Geography of British Columbia

People and Landscapes in Transition

4th Edition

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Introduction

The geography of British Columbia is in constant flux. Between 2014 and 2017 alone, the following events occurred, transforming the landscape and the way people engage with it:

- Heat waves shattered temperature records, and wildfires devasted parts of the province, causing thousands to flee their homes.
- Fracking triggered large quakes in the oil and gas patch.
- Tla'amin First Nation implemented a treaty with the provincial government.
- The high-tech sector became a bigger employer than mining, oil and gas, and forestry combined.
- A tragic avalanche took the lives of five snowmobile riders.
- The provincial government formally opposed the Kinder Morgan Pipeline expansion.
- A tent city popped up to protest the lack of affordable housing in Vancouver.
- The wine industry boomed in BC's interior.
- The number of sockeye salmon returning to the Skeena River reached record lows.

As this list suggests, human and physical processes are altering the province's landscape.

The discipline of geography seeks to understand these processes, in the present and in the past. Geography has been defined as the study of "where things are and why they are where they are" (McCune 1970, 454). "Things" can be physical features, people, places, ideas (or human innovations), or anything in the landscape. "Where" questions concentrate on location as well as recognizing physical and human patterns and the distribution of various activities, people, and features of the landscape. Many of these questions can be answered simply by looking at a map. Look at a road map or online map of British Columbia. Where is wine country? Where is the territory covered by the Tla'amin treaty? Where do earthquakes occur, and what towns were affected by the wildfires? Where are the sockeye spawning grounds?

Knowledge of where things are is basic, essential geographical information. To test your knowledge of British Columbia, draw a map of the province from memory and place on it the features you consider important. This cognitive mapping exercise reveals individual landscape experiences (which can be shared with others) and demonstrates the importance of location. Using maps to answer "where" questions is the easiest aspect of geographical study.

Answering the question "Why are things where they are?" is more complicated. "Why" questions are far more difficult than "where" questions and may ultimately verge on the metaphysical. Even so, as you study geography, you'll be encouraged to conduct research about and to analyze the various physical, economic, political, cultural, and historical factors that have shaped a specific location or locational patterns, whether it be the location of a type of vegetation, a community, a group of people, or a resource. Why do grape wines grow so well in the Okanagan Valley? Why is Vancouver where it is, and why has it grown so rapidly? Why did Barkerville become a ghost town? Why were the Japanese removed from the coast of British Columbia? Why did the Nechako River get dammed for hydroelectric power? Why is the Peace River region not part of Alberta? These questions are not easy and often require historical, physical, cultural, political, and economic assessments.

So, too, do "what" questions. Some definitions of geography include the question, "What is the significance of these locational patterns?" (Renwick and Rubenstein 1995, 5). What influence do people have on the environment, and what influence does the environment have on people? Humans are constantly shaping and modifying the landscape to meet the demand for resources – clear-cutting forests, damming rivers, and building power plants that pour emissions into the air and water – and these acts produce an environmental backlash to ecosystems and human health.

All these questions – Where? Why? What? – mean geography is a practical and pragmatic discipline, one that encourages an understanding of the surface of the earth on all geographic scales. Geography is a discipline that lends itself to being out of the classroom and in the environment, where one can read both the physical and human landscapes. Physical geographers are interested in the physical processes that influence the landscape. Human geographers, by contrast, look at where

people live, what their activities are, and how they have modified the landscape. Of course, a combination of physical and human processes often modify landscapes, and both sides of the discipline incorporate a spatial perspective. As Figure I.1 shows, geography can be divided into a number of subfields and is associated with many other disciplines, but the spatial element keeps it distinct.

Geography allows us to recognize the range of physical characteristics responsible for mountain building and erosion and for weather and climate patterns. From the viewpoint of physical geography, changes to the landscape are often measured in several hundreds of millions of years, and the BC landscape is no exception. A combination of physical processes produced a spectacular variety of mountains, rivers, lakes, islands, fjords, forests, and minerals in British Columbia. Studying the province's geography allows us to understand why some communities and regions are at considerable risk from floods, forest fires, or avalanches and how these risks can be reduced or eliminated.

Geography of British Columbia will help you develop the critical thinking skills necessary to unravel the complexity of spatial patterns, processes, and relationships, and these skills can up open up many career opportunities. This book will help you understand not only physical processes that led to changes to the landscape but also the processes responsible for settlement and development of the land and why people live and work where they do. You'll come away with an understanding of how past decisions and actions have shaped the landscape of the present. Throughout the book, complex processes are described in simple language, and more complex terms, **highlighted in bold** (on first use), are explained in a glossary, located at the end of the text.

From a European, colonial perspective, British Columbia has a short history of settlement and development compared to eastern Canada or to many other nations in the world. Indigenous Peoples, however, have well over ten thousand years of history with the lands that eventually became British Columbia, and anthropologists and archaeologists are still adding new evidence of their settlement patterns and use of resources. Indigenous Peoples and the explorers, fishers, sojourners, and settlers who began to arrive in the eighteenth century exploited and altered the landscape, sometimes irreversibly.

To understand these developments and their significance over time, we need to consider movement over space. **"Time-space convergence"** (sometimes referred to as time-space compression or collapse) refers to changing technologies of movement that shrink time and space. Today, for example, a flight from London, England, to Vancouver, British Columbia, takes approximately nine hours. In the 1790s, when the maritime fur trade for sea otters began to draw Europeans to the Pacific Northwest – the region that comprises present-day British Columbia, Washington, Oregon, and northern California – a trip to the region from London took nearly seven months and meant sailing around South America. By 1886, when Vancouver was incorporated

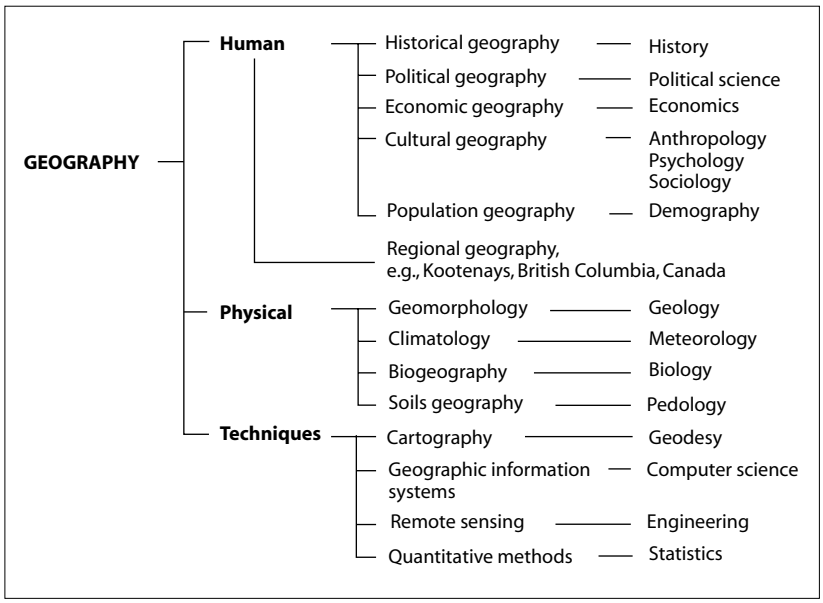

Figure I.1 Subfields of geography and links to other disciplines

as a city, the voyage from London to the new city had been reduced to three weeks with the introduction of steam-driven vessels and the completion of the Canadian Pacific Railway across Canada. Changing transportation routes affected the movement of goods and people, settlement patterns, and resource development. Railways (along with ship transport) promoted the movement of high-bulk, low-value goods such as wheat, lumber, and coal over great distances with relatively low freight rates. By comparison, current satellite systems provide instant global communications that have led to a worldwide reorganization in the production of goods and services and spatial relationships more generally.

The concept of time-space convergence helps explain a shrinking world, but it's important to keep in mind that the shrinking of time and space does not occur evenly. Geographic locations that are connected differ, sometimes greatly, from locations that are not connected. Freeways such as the Coquihalla allow people to travel quickly to communities in southern British Columbia, while northern and coastal communities that have only secondary roads or, in some cases, no roads are significantly more isolated. The construction of airports, railways, port facilities, pipelines, and communications infrastructure have given birth to similar disparities. These transportation developments have played a significant role in settlement, development, and economic advantage throughout the province.

Another important and related concept to keep in mind is **spatial diffusion**, which is employed to trace the movement (or flow) from one location to another of goods, people, services, innovations, and ideas. For example, the spatial diffusion process is used to trace where new innovations in computer software occur and where they are adopted. The spatial diffusion process is also used to describe events, such as the waves of smallpox epidemics that decimated Indigenous Peoples, the evolution and pattern of salmon cannery locations, or the spread of high-speed internet service. All of these movements were influenced by carriers and barriers (Gould 1969). Carriers are instrumental in the spread and adoption of innovations, goods acquisition, or the contraction of diseases; barriers prevent, or block, this movement. "Relocation diffusion" refers specifically to the movement of people (e.g., refugees) from one place to another. The terms "barriers" and "carriers" apply to relocation diffusion, but the terms "push" and "pull" factors are also used. Push factors include the many political, economic, and social forces that cause people to move, such as overpopulation, warfare, or religious persecution. Pull factors are the various conditions that attract people to a new location. Both push and pull factors have been responsible for moving people to British Columbia.

