



MOVING NATURES: Mobility and the Environment in Canadian History Edited by Ben Bradley, Jay Young, and Colin M. Coates

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Edited by

BEN BRADLEY, JAY YOUNG, AND COLIN M. COATES



Moving Natures

*Mobility and the Environment
in Canadian History*

*Moving
Natures*

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in Canadian History

Edited by

**BEN BRADLEY,
JAY YOUNG, AND
COLIN M. COATES**

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This book originates from our realization several years ago that the fast-growing fields of environmental history and mobility studies had much in common, yet were not in close communication. We observed that a number of scholars in Canada, at various stages of their careers and employing perspectives gained from anthropology, geography, technology studies, and other fields, were examining the relationship between mobility and the environment in this country's past. To bring these researchers together, we organized a workshop at the Glendon College campus of York University, and that workshop formed the basis for this collection.

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Moving Natures in Canadian History: An Introduction

Jay Young, Ben Bradley, and Colin M. Coates

At one time, looking ahead to a distant utopian future, the solution to Canada's problems lay in mobility. A curious 1883 pamphlet written by "Ralph Centennius" and titled *The Dominion in 1983* foresaw a series of technological and political successes that ensured the greatness of Canada. Not only had the country Centennius described withstood the threat of invasion from the United States, but by 1983 it harboured a population of ninety-three million, with fifteen cities of over a half-million inhabitants, including three of more than two million. Canada had also conquered the challenges of a northern climate. On the shores of Hudson Bay, the Manitoba community of Churchill had been transformed into a seaside resort, boasting conservatories that made "the long winter as pleasant to the citizens as summer."

In perhaps the most striking passages of *The Dominion in 1983*, the author writing under the pseudonym Ralph Centennius predicted the use of "light and beautiful rocket cars, which [dart] through the air at the rate of sixty miles in one minute." Constructed of polished metal, these fifty-seat rocket cars would fly through the sky at heights of up to fifteen hundred feet and land on rails when they reached their destination. Unimpeded by the vagaries of terrain and seasonality, Canadians

could journey from Toronto to Winnipeg in thirty minutes and from Winnipeg to the Pacific in forty. In this wonderful future, the grand expanse of a nation with too much geography was no longer an obstacle to national greatness:

The advantages to a country like ours, over 3,000 miles wide, of swift transit are obvious. The differences in sentiment, politically, nationally, and morally, which arose aforetime when people under the same government lived 3,000 miles apart have disappeared to be replaced by a powerful unanimity that renders possible great social movements, utterly impossible in the railway age, when seven days were consumed in journeying from east to west.¹

Rapid, reliable long-distance mobility would overcome the geographic challenges that Canadians had to face, annihilating space as both distance *and* difference. Or so Ralph Centennius believed in 1883.

In many ways, Centennius's enthusiasms mirrored those of people who, like railway theorist T.C. Keefer in the mid-nineteenth century, promoted the construction of new transportation links as nation-building projects. These engineers, promoters, and politicians believed that enhanced mobility and communication could forge a new nation in northern North America and overcome the clear environmental constraints posed by its topography, climate, and sheer size. The act of movement could allow Canadians to take control over their land, while at the same time, the infrastructure built to facilitate mobility would require modification of that land. People would have to shift soil, remove vegetation, and reconstruct waterways to create new roads, canals, and tunnels. These new mobilities in turn would create new perceptions of nature and nation. Echoing Centennius's imagined future, the chapters in this collection argue that choices concerning mobility—the movement of people, things, and ideas—have shaped Canadians' perceptions of and material interactions with their country.

Moving Natures examines the complex intersections of mobility, the myriad environments of Canada, and the lives of its inhabitants.

The concept of mobility evokes both the expenditure of energy and the exercise of will to move from one location to another. The amount of required force depends on friction and on the available technology, with each mode and route of travel presenting constraints and opportunities. This collection explores various forms of mobility in the Canadian context through a series of case studies that span the country's diverse regions, covering the period from the closing of the age of sail to the heyday of the private automobile. The mid-nineteenth century represents our point of departure. During that period the speed, distance, and regularity of corporeal movement began to increase on a scale unprecedented in human history, as a new energy regime took hold—with fossil fuels powering locomotives, steamships, and other modes of transportation that, in many places, supplanted older, muscle- and wind-powered modes. Along with other cultural and technological changes associated with industrialization, this transportation revolution contributed to a widespread perception that time and space were being radically altered. It seemed as though the pace of life was accelerating, the world was becoming a smaller place, and nature's traditional constraints on human needs and desires for movement were reduced.² Most Canadians, much as they may have embraced some features of the country's "wilderness" areas, have welcomed this compression of time and space. Few protested the building of roads and railways, while in the name of "modernity" and "progress" the promoters of projects like the construction of the St. Lawrence Seaway—and the dramatic changes wrought by such projects—tended to overcome local opposition.³ Given the changes Ralph Centennius had likely experienced by 1883, his or her prognostications for the next century probably felt quite reasonable. Completion of the Canadian Pacific Railway was still two years away, yet the idea that a week spent traversing the country would one day seem painfully slow was eminently plausible. Given that the emergence of the Canadian nation-state had coincided with this transportation revolution, it must have seemed logical to many Canadians in the late nineteenth century to link improved mobility with national progress as though they went hand in hand.⁴

