



ENCYCLOPEDIA INTERNATIONAL

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CANADA  
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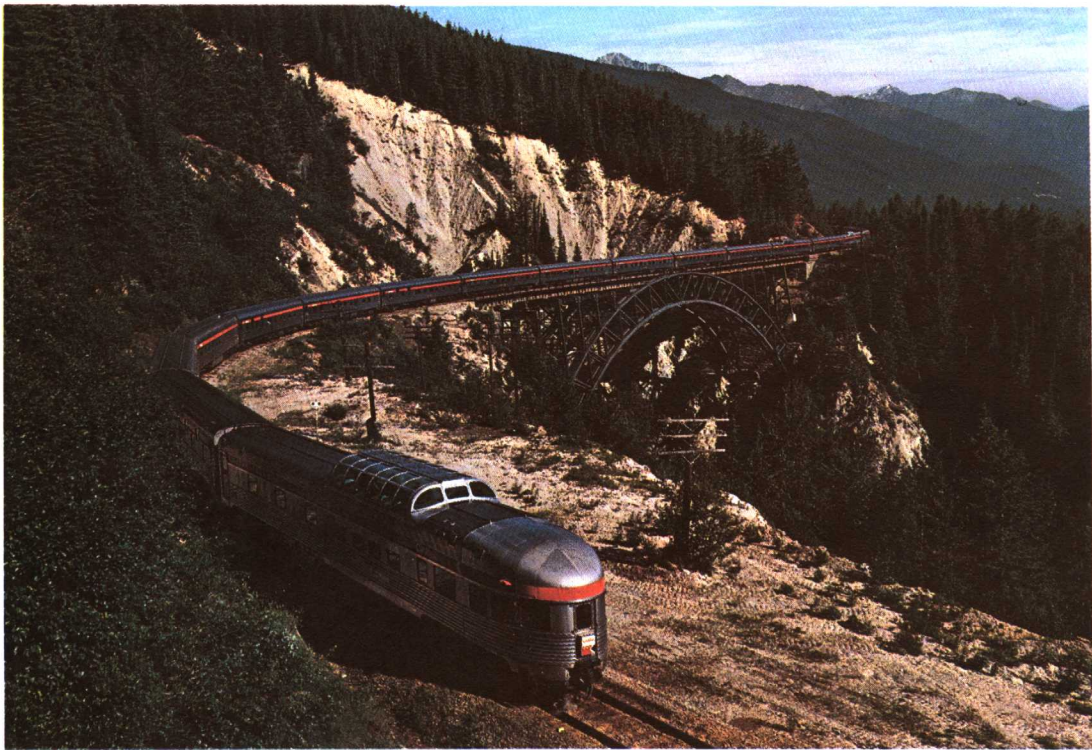
Summary: Thirty thousand alphabetically arranged articles designed especially to meet the needs of the family and students at various levels. Includes cross-references throughout and an index in the final volume.

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Canadian Pacific Railroad

For the train traveler the Canadian Rockies are a succession of unforgettable spectacles.

# CANADA



<b>AREA</b>	3,851,809 sq mi (9 975 415 km <sup>2</sup> )
<b>ELEVATION</b>	
Highest point (Mount Logan)	19,850 ft (6 050 m)
Lowest point	Sea level
<b>POPULATION</b>	
1971	21,568,311
1961	18,238,247
<b>PRINCIPAL LANGUAGES</b>	English and French
<b>LIFE EXPECTANCY</b>	68.8 years for males 75.2 years for females
<b>PERCENTAGE OF LITERACY</b>	97.8%
<b>UNIT OF CURRENCY</b>	Canadian dollar
<b>NATIONAL ANTHEM</b>	God Save the Queen (or King) words and music anonymous; O Canada, French words by Sir Adolphe Basile Routhier, English version by Robert Stanley Weir, music by Calixa Lavallée
<b>CAPITAL</b>	Ottawa
<b>PRINCIPAL PRODUCTS</b>	Processed iron and steel; foods and beverages; lumber, pulp, and newsprint; motor vehicles and aircraft; chemical products; nonferrous metal products; electric apparatus and supplies; refined petroleum; wheat, feed grains, livestock and poultry products; crude petroleum; uranium; nickel, copper, and platinum; iron ore; gold and silver; zinc and lead; asbestos; potash



## CANADA

**CANADA**, member of the Commonwealth of Nations, comprising all of the northern half of North America with the exception of Alaska, Greenland, St. Pierre, and Miquelon. It is the second-largest country in the world, yet one of the least densely populated. Most of its population lives within 200 mi. (320 km) of its southern border. North of this populated area the land comprises virtually uninhabited expanses of forest, tundra, mountains, rocky barrens, lakes, and swamps.

Canada has ten provinces and two territories. The provinces, from east to west, are Newfoundland and Labrador, Nova Scotia, Prince Edward Island, and New Brunswick (known as the Atlantic Provinces); Quebec and Ontario (known as the Central Provinces); Manitoba, Saskatchewan, and Alberta (known as the Prairie Provinces); and British Columbia. The territories are the Northwest Territories and the Yukon Territory.