Statistics are also useful in assessing trends and patterns over time. Table I.1 indicates the evolution of British Columbia's population, including its gradual transformation from a rural to an urban province. Isolation was a major factor in prohibiting early non-Indigenous settlement and development. However, time-space convergence overcame the friction of distance in this frequently vertically challenged landscape, and this change is reflected in rapid population growth, particularly after the completion of the transcontinental railway. The conquering of distance also facilitated the global transition, especially in trade and investment, from the Atlantic to

Table I.1

Rural and urban population, 1871–2018

			Percentage	
Year	Population	Ten-year change	Rural	Urban
1871	36,247	–	91.1	8.9
1881	50,387	14,140	88.1	11.9
1891	98,173	47,786	57.5	42.5
1901	178,657	80,484	49.5	50.5
1911	392,480	213,823	48.1	51.9
1921	524,582	132,102	52.8	47.2
1931	694,263	69,681	56.9	43.1
1941	817,861	123,598	45.8	54.2
1951	1,165,210	347,349	47.2	52.8
1961	1,629,082	463,872	27.4	72.6
1971	2,184,621	555,539	24.3	75.7
1981	2,744,465	559,844	22.0	78.0
1991	3,282,061	537,596	19.6	80.4
2001	4,078,447	796,386	18.0	82.0
2011	4,400,057	321,610	14.0	86.0
2018	4,991,687	591,630*	10.7	89.3

* Seven-year change only.

Sources: Dominion Bureau of Statistics (1944), Statistics Canada (2009), Moazzami (2015), BC Stats (2019).

the Pacific, tying British Columbia closely to the Asia-Pacific region.

Time-space convergence and spatial diffusion are basic geographic concepts essential to understanding movement over space and through time, while statistics, graphs, and maps are the key tools of the geographic trade (the "techniques" shown in Figure I.1). They allow geographers to begin to understand the dynamics of the where, why, and what questions. *Geography of British Columbia* employs these concepts, tools, and techniques in a comprehensive exploration of British Columbia's peoples and landscapes and their transition over time. The book is divided into two parts. Part I offers a foundational understanding of the geography of British Columbia, especially for those with little or no knowledge of the discipline. Chapter 1 underscores the importance and relevance of adopting a spatial approach to understanding the development of the province, including settlement patterns in the eight provincial regions. Chapter 2 introduces some of the basic processes of physical geography with a particular focus on the profound impact that weather, climate, and the physical features of the surface of the earth have had over the span of tens of millions of years.

Chapter 3, in turn, explores how these basic processes of physical geography gave birth to geophysical hazards – extreme events such as floods, wildfires, avalanches, and earthquakes. In British Columbia, the combination of a rugged, vertical landscape with mainly prevailing westerly winds has led to considerable property damage and loss of life, for which corrective and preventative measures had to be (and must be) taken. Finally, Chapter 4 sets the stage for Part 2 by defining what geographers mean by **"resources"** and introducing several models for examining the implications of resource harvesting and the importance of resource management, including how resources have been used to grow the economy over time.

Part 2 unfolds chronologically rather than thematically to show the role that resources have played in shaping and reshaping the province while at the same time avoiding giving the impression that British Columbia remains a resource-dependent province. Since the 1970s, there has been a fundamental transformation of the province's economy, to the point where resources now contribute few jobs or provincial revenues. Today, British Columbia is a **service economy**. Adopting a historical approach allows for a better understanding of how this major transition took place and, tragically, why resources have been mismanaged in the province. And it makes it easier to trace how and why the shift away from resources has had a negative impact on some regions more than others.

Resources – especially renewable resources such as furs, fish, and forests – played a significant role historically, but, unfortunately, both settlers and governments treated them as never-ending in a boundless "frontier," an approach that can best be understood as part of the tragedy of the commons, an economic theory that explains why people use natural resources to their advantage without considering the good of society as a whole. In a classic essay published in *Science* in 1968, Garret Hardin explained the theory by telling the story of two tribes who measure their wealth in cattle. In the beginning, the cattle feed on the commons – a finite, shared territory or **common property resource**. Over time, war and cattle poaching cause grief, but the commons remain sustainable and support the cattle economy. The tragedy occurs when "peace" is achieved, when individuals from each tribe have the motivation to gain wealth by increasing their herd. In this time of unrestricted capitalism, the commons soon becomes overgrazed, bringing tragedy to all.

A similar process has occurred in British Columbia again and again. Since the arrival of European colonizers to the northwest coast of America, renewable resources have suffered from species extinction, or near extinction, through colonial and then provincial exploitation. Once one resource was depleted, colonizers, governments, or companies have moved on to exploit another. These physical-human interactions prompt us to look at the landscape another way, namely, from an environmental perspective.

Chapter 5, which opens Part 2, reveals how the accidental discovery of a lucrative market for furs in China became the lure for Russian, Spanish, British, and American interest in the Pacific Northwest. At first, the maritime fur trade, which focused on the sea otter, led to conflict between the British and the Spanish and between colonizers and Indigenous Peoples. But it was two nonrenewable resources – coal and gold – that ultimately led to the British acquiring colonial control

over the **territory**, which in turn led to the arrival of more settlers, declining Indigenous populations, and, eventually, Confederation, when British Columbia became part of Canada in 1871.

Chapter 6 begins with the promises made by the federal government during Confederation and ends in the early twentieth century. One of the key promises made was a transcontinental railway. Although the railway was delayed by a scandal, it was eventually constructed but not without tremendous amounts of racism being directed towards Chinese contract labourers and anguish being felt among residents in Victoria who wanted the terminus to be in their own city rather than in Vancouver. The completion of the Canadian Pacific Railway led to the construction of regional rails, which were connected to steam paddlewheelers (steamers) on lakes and the ocean, allowing for the movement of resources and people throughout the province and the emergence of a new "boom and bust" economy.

Chapter 7 examines BC's increasing resource dependency in the context of unpredictable global events such as the two world wars. Dependent on resource development, immigration, and British investment in railways, the province was rocked by swings in commodity prices that led to more boom-and-bust cycles, and tough economic times brought on extreme racism towards Asians. But the Second World War catapulted Canada into an industrial nation, fuelled by major inputs from BC's natural resources. As Chapter 8 explains, the greatest economic boom in North American history followed the war, and it was accompanied by a baby boom, high immigration rates, increased disposable income, a demand for single-family dwellings, and the birth of car culture. In British Columbia, as elsewhere, values changed in a rapidly changing world marked by the **Cold War** and fear of nuclear annihilation. British Columbians witnessed the beginnings of the **megaprojects** era as clear-cut logging, open-pit mining, major hydroelectric dams, transmission lines and pipelines, and roads and rails scarred the landscape, giving rise to the environmental movement and renewed protests by First Nations.

But Chapter 9 explores a major shift that occurred in the last three decades of the twentieth century as the province shifted from being profoundly rural and resource-dependent to highly urban and service-oriented. The transition, fuelled by globalization, was complicated and difficult and required resource industries to restructure themselves and downsize as they were hit by major and unforeseen economic predicaments, including the end of the Cold War, energy crises, recessions, and free trade agreements. On another level, they had to contend with environmental organizations and First Nations demanding, and gaining, recognition of **Indigenous Title** (called "Aboriginal Title" by the Supreme Court of Canada).

Although the Nisga'a Treaty, which recognizes Indigenous Title, was signed in 2000 by the federal government and BC's NDP government, Chapter 10 explores what happened when the Liberal Party came to power from 2001 to 2017, some of the strangest, most contradictory decades in the province's history. One of the first things the new government did was hold a referendum to reverse recognition of Indigenous Title. But by 2005 the Liberals had forged a New Relationship with First Nations that recognized Indigenous Title. However, both Gordon Campbell's and Christie Clark's governments continued to conduct land-use decisions on unceded territories as if treaties and landmark Supreme Court decisions had not occurred. The period was also characterized by some of the most stringent regulations to reduce greenhouse gas emissions, including a **carbon tax** to address **climate change**. As these regulations were put in place, the government simultaneously insisted that resources were "the backbone of the economy," promoted liquefied natural gas as if it were not a fossil fuel, and supported oil pipelines from Alberta. It became embroiled in land-use conflicts, many of which were over resource exploitation.

To conclude, I reflect on the history of resource mismanagement in the province in the context of a present and a future in which climate change is a reality. Geography is about people and the environment, and this edition of *Geography of British Columbia* stresses the political decisions that have affected and moulded the province's landscape. But it also addresses the impact of unforeseen events and conditions, including geophysical hazards, war, recessions and depressions, and, more recently, terrorism. Collectively, these global and local forces helped shape a province that was once reliant on resources but no longer depends on them. In the era

of climate change, the regional economies that have developed in British Columbia and the uneven distribution of its population and employment opportunities means that some regions are or will be more vulnerable than others, and both governments and citizens need to be prepared.