Historians of Canada have long appreciated the centrality of transportation to the development of the Canadian nation-state and its

expansion across the northern half of North America. A line of both academic and popular thought has positioned the overcoming of “obstacles” posed by “harsh” or “unforgiving” natural environments as a dominant or even essential theme in Canada’s past. “Always there has been the challenge of the environment,” effused transportation historian George Glazebrook, “always the task before a small population of finding—whether through rapids or mountains, past ice and blizzards—a route to the Canada of the future.”⁵ In such works, transportation and travel take the role of handmaidens in a romantic narrative of national ambition, economic development, scientific enlightenment, and material progress. Indeed, the early canonical works of English-Canadian historical writing, including Harold Innis’s studies of the fur trade and railways and Donald Creighton’s *The Commercial Empire of the St. Lawrence*, placed the extraction and transportation of natural resources at the centre of their explanatory frameworks for the particular dynamics of colonial settlement and Canada’s connections to the rest of the world.⁶ Innis, writing in the 1930s, asserted that water-based transportation defined the trajectory of Canadian history: “The comparative ease with which the transport unit was borrowed and adapted, or devised to meet the demands of the water routes, gave the waterways a position of dominant importance in the moulding of types of economic and political structure.” In a further statement—one that may appear less self-evident today, when Canadians rarely travel long distances on water, than it was when he wrote it—Innis argued that “the arrival of the first steamboat down the Red River to Winnipeg is surely the most dramatic event in Canadian economic history.”⁷ According to Innis, the terrain of the Canadian Shield, the directional flow of rivers, and other natural features steered and facilitated settlement along an east-west axis, ultimately explaining the creation of Canada from sea to sea. While Innis and other historians, including Creighton and Arthur Lower, rightly emphasized the importance of the environment in Canadian history, their writings tended to depict it as static geography, an inert and timeless “stage” that inspired and challenged the plans of human actors. Distance, commodities, and markets were the catchwords for early academic historians of transportation in Canada.

Then, during the 1970s, Canadian historians of transportation—like their counterparts elsewhere in the Western world—shifted their attention to studying corporate management techniques and the state’s use of transportation policy to steer economic development. To the extent that they considered the environment, they also treated it as a geographic imperative, an unchanging—rather than dynamic—entity.⁸ Around the same time, Innis’s staples and Creighton’s Laurentian approaches began falling out of favour with many academic historians. Nonetheless, the notion of Canadian history as an epic struggle to penetrate the wilderness, capture resources, and consolidate the country through improved transportation lives on in the popular imagination.⁹ Pierre Berton’s tomes about a transcontinental railroad as the national dream continue to sell.¹⁰ Illustrated histories of trains, planes, and other “things that go” are mainstays of Canadian publishers large and small. Rare is the community history that fails to dedicate an early chapter to transportation matters; indeed, doing so has long been recommended in the template for writing a local history provided by Friesens, Canada’s biggest printing outfit.¹¹ Meanwhile, the motif of heroic transportation infrastructure still animates Canadian public history. Consider the various campaigns to preserve lighthouses on the Pacific and Atlantic coasts and the Great Lakes, or the decision to rebuild the disused Kettle Valley Railway trestles at Myra Canyon in southern British Columbia after their destruction by a forest fire in 2003. These are all symbols of movement that stand alone in rugged, isolated settings, their metaphorical importance having long outlasted their practical usefulness. Canadians continue to embrace mobility as symbolic of the desire to master time and topography.

Mobility for Work, Mobility for Play

This volume divides the intersection of environmental and mobility history into two approaches, reflecting the current state of research. The first half deals with the material practicalities of mobility, that is, the ways in which environments were modified to facilitate mobility and the workaday, often climatic, challenges and opportunities that people had to face. Jim Clifford, Thomas Peace, and Judy Burns examine the

transformation of Nova Scotian spruce forests into ocean-going vessels and the impact of the shipbuilding industry on one small town—Maitland, which enjoyed a brief economic heyday in the second half of the nineteenth century—and its surrounding woodlands. Maitlanders profited from their direct access to the ocean, the high tides of the Bay of Fundy eliminating the need to construct an expensive dry dock for the vessels. Unlike the wintery frozen waterways of central Canada, the Maritime provinces offered the possibility of ice-free harbours throughout the year. The Intercolonial Railway, a provision of the British North America Act that created the new Dominion of Canada, was completed in 1872 to provide access for central Canadian resources to the Maritime ports. However, as Ken Cruikshank shows, heavy winter snowfalls occasionally reduced wintertime accessibility, and the seasonal economics of commodity trade necessitated the encouragement of tourism to make the expensive train link viable. Operators of the rail line therefore attempted to both tame winter and sell summer. Likewise, the summertime attraction of the lakes and rivers of the Muskoka region in Ontario brought tourists from Canada and the United States to a hardscrabble area, in agricultural terms. Provisioning the many temporary residents involved specific choices concerning mobility, depending on the fuel used. Each form implied different types of sociability, Andrew Watson argues, and the early-twentieth-century transition from steamboats, which had enhanced a sense of community, to gasoline-powered motorboats, which privileged household autonomy, represented a key shift in the social relations of this summertime settlement. While open water often facilitated mobility, in many parts of the country winter conditions made transportation somewhat easier. Ice roads ensured the transportation of goods to isolated communities in northern Saskatchewan well into the twentieth century, as Merle Massie demonstrates.