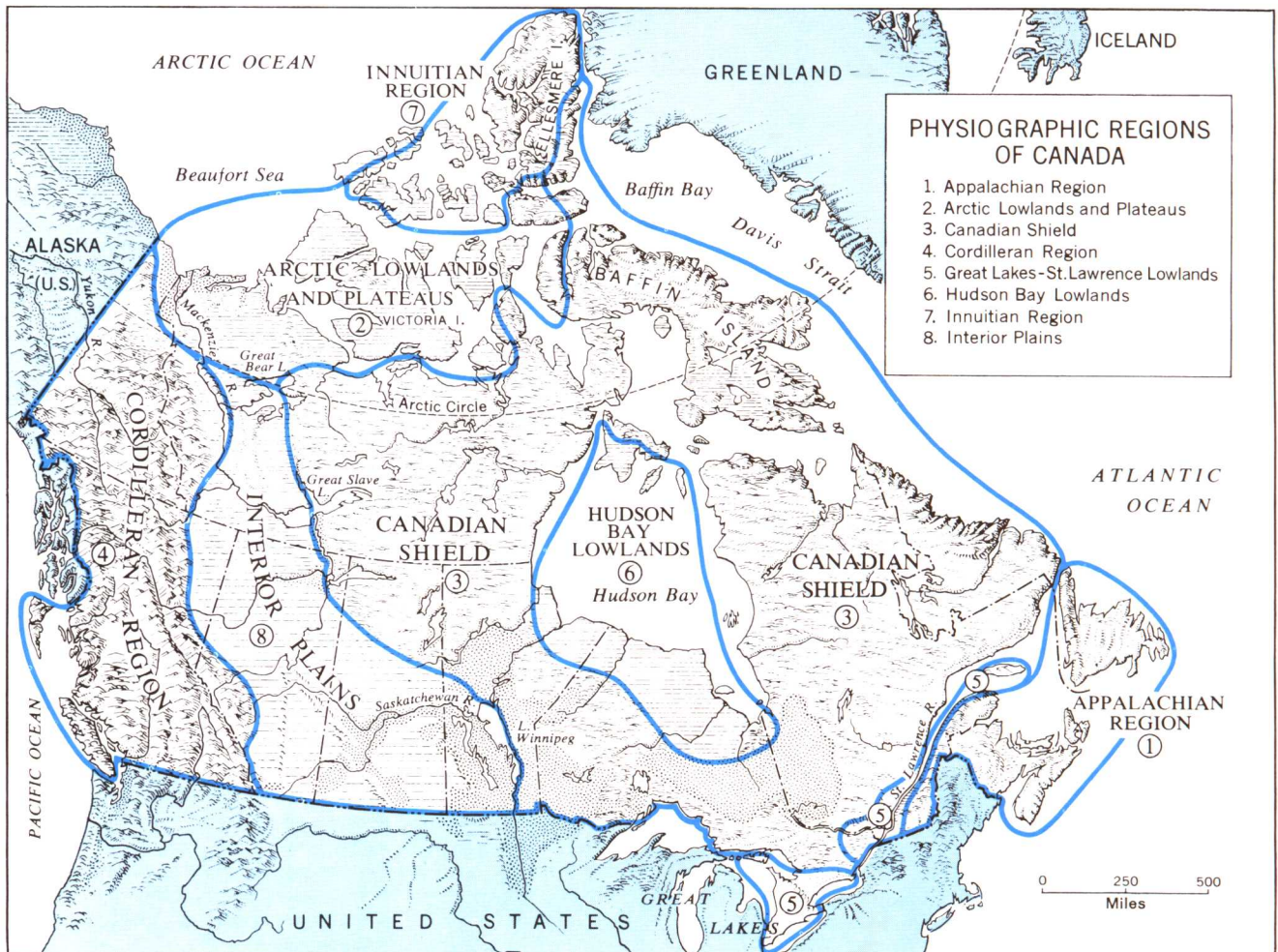
### Land

Canada stretches almost 4,000 mi. (6 400 km) from the Atlantic to the Pacific. *A Mari usque ad Mare* (the motto inscribed on the national coat of arms), and almost 3,000 (4 800 km) from its southern boundary with the United

States to the Arctic. The mainland has an estimated 17,860 mi. (28 740 km) of coasts and the islands an additional 41,810 mi. (67 285 km) of coasts. The largest islands include Baffin, 183,810 sq. mi. (476 031 km<sup>2</sup>); Ellesmere, 82,119 sq. mi. (212 672 km<sup>2</sup>); Victoria, 81,930 sq. mi. (212 180 km<sup>2</sup>); Newfoundland, 42,734 sq. mi. (110 673 km<sup>2</sup>); Devon, 21,606 sq. mi. (55 955 km<sup>2</sup>); and Vancouver, 12,408 sq. mi. (32 134 km<sup>2</sup>).

**Physiographic Regions.** Canada consists of eight physiographic regions: the Canadian Shield, the Hudson Bay Lowlands, the Great Lakes–St. Lawrence Lowlands, the Appalachian Region, the Arctic Lowlands and Plateaus, the Innuitian Region, the Interior Plains, and the Cordilleran Region.

The Canadian Shield, the largest of the regions, occupies about half the total area of Canada, embracing more than half of the Northwest Territories, the northeastern corner of Alberta, northern Saskatchewan, northern and eastern Manitoba, much of Ontario and Quebec, and all of Newfoundland's coast of Labrador. The geologic nucleus of the continent, the shield can be thought of as a huge saucer, the bottom of which is occupied by the waters of Hudson and James bays. The rim of the saucer







John Lewis Stage—Photo Researchers

Inuit are the major inhabitants of Baffin Island, whose cold and barren aspect caused Martin Frobisher in the 16th century to speak of it as *Meta Incognita*, "the edge of the unknown."

is most apparent in the southeast, in the Laurentide Scarp; in the east, in the Torngat Mountains; and in the northeast, in the mountains of Baffin Island. The western and southwestern edges of the shield are characterized by a line of lakes, some of which, especially Lake Winnipeg, Lake Athabasca, Great Slave Lake, and Great Bear Lake, are very large. Most of the shield is covered with glacial material and is rich in minerals and forests.

The Hudson Bay Lowlands stretch along the southern and southwestern shore of Hudson Bay. They consist of old marine beds and are of little economic importance except for some trapping and hunting.

Two regions lie east and southeast of the shield: the Great Lakes-St. Lawrence Lowlands and the Appalachian Region. The Great Lakes-St. Lawrence Lowlands, embracing southern Ontario and southern Quebec, form the smallest but by far the most heavily populated region of Canada. The region consists of gently dipping or almost flat stretches of land, nowhere exceeding 2,000 ft. (600 m) above sea level, interspersed with low valleys and abrupt scarps, the most prominent of which is the Niagara Escarpment. Except for natural gas fields and salt deposits in southern Ontario, the region is poor in minerals.

The Appalachian Region is the easternmost region of Canada, extending from the eastern townships of Quebec through the Atlantic provinces. The region consists essentially of low, rounded mountains, dissected by valleys. The most extensive lowlands, which include Prince Edward Island, border the Gulf of St. Lawrence. Most of the coasts of this region are deeply indented, and the resulting bays and coves provide many excellent harbors. In

addition to its fisheries, the region is rich in forests and minerals, including lead, zinc, iron, asbestos, and coal.

North of the Canadian Shield is the region known as the Arctic Lowlands and Plateaus. Farther north is the Inuit Region of extreme northern Canada, a series of mountainous islands stretching from Melville Island on the west and Cornwallis Island on the east, to northernmost Ellesmere Island, with elevations ranging from 3,500 ft. (1 050 m) to as much as 10,000 ft. (3 000 m).

West of the Canadian Shield, the Interior Plains region consists of a wide strip which extends northwestward from the U.S. border to the Arctic Circle and embraces southwestern Manitoba, southern Saskatchewan, most of Alberta, northeastern British Columbia, and part of the Northwest Territories. Within Canada these plains (which are part of the Interior Plains of North America) fall into three prairie levels or steppes and a lowlands area. The First Prairie Level (Manitoba Plain), almost entirely in Manitoba, with elevations of 600–900 ft. (180–270 m), contains in its eastern portion many lakes, and in its southern portion the fertile Red River Valley. The Second Prairie Level, largely in Saskatchewan and separated from the first level by a series of hills known as the Manitoba Scarp, is an area of gentle relief, with an average elevation of 2,000 ft. (600 m), separated from the third level by a number of flat-topped hills. The third level, known as the High Plains and largely in Alberta, is more elevated, rising from 2,000 ft. (600 m) in the east to more than 4,000 ft. (1 200 m) at the base of the Rockies, and has much more relief than the other two levels. North of the High Plains is another portion of the Interior Plains region known as

Scores of articles in this encyclopedia deal with the land, life, and culture of Canada. The general article on these pages covers the topics that are outlined below. Following the outline are suggestions for using the other articles on Canada.