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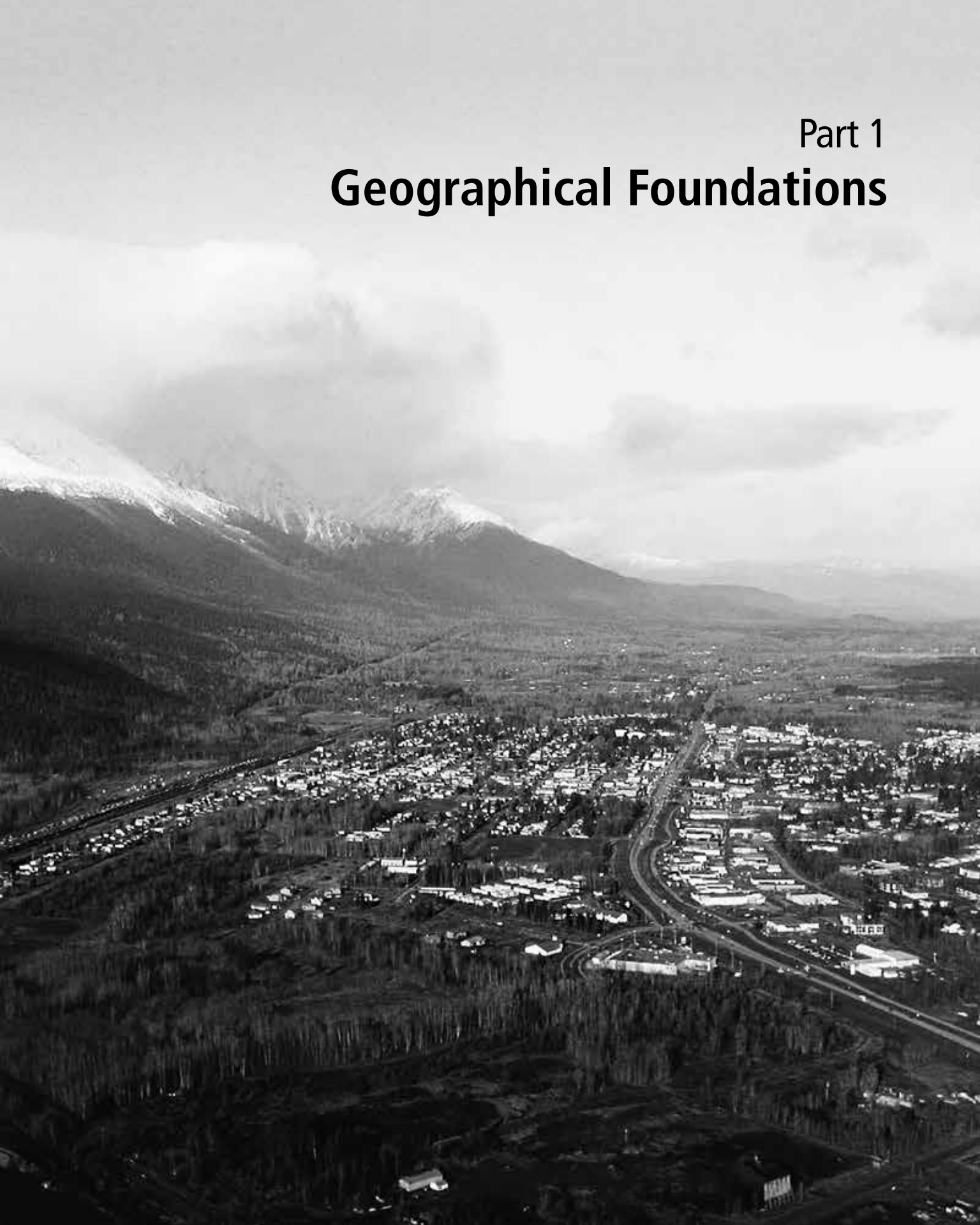
Part 1

Geographical Foundations



1

British Columbia, a Region of Regions

British Columbia is a large province that encompasses nearly 950,000 square kilometres. To put this in context, many countries or nation-states are significantly smaller. Although the province is larger than many countries, it has a small population (5.0 million people in 2018) relative to its size. It has a population density of only 5.3 persons per square kilometre. Great Britain, by contrast, is four times smaller in size but has 307.5 persons per square kilometre (World Population Review 2017). To take these comparisons one step further, it's fair to say that few nation-states have such a variety of landscapes as British Columbia. The province truly is a **region** of regions that can be divided and subdivided on the basis of both its physical and cultural characteristics. In this chapter, you'll learn how to adopt a spatial approach to understanding the development of the province, including settlement patterns in the eight provincial regions.

A REGIONAL GEOGRAPHY APPROACH

Adopting a **regional geography** approach means dividing the province or region of British Columbia into geographic areas that have common physical or human/cultural characteristics (Gregory 2000, 687). On the physical side, river drainage systems, plateaus, mineral deposits, forests and vegetation, frost-free days, latitude, elevation, and precipitation are the criteria by which the province can be divided into distinct regions. And from a regional perspective, British Columbia is a unique province within Canada for a variety of reasons. Its physical characteristics in particular set the province apart from all others. The province's highly indented coastline, "punctured by fjords," spans some 41,000 kilometres (Dearden 1987, 259), and BC has the youngest and highest mountains in the country. It is often described as a vertical landscape. It also has the greatest amount of fresh water in Canada, an essential resource for Pacific salmon and a potential source of hydroelectric power.

The province's relatively mild, wet west coast has the warmest winter temperatures in Canada; in contrast, the considerably colder and drier Interior has desert conditions in the southern river valleys. If you travel from west to east in the province, you'll discover that vertical change due to high mountain ranges dropping off to valleys of rivers and lakes results in a combination of climate, soils, and vegetation that produces distinctive geographic patterns. The same is true if you travel from south to north: the province stretches across an eleven-degree span of latitude, from the forty-ninth parallel in the south to sixtieth parallel in the north, and there are significant and distinctive weather and climate patterns across the span that also influence soils and vegetation.

Distinctive physical characteristics and a unique global location have also influenced the province's human characteristics. On the human or cultural side, features such as a common language or religion can demarcate regions (making them **cultural regions**), as can other political, economic, and social factors. For example, for many people who live in a particular area and have shared historical experiences, such as Indigenous Peoples, there is a sense of place, or "nationalism," that comes with a connection to the land. To give more recent examples, district and health board boundaries represent the organization of space based on political decisions, whereas fishing zones, tourist areas, forestry regions, newspaper-circulation areas, policing jurisdictions, and school districts are regions derived more from economic and social functions.

British Columbia's population and settlement patterns were also unique. The precontact population of Indigenous Peoples, particularly in coastal locations and along salmon-bearing rivers, was greater than anywhere else in Canada (Muckle 1998). And unlike in the rest of Canada, non-Indigenous "discovery" and settlement came from the west rather than from the east, with the province's abundant supply of resources serving as the main attraction for migrants and the reason for its rapid growth. Yet the province's physical characteristics initially made resource extraction and export to distant markets difficult, resulting in regionally differentiated patterns of settlement and development (Robinson 1972). British Columbia went through distinctive territorial struggles to become a British colony and further political struggles to establish its present boundaries. Again differentiating it from the rest of Canada, its connection to the Pacific, particularly to Asia, increased as transportation systems developed. No other province has such a long history of immigration by Asians – first Chinese, and later Japanese and Sikhs. Nor has any other province gained such a reputation for being so adamantly racist.

Although regional geography can be employed to divide British Columbia into parcels, or regions, to examine its characteristics critically and make sense of its diversity, this approach has some limitations. Critics point out that regions are not islands unto themselves but are linked in ways that can't be captured by traditional regional geography. Moreover, the characterization of a region may be appropriate only at one point in time, meaning that regions must be reconfigured as conditions change.

To address these concerns, some geographers have distanced themselves from the traditional approach by engaging in what has been referred to as "reconstructed regional geography" (Pudup 1988). Using a host of analytical tools and borrowing from other disciplines, they take into account a number of factors, including the many complex relationships within any landscape, the interactions that link adjacent regions, and even global conditions. They recognize that regions can change over time and that regions may overlap. For example, from a cultural and historical perspective, territorial boundaries or seminomadic regions divided Indigenous Peoples in the Pacific Northwest. These regional boundaries shifted because of warfare, scarcity of resources, and changes in technology. The greatest change of all, however, came with the arrival of Europeans, who reorganized the landscape into different regions and placed First Nations on small parcels of land called reserves. The political boundaries of British Columbia have been drawn a number of times, but it is only since the 1990s that provincial politicians have recognized the historical territories of Indigenous Peoples. **Place-name geography** largely erased oral, traditional Indigenous names throughout the province and replaced them with mainly British ones. In recognition of the countless injustices done to First Nations over time, many regions are now recognizing and using the Indigenous names for places, such as Haida Gwaii, Salish Sea, and qathet Regional District.

When dividing the province into meaningful regions, external regionalization must also be acknowledged. For example, British Columbia was initially claimed by Spain before coming under the colonial control of Britain. When British Columbia joined Confederation in 1871, it became spatially one region (and the largest province) in an independent Canada, breaking the bonds of colonization and relieving anxiety that the territory would be annexed by the United States. In the late 1980s and early 1990s, the signing of the Free Trade Agreement in 1989 and the North American Free Trade Agreement in 1994 (which has been in dispute with the United States since 2017) and increased trade and investment in the Asia-Pacific region have placed British Columbia, and Canada, in a new, global regional economic alignment, but not without conflict. A regional geography of British Columbia must take all these changing conditions into consideration.

Figure 1.1 divides the province into eight regions, devised by considering historical developments in combination with census subdivisions. It details features such as mountains, rivers, incorporated communities, and transportation systems. (Note that Indigenous Title boundaries are not shown on the map; the colonial system within which the census subdivisions occurred did not recognize these boundaries, which unfortunately do not correspond to the eight regions currently dividing the province.) The map will help you become familiar with the vastness of the landscape, the physical and human features that distinguish each region, and the factors that integrate these separate regions with other parts of Canada and the world.

Table 1.1 provides the population change for these regions, spanning over 135 years. By monitoring regional population change, we can compare and contrast regions with the greatest growth with regions with the least growth, and we can also trace fluctuations within any of the eight regions. Graphing the absolute growth of each region also illustrates the rate of change and gives a sense of historical development. For example, a comparison of just two regions – the Lower Mainland and Vancouver Island–Central Coast – provokes interesting questions about the rate of growth. Why did the Lower Mainland, a geographically smaller area, outstrip the Vancouver Island–Central Coast region so rapidly between 1901 and 1911? Bear in mind that the Lower Mainland includes the City of Vancouver, incorporated in 1886. Now observe the slope of the graph lines between the years 1921 and 2016 in Figure 1.2, which shows the population increases of the two regions. What accounts for the different rates of population growth during this period, and why has the Lower Mainland population continued to grow at a more rapid rate?