Three of these case studies focus on private enterprise, while four examine endeavours driven primarily by the state. The Intercolonial Railway was very much a product of contentious national political debates. In the twentieth century, federal and provincial governments increasingly involved themselves in funding transformative infrastructure projects. Daniel Macfarlane examines the environmental

implications of the construction of the St. Lawrence Seaway in the 1950s, and Jay Young analyzes the tunnelling necessary for the Toronto subway in the same period. Both scholars point out an important, but often overlooked, fact: the construction of transportation corridors such as the St. Lawrence Seaway and the Toronto subway wrought a great deal of environmental change in their own right, with the removal of tons of soil from one location to another resulting in the creation of new ecological niches and ironically hindering mobility for those who lived closest to the construction, even if only temporarily in the case of the subway. To close this section, Tor Oiamo, Don Lafreniere, and Joy Parr further make the case for the uneven impact of mobility infrastructures. They examine the case of the Windsor-Detroit borderland to illustrate how different jurisdictions approached mobility, especially transborder mobility, in divergent manners, and how the Detroit River as an international boundary exacerbated these issues. In sum, the first section of the book explores the material implications of particular choices of mobility technologies and their environmental, economic, and social consequences.

Some of the chapters in the first section also point to ways in which desires for and practices of mobility have related to cultural predilections. The Intercolonial Railway and the early freight trails of northern Saskatchewan enabled tourists to appreciate new landscapes. These paths created specific corridors for visitors to enjoy. As leisure activities became an increasingly important part of everyday life in the second half of the nineteenth century, at least for those privileged enough to partake in them, mobility became a goal in its own right—both for the physical activity involved and for the panoramas one could appreciate. The chapters in the second half of the collection build on this theme, focusing on the cultural perceptions inspired by different forms of mobility.

Increasingly, by the late nineteenth century, many urbanites desired to leave their cities in order to enjoy leisure activities elsewhere. Railways and steamships had a primary purpose of moving resources, but tourists could benefit from their services as well. The Union Steamship Company on the British Columbia coast plied the waters in order to facilitate access to resources, but as J.I. Little indicates, it also

provided the traveller with unparalleled vistas of scenic beauty. Mixed in with mountains, forests, and seascapes were examples of industrial activity, and tourist guidebooks presented the fish canneries and mines that dotted the coast as worthy of pleasure travellers' attention. Coastal cruises provided access to novel and attractive outlooks.

Other leisure activities also embraced the pleasure of moving around, whether by boat, train, or automobile, on foot, or by some other human-powered propulsion. By the late nineteenth century, a growing number of central Canadian urban dwellers embraced physical activities that were impractical in the city. Canoeists, for example, would journey long distances to attend the encampments and regattas of the American Canoe Association, which often involved crossing the border with the United States. As Jessica Dunkin suggests, the participants embraced their experience of what they perceived as wilderness at the same time that they effectively reproduced the class and gendered experience of their daily urban lives. Canoeing in the late nineteenth century had similarities to golf in the twentieth century. Elizabeth L. Jewett shows that golfing involved physical movement through manicured, designed landscapes that many practitioners justified to themselves as an engagement with "nature," at the same time that they had to utilize transportation modes to bring them to those locations: tramways or private cars to courses on the outskirts of major cities, and railways to resort links in the Rockies.

Elsa Lam explores other transportation implications of tourism in the Rockies. The Canadian Pacific Railway initially marketed access to its stunning hotels and scenic route through the Rockies to an elite audience. In the twentieth century, a wider, middle-class clientele benefitted from the expansion of transportation networks, particularly automobile roads, and was able to enjoy the experience of backwoods camping. The internal combustion engine expanded the options for individual and family travel dramatically. In the final chapter in this book, Maude-Emmanuelle Lambert compares the functions of automobile tourism in Ontario and Quebec from the 1920s to the 1940s, showing how provincial government ministries and local businesses tried to enhance certain vistas from the vantage point of the roads and thus attract more travellers to undertake such trips. The two provinces

competed for automobile tourists, with Quebec emphasizing human landscapes and Ontario celebrating its vistas of northerly wilderness.

Each of these cases explores different types of mobility, all defined in part by the material mode of travel, but also intended to create culturally pleasing experiences. Here the techniques of mobility created specific landscapes, framing views from the road, the ocean, the lake, or the links. Modes of mobility allowed the viewer to see specific “natural” landscapes, even as the selected pathways permitted only certain vantage points and had the effect of obscuring what lay behind the horizon or the forest fringe. From these mobilities emerged new, culturally and economically significant knowledges of Canada and its diverse environments.

Joining Mobility Studies and Environmental History

We employ the term “mobility” in the title of this collection instead of the more familiar “transportation” or “travel” in order to reflect a new, widened field of academic analysis. Over the last fifteen years, scholars working in geography, cultural studies, sociology, and science and technology studies have proposed that shifting the focus towards the concept of mobility (or mobilities) can provide a new understanding of the forces shaping contemporary societies.¹² Here mobility indicates the movement of people, objects, images, and wastes across boundaries and over time and space, as well as the motivations behind and social implications of those movements. Thus mobility can usefully be thought of as an overarching concept that encompasses travel, transportation, tourism, and other phenomena that involve moving people and things around. Considering mobility in this very broad sense draws passengers and other users into the foreground, thereby illuminating the motivations, practices, experiences, and consequences associated with all kinds of movement. Mobility theorists argue that movement is a central but understudied feature of modernity—perhaps even *the* central feature of modern life. The connection between mobility and modernity is suggested by the dynamic, materialist definition of modernity put forward by environmental historian Colin Duncan: “a society is modern to the extent that its constituent households consume

little of what they themselves produce and produce little of what they themselves consume.”¹³ This definition of modernity, which privileges social practice over intellectual culture, and which can be applied to any period or place, strongly implies the movement of subjects and objects within and between societies, whether over long distances or in the form of localized bustle. Mobility has been a prerequisite to colonialism and imperialism, the emergence of national and international markets, mass production and mass consumption, urbanization and the spatial separation of home and work, changing energy regimes, changing cultures of time and space, and relatively recent Western conceptions of freedom and selfhood.