- Land.** Physiographic regions (note the map); rivers and lakes; climate; natural vegetation; wildlife.
- People.** Sex and age; distribution; growth and character of the population; native peoples; religion; creative arts; sports and recreation.
- Economy.** Fisheries; fur industry; forestry; agriculture; mining; power; manufacturing; labor; transportation and trade; telephone and telegraph. (Note the map of resources.)
- Government.** The constitution; the sovereign; parliament; cabinet and prime minister; political parties; government departments; judiciary; civil rights; franchise and citizenship; armed forces and civil defense; finance; provincial and local government.
- History.** Early French exploration; growth of New France; international rivalry; Seven Years' War; Canada and the American Revolution; settlement and political unrest; the Rebellion of 1837 and the Durham report; responsible government; the causes of federation; the expansion of the dominion; the age of Macdonald; sectional discontent; the age of Laurier; the defeat of 1911; World War I; the age of Mackenzie King; the depression; World War II; postwar foreign policy; Canada and the United States; Conservative ascendancy; Liberal government; French-English relations; change in leadership.
- Canadian Art and Architecture.** Painting, sculpture, and architecture.
- Canadian Ballet.** Development; status as a major theatrical enterprise.
- Canadian Literature (English).** Beginnings; confederation era; early 20th century; between the wars; World War II and after.
- Canadian Literature (French).** Beginnings; poetry; the rural tradition; modern trends.
- Canadian Music.** Traditional music (native peoples); art music.
- Canadian Theater.** Beginnings; amateur theater; professional theater; National Theatre School.

For the geographical setting of Canada the reader may turn to NORTH AMERICA. The northerly parts are discussed in ARCTIC REGIONS. Other important topographic features include CAPE BRETON ISLAND, VANCOUVER ISLAND, GASPE PENINSULA, and the CANADIAN SHIELD. The mountainous areas in the west are treated in ROCKY MOUNTAINS and CASCADE MOUNTAINS. Major bodies of water include the COLUMBIA RIVER, ST. LAWRENCE RIVER, ST. LAWRENCE SEAWAY, YUKON RIVER, GREAT LAKES, GREAT BEAR LAKE, and Bay of FUNDY. Many of the national parks listed in the main article get individual treatment.

The 10 Canadian provinces and 2 territories are covered in individual articles. Each is accompanied by a Study Guide to direct the reader to related articles. Major cities—MONTREAL, OTTAWA, QUEBEC, TORONTO, WINNIPEG, and others—are described individually. Important segments of the Canadian population are discussed in INDIAN TRIBES, NORTH AMERICAN and ESKIMO.

Educational programs are surveyed in EDUCATION: *Education in Canada*. Other articles on Canadian education include COLLEGE CLASSIQUE, dealing with the French-speaking Catholic secondary schools in Quebec, and descriptions of leading universities—McGILL, MONTREAL, OTTAWA, and TORONTO. Military education is discussed in CANADIAN MILITARY COLLEGES. Statistics on institutions of higher education are given in the universities and colleges table in Vol. 20.

Library facilities are described under the headings LIBRARIES, CANADIAN and CANADIAN LIBRARY ASSOCIATION. Many other facets of Canadian culture are presented in articles on individuals such as the writers Philippe de GASPE, Louis HEMON, Sir Charles G. D. ROBERTS, Mazo DE LA ROCHE, Thomas Bertram COSTAIN, and Stephen Butler LEACOCK, the poet Bliss CARMAN, the playwright Gratien GELINAS, and the painter Emily CARR. Canadian contributions to the mental hygiene movement are noted in MENTAL HEALTH. Sports in which Canadians excel include LACROSSE, a game adapted from the Indians, and ICE HOCKEY.

The economy of Canada had its beginnings in the work of hunters and trappers, the COUREURS DE BOIS and companies such as NORTH WEST COMPANY, CANADA COMPANY, and HUDSON'S BAY COMPANY. Other articles pertinent to the economy are FUR TRADE IN NORTH AMERICA, FORESTS AND FORESTRY, and FISHERIES. MINES AND MINING, PAPER AND PAPERMAKING, and WHEAT deal with products and processes important in modern Canada. The reader interested in finance can consult such articles as BANK OF CANADA.

Historically, Canada was once a part of the BRITISH EMPIRE and is now a member of the COMMONWEALTH OF NATIONS. Its status was established by the BRITISH NORTH AMERICA ACT and the Statute of WESTMINSTER. As an independent country forming its own national and foreign policies, Canada is responsible for its own policing and defense, which are carried out by the ROYAL CANADIAN MOUNTED POLICE and the CANADIAN ARMED FORCES. Defense projects operated jointly by Canada and the United States are described in BALLISTIC MISSILE EARLY WARNING SYSTEM (BMEWS) and DISTANT EARLY WARNING SYSTEM.

For specific data on Canadian history the reader may start with biographies of explorers, such as John CABOT, Jacques CARTIER, Samuel de CHAMPLAIN, and Henry HUDSON. Questions of ownership and boundary lines were settled only by a series of wars involving the French, English, Indians, and Americans (see FRENCH AND INDIAN WARS, QUEBEC CAMPAIGN, WAR OF 1812, NORTHWEST REBELLIONS, and SAN JUAN BOUNDARY DISPUTE). Great leaders in Canadian history include the Comte de FRONTENAC, Louis Joseph de MONTCALM, James WOLFE, Louis Joseph PAPINEAU, and Sir William PHIPS. The Earl of DURHAM advocated self-rule. Many able statesmen have guided Canada in the course of its history (see Robert BALDWIN, Sir Wilfrid LAURIER, Alexander MACKENZIE, William Lyon Mackenzie KING, John DIEFENBAKER, Lester Bowles PEARSON, and Pierre Elliott TRUDEAU).

The many articles listed here offer the reader a basic knowledge of Canada from colonial to modern times. To keep up with the country's history as it is made year by year, the reader can use such sources as the annual supplement to this Encyclopedia. Government publications, such as the *Canada Yearbook*, record the growth of population, the trend of business, and developments in such areas as education and public health. Periodicals dealing with Canada may be available in the library. Books in the library enable the reader to pursue in detail his studies of the land and life of Canada.



the Mackenzie Lowlands. Varying in elevation from 500 ft. (150 m) above sea level in the east to 4,000 ft. (1 200 m) in the west, these lowlands are extensively covered with muskegs and lakes. The Interior Plains, in general, contain, in addition to some of the most fertile soil in Canada, abundant natural gas, oil, and coal resources.

West of the Interior Plains is the Cordilleran Region, extending northwestward up the western side of Canada from the southern border to Alaska and the Arctic Coast. A belt of mountains and plateaus, some 500 mi. (800 km) wide, the Cordilleran Region embraces southwesternmost Alberta, almost all of British Columbia, the westernmost part of the Northwest Territories, and all of the Yukon Territory. It is made up of three sections: (1) The easternmost consists of three groups of highly folded mountains separated by plateaus. In the east and southeast are the Rocky Mountains, noted for their spectacular scenery, reaching 12,972 ft. (3 954 m) in Mount Robson. Northwest of the Rockies and separated from them by the Liard River are the Mackenzie Mountains, rising to 9,000-ft. (2 700-km) peaks. The Peel Plateau lies north of the Mackenzies, separating them from the Richardson Mountains, which rise to moderate heights in extreme northern Yukon Territory. (2) The central Cordilleran section is marked off from the Rockies by a sharp topographical break known as the Rocky Mountain Trench. West of the trench, plateau forms dominate, alternating with deep valleys and ranges. (3) The third section of the Cordilleran Region, paralleling the coast, is composed of three parts. Its eastern portion embraces the Coast Mountains, which reach up the mainland coast into southwestern Yukon



George Hunter

Dotted with farms, the seemingly endless plains of Saskatchewan form a rich agricultural region.