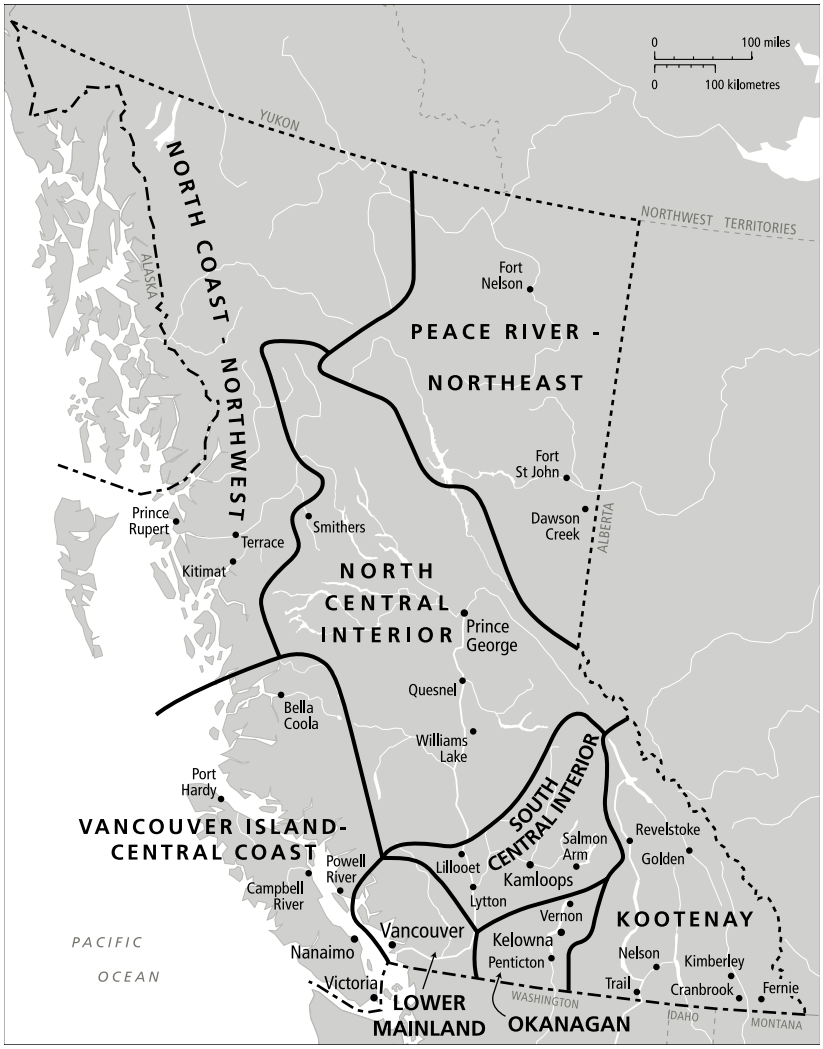


Figure 1.1 Regions of British Columbia

The answers lie partly in the political decision to locate the Canadian Pacific Railway terminus and an international port at Vancouver, decisions that stimulated economic and population growth. Employment opportunities related to fishing, forestry, mining, and agriculture played a role in each region, and the port facility of Vancouver greatly widened the catchment area for exporting resources. The First World War, the opening of the Panama Canal, the Depression of the 1930s, and the Second World War were also significant global events that affected each region. Following the war, technologies of time-space convergence, in combination with more global means of producing goods and services, altered the way people made a living and reorganized the value of resources. The Lower Mainland region, with its greater connectivity – roads, railways, a port, an international airport, and conference centres – increasingly gained the greater proportion of the population.

A similar comparison could be made for any two other regions and would require analysis of the many factors that influence regional growth. Census figures can also reveal the ethnic composition of each region, knowledge of which can form the basis for a whole host of social, ethnic, political, and economic questions. These questions, in turn, could lead to geographic analyses of various groups.

These types of statistical analyses can promote further geographic knowledge about settlement and the development of communities. Table 1.2, for instance, ranks the ten largest municipalities in 2016 by population. It is interesting to compare these populations to selected census years in the past (in which the ranking is also given). Many of our present-day communities did not exist before the twentieth century; others have changed boundaries; some were much more significant in the past; and others have lost population. What factors are responsible for the growth or decline of communities, and how are communities connected to their regions and to other communities? The conclusions arrived at following the regional comparison in Figure 1.2 are reinforced if we compare the older centre of

Table 1.1

Population by region, 1881–2016

Year	Vancouver Island–Central Coast	Lower Mainland	Okanagan	Kootenay	South Central Interior	North Central Interior	North Coast–Northwest	Peace River–Northeast
1881*	18,777	7,949	1,316	863	4,725	7,550	7,376	923
1891*	39,767	23,543	3,360	3,405	6,390	4,889	16,839	n/a
1901**	54,629	53,641	7,704	32,733	14,563	5,123	9,270	948
1911**	84,786	183,108	21,240	51,993	24,103	9,011	16,595	1,644
1921	119,024	256,579	23,728	53,274	32,232	18,615	18,986	2,144
1931	133,591	379,858	30,919	63,327	37,621	23,236	18,689	7,013
1941	164,751	449,376	40,687	72,949	37,394	26,272	18,051	8,481
1951	233,250	649,238	62,530	93,256	50,363	41,324	20,854	14,395
1961	312,160	907,531	86,230	107,466	57,346	89,085	38,203	31,061
1971	415,254	1,256,425	130,498	125,643	106,993	133,906	63,080	45,155
1981	517,536	1,434,739	196,774	145,412	139,175	186,992	68,376	55,463
1991	611,654	1,829,537	240,291	141,480	142,628	190,141	67,975	58,355
2001	717,997	2,378,240	310,602	163,502	167,364	210,621	66,673	63,448
2011	772,912	2,725,573	347,551	162,927	169,995	197,106	57,201	67,882
2016	805,082	2,928,729	362,861	164,662	173,854	194,409	56,118	72,196

* Some approximations for regions, as the province was divided into only five electoral areas.
** Some approximations for regions, as the province was divided into only seven electoral areas.
Sources: Census of Canada (1951, 1971), BC Stats (1986, 1991, 2012, 2017).

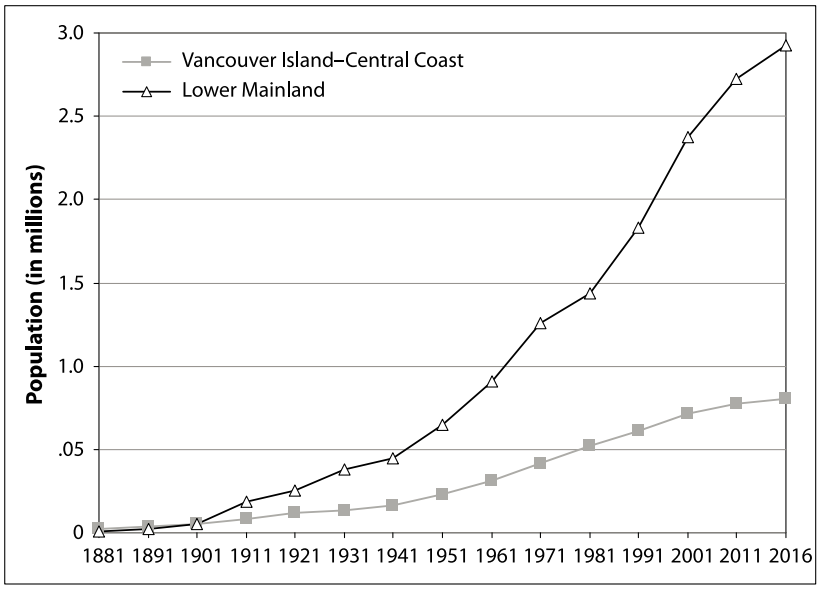


Figure 1.2 Vancouver Island–Central Coast and Lower Mainland populations, 1881–2016
Sources: Census of Canada (1951, 1971), BC Stats (1986, 1991, 2012, 2017).

Victoria with the newer city of Vancouver. The extremely rapid rise of Vancouver's population since its incorporation in 1886 illustrates the powerful influence of the developments discussed above. In contrast, as the provincial capital, Victoria experienced the growth of government and services along with infrastructure developments that linked it to Vancouver Island's resources and to the mainland, but these economic links were not nearly as extensive as those of Vancouver.

Other communities throughout British Columbia have changed their population ranking over time through the expansion of transportation infrastructures, resource development, and processing, as well as a shift to service industries. Beginning in the late twentieth century, the new urban-growth dynamics of the tourism and retirement industries, along with technologies that shrink time and space, began to affect some communities more than others. These communities, and their growth (or decline), are intimately tied to the regions in which they are located. To lay the foundations for discussions and analyses of these trends, the remainder of this chapter outlines the eight regions of British Columbia in terms of their distinctive physical characteristics and historical development.