These concerns reflect the development of studies in the communications field in recent decades, much of which can be traced back to Marshall McLuhan and, through him, to Harold Innis. But unlike Innis’s painstaking early work on specific commodity trades, this approach has often lacked a historical dimension. As cultural geographer Tim Cresswell has repeatedly pointed out, much of the theoretical literature on mobility has been highly ahistorical.¹⁴ So far, scholars have embraced the approach most enthusiastically when examining contemporary topics like cellular phones, the internet, and executive airport lounges. They have paid far less attention to older, less exotic forms of mobility, such as canoes, canals, sailing vessels, steamboats, railways, and draft animals. For this reason, materially grounded, place-specific studies of the myriad historical intersections between movement and the environment can contribute significantly to the emerging field of mobility studies.

Mobility studies can offer new insights in the field of environmental history. Key areas of concern for environmental historians include the touristic enjoyment of “wilderness” areas, practices of recreation in the outdoors, natural resource development, commodity trades, and infrastructure building. All of these topics are closely intertwined with mobility. Parks and cottages are unlikely to become popular if transportation mechanisms fail to bring people to those areas, while at the same time the process of establishing such landscapes serves to exclude others from them. Many leisure activities, such as golf, canoeing, and horseback riding, bring adepts into areas that they consider to

be “natural,” no matter how designed they may be. Access to primary resources depends on transportation methods, and here the story may take on some distinctive Canadian—or at least northern—hues, given the necessity of dealing with snow- or ice-covered transportation corridors. Finally, the process of enabling mobility often requires dramatic reconstructions of the physical environment, through the construction of canals, subways, roads, and bridges.

Mobility studies and environmental history both tend to ground their analyses in material conditions while recognizing that culture affects human perceptions of those conditions, and each offers avenues for exploring cultural meaning—the ways that people understand the world around them—within the practices of everyday life.¹⁵ Perceptions of the natural world have influenced the design of the fixed infrastructure that is associated with many types of long-distance and high-speed mobility. This fixed infrastructure tends to have high economic and social costs and therefore becomes a kind of permanent geographic feature. These lines and networks transform the environment by their construction, and they also impose path dependencies. Over time, they become taken-for-granted aspects of everyday life, shaping people’s interactions with and perceptions of the environment for decades, even centuries. In another sense, they can “lock” a society or community into certain patterns of movement and interaction with the environment, steering people and developments between connected places and those that are located “off the beaten path.”

Many key works in environmental history have emphasized the importance of physical movement in how people shaped and in turn were shaped by their surroundings. As American historian Tom McCarthy has pointed out, “historians were doing environmental history before they called it environmental history. They were even working at the intersection of transportation history and environmental history.”¹⁶ For example, Leo Marx’s *The Machine in the Garden* (1964), a foundational text on the culture of nature in America, used railways as a vehicle for understanding nineteenth-century conceptions of the relationship between nature and technology.¹⁷ Taking a very different approach, Alfred Crosby placed the co-movement of humans, microbes, plants, and animals at the centre of his study of the creation of “neo-Europes.”¹⁸

A substantial body of work has continued Crosby's line of inquiry, examining how travel, migration, and the extraction, transportation, and consumption of natural resources during the age of European imperialism affected environments around the globe.¹⁹ Flows of people, resources, energy, and waste have also been crucially important to cities, and the workings of North American urban environments have been the topic of books such as William Cronon's *Nature's Metropolis* (1991), Matthew Gandy's *Concrete and Clay* (2002), and Christopher E. Jones's *Routes of Power* (2014).²⁰

Historians have also explored the environmental significance of specific modes of mobility. For example, in the last decade there have been several book-length studies about the environmental implications of the automobile in the United States. Tom McCarthy explored the product lifecycle of the passenger car, from the extraction of resources for their manufacture to the smoggy emissions associated with driving them and the junkyards that came to dot the continent. David Louter and Paul Sutter examined how cars and roads shaped popular understandings of American wilderness, driving campaigns to keep some areas roadless while simultaneously encouraging the motoring public to care deeply about parks and other roadside landscapes. Most recently, Christopher Wells surveyed the transformation of the United States into "car country" through the reordering of natural and built landscapes to serve Americans' desires—and eventually expectations—for flexible, personalized mobility.²¹ A similar trend can be discerned for other modes of mobility, from flesh-and-blood horses to the "iron horse" of the railway locomotive.²² Together, these studies show that mobility imposed its own demands on the environment at the same time that it shaped and reshaped perceptions of nature. Every mode of mobility is accompanied by complex environmental effects, including such clearly negative ones as pollution and habitat fragmentation, as well as positive ones, like the encouragement of personal health and an awareness of broad environmental issues. As historians gain a better understanding of these and other modes of mobility, analyzing how they overlapped and interlocked, they will provide a fuller picture of mobility's complex environmental significance on local, regional, national, and global scales. While few Canadian environmental historians currently work

within the framework of mobility studies, the following chapters provide some indications of how such analyses could be carried out. They illustrate the importance of multidisciplinary approaches, particularly involving the contributions of both geographers and historians to this endeavour. In these essays, the relevance of traditional historical techniques based on the close reading of archival sources is often joined to the analysis of maps and visual sources, especially depictions of landscape.