The vistas of Banff National Park include clear waters, dark evergreens, and massive, crumpled mountains. The oldest of the Canadian national parks, Banff grew from a small reservation around Sulphur Mountain.

Filmbureau Niestadt



## CANADA

Territory; its center portion, the Coastal Trough; its western portion, the Coast ranges, which include Vancouver Island, the Queen Charlotte Islands, and the St. Elias Mountains (shared with Alaska). This westernmost Cordilleran section exhibits grand and awesome scenery. The Coast Mountains, often rising to heights of 6,000 and 9,000 ft. (1 800 and 2 700 m), reach a summit of 13,260 ft. (4 042 m) in Mount Waddington. Mount Logan in the St. Elias Mountains is Canada's highest peak at 19,850 ft. (6 050 m). Fields of ice, from which many valley glaciers radiate, are widespread among the summits. All along the coast there are spectacular fiords with steep-sided walls which often rise over 4,000 ft. (1 200 m). The Coastal Trough between the two coastal mountain systems has been drowned by the sea and affords an extremely useful water route along the west coast of Canada. The Cordilleran Region contains rich resources of forests, water power, and minerals, particularly lead, zinc, and copper.

**Rivers and Lakes.** The natural drainage systems of Canada have three broad characteristics. First, most of the rivers flow northward to ice-infested seas which, at best, are open for only a few months of the year. Second, because all of the rivers of Canada or their headwaters freeze over for part of the year, they tend to flood in the break-up season and to maintain a fairly steady flow for the rest of the year. Third, the drainage systems reflect most noticeably the glacial interference with the surface in the past. Rivers were forced to seek new outlets when their drainage channels were disrupted by ice-deposited materials and, consequently, rapids and falls are characteristic of most Canadian rivers.

The Mackenzie River system is the longest in Canada, reaching a length of 2,635 mi. (4 240 km) from the mouth of the Mackenzie to the head of the Finlay River. It drains approximately one quarter of the total area of the country as it flows northwestward to empty into the Arctic Ocean. Most of the rivers of the Canadian Shield and the Interior Plains drain into Hudson Bay. The Nelson River system is by far the largest single system of these regions, including such important rivers as the Saskatchewan, Assiniboine, Red Deer, and Bow. Of rivers flowing to the Pacific, the Yukon, in northwestern Canada, and the Columbia and Fraser, in the southwest, are the most important. Of those flowing into the Atlantic, the St. Lawrence is the most important. A small area of Canada, in southern Alberta, drains through the Milk River to the Gulf of Mexico.

The largest lakes are the Great Lakes, which, with the exception of Lake Michigan, Canada shares with the United States; the international boundary runs through four of the Great Lakes—Superior, Huron, Erie, and Ontario—and Lake St. Clair. Other large lakes include Great Bear (12,000 sq. mi., or 31 000 km<sup>2</sup>) and Great Slave (11,170 sq. mi., or 28 928 km<sup>2</sup>), Athabasca, Reindeer, Winnipeg, Winnipegosis, Manitoba, and Nipigon.

Canada's lakes and rivers comprise one of the largest inland water areas in the world, and every effort is made to prevent their pollution. They provide abundant water power, one of the country's chief natural resources.

**Climate.** The sub-Arctic is the most widespread climatic type. Covering 53% of the country, it extends generally southeastward in a broad band from the Alaska border, across the northern portion of the Prairie Prov-

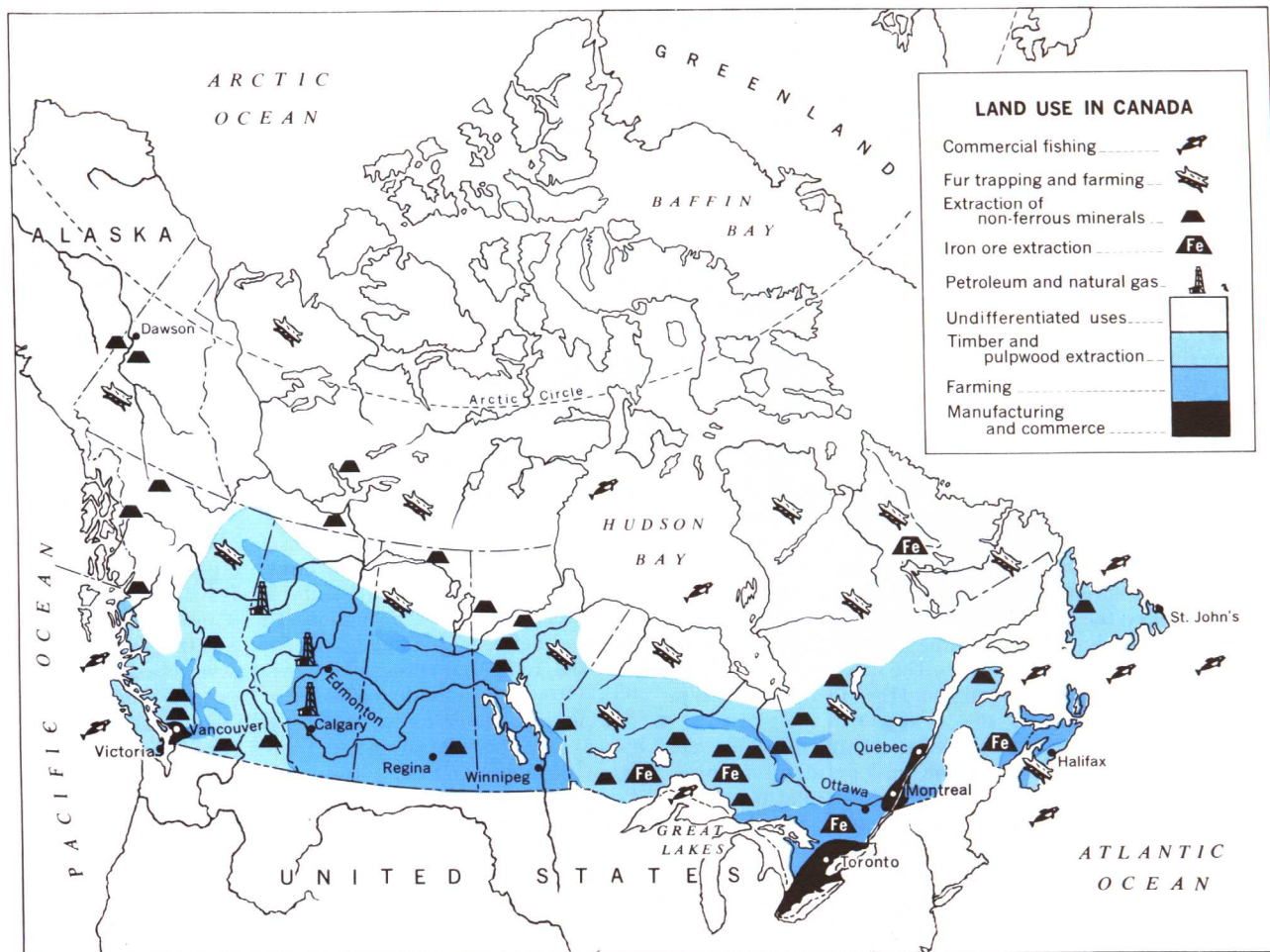
inces, to Lake Superior, and across most of Quebec and Newfoundland. Throughout the region winters are long and very cold, and climatic conditions are frequently more severe than those in the Arctic region, January temperatures may average less than  $-20^{\circ}$  F. ( $-29^{\circ}$  C), particularly in the northwestern section, and there are only three months when temperatures average above  $50^{\circ}$  F. ( $10^{\circ}$  C). Precipitation is light in the northwest but ample in most of the southeastern portions; an appreciable snow cover lasts for more than half the year. Lowlands vary from about  $15^{\circ}$  F. ( $-10^{\circ}$  C) in January to  $65^{\circ}$  F. ( $18^{\circ}$  C) in July, but extreme lows of  $-45^{\circ}$  F. ( $-43^{\circ}$  C) and extreme highs of more than  $100^{\circ}$  F. ( $38^{\circ}$  C) have occurred in some areas. Average annual precipitation is about 25–30 in. (63–76 cm). In the Appalachian Region around the Gulf of St. Lawrence conditions are more moderate, average monthly temperatures varying from  $10^{\circ}$  to  $25^{\circ}$  F. ( $-12^{\circ}$  to  $-4^{\circ}$  C) in January to  $55^{\circ}$  to  $65^{\circ}$  F. ( $13^{\circ}$  to  $18^{\circ}$  C) in July. Strong winds are frequent in this area, and precipitation averages around 40 in. (100 cm) a year, the wettest period generally being in winter. Coastal fog is characteristic in spring and early summer.