VANCOUVER ISLAND–CENTRAL COAST

This region combines Vancouver Island with the Central Coast, which extends from Powell River north to Bella Coola. Vancouver Island has a rugged spine of mountains, referred to as the Insular Mountains. The Central Coast is part of the Coast Mountains range, which has peaks reaching higher elevations than in the Canadian Rockies

Table 1.2

Population of municipalities for selected years, 1881–2016

Municipality	2016	2011	2001	1921	1901	1891	1881
Vancouver (CMA)	(1) 2,558,029	(1) 2,394,270	(1) 2,073,681	(1) 163,220	(1) 27,010	(2) 13,685	–
Victoria (CMA)	(2) 365,631	(2) 358,672	(2) 325,569	(2) 38,727	(2) 20,919	(1) 16,841	(1) 5,925
Kelowna (CMA)	(3) 197,017	(3) 191,114	(4) 100,496	2,520	–	–	–
Abbotsford-Mission (CMA)*	(4) 181,169	(4) 180,945	(3) 153,801	–	261	–	–
Nanaimo (CA)	(5) 107,462	(6) 92,361	(6) 76,185	(5) 6,304	(4) 6,130	(4) 4,595	(2) 1,645
Chilliwack (CA)	(6) 104,662	(8) 80,892	(8) 65,672	(9) 3,161	277	–	–
Kamloops (CA)	(7) 104,449	(5) 92,882	(5) 80,655	(7) 4,501	(8) 1,594	–	–
Prince George (CA)	(8) 83,494	(7) 83,225	(7) 75,567	2,053	–	–	–
Vernon (CA)	(9) 62,169	(9) 55,418	(9) 34,957	(8) 3,685	802	–	–
Courtenay (CA)	(10) 56,359	24,099	18,304	–	–	–	
Penticton (CA)	33,761	(10) 33,553	(10) 32,339	– **	–	–	–
New Westminster	– ***	– ***	– ***	– ***	– ***	(3) 6,641	(3) 1,500
North Vancouver	– ***	– ***	– ***	(3) 7,652	–	–	–
Prince Rupert (CA)	11,261	12,802	15,282	(4) 6,393	–	–	–
Nelson (C)	11,249	10,371	9,703	(6) 5,230	(5) 5,273	–	–
Rossland (C)	3,639	3,614	3,804	2,097	(3) 6,156	–	–
Fernie (C)	4,333	4,532	4,812	2,802	(6) 1,640	–	–
Revelstoke(C)	7,316	7,287	7,826	2,782	(7) 1,600	–	–
Trail (C)	7,376	7,801	7,905	(10) 3,020	(9) 1,360	–	–
Greenwood (C)	688	710	695	371	(10) 1,359	–	–

Note: CMA = census metropolitan area; CA = census area; C = city. The numbers in parentheses indicate the municipality's size rank.

* Boundary change and incorporated as a city in 1995.

** Incorporated in 1909, but population less than 1,000.

*** Included in Vancouver CMA.

Sources: Census of Canada (1951, 1971), BC Stats (1986, 1991, 2012, 2017).

and includes one of the highest mountains in British Columbia, Mount Waddington (4,016 metres). These mountains run mainly north-south and influence weather and climate conditions significantly. The prevailing westerlies often result in torrential rains on the west side of Vancouver Island and on the mainland along the coast where it is exposed to the open Pacific. The Olympic Mountains of Washington State and the Insular Mountains of Vancouver Island create a **rain shadow effect** on the east side of Vancouver Island and on the southern end of the Central Coast. The Pacific Ocean at these latitudes (approximately 48°30' to 52° north) is considerably warmer than the Atlantic Ocean on the east coast of Canada. Precipitation variations caused by the rain shadow also influence vegetation and, in particular, the growth of Douglas fir in the drier areas. There are no large rivers on either Vancouver Island or the mainland, but the many small rivers and streams are important for fish habitat and some hydroelectric power.

Historically, the Vancouver Island–Central Coast region has been home to many Indigenous Peoples. The peoples in this region experienced the longest exposure to non-Indigenous peoples in the province, and diseases took a huge toll. It was here that the Spanish and British squared off in the 1780s over territorial claims for colonization and the valuable sea otter trade. By the early 1800s, British Columbia was embroiled in an overland fur trade struggle between the aggressive North West Company and the Hudson's Bay Company. In 1821, the merger of these two companies resolved the dispute, leaving the Hudson's Bay Company with a monopoly over the territory.

Non-Indigenous settlements were sparse and temporary until a series of political and economic events occurred. The first was the discovery of coal at the north end of Vancouver Island in the mid-1830s. Later, the **Oregon Treaty** of 1846 annexed the British territory and forts south of the forty-ninth parallel, and as a consequence, Victoria was established at the south end of Vancouver Island (see Figure 1.3). By 1849, discoveries of even richer coal deposits had occurred in the Nanaimo region, which attracted more European settlers, but in 1858, gold was discovered on the lower reaches of the Fraser River, triggering an avalanche of miners seeking their fortune. Victoria became the main port of entry for much of this activity. Further discoveries of gold in the

Figure 1.3 Vancouver Island–Central Coast region

Cariboo region enhanced Victoria's position as the area's main administrative and service centre. The two separate colonies of Vancouver Island and the mainland were amalgamated in 1866. Victoria became the capital, a position it has maintained ever since.

The location of the capital attracted settlers to the southern end of Vancouver Island. The rest of the island was opened up in response to the discovery of resources, transportation developments, and technological change. For example, coal discoveries enhanced Vancouver Island's status as a major energy producer, and the discovery of copper led to the construction of copper smelters. Later, iron ore was discovered on Texada Island. Alongside the whaling industry, salmon fishing and canneries sprang up on the coasts of both the island and mainland, and farming settlements emerged mainly in

the southeast portion of the island. By far the most important industry throughout the region was forestry. Large lumber mills such as the one in Chemainus were in operation by the 1880s, and they were followed by pulp mills in the communities of Ocean Falls, Port Alice, and Powell River in the early 1900s.

Historically, railways were the most important means of land transportation on Vancouver Island. The Esquimalt and Nanaimo Railway (E&N) opened in 1886 and was the most important line, as it came with a provincial land grant to over one-quarter of the island, including some of the best forests in the province. Roads appeared first on the southeast side of Vancouver Island, and they eventually linked the south end of the island to the north, even as tentacles stretched across to the few communities on the island's west side (Wood 1979). Ocean-going transport provided the main link between Vancouver Island and mainland coastal communities such as Bella Bella, Bella Coola, Ocean Falls, and Powell River. The highly indented and rugged mainland coastline hindered road development in the early days of settlement. Only Bella Coola was linked by road to the rest of the province.

Today, more than 800,000 people live in this region. The forest industry, which was the economic backbone for much of Vancouver Island's history, has faced economic uncertainty since the 1980s, resulting in many sawmill and pulp-and-paper mill closures and increased unemployment in those industries. Farming, including farmgate wineries, a wide range of recreation and tourism options, commercial fishing, and fish farming (although controversial) are other areas of employment. The Canadian Forces Base in Comox, which employs approximately sixteen hundred people, is significant to the Comox-Courtenay region. The southeastern portion of the island has experienced some unique economic dynamics. It is linked intimately to the Lower Mainland region in the provision of administrative and service functions for western Canada and the Asia-Pacific region, and it has also become home to a huge number of retirees who are drawn to its mild winters, which mean relatively little snow to shovel and year-round recreational activities. This part of the island also attracts the greatest number of tourists because of direct ferry links with the Lower Mainland.

LOWER MAINLAND

The climate of the Lower Mainland is similar to that of the southeast coast of Vancouver Island, but it has higher precipitation, including more snow in winter because of its proximity to the North Shore Mountains and Burnaby Mountain. The Fraser River, the largest river system in the province and most significant to the salmon-fishing industry, is an important physical feature of this region (see Figure 1.4). Historically, it was the major salmon runs on the Fraser River that attracted many Indigenous Peoples such as the Hul'q'umi'num', Squamish, Tsleil-Waututh and Stó:lō, to the region; they shared this treasured resource with other First Nations from Vancouver Island. For non-Indigenous people, gold was the main attraction following its discovery on the Fraser in 1858. Agricultural settlements soon followed, but securing these rich agricultural lands from the threat of floods has not been easy. Before the establishment of Vancouver, major sawmills on Burrard Inlet exported lumber, and canneries operated at the mouth of the Fraser River.

Transportation has been a major factor in the growth and development of this region. The completion of the CPR at Port Moody and its extension to Vancouver in 1886 was the catalyst for the rapid population growth observed in Table 1.2. Vancouver, with its national railway and international port, was the main centre for this relatively small geographic region and was largely responsible for the growth of the adjacent Fraser Valley to the east, the Squamish-Whistler-Pemberton corridor to the north, and the Sunshine Coast to the northwest. The mountains and valleys framed the transportation links and settlement patterns for the region.

Figure 1.4 Lower Mainland region

The Sunshine Coast has a linear settlement pattern following the Strait of Georgia and is connected to Vancouver via ferry at Horseshoe Bay in West Vancouver. The Pacific Great Eastern Railway (renamed the British Columbia Railway, or BCR, in 1972 and taken over by CN in 2004) began running between Squamish and Quesnel in 1921 and was then extended south to North Vancouver in 1956 and north beyond Quesnel. This railway line has been an important transportation link to the ports at Squamish and North Vancouver. But today the Sea-to-Sky Highway is the main transportation system as it winds its way beside Howe Sound to Squamish and then follows valleys leading past Whistler to Pemberton, Lillooet, and the interior of the province. Vancouver, Whistler, and all the communities between them, as well as the route that links them, have gained a lot of attention, economic investment, and population increases since hosting the 2010 Winter Olympics.

In the Fraser Valley, the river served as the original transportation system. The construction of the CPR and later the Canadian National Railway and British Columbia Electric Railway made the region even more accessible. Road systems were built in the early 1900s, and eventually the construction of the Trans-Canada Highway and other highways linked Vancouver and the Fraser Valley to the rest of the province and south to the United States.