Mobility and the Environment in Canadian History

This collection brings together scholars who are studying different kinds of movement in the diverse environments of a very large country over a period of more than 150 years. The chapters in the first section deal primarily with the construction and productive use of mobility technologies and infrastructure, as well as their environmental constraints and consequences. The chapters in the second section focus on consumers' uses of those vehicles and pathways—for pleasure travel, tourism, and recreational mobility. Organizing the chapters this way draws out a number of themes that we believe hold particular promise for further study, and we hope to encourage other historians to examine the intertwined histories of mobility and the environment. Three quintessentially Canadian themes stand out in many of the chapters: seasonality, links between mobility and natural resource development, and urbanites' experiences of the environment through mobility.

T.C. Keefer opened his classic 1850 essay, "The Philosophy of Railways," with a lament about winter's effects on inland navigation: "Old winter is once more upon us, and our inland seas are 'dreary and inhospitable waters' to the merchant and to the traveller;—our rivers are sealed fountains—and an embargo which no human power can remove is laid on all our ports."²³ As Keefer saw it, the annual freeze-up of the St. Lawrence River caused important economic activity to grind to a halt. But the picture was more complicated than this. Only two years earlier, Guillaume Lévesque had pronounced before the Institut canadien de Montréal that while the great river—"the grand route of all the country"—served its purpose well in summer, it facilitated

practical movement in winter as well: “the ice offered an easy and rapid path which we prefer today and will always prefer to the roads on the shore.”²⁴ The judgment depended here entirely on the traveller’s destination and motivation. For exporters, the prime access route to external markets was closed, while for people who wished to travel shorter distances within the colony, movement remained easy. The seasonality of the Canadian climate created both difficulties and opportunities.

Historians of Canada have paid surprisingly little attention to seasonality, but many of the following chapters recognize that fluctuations in temperature, precipitation, and other climatic conditions played a key role in development and daily life across the country. Most Canadians today view summer as a period of heightened mobility and winter—a prominent element in both the national imagination and outsider stereotypes—as restricting many forms of movement. However, this was not always the case and, even today, is not true for all Canadians. Prior to the development of good roads, the low-friction surfaces provided by frozen earth and water offered the best way to travel and move goods over land in many parts of Canada, as shown in the chapter on freighting in northern Saskatchewan. The pleasures and travails of moving across snow and ice have made certain vehicles and practices seem specifically Canadian, from snowshoes, sleds, and skates to skidoos, snow blowers, and the spreading of road salt.²⁵ The challenges that most (i.e., southern, urban) Canadians today associate with moving during the winter months stem more from an expectation of or desire for reliable year-round, long-distance transport than from any intrinsic “harshness” of the environment. The techniques for combatting (or regularizing) winter developed by managers of the Intercolonial Railway and St. Lawrence Seaway illustrate this point.

As Canadians have long recognized, investment in new transportation technologies has largely reflected the promise of access to natural resources. The choice of modes in turn has had a variety of environmental and social implications. As Liza Piper has shown in her study of fishing and mining in the Canadian subarctic, fossil fuels facilitated movement but also deepened reliance on external markets. The local environmental impacts could be mixed; petroleum could pollute waterways, but it also obviated the demand for local wood.²⁶ Several chapters

in this collection examine the complex links between mobility and natural resources. For instance, during a specific historical window, entrepreneurs transformed the spruce forests around Maitland, Nova Scotia, into ocean-going vessels that sailed the globe, linking the small Bay of Fundy community to commodity trading in places as distant as Aden and Peru. Other chapters show pleasure travellers taking advantage of technologies and infrastructures that facilitated the extraction and circulation of natural resources. In effect, their visual and recreational interactions with the environment (which typically occurred during the summer months) piggybacked on systems developed for exploiting the environment. There were practical financial reasons for this. Railways, steamships, and roads built primarily to transport products could also move people, and they could move them in different seasons and in the opposite direction from the main flow of natural resources. In many cases, transportation companies and the governments that facilitated the movement of bulk commodities sought to attract pleasure travellers in order to improve their bottom line. Promoters advertised steamship lines, railways, and provincial road systems, extolling the benefits of experiencing spectacular natural landscapes—often depicted as pristine “wilderness”—in order to attract tourists. But industrial sites attracted interest as well. Many guidebooks and advertisements celebrated a “resource sublime,” and therefore helped shape popular notions not only of nature but also of the country’s iconic tourist routes.

In many countries, the shaping of major infrastructure depends on active state involvement; this is indeed a major theme in Canadian history, although we tend to forget how often Canadians over-invested in the wrong infrastructure. Michael Bliss quotes Prime Minister Sir Wilfrid Laurier’s fervent advocacy for more and more railways: “The flood-tide is upon us that leads on to fortune; if we let it pass it may never recur again.” Pointing to “the immense waste that Laurier’s railway policy would generate,” Bliss lambastes Laurier, describing the prime minister’s words as “possibly the most irresponsible statement ever made by a Canadian politician—and that’s a tough competition.”²⁷ In the Canadian context, much government money lay behind such projects. The Canadian state was highly implicated in clearing the way for

mobility, thereby subsidizing certain types of industry and tangentially specific types of tourism.