In the Arctic climatic region, which covers almost 25% of the country and encompasses coastal sections and northerly islands of the Northwest Territories and the extreme northern parts of Quebec and Newfoundland, the average temperature in July, the warmest month, never rises higher than  $50^{\circ}$  F. ( $10^{\circ}$  C). Over the most northerly islands January temperatures average less than  $-27^{\circ}$  F. ( $-33^{\circ}$  C). Precipitation is relatively light; but the snow blows, packs, and drifts to an extent unknown in southern Canada.

In the prairie regions of southern Alberta and Saskatchewan and southwestern Manitoba there are great extremes of temperature. Although the average January temperatures are around  $0^{\circ}$  F. ( $-18^{\circ}$  C), not infrequently winter low temperatures of  $-40^{\circ}$  F. ( $-40^{\circ}$  C) are recorded. Similarly, although the average July temperatures are about  $65^{\circ}$  F. ( $18^{\circ}$  C), the average annual maximum temperatures are in the neighborhood of  $95^{\circ}$  F. ( $35^{\circ}$  C). Precipitation averages between 10 and 20 in. (25–50 cm), most of it falling in early summer, the most favorable time for agriculture. Southern Alberta and southwestern Saskatchewan form a semiarid region where the precipitation is not only scanty but extremely variable. The prairie regions in general are subject to blizzards, and southern Alberta experiences chinook winds, which in the course of only a few hours can raise temperatures by as much as  $50^{\circ}$  F. ( $28^{\circ}$  C).

In coastal areas of British Columbia, mild winter and cool summer temperatures are ensured by the general circulation of air blowing over the warm Japan Current of the Pacific Ocean. The average January temperatures are above freezing, and the average July temperatures are around  $55^{\circ}$ – $60^{\circ}$  F. ( $13^{\circ}$ – $16^{\circ}$  C). The interior of the Cordilleran Region has generally wider temperature ranges. On the mountainous coast, rain-bearing winds force the moist air to rise, producing precipitation that in places averages more than 100 in. (250 cm) annually. In the interior plateaus precipitation is much lower, and certain sections of southern British Columbia are semiarid. In general temperature variability and severity increase and





precipitation decreases eastward from the coast to the Rockies.

**Natural Vegetation.** Canada's natural vegetation can best be described as falling into five areas: the boreal forest, the forests of the southeast and the southwest, the grasslands, and the tundra. Plant growth in each area is largely determined by the area's distinct climatic conditions in combination with its surface possibilities.

The boreal, "great northern" forest is the largest of the areas, extending from coast to coast and covering almost 40% of the country. It begins in northern British Columbia and the Yukon Territory and sweeps southeastward to encompass the northern portions of the Prairie Provinces, and eastward to cover most of the eastern provinces to the coast of Newfoundland. The heart of the forest is primarily coniferous, with white and black spruce predominating. Other important trees include jack pine, aspen, balsam fir, and tamarack. In the northern reaches there is intermingling with tundra vegetation; toward the south, with grassland.

In the Great Lakes-St. Lawrence Lowlands and Appalachian regions of the southeast, mixed forests of conifers and hardwoods flourish, with hemlock and white, red and jack pine the chief conifers; red and white oak, ash, and yellow birch, the principal hardwoods.

In the forests of the southwest, Englemann spruce, hemlock, and lodgepole pine are plentiful Rocky Moun-

tain species. Dense forests of Douglas fir, cedar, western hemlock, and spruce are found in the wetter sections of British Columbia, and cottonwood, broad-leaved maple, and alder appear in valleys throughout this southwestern-most region of the country.

The grasslands stretch eastward across the prairies of Alberta and Saskatchewan and southwestern Manitoba. This is the virtually treeless land of short and tall grasses. In the drier sections of southern Alberta and Saskatchewan, only short grasses can grow, and characteristic species include spear, June, and western wheat grass. Farther north, longer grasses predominate, and wheat grass is typical.

The tundra encompasses all of Canada north of the boreal forest. Its southern limit reaches southeastward from northernmost Yukon Territory, to southeastern Northwest Territories, and across northernmost Manitoba, Ontario, Quebec, to Newfoundland's coast of Labrador. Throughout the area the subsoil remains permanently frozen (permafrost). Only stunted growth, such as dwarf willow and dwarf birch, shrubs, mosses, and grasses, can grow during the short summer.

Since so much of the land of Canada is still in a state of wilderness, there is concern for its preservation if human activities expand. Because of the northern location, with its arctic and subarctic climates, the ecology of most of the area is especially fragile, making vigilance imperative.



**Wildlife.** The animals found in the heart of the boreal forest include the beaver, wolf, coyote, moose, mink, otter, woodland caribou, muskrat, black bear, and red fox. Birds include the Canada jay and the white-throated sparrow. Inland rivers and lakes teem with trout, whitefish, sturgeon, perch, pike, and pickerel.

In the Cordilleran region the animal life is generally typical of North America: the mountain sheep (bighorn sheep), the mountain goat, mountain caribou, and bear (grizzly and black). The Pacific coastal waters contain great quantities of salmon, the most important species, and herring, halibut, and cod.

In the Great Lakes, St. Lawrence, and Appalachian regions white-tailed deer are found, and red deer are especially common to Nova Scotia. Jays, orioles, juncos, and thrushes can be found in large numbers. Fish are abundant in the Atlantic coastal waters, with cod, lobster, and herring among the leading catches.

Animals common to the prairie grasslands are the pronghorn antelope, the coyote, the prairie hare, burrowing gopher, the mule deer, and the white-tailed deer. At one time herds of buffalo roamed the prairies. Waterfowl abound in the swamper areas. The sage hen (in the short-grass region), the horned lark, and the burrowing owl represent typical birdlife.