Favourable climate, superb natural features, highways, railways, international port facilities, an international airport, educational facilities, and commercial links to the rest of Canada, Asia, and the world make Vancouver a world city. This region has become the focus of the high-tech and film industries along with tourism, international banking, finance, insurance, real estate, the head offices of resource-based industries, and most international immigration to the province. Forestry, fishing, and agriculture, the region's main industries historically, are no longer the main sources of employment. The Lower Mainland has over 60 percent of the province's population, and this margin will increase in the future.

OKANAGAN

The Okanagan Valley lies between the Cascade Mountains to the west and the Monashee Mountains to the east. There are several lakes in the valley, Okanagan Lake being the largest (see Figure 1.5). The region's southern location between two large mountain chains means it enjoys a continental climate – hot summers and relatively cold winters. The vegetation of this arid valley consists mainly of grasses, sagebrush, and few trees, but forests grow on the moister mountain slopes.

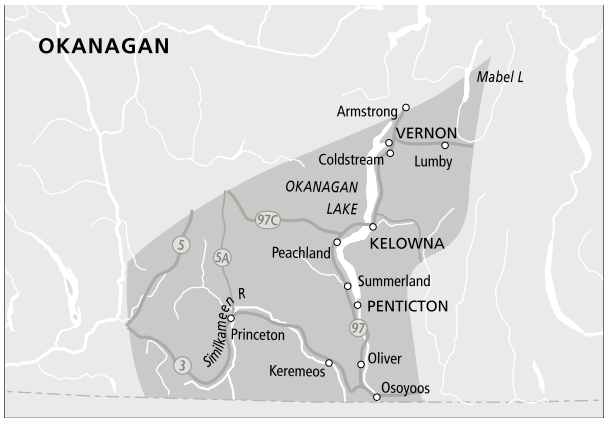


Figure 1.5 Okanagan region

The region is the home of the Syilx (Okanagan) First Nations. Some non-Indigenous settlement occurred during the fur trade, but much more took place as the region became recognized for its farming potential as a fruit-growing area. The Okanagan is one of the few places in Canada where apples and "soft fruit" such as peaches and cherries grow, but irrigation is necessary in this dry belt. A number of communities evolved to serve the growing agricultural settlement, and Vernon, Kelowna, and Penticton, all on Okanagan Lake, became the most prominent. Prior to the arrival of railway lines, paddlewheelers (also known as steamers) on Okanagan Lake served an important transportation function. The Kettle Valley line, built in 1915, provided the link between the Kootenays and the Lower Mainland, giving access to the southern Okanagan, while a branch line of the CPR built in 1925 linked Kamloops to Kelowna and served the northern portion of the region.

Several changes occurred after the 1960s. Tourism, which had mainly been a summer activity, expanded into a year-round endeavour centred on golf, skiing, and mountain biking. The dry climate and four distinct seasons, combined with relatively low land and housing

prices and easy access to the Lower Mainland, also made the valley a favourable location for retirement. These characteristics led to increased population, urban sprawl, and land-use conflicts, especially over agricultural land, until **Agricultural Land Reserves** were implemented in 1973. These reserves were designed to stop relatively rare agricultural land for from being converted to urban, industrial, commercial, and recreational uses. Fishing and pleasure-boat motors carried Eurasian watermilfoil (an invasive aquatic plant) into the region, where it spread through the water systems, converting once sandy beaches to a mass of weeds and jeopardizing the growing tourism industry. Eradication programs in the 1970s made use of herbicides that provided some control but also raised concern about the potential carcinogenic effects.

Other industries expanded in the region, including mining and forestry, both of which increased employment and the population base. With the signing of the Free Trade Agreement between Canada and the United States in 1989, agriculture changed rapidly. Fruit crops continued to dominate, but to compete with US producers who had access to inexpensive labour, BC producers developed new varieties of apple trees that required considerably less labour. The grape and wine industry, forced to compete globally, met the challenge by growing new grape varieties. New rules permitting the sale of wine from farms accounted for a large part of the success of the industry, which now attracts thousands of tourists each year.

The Okanagan has many physical assets and a fairly diversified economy, making it one of the province's rapid-growth regions (Table 1.1). Kelowna has become the most important service, administrative, and manufacturing centre, and its regional airport and a highway link it to the coast via the Coquihalla Highway. Forest fires, however, have been particularly hazardous for the region. The firestorm of 2003 incinerated 238 homes, and the firestorms of 2009, 2017, and 2018 forced the evacuation of thousands of residents (CBC 2003; Price 2009; EmergencyInfoBC 2017; CBC News 2018).

KOOTENAY

Mountains, rivers, and valleys are the main physical features that define the Kootenay region. The rugged mountain chains run north-south, from the Monashees in the north, through the Selkirks and the Purcells to the east, to the Rockies in the south. All rivers and lakes in these valleys form part of the Columbia River system, which exits British Columbia and flows into the United States at Trail (see Figure 1.6). Climatically, this region is similar to the Okanagan, but it is slightly colder in winter, not as hot in summer, and has slightly more precipitation.

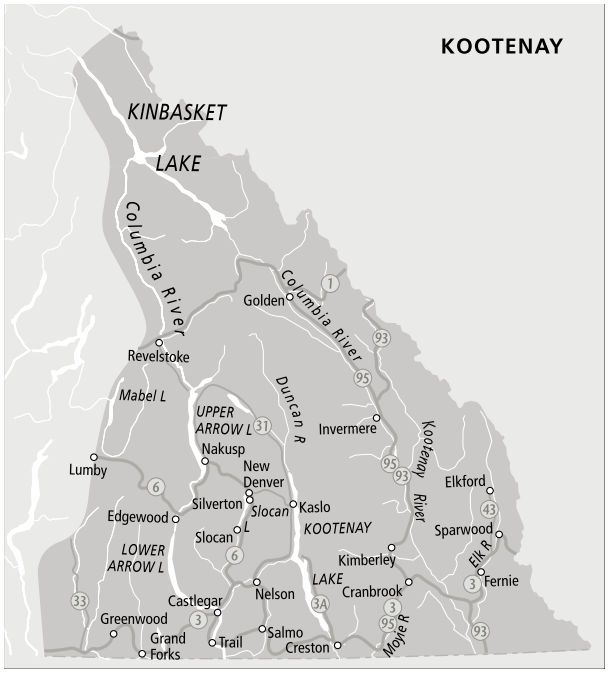


Figure 1.6 Kootenay region

Several Indigenous Peoples reside in this region: the Sinixt and Ktunaxa (Kootenay) to the east, the Syilx (Okanagan) to the west, and the Shuswap First Nation to the north. Census Canada has traditionally divided the region into east and west, but both sides share a valuable mineral resource base. Gold, silver, coal, copper, lead, and zinc were all discovered and became the lure to settlement and development following the fur trade era. When the Crow's Nest Pass Agreement was signed in 1897, the CPR became the principal landowner, provider of rail transportation, and developer of resources in the region. The agreement was a deal struck between

the federal and provincial governments and the CPR to run a branch line from Lethbridge, Alberta, through the Crowsnest Pass to the mineral-rich Kootenays, ending initially at Nelson. Through the agreement and its subsequent purchase of railway grants, the CPR acquired millions of acres of land, coal deposits, metal mines, a major smelter at Trail (Cominco), and West Kootenay Light and Power. The CPR exerted enormous control over this region. Other railway companies built lines and acquired land grants, but the CPR purchased most of them over time, consolidating its hold on the economy. By 1901, five of the largest communities in the province were located in this region, but population statistics (see Table 1.2) don't reflect the boom-and-bust cycles experienced by individual mines and smelters. The list of **ghost towns** in the Kootenays is sufficient to warrant several books and articles (Barlee 1970, 1978a, 1978b, 1984).

Historically, settlement patterns in the area have been influenced mainly by mineral exploitation, transportation developments, and agricultural opportunities. But other factors led to settlement. For example, the Doukhobors migrated to the Kootenays between 1908 and 1913 in an attempt to escape religious persecution in Europe and political persecution in Saskatchewan. The area had good agricultural land for their communal lifestyle and appeared to be relatively isolated from government interference. In the early 1940s, many Japanese families, evacuated from the coast, were sent to communities and work camps throughout the Kootenays such as Greenwood, Sandon, New Denver, and Slocan City.

Forestry has been another resource activity. The Kootenays experienced forestry expansion after 1961 when pulp mills were built in West Kootenay at Castlegar and in East Kootenay at Skookumchuck. In the 1960s, the provincial government also became involved in hydroelectric megaprojects. Through the Two Rivers Policy, the Peace River, in the northeast, and the Columbia River, in the Kootenays, were developed for hydroelectricity simultaneously. The dams also provided flood protection for cities in Washington State and Oregon State. Other dams, such as the Revelstoke Dam, were later constructed to fulfill a perceived demand for electricity by British Columbians.

Although resources such as mining, forestry, and hydroelectricity are significant employers, both mining and forestry have faced serious setbacks. But sawmill and mine closures have, to some degree, been offset by a vibrant tourist industry, which offers some diversification. The region has many hot springs and lakes, and opportunities abound for skiing, hiking, sports fishing, hunting, mountain biking, and sightseeing. Investments in tourist infrastructure such as ski facilities (e.g., Panorama, Fernie, and Kimberley), golf courses, and casinos have increased tourism. Nevertheless, because the region is a considerable distance from major urban populations in Alberta, British Columbia, and the United States, it will likely show slow growth in the future.

SOUTH CENTRAL INTERIOR

The South Central Interior is largely identified by the Southern Interior Plateau. The region extends west of Lillooet to Revelstoke on the Columbia River, but it is the Thompson River system that mainly defines the region (see Figure 1.7). The Thompson River valley is hot in summer and cold in winter, and precipitation occurs mainly on the surrounding mountains. The Secwépemc of the Interior Salish have been the traditional users of the land.

