at the top to Vancouver Island and the Strait of Juan de Fuca at the bottom. Except in the south, it is still largely free of human beings. The Japan current warms the

*In 1778 when Captain James Cook arrived at Nootka Sound, halfway up the western side of Vancouver Island, he found people with dugout canoes living in square plank houses.*







*Aerial view of Vancouver looking north.*

ocean waters, and the mountains shut out the cold air from the east, creating a lush rain forest.

From 1000 BC to around 1900, this was the home of the most advanced northern Indian civilization. The Salish, Nootka, Kwakiutl, Bella Coola, Tsimshian and Haida celebrated their golden age with three-to-four-day feasts and give-aways called potlaches. The sea provided whale, porpoise, seal, sea lion, sea otter, herring, smelt, huge halibut, sturgeon and geoduck clams.

The fish are still in the sea, though no longer in staggering abundance. The continental shelf off British Columbia is narrower than the shelf in the east, and many of the fish that are found in the shallows are unfamiliar to the fishermen of the Maritimes. Half the value of the western catch is in salmon, the crabs are much larger and the albacore is of major importance.

The rain forest is equally important, providing not only beautiful scenery but also Douglas fir, red cedar, western hemlock and Sitka spruce for British Columbia's lumber industry. (The province produces about three fourths of Canada's timber cut.)

British Columbia's most spectacular port, Vancouver, occupies the south shore between Burrard Inlet and the Fraser River. It handles some 35 million tons of cargo — grain, coal, lumber, logs, potash and sulphur — a year. It has new, tall

towers, and its nineteenth century core has been transformed into clusters of restaurants, boutiques and antique shops. Stanley Park has a thousand acres of beaches, forest trails and exotic animals.

Victoria, a ferry ride across the broad Strait of Georgia, has some 193,000 people, but it suggests a large village in Sussex. Flowers surround the domed provincial parliament building, line the sidewalks in neat rows and hang in baskets from old-fashioned lamp posts.

At the bottom of British Columbia is the Strait of Juan de Fuca, the scene of occasional international debates. In 1859 Great Britain and the US were in sharp dispute over San Juan Island when an official of the Hudson's Bay Company apparently killed an American settler's pig. General Winfield Scott arrived in time to prevent violence. The strait today falls within the overlapping 200-mile fishing jurisdictions of the United States and Canada, and the two nations are working out a new boundary line.

Juan de Fuca Strait is linked to Montreal, and each point between is linked to each other point by more than the great meandering line of the coast. They are held together by railways, airlines and highways, by common heroes and common enemies of the past, common problems of the present, common economics and common interests.





*The totem poles that line Canada's west coast were almost all carved during the nineteenth century. The figures were family symbols, similar to European heraldry, and illustrations of historical or mythical events. They were never worshipped, though some commemorated the dead. This one is on Village Island.*

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## CANADA

*Today/d'aujourd'hui*

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