The larger animals capable of existing on the tundra are the Barren Ground caribou, the musk ox, the Arctic wolf, and the Arctic fox. Whales and seals, so vital to the Eskimo economy, live in the Arctic waters, and the polar bear is found along the coasts. Also common to the tundra are certain smaller animals (Arctic weasel, Arctic hare) and many birds (ptarmigans, eider ducks, and snowy owls).

Consult *Atlas of Canada* (1957); Bird, J. B., *The Natural Landscapes of Canada* (1972); Dominion Bureau of Statistics, *Canada Year Book* (annual); *Native Trees of Canada* (1963); Taverner, P. A., *Birds of Canada* (1949).

NORMAN L. NICHOLSON

### People

The number of Canadians was estimated at 22,450,000 in 1974, about 2,000,000 more than in 1966. This rapid growth persists, although the birth rate has plummeted from approximately 27.8 per thousand in the 1950's to an all-time low of 15.7 in 1972. The drop in the death rate from 8 to 7.3 per thousand between 1961 and 1971 offers a partial explanation for the continued increase. Higher levels of immigration and a significant decline in emigration are also important factors. The influx has included newcomers from the West Indies, expatriate Americans, and special groups of Asians, such as nearly 6,000 refugees from Uganda in 1972. Among these immigrants have been many technically and professionally trained persons, who have thus contributed to a rate and quality of population increase comparable to that of other industrial nations.

**Sex and Age.** Canadian males outnumber females by less than 0.1%; there has been a steady trend away from an earlier male-dominated economy and society. Those persons 19 years of age and younger dropped from 42.2% in 1966 to 39.4% in 1971, indicating the waning of the post-war "baby boom." But the proportion of Canadians 65 years and older grew from 7% to more than 8%. This

pattern presented serious challenges, prompting demands for new facilities for continuing education and new measures of health and social security legislation.

**Distribution.** Ontario is the most populous province; 35.8% of the population live there. Quebec is next, with 27.8%. British Columbia occupies the third place, having raised its percentage of the total population from 9 to 10.5 in a decade. Although Alberta compares favorably to British Columbia, the prairies as a whole contain little more than 16% of the total population. Still suffering from significant emigration and a reduced birth rate, the Atlantic Provinces are inhabited by only 9.6% of the people. The Yukon and the Northwest Territories, where major economic and governmental improvements have taken place, increased their combined population of less than 38,000 in 1961 to 60,000 by the early 1970's.

Despite its immense size, a density of less than six persons per square mile (about two per square kilometer), and its record as one of the world's largest exporters of agricultural products, Canada is substantially and increasingly becoming an urban nation. The number of farms dropped between 1961 and 1971 from 481,000 to some 400,000; total agricultural employment dropped from 681,000 to little more than 500,000 or about 6% of the entire employed labor force. At the same time the national percentage of urbanization rose from 69.7 to 76.1. Qualifying the migration to the cities, use of rural land for non-farm purposes increased in the 1960's with moves to more distant suburbs. Farm use of rural lands declined by about 30%. Quebec, despite persistent myths about its "peasant

A British Columbian artist puts the final touches on a wood carving.  
Information Canada Phototèque



people," is the most urbanized province.

**Growth and Character of the Population.** Immigration has always been the chief factor in Canada's population growth, even when many immigrants left again for the United States. Empty and cheap lands, high wages, a superior standard of living, and dreams of fresh opportunities held special appeals for Europeans.

Primary attention to fish and furs sharply limited settlement in the St. Lawrence Valley until the end of the French regime in 1763. The Atlantic seaboard was even less populous. By the beginning of the American Revolution there were scarcely more than 100,000 persons in these two regions. The prairies, the Pacific coast, and the north were still inhabited only by their indigenous peoples.

The century before Confederation (1867) was the most important period of settlement in the maritime provinces. Scotch, English, Irish, and a small German immigration paralleled the emptying of the glens, English industrial disruptions, and Irish famines. A trickle of Yankee colonial immigrants was followed by a flood of 30,000 Loyalists during and after the American Revolution. The result was a scattering of settlement and resources along a huge coastal frontier, and the diffused rural pattern has persisted to this day, unrelieved by new immigration and often weakened by selective emigration. By contrast, Quebec's society remained predominantly French, although commanding Scotch and English financial interests came to power in Montreal. Famine Irish supplemented the non-French immigrant stream. Ontario advanced from sound agricultural beginnings with the roughly 10,000 founding Loyalists to commercial and industrial strength before Confederation. British immigration predominated.

The immediate post-Confederation penetration of the northwest was slow but extremely important in fixing the east's principal institutions on the west. Railroad construction brought nearly 20,000 Chinese to Western Canada, but by 1910 Asian immigration of any origin was practically ended by exclusion. After completion of the Pacific railway in 1885 and until 1914, immigrants to Canada numbered 3,000,000. Of these, most were would-be farmers, and almost one-third were from continental Europe, Germans and Slavs predominating. The Ukrainians established an early and persistent distinctiveness, contributing particularly to the character of Manitoba, along with French, Scotch, and Icelandic elements. As many as two-thirds of the immigrants to 1929 re-emigrated to the United States, often leaving a scattered, impermanent character to the western Canadian scene. This pattern recurred in the 1920's, but both immigration and emigration were virtually ended by the Depression and World War II.

Immigration since 1945 has returned to its earlier proportions but has changed markedly in pattern. Virtually equaling the volume before 1914, it has been even more varied in European and Asian background. Nearly 20% of Canadians have a European origin other than the two so-called "founding races." Most immigrants, however, have traditionally fitted into the French or English linguistic pattern. The early interest was in rural farming areas; immigrants now chiefly move to urban Ontario,

Quebec, and the west. A movement of huge numbers of Italians, Germans, Poles, Dutch, and eastern Europeans to Toronto has been perhaps the most striking feature of post-war immigration. Increases in the numbers of skilled and professionally directed newcomers may help to reduce the effect of the drain of similarly-trained people to the United States. Emigration, chiefly to the United States, has fallen from double the immigration rate to one-third, leaving a substantially favorable balance.

**Native Peoples.** There are more than 500,000 native people in Canada, comprising Indians, métis (those of mixed European and Indian extraction), and Eskimos. Indians form the majority, perhaps 500,000, of whom 260,000 are recognized as "treaty" or registered Indians. The second classification of "non-status" Indians includes the métis for statistical purposes, and may number as many as 275,000. There are roughly 17,500 Eskimos.

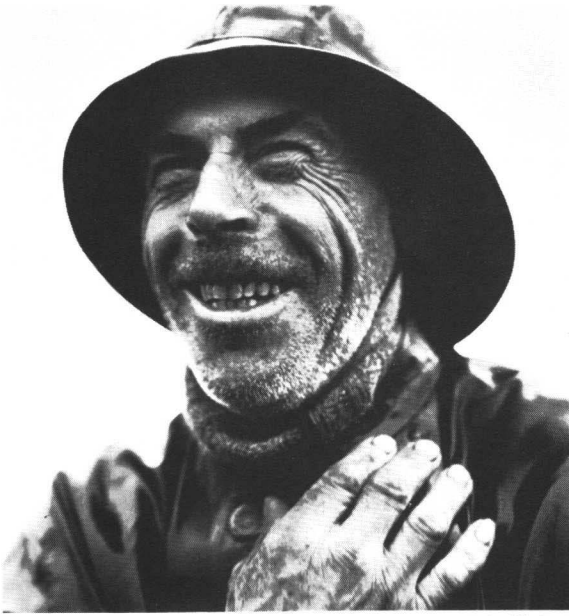
Thanks to its natural endowments Canada is one of the most privileged nations. Using the resources productively is the concern of laboratory technician and refinery worker alike.