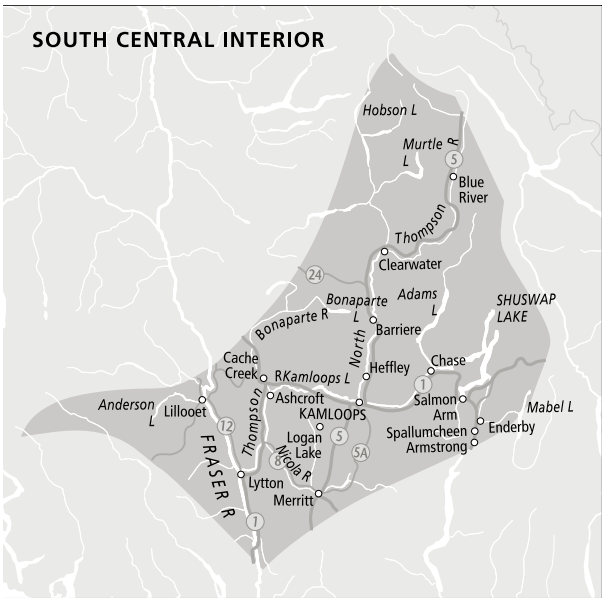


Figure 1.7 South Central Interior region

Early European interest in this region stemmed from furs and gold. The Thompson River was an important "highway" for the fur trade, and Kamloops was established as a fur trade post in 1812. Small amounts of gold were discovered in the region in the mid-1850s but not in amounts significant enough to create a gold rush. The gold rush that followed gold discoveries along the Fraser River up to the Cariboo in the north in the 1860s, however, attracted cattle drives and cattle ranching to these interior grasslands.

When the CPR main line was built, Kamloops became the main supply and service centre for the region. Its location, where the North and South Thompson Rivers meet, was enhanced by later transportation developments such as the extension of the Canadian National Railway (CNR) down the North Thompson and through Kamloops on its way to Vancouver. With the development of road systems, it gained a spot along the Trans-Canada Highway, and it is currently at one end of the Coquihalla Highway, which runs to the coast.

Farming and ranching were the region's main industries until the 1960s, when the forestry, mining, tourism, and retirement industries began to develop. Of them, forestry was the most important. A pulp mill was established in Kamloops in the mid-1960s along with sawmills and other forest-product manufacturing endeavours throughout the region. Mining also played a significant role when a copper mine and smelter was built in Kamloops. Although it closed in 1997, the mine reopened in 2007. A considerably larger copper/molybdenum mine in the Highland Valley from Ashcroft to Merritt is also in production. Tourism is also increasing in importance, largely because of transportation routes such as the Coquihalla Highway (which no longer has tolls) that lead to Kamloops and then branch north to Jasper and Edmonton and east to Banff and Calgary. The region's accessibility and other favourable features have also attracted retirees. Although the region has experienced relatively rapid population increases (see Table 1.1), it is dominated by one urban centre – Kamloops. This centre – which includes Thompson Rivers University and other institutions that perform medical, transportation, and other administration functions – has become an important service centre for the South Central Interior region.

NORTH CENTRAL INTERIOR

The North Central Interior is one of the largest regions in the province, and it is defined by the Northern Interior Plateau. The northern half of the Fraser River, with its many tributaries, is a large part of this region, although the area extends westward to include Smithers and the Bulkley Valley (see Figure 1.8). Temperatures in winter are colder than in southern interior locations and not as hot in summer. The mixing of Pacific and Arctic air masses results in increased precipitation, but this varies throughout the region, in relation to the mountain chains.

Historically, the area has been home to many First Nations, such as Tsek'ehne, Nat'oot'en (Lake Babine First Nation), Wet'suwet'en, and Dakelh. Non-Indigenous settlement began with the overland fur trade, which relied on the Fraser River for transportation. Fur trade companies erected forts throughout the region in the early 1800s, but it was not until the Cariboo Gold Rush

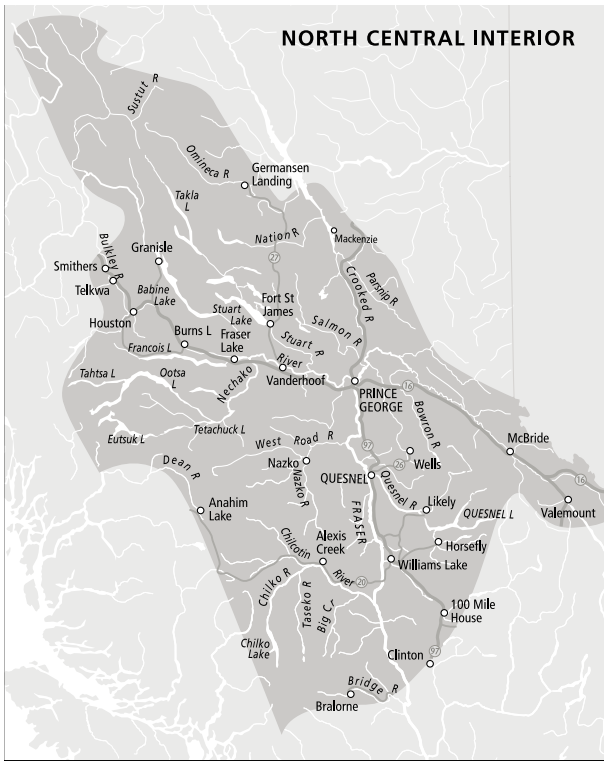


Figure 1.8 North Central Interior region

of the early 1860s that more permanent non-Indigenous settlement began. Miners used a number of routes to gain access to the Barkerville area from the Lower Mainland until the Cariboo Road was constructed in the mid-1860s. The development of Barkerville and other mining communities attracted ranching to the southern part of the region, including the Chilcotin Plateau. (Gold was also discovered in the northern part of the region – in the Omineca Mountains, for example – but these finds were not sustainable.) By the end of the 1860s, however, the era of major gold discoveries had come to an end, and miners began to disappear, along with the mining towns.

This large region remained relatively uninhabited until the CNR connected it to the port of Prince Rupert to the west in 1914. From the south, the Pacific Great Eastern Railway (PGE) was built in a series of stages: Squamish to Quesnel in 1921, Quesnel to Prince George in 1952, Prince George to the Peace River in 1958, and Prince George to Fort St. James in 1968. Prince George, like Kamloops, became a transportation hub of rail lines and highway systems that served central and northern British Columbia.

From 1961 to 2001, as Table 1.1 indicates, there was considerable interest in the region. The mining of copper, molybdenum, and gold brought many workers into the area, but the main industry was forestry. The region's forests remained largely untouched until the 1960s, when an increase in the world demand for forest products saw a massive expansion in the industry throughout the North Central Interior. The manufacturing of plywood, lumber, and other forest products was integrated with pulp-and-paper mills built at Quesnel, at Prince George, and in the new town of Mackenzie.

Unfortunately, many resource industries have shut down since the 2000s. The forest industry in particular has been hard hit by the mountain pine beetle epidemic, which forced the closure of many sawmills. Although, the region's population has declined since 2001, Prince George is growing in population and has emerged as the region's largest centre (see Table 1.2). The city – which is accessible and home to the University of Northern British Columbia – has become an important service centre to central and northern British Columbia. It performs a role similar to that of Edmonton in the province of Alberta.

NORTH COAST–NORTHWEST

The North Coast–Northwest is a large region that has remained relatively isolated because of its rugged, mountainous landscape. The Coast Mountains, which extend the length of the region, are among the highest in British Columbia. The northwest corner consists of the St. Elias range, which includes Fairweather Mountain (4,663 metres), the highest peak in British Columbia. The coast is highly irregular, and its northern tip makes up the Alaska Panhandle (the strip of Alaska that extends south along the coast). The heavily forested Haida Gwaii (Traditional Territories of the Haida and composed of over 150 islands) also forms part of this region. Climatically, much of the area is exposed to the Pacific and to the westerly flows of wind. Its northern location also exposes the region to the Aleutian low-pressure system, which brings a lot of rain in the summer and snow in the winter. The Skeena, Nass, and Stikine are some of the largest river systems in the province that flow to the Pacific (see Figure 1.9).

Within the region, the north coast has been home to high-density populations of Indigenous Peoples, whereas the northwest interior has had much lower populations. A number of factors led to early European development of the North Coast–Northwest region. In the late 1700s, the sea otter trade aroused considerable interest. The Russians, who erected fur trade posts across Alaska and the Panhandle were the first to exploit these valuable furs. They laid territorial claim to Alaska, thus cutting off the northwest from the sea. Subsequently, Russia sold the territory to the United States in 1867. Without access to the Pacific, the northwest portion of the region was left largely to Indigenous Peoples and the overland fur trade.

Other resources encouraged settlement, but it was only temporary. Salmon canneries began to dot the landscape in the late 1800s and early 1900s, especially at the mouth of the Skeena and Nass Rivers and along the coast. However, with the exception of those at the mouth of the Skeena, most canneries disappeared in the 1950s because of improvements in fishing technology. Although small amounts of gold were discovered on Haida Gwaii in 1850 and on the Skeena River in 1863, no gold rush occurred in either case. Coal was mined on Haida Gwaii, but it was only used for coastal steamers in the late 1800s. The Klondike Gold Rush in the Yukon opened up the

Figure 1.9 North Coast–Northwest region

northernmost portion of the region in 1898, leading to the building of the famous Chilkoot Pass, the White Pass, and by 1900 the White Pass and Yukon Railway. Gold seekers passed through the northern tip of British Columbia before entering the Yukon, and although there was plenty of interest in the region, there was little permanent settlement.