Fixated on the construction of major infrastructure projects, Canadians have also celebrated their access to nature. In the late eighteenth century, cariole enthusiasts took to the ice bridge between Quebec City and Lévis, relishing the social opportunities of this public leisure activity.²⁸ From the cariole riders of the late eighteenth century to the backcountry hiker of the early twenty-first, many Canadians have experienced mobility in the practice of leisure itself. Many of the iconic images of former Prime Minister Pierre Elliot Trudeau depict him canoeing, and the classic definition of a Canadian, attributed to Pierre Berton, is someone who can “make love in a canoe without tipping it.” In Canada, as elsewhere, somatic forms of mobility like kayaking and cross-country skiing provide a physical, tactile interaction with the environment. In the mid-nineteenth century only a small, privileged section of Canadian society could afford to travel for leisure and recreation, but over time a growing number of Canadians took advantage of new transportation modes and routes to access distant landscapes. Canoeists, golfers, and hikers sought physical challenges through their engagement with the environment, while other travellers viewed landscapes from the comfort of trains, ships’ cabins, cottages, and automobiles. Back in the city, the construction of infrastructure such as bridges and subways could involve a dramatic reordering of familiar physical landscapes, and the pollution and by-products associated with these projects could also negatively affect the well-being of city residents—providing further impetus to seek out recuperative encounters with nature beyond the city limits.

This collection covers a wide geographical and thematic scope, but many other paths and niches remain unexplored. For example, the role of animals in moving people and driving change in both society and the natural world after the mid-nineteenth century merits closer scrutiny. The development and use of Canada’s extensive capillary network of resource roads for both industrial and recreational purposes has been largely overlooked. Another topic that needs more attention is the way that air travel shaped and was shaped by the environment. Small aircraft have been put to myriad uses, from mineral exploration to

heli-skiing, while jets have played a central role in the tourist industry and in allowing Canadians to enjoy fresh tropical fruit all year round. Airports also have significant environmental footprints, needing to be kept clear of birds, trees, snow, and ice.²⁹ Flying can feel like the height of modernity and separation from nature, but it only takes a little turbulence or the prospect of landing in foggy conditions to remind passengers that air travel has a very real, very material relationship with the environment.

Air travel brings us back to Ralph Centennius and *The Dominion of 1983*. One hundred and thirty years after Centennius prophesized about Canada's future, travellers can traverse the country in vehicles made of polished metal that fly at much higher elevations than he had predicted, albeit at lower speeds. Should they peer out the window while flying over the southern part of the country, they are likely to see vast networks of infrastructure that facilitate mobility. Roads, railways, pipelines, and other conduits and corridors span the land, their rights-of-way visible from thousands of metres above. From this elevated perspective it can seem as though Centennius's prediction of a future where humans have subdued the forces of nature has come true, for better or worse. Crops grow amid the massive checkerboard-like grids formed by rural roads and irrigation systems. Logging roads reach deep into the Canadian Shield and the mountains of British Columbia. Canalized watercourses can be seen here and there, along with reservoirs where humans regulate the natural flow of rivers. The country's population has not reached ninety-three million, but there are large cities to be seen: sprawling, bustling conurbations with hard-surfaced carapaces of asphalt and concrete. Jet passengers who travel northward might even see the ice-free corridors that are emerging in the Arctic due to global warming. Churchill has not become the balmy seaside resort that Centennius predicted, but the extinction of polar bears and other animals that depend on the sea ice appears worrisomely possible within our lifetimes.

Despite the unquestioned importance of mobility issues in Canadian history, the overall picture that emerges from these articles does not suggest a great deal of difference between the Canadian experience and that of other, similar parts of the world, such as the northern

parts of the contiguous United States. The role of state investment in mobility infrastructure is inescapable in Canada, but this phenomenon is equally true in the United States. Over the 150 years covered in this collection, Canadians employed changes in transportation technology—many of which were developed in the country to the south—to exercise a degree of control over the topography and climate that they faced. This does not mean that every decision was logical, necessary, or effective. Sir Allan MacNab’s declaration in 1853 that “railways are my politics” was echoed by all too many subsequent politicians, to the extent that the country had dramatically over-invested in railways by the early twentieth century, bringing it to the brink of financial disaster. Similarly, the St. Lawrence Seaway never delivered its promised benefits to Canadian enterprise, though it did reduce Montreal’s position among the primary ports of the country. Nor did the Sheppard suburban spurline, one of the few post-1970 extensions of the Toronto subway system, make economic sense at the time or in the years since it was completed in 2002. Like any political decision, mobility involves choices between various options, and not all efforts to improve transportation linkages pay off. State investment in mobility infrastructure does not always fulfill the promoters’ rhetoric.