Saskatchewan Tourist Branch



Alberta Public Affairs Bureau



National Film Board

A Newfoundland fisherman works in all weathers to wrest his living from waters that are notoriously changeable.

The Indians are organized in about 550 bands, and 80% live on reservations across Canada. The métis are centered in the prairies and territories. The Eskimos continue to live in the territories, Quebec, and Labrador. All have been traditionally subject to swift disruptions arising from political and technological developments. In response to new threats that have appeared, Canada's native peoples have begun a "cultural revolution" by asserting their particularism and pride. The federal government has also established an annual grant of \$2,000,000 to finance research into their grievances against the white man. Several universities have recently initiated native studies programs, to which Indians and others are attracted.

Indians, métis, and Eskimos now increasingly turn to government and the courts to settle broken treaties or to seek title to lands never yielded up through treaties. On June 22, 1973, for instance, Indian chiefs Leo Pretty-Young-Man and Jim Shot-Both-Sides led thousands of their people to a grand pow-wow at Blackfoot Crossing on Alberta's Bow River. There, amidst singing, dancing, and speeches, federal officials handed over \$250,000 to compensate for failure to honor an 1877 treaty between Indians and the Northwest Territories government. Such victories suggest that Canada's aborigines are finally asserting their rights with some prospect of success. This and other cases, even more significant, are broadening Canadians' interest in their native people, which in turn should affect government programs concerned with the Indian's poverty cycle, civil rights, education, and cultural improvement.

Eskimos have recently been elected to the Northwest Territories Council. In 1972 a major Eskimo art exhibit was dispatched to Philadelphia, London, Paris, Copenhagen, Leningrad, and Moscow. In addition, Canadian

Indians have joined hands with Swedish defenders of Scandinavia's threatened Lapp communities in order to resist big northern development projects and to strengthen understanding and the dignity of their communities and cultures.

**Religion.** The Roman Catholic Church remains the largest single denomination in Canada; more than 40% of the nation belong to it. Among Protestant denominations there has always been a tendency toward consolidation. Methodists, Congregationalists, even Presbyterians, overcame traditional divisions to form single, autonomous denominations soon after Confederation (1867). In 1925 these three denominational unions combined further to form the United Church of Canada, whose adherents are now second in numbers, after those of the Roman Catholic Church. They are followed by the Anglicans, and these three denominations claim nearly 80% of Canada's population. Presbyterians, Lutherans, and Baptists come next (in that order), while Ukrainian Catholic, Greek Orthodox, Mennonite, Pentecostal, and other Christian groups are also much in evidence. Jews make up about 1.5% of the population; theirs is the oldest, largest, and most influential non-Christian religious community in Canada. The growth of large metropolitan centers—notably Montreal, Toronto, and Vancouver—has also resulted in significant numbers of Unitarians, Evangelicals, and even Egyptian Coptics, as well as many groups of Buddhists, Hindus, Muslims, Sikhs, and others.

**Creative Arts.** The National Gallery of Art in Ottawa continues to encourage young experimental artists. The collections of the major galleries in Montreal, Toronto, Winnipeg, and Vancouver are increasing, and many retrospectives have been held. But these galleries also seek wider audiences; outdoor sculpture exhibits and "cityscapes" to decorate large buildings are encouraged in Montreal and Toronto; Toronto's art gallery, renamed the Ontario Gallery of Art, has embarked upon an ambitious expansion program; Winnipeg's gallery, by a comprehensive extension program, has attempted to take art to Manitoba's scattered rural communities; and in Vancouver the gallery in 1971 co-sponsored the first major exhibit of Canadian native art, later sent to several cultural centers abroad. (See also CANADA: *Canadian Art and Architecture*.)

Professional repertory theaters are well established in every province except Newfoundland, and in most large cities. The so-called "separate" theater movement, especially in Montreal, Toronto, and the west, presents many experimental productions and a high proportion of new works by Canadian playwrights. In Quebec, groups such as Le Théâtre Populaire du Québec parallel the art galleries in bringing theater to isolated communities. (See also CANADA: *Canadian Theater*.)

Canadian films have traditionally been associated with the National Film Board, with its distinguished reputation for documentaries, experimental shorts, and animations. During the 1960's, the National Film Board moved successfully into feature films and assisted in the birth of a Canadian commercial film industry. Establishment of the Canadian Film Development Corporation added further incentives, and by 1973 there were 137 companies in production or technical operations. Such films as "Mon Oncle



Antoine” and “Wedding in White” have met critical acclaim and stimulated new appreciation of Canada’s social and cultural growth.

Canada’s National Ballet Company, established in 1951, has introduced many new works, encouraged new choreography, and made successful tours of Europe and the United States. It has benefited from association with such noted dancers as Rudolf Nureyev and Erik Bruhn. Les Grands Ballets Canadiens and the Royal Winnipeg Ballet are other successful troupes, especially in mixed media presentations. Contemporary dance groups, notably the Toronto Dance Theatre, have attracted new audiences and interest. (See also CANADA: *Canadian Ballet*.)

The Canadian Opera Company celebrated its 25th year in 1973, while L’Opéra du Québec completed its first year. The Toronto Symphony is the oldest Canadian orchestra, having performed uninterrupted since 1922. The National Arts Centre Orchestra of Ottawa and the Montreal and Vancouver Symphonies are among other successful musical ensembles. Similar municipal groups, often of amateurs and semi-professionals, are established across

the country, such as Vancouver’s Society for Early Music. Canada’s first regional orchestra, the Atlantic Symphony, has paralleled movements in the other arts to bring professional musicians to isolated rural communities. Toronto’s Mendelssohn Choir and the Festival Singers have moved in the opposite direction, touring Europe with great acclaim in the early 1970’s. (See also CANADA: *Canadian Music*.)

Annual art festivals enjoy special popularity in Canada. Stratford’s Shakespeare Festival, begun in 1953, also embraces film, experimental theater, and music; the company of Niagara-on-the-Lake’s G.B. Shaw Festival has toured both Canada and the United States; Charlotte-town’s reputation for popular musicals has carried its company to New York, London, and Osaka.

Few Canadian writers, with the possible exception of Stephen Leacock, Farley Mowat, Gabrielle Roy, Morley Callaghan, and Hugh MacLennan, have established national or international reputations. Canada’s foremost literary critic, Northrop Frye, has ascribed this condition to the country’s “garrison mentality”—a colonialist attitude

With the rough side of his granite stone down, an intent curler checks the cleanliness of the ice in the “house” before him.