It wasn't until the CNR arrived at Prince Rupert in 1914 that permanent settlement increased. Charles Hays, a prominent entrepreneur in the early history of Prince Rupert, was a major shareholder of the railway, an industrial waterfront landowner, and an avid promoter of the town. Unfortunately, he never saw his vision materialize – he was a passenger on the Titanic in 1912 and was not counted among the survivors. But the railway did eventually lead to the mining of the Telkwa coal deposits, which lasted from 1918 to 1984. Prince Rupert also became the site of an early pulp mill, which encouraged growth. A copper smelter was built at Anyox, north of Prince Rupert, but it lasted only until the Depression. Following the Second World War, the construction of the Alaska Highway made the remote northwest portion of the region (e.g., Lower Post and Atlin) more accessible. Another major development for this region, and an icon of industrial development in the frontier, was the construction of the Kenney Dam to supply the energy required for the new community of Kitimat. This planned town was built to house the workers for a new aluminum plant in the early 1950s. The Stewart-Cassiar Highway linked communities along Highway 16 (those from Prince George to Prince Rupert) to the Alaska Highway through the northwest.

As in other regions, the mining and forest industries underwent major expansion beginning in the 1960s. A major copper mine near Stewart, a large open-pit mine for asbestos at Cassiar, and a number of small gold mines brought employment to these rather isolated locations. The development of the Quintette and Bullmoose mines and the new town of Tumbler Ridge in the Peace River region – a coal-mining region known as Northeast Coal – in the early 1980s resulted in the CNR rail line being double-tracked to Prince Rupert and a large coal port being built at nearby Ridley Island. New investments in Ridley Island included the development of new bulk-handling facilities (e.g., for petroleum products and wood pellets) and the ability to handle container shipping. Although a planned expansion of the aluminum smelter at Kitimat, which depends on water from the Nechako River, was cancelled in 1995 for environmental reasons, recent modernizations have increased production and reduced greenhouse gases, and aluminum production continues to be important to the region.

The forest industry has also expanded in a number of directions. Much of the valuable timber from Haida Gwaii was harvested and sent on barges to the mills of the Lower Mainland. A pulp mill was opened at Kitimat in the 1960s, but it closed in 2010. Prince Rupert has emerged as the largest centre for the region, but the downturn in the forest industry resulted in the closure of a number of sawmills in the area and its pulp mill in 2001, putting into

perspective the importance of the forest industry to this city and the region as a whole (see Table 1.2).

Northeast of Prince Rupert, in 2000, the Nisga'a of the Nass River Valley became the First Nation to enter into a modern treaty in British Columbia, setting a precedent for future treaties throughout the province. The treaty resulted in a cash settlement, land ownership (i.e., their land base is no longer a reserve), an Indigenous-owned forestry company, and a substantial share of the Nass River commercial salmon fishery.

More recently, the Kitimat–Prince Rupert region has been in the spotlight for two controversial resource proposals. The first, the Enridge Northern Gateway Pipelines project, was intended to connect Alberta's Tar Sands oil to Kitimat, where it would be transported to Asia. The second was for the production and export of **liquefied natural gas (LNG)** from Kitimat, Lelu Island (off Prince Rupert), and a number of other locations. The federal government cancelled the oil pipeline to Kitimat in favour of another proposed pipeline to Burnaby, by Kinder Morgan, which is also extremely controversial. The LNG proposals got cancelled but more for economic than political reasons – the price of LNG collapsed in 2015.

Even today, there are few roads or rail lines through this area, and growth continues to be tied closely to resource development. The North Coast–Northwest region is slow growing, and its population has declined in recent years.

Figure 1.10 Peace River–Northeast region

PEACE RIVER–NORTHEAST

Most of the Peace River–Northeast region does not fit the broad physical description of British Columbia as a mountainous, vertical landscape. This flat, sedimentary region east of the Rockies is physiographically similar to the Prairies. The two major rivers, the Peace River in the south and the Liard River in the north, are part of the Mackenzie River system (see Figure 1.10), which drains into the Arctic Ocean. The region contains areas of permafrost, bog, and boreal spruce forests. Temperatures are cold in winter and surprisingly warm in summer, when the days are long, inducing **convection precipitation**.

The region covers the Traditional Territories (or parts of the territories) of a number of First Nations, including the Tsek'ehne, Dane-zaa, Saulteaux, Nehiyawak, Kaska Dena, and Dene Tha'. The North West Company fur traders were the first non-Indigenous people to enter the region, and it is here that the earliest fur trade forts in British Columbia were erected. Discoveries of gold on the Peace River in the 1860s warranted the inclusion of the territory into British Columbia, but the finds were insufficient to sustain permanent settlement. The Yukon Gold Rush at the end of the nineteenth century led to the signing of Treaty 8, which covers the region north of Edmonton, the northwest corner of Saskatchewan, and the Peace River–Northeast Region of British Columbia. The Canadian government believed that the region would be a route to the goldfields and that the treaty would be a means of avoiding conflict. The Indigenous

Peoples of the Peace River–Northeast Region were the only First Nations to be included in a numbered treaty in the province.

Few agricultural settlers ventured this far north until the homesteads of the south and central Prairies had all been taken up. The development of hardy, early-maturing wheat also facilitated agricultural homesteads in the 1920s and '30s, and problems associated with accessibility were improved when a rail line from Alberta was extended to Dawson Creek in 1930. When the Alaska Highway was constructed during the war, Dawson Creek became Mile 0, helping to open up the region. At the end of the war, the federal government made more farmland available for returning servicemen. But it wasn't until 1971 that the PGE was finally extended to Fort Nelson. Wheat farming on the region's excellent soil and cattle rearing have been the main agricultural activities of the Peace River area.

The discovery and development of oil and natural gas in the 1950s encouraged investment, the building of pipelines, and the movement of considerably more people to the region. By the 1960s, the Peace River had become one target of the massive hydroelectric plan referred to as the Two Rivers Policy. The plan involved constructing the W.A.C. Bennett Dam (which created the largest reservoir, or artificial lake, in the province, Lake Williston) and building transmission lines to connect the dam to southwestern British Columbia. All this activity attracted even more people to the Peace River, and the energy crisis, which began in the early 1970s, sparked another round of oil and gas exploration and development.

The sedimentary basin also contained Northeast Coal, which was developed beginning in the early 1980s. The new town of Tumbler Ridge housed the miners, an electric rail line of the British Columbia Railway (formerly the PGE) was constructed, and millions of dollars were spent upgrading the CNR line from Prince George to Prince Rupert and building a coal port at Ridley Island (as discussed above). The costs borne by both provincial and federal governments to export the coal were massive. Unfortunately, as the world market demand and price for coal declined, so too did contracts with Japanese buyers. The Quintette mine closed in 1999 and the Bullmoose in 2003, leaving Tumbler Ridge struggling to convert to a retirement, tourist, and recreation community. Fortunately, the price of coal rebounded, and a new coal mine, Wolverine, opened in 2006. The discovery of dinosaur fossils has also resulted in tourism related to paleontology. Still, Tumbler Ridge's economy is dependent on the volatile price of coal, which results in the opening and closing of mines. All mines closed in 2015.

Today, Fort St. John and Dawson Creek are the largest centres in the Peace River–Northeast region. The forest industry employs many people in its pulp mills, sawmills, oriented-strand-board plants, and a plywood mill. And although the agricultural sector continues to be important, it, like the coal industry, is unstable. The recession of 2008, for example, resulted in plummeting grain prices; although they rebounded to near historic levels by 2012, they have seen a steady decline since 2017. Tourism has increased in response to a variety of recreational opportunities, the diversity of the landscape, and the discovery of dinosaur footprints at Tumbler Ridge and near the W.A.C. Bennett Dam, and the Alaska Highway continues to be a major tourist attraction.

With all of these developments comes the potential for conflict between resource industries and those interested in preserving the wilderness. For example, the provincial government, through BC Hydro, has recently resurrected and approved a controversial proposal for the Site C Dam on the Peace River near Fort St. John. The project has many farmers, First Nations, environmentalists, and citizens concerned about the consequences of flooding the Peace River Valley. Similarly, although oil and natural gas continue to be important to the region, fracking for natural gas has many in the environmental movement concerned over the amount of water required in the process, the contamination of both surface and ground water, and evidence that it causes earthquakes.

In 1998, when the Muskwa-Kechika Management Area Act was signed, an attempt was made to accommodate all interests in this very large wilderness region, which stretches from Lake Williston north to the Yukon border. The economy and growth of the Peace River–Northeast region is tied to its diverse resource endowment. It is a large region, the population is relatively small, and growth, or decline, is tied to resource demand.

SUMMARY

In a regional geography approach, British Columbia can be divided into eight regions for the purpose of an overview. The regional perspective is important, not only for recognizing British Columbia's unique physical and human attributes but also in assessing the global and external forces that have shaped the province. The divisions are based on distinct physical characteristic in combination with economic activities, settlement patterns, and population data. Each region has a unique history, physical characteristics, Indigenous populations, and economic development.

A common thread in this regional approach is how population increased in each region as a result of resource development, which often relied on political policies, technological development, especially with respect to transportation, and innovations related to industrial productivity. In many of these regions, the resource industries are no longer important employers, and this has resulted in population stagnation and decline. As a consequence, population growth is extremely uneven, favouring the regions with large urban centres. The Lower Mainland is home to over 60 percent of the provincial population, and this number is expected to continue to increase.

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