In his inimitably pithy fashion, Innis contended that “expansion eastward and westward involved Confederation.”³⁰ Transportation links necessarily connected the country from the east to the west and attempted to overcome the countless challenges posed by the Canadian Shield. But for many Canadians the mobility links to their southern neighbours were equally (if not more) important, for economic, social, and cultural reasons. Alone among Canadian cities, Windsor, Ontario, looks north to the United States, its gaze strongly fixed on economic ties and dependent upon various methods of getting across the Detroit River. Urbanites in southern Ontario who wished to enjoy outdoor recreational activities were as likely to join canoe trips across the border in upstate New York as to stay in Canada. Their American counterparts who sought to escape the summer heat could travel to Muskoka or to Banff to take in the sights, go for a hike, or play a round of golf. Proximity has often trumped national borders, especially when a boundary is fairly porous.

Travelling over the earth's surface provides a very different perspective than does air travel, with conditions "on the ground" often making it difficult to conclude that human networks and practices of mobility have subdued the environment. Blizzards, floods, fires, and other so-called natural disasters disrupt the movement of people and goods. Signs warn of the hazard posed by wild animals crossing roads. Erosion and the growth of vegetation exact a steady toll on the infrastructure of mobility: whatever is not maintained will inevitably be reclaimed by nature. On closer inspection, then, mobility and the environment appear to be in constant tension, or, as the ecologist Richard Forman has put it, as "two giants . . . intertwined in an uneasy embrace."³¹ Ralph Centennius's predictions may have exaggerated the specific details of technological progress, but Centennius correctly foresaw how important mobility issues would remain for a large, northern country like Canada. As these chapters show, in the past the varying frictions of different modes of movement and the seasonality of Canada governed our ability to connect to and travel through environments, just as they continue to do so today.

Notes

- 1 Ralph Centennius, *The Dominion in 1983* (n.p.: Toker & Co., 1883), 10–11, 14. Alan MacEachern discusses how Canadians have thought about living in a large country and how the immense amount of territory affected Canada's development, in "A Little Essay on Big: Towards a History of Canada's Size," in *Big Country, Big Issues: Canada's Environment, Culture, and History*, ed. Nadine Klopfer and Christof Mauch (Munich: Rachel Carson Center, 2011): 6–15.
- 2 Stephen Kern, *The Culture of Time and Space, 1880–1918* (Cambridge, MA: Harvard University Press, 1983); Wolfgang Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century*, trans. Anselm Hollo (Berkeley: University of California Press, 1986); Christophe Studeny, *L'invention de la vitesse: France, XVIIIe—XXe siècle* (Paris: Gallimard, 1995); Barney Warf, *Time-Space Compression: Historical Geographies* (London: Routledge, 2008).
- 3 Joy Parr, *Sensing Changes: Technologies, Environments, and the Everyday, 1953–2003* (Vancouver: UBC Press, 2010).
- 4 Maurice Charland, "Technological Nationalism," *Canadian Journal of Political and Social Theory* 10, nos. 1–2 (1986): 196–220; R. Douglas Francis, *The Technological Imperative in Canada: An*

- Intellectual History* (Vancouver: UBC Press, 2009); A. A. den Otter, *The Philosophy of Railways: The Transcontinental Railway Idea in British North America* (Toronto: University of Toronto Press, 1997). Some historians have even posited that the goal of Confederation was to raise the international financing necessary for the construction of a “Canadian” transcontinental railway. See, for example, Karen Anderson, “The State, the Capitalist Class, and the CPR,” in *The Structure of the Canadian Capitalist Class*, ed. Robert J. Brym (Toronto: Garamond, 1985), 117–28; R. Douglas Francis, *Images of the West Changing Perceptions of the Prairies, 1690–1960* (Saskatoon: Western Producer Prairie Books, 1989), 79–83.
- 5 G.P. de T. Glazebrook, *A History of Transportation in Canada*, vol. 1, *Continental Strategy to 1867* (1938; Toronto: McClelland & Stewart, 1964), xii.
 - 6 Harold A. Innis, *A History of the Canadian Pacific Railway* (Toronto: McClelland & Stewart, 1923); Harold A. Innis, *The Fur Trade in Canada: An Introduction to Canadian Economic History* (New Haven: Yale University Press, 1930); D.G. Creighton, *The Commercial Empire of the St. Lawrence, 1760–1850* (Toronto: Ryerson, 1937).
 - 7 Harold A. Innis, “Transportation in Canadian Economic History” (1931), in *Essays in Canadian Economic History*, ed. Mary Q. Innis (Toronto: University of Toronto Press, 1956), 66, 75.
 - 8 On the rise of econometric and state-centred transportation history in Canada, see Peter Baskerville, “On the Rails: Trends in Canadian Railway Historiography,” *American Review of Canadian Studies* 9, no. 1 (1979): 63–72.
 - 9 Carl Berger, *The Writing of Canadian History: Aspects of English-Canadian Historical Writing since 1900*, 2nd ed. (Toronto: University of Toronto Press, 1986), chap. 11.
 - 10 The history section of most used bookstores in Canada will reflect the ubiquitous presence of Pierre Berton’s books about the Canadian Pacific Railway. On Berton’s presence at booksellers such as Chapters, see Alan MacEachern, “A Polyphony of Synthesizers: Why Every Historian of Canada Should Write a History of Canada,” *ActiveHistory.ca*, January 2012, <http://activehistory.ca/papers/a-polyphony-of-synthesizers-why-every-historian-of-canada-should-write-a-history-of-canada>.
 - 11 The first edition of this guide to writing local history was *Making History* (Altona, MB: D.W. Friesen and Sons, 1975).
 - 12 Key texts in the fast-growing field of mobility studies include Peter Adey, *Mobility* (London: Routledge, 2010); Tim Cresswell, *On the Move: Mobility in the Modern Western World* (London: Routledge, 2006); Peter Merriman, *Mobility, Space, and Culture* (London: Routledge, 2012); Nigel Thrift, “Inhuman Geographies: Landscapes of Speed, Light, and Power” in Paul Cloke, Marcus Doel, David Matless, Martin Phillips, and Nigel Thrift, *Writing the Rural: Five Cultural Geographies* (London: Chapman, 1994): 192–248; John Urry, *Mobilities* (Cambridge, UK: Polity,