R. Curtis—Monkmeyer







Canadian National Tourist Office

Excitement reaches a pitch when possession of the puck is disputed within a stick's length of the goal.

which has made Canadians slow to throw off their old-world heritage. Later critics, like Margaret Atwood and D. C. Jones, have suggested that the reason may be the Canadian writer's preoccupation with survival and that the Canadian land and people, by virtue of their regional differences, do not admit of European or American values. Canadian literature is regional in nature, and Canadian nationalism, as has been said, should be a celebration of this diversity. Actually, there is much interest in all forms of Canadian literature. But the richness and depth of regional writing is evident in the works of many authors. (See also CANADA: *Canadian Literature.*)

**Sports and Recreation.** Canada's reputation in professional sport has long rested in its hockey teams, and in the manning of American hockey teams. Little league and minor hockey flourish, and young Canadians' heroes still include Bobby Orr, Phil Esposito, and Yvan Cournoyer. But many are turning from hockey to other sports and from viewing to participation.

Distinguished performances by Canadian women in World and Olympic amateur competition have made famous such aquatic stars as Leslie Cliff and Beverly Boyes; skiers such as Nancy Greene and Betsy Clifford; and the figure skater Karen Magnussen. British and European

immigration has encouraged a striking increase of activity in the old Canadian sport of soccer. The most phenomenal sports and recreational developments in Canada since mid-century have been in snowmobiling and in cross-country skiing. Here again, Canadian women, such as Inuvik's Firth sisters, have distinguished themselves and promise a major challenge to Scandinavian dominance in cross-country skiing competition.

Despite some government encouragement, Canadian sport and fitness programs depend largely on individual efforts. Appreciation and care of the natural environment have grown sharply, leading to widespread interest in cycling, skiing, canoeing, fishing, hiking, and especially camping. The federal government has responded impressively by establishing ten new national parks, including three in the territories, one north of the Arctic Circle. Facilities in existing provincial and federal parks have been greatly expanded to meet popular demand for camper-trailer accommodations, nature walks, and relief from the stress of an ever-dominant urban way of life.

Even the seasonal pattern of Canadian outdoor recreation has been altered. More Canadians than ever retreat to Florida, Mexico, and the West Indies for brief winter breaks, but more also spend their winter leisure in Canada. Summer hotels are opening and closing weeks beyond former schedules, as working people elect off-season holidays and the number of retired citizens steadily increases. Improvements in winter clothing, equipment, and mo-

Fishing for cod on the Grand Banks off Newfoundland is one of the oldest occupations in the Western Hemisphere.

National Film Board





bility have allowed Canadians to come to terms with the winter environment. More than 2,000,000 Canadians and 100,000 foreign visitors have come to look forward to an outdoor winter vacation in Canada.

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ALAN WILSON

See also EDUCATION; *Education in Canada*; LIBRARIES, CANADIAN.

### Economy

Canada's early economic development rested on the exploitation of its fish, fur, and timber resources. As colonization and settlement proceeded, mining, quarrying, and agriculture were added to the list of Canada's basic, or primary, industries. Agriculture, in particular, began to support a large number of people after the prairies in the west were opened for settlement toward the end of the 19th century. In recent decades, however, there has been a decline in the percentage of the population engaged in these industries, especially in agriculture, and a corresponding increase in the percentage engaged in other industries, particularly in manufacturing and commerce.

In the early 1970's manufacturing employed nearly

one-fourth of the total employed working force; services, including public administration and defense, employed somewhat less than one-third; trade one-sixth; and transportation and communications less than one-tenth. Agriculture, forestry, mining, fishing, and trapping employed most of the remaining one-fifth. In terms of net value of commodity production manufacturing accounted for about 55% of the Canadian total and construction for 20%, while agriculture, forestry, mining, electric power, fisheries, and trapping combined accounted for 25%.

**Fisheries.** Commercial fisheries have been of economic importance in the area ever since the 15th century, when European fishermen discovered the rich fishing grounds off Newfoundland and Nova Scotia. These areas still produce more than 2,000,000,000 pounds (900 000 metric tons) of fish, principally cod and herring. The Pacific fisheries, which depend principally on the salmon catch, were developed in the 19th century. Yields average about one-third of the total market value of the catch from all Canadian fisheries. The inland fresh-water areas, principally the Great Lakes and the lakes of Manitoba, produce important quantities of whitefish, pickerel, perch, sturgeon, and lake trout.

Modern fishing techniques, which have facilitated a more thorough exploitation of the resources of lakes and marginal seas, have caused grave concern over possible depletion of some fish species by overfishing.

The lode mine at Sapawe in Northern Ontario helps to make Canada one of the world's most important sources of gold. Placer mines and by-products of base-metal mining yield less than a quarter of the nation's total.

Freelance Photographers Guild







Freelance Photographers Guild

Savona lumber mill in British Columbia processes timber taken from the great northern forest that lies west of the Rockies. The primarily coniferous forest that covers nearly 45 percent of Canada is accessible here.

**Fur Industry.** If fishing was the first economic activity of Canada, furs were the first of the land resources to be harvested on a commercial basis. Although no longer a leading activity in the economy as a whole, fur trapping is a major activity in the vast expanses of the Canadian wilderness, and its production is supplemented by some 2,500 fur farms in southern Canada. In terms of value of pelts taken in the wild, beaver is the most important species, followed by mink, muskrat, fox, squirrel, otter, and ermine. Of farm-produced pelts, those of mink give most income; chinchilla and fox are also raised.

**Forestry.** Though forests cover nearly 45% of the total area of Canada, most of the accessible timber is in British Columbia, Ontario, and Quebec; British Columbia alone contributes two-thirds of all forestry production in Canada. For lumber the chief species cut are spruce, Douglas fir, hemlock, white pine, and cedar. For pulpwood (the primary product of the Canadian forests) and paper, the chief species are spruce, balsam fir, jack pine, and hemlock. In British Columbia cutting work goes on during most of the year, but east of the Rockies, woods operations are seasonal, beginning in August and ending when the snow gets too deep. In the spring the logs are floated down rivers to the sawmills.

**Agriculture.** Of Canada's vast land area of 3,560,238 sq. mi. (9 220 304 km<sup>2</sup>), exclusive of fresh water, only about 272,000 sq. mi. (704 000 km<sup>2</sup>), or some 8%, are in farms. Somewhat more than half of the farmland is cultivated, about 137,000 sq. mi. (355 000 km<sup>2</sup>) being south of 55° N.

Farming is highly mechanized and modernized, which means that despite the declining number of agricultural workers, an increasing quantity of foodstuffs is produced on larger farms.

More than 80% of the improved agricultural land of the country is in the Prairie Provinces and is used chiefly for grain production, especially spring wheat. Canada generally ranks from third to sixth among nations of the world in the production of wheat, which has long been the most important agricultural crop; annual production varies from 300,000,000 to more than 500,000,000 bushels (105 000 000–175 000 000 hectoliters). But the specialized economy of the prairies is slowly becoming diversified with greater emphasis on the raising of livestock and particularly the expansion of the dairy industry. In the western part of the prairies, which is too hilly and often too dry for wheat, beef cattle are raised.

In southern British Columbia farming, chiefly dairying, poultry raising, truck farming, and fruit growing, is concentrated in the mountain valleys and on the coastal plains. On the interior plateaus cattle raising is carried on extensively.

In the Great Lakes–St. Lawrence Lowlands mixed farming predominates, although local areas produce special crops, usually due to a combination of soil and climatic conditions. The Niagara Peninsula is famous for its soft fruits, notably grapes and peaches; cigarette tobacco is grown on the north shore of Lake Erie; and on the peninsula of southernmost Ontario crops for canning are