- 2007); and John Urry, *Sociology beyond Societies: Mobilities for the Twenty-First Century* (London: Routledge, 2000).
- 13 Colin A.M. Duncan, *The Centrality of Agriculture: Between Humankind and the Rest of Nature* (Montreal/Kingston: McGill-Queen's University Press, 1996), 26.
- 14 Tim Cresswell, "Towards a Politics of Mobility," *Environment and Planning D: Space and Society* 28, no. 1 (2010): 17–31; Tim Cresswell, "Mobilities II: Still," *Progress in Human Geography* 36, no. 5 (2012): 645–53.
- 15 William Cronon argues for an environmental history that analyzes both the materiality and human constructions of nature, in "Modes of Prophecy and Production: Placing Nature in History," *Journal of American History* 76, no. 4 (1990): 1122–31.
- 16 Tom McCarthy, "A Natural Intersection: A Survey of Historical Work on Mobility and the Environment," in *Mobility in History: The State of the Art in the History of Transport, Traffic and Mobility*, ed. Gijs Mom, Gordon Pirie, and Laurent Tissot (Neuchâtel: Éditions Alphil/Presses universitaires suisses, 2009), 65.
- 17 Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* (New York: Oxford University Press, 1964).
- 18 Alfred W. Crosby, *The Columbian Exchange: Biological and Cultural Consequences of 1492* (Westport, CT: Greenwood, 1972); Alfred W. Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900–1900* (Cambridge: Cambridge University Press, 1986).
- 19 See, for example, Peder Anker, *Imperial Ecology: Environmental Order in the British Empire, 1895–1945* (Cambridge, MA: Harvard University Press, 2001); Gary B. Magee and Andrew S. Thompson, *Empire and Globalisation: Networks of People, Goods and Capital in the British World, c. 1850–1914* (Cambridge: Cambridge University Press, 2010); and Liza Piper and John Sandlos, "A Broken Frontier: Ecological Imperialism in the Canadian North," *Environmental History* 12, no. 4 (2007): 759–95.
- 20 William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991); Matthew Gandy, *Concrete and Clay: Reworking Nature in New York City* (Cambridge, MA: MIT Press, 2002); Christopher E. Jones, *Routes of Power: Energy and Modern America* (Cambridge, MA: Harvard University Press, 2014).
- 21 David Louter, *Windshield Wilderness: Cars, Roads, and Nature in Washington's National Parks* (Seattle: University of Washington Press, 2006); Tom McCarthy, *Auto Mania: Cars, Consumers, and the Environment* (New Haven: Yale University Press, 2007); Paul S. Sutter, *Driven Wild: How the Fight against Automobiles Launched the Modern Wilderness Movement* (Seattle: University of Washington Press, 2002); Christopher W. Wells, *Car Country: An Environmental History* (Seattle: University of Washington Press, 2012).
- 22 Anne Norton Greene, *Horses at Work: Harnessing Power in Industrial America* (Cambridge,

- MA: Harvard University Press, 2008); Clay McShane and Joel Tarr, *The Horse in the City: Living Machines in the Nineteenth Century* (Baltimore: Johns Hopkins University Press, 2011); Alfred Runte, *Allies of the Earth: Railroads and the Soul of Preservation* (Kirksville, MO: Truman University Press, 2006); John R. Stilgoe, *Train Time: Railroads and Imminent Landscape Change* (Charlottesville: University of Virginia Press, 2007); Richard White, *Railroaded: The Transcontinentals and the Making of Modern America* (New York: W.W. Norton, 2012). In 2008, the International Association for the History of Transport, Traffic and Mobility (T2M) held its annual conference in Ottawa on the theme of “Mobility and the Environment”; many of the papers focused on the environmental significance of particular modes of mobility.
- 23 Thomas C. Keefer, *Philosophy of Railways and Other Essays*, ed. H.V. Nelles (Toronto: University of Toronto Press, 1972), 3.
- 24 Quoted in Jean Provencher, *C’était l’hiver: La vie rurale traditionnelle dans la vallée du Saint-Laurent* (Montreal: Boréal, 1986), 188 (our translation).
- 25 Scholarly studies of winter mobility in Canada are scattered. In addition to Provencher’s book dealing with traditional techniques, see Don Lumley, *Motorized Snow Vehicles in Canada: From 1920 to 2000*, Historical Assessment series (Ottawa: Canada Science and Technology Museum, 2001), on the development of skidoos and snowmobiles. The history of ice-road trucking in northern Canada has been surprisingly well covered, given the general dearth of historical studies of Canadian trucking. See Alex Debogorski, *King of the Road: True Tales from a Legendary Ice Road Trucker* (Toronto: Penguin Canada, 2010); Roberta L. Hursey, *Trucking North on Canada’s Mackenzie Highway* (Calgary: Detselig, 2000); Edith Iglauer, *Denison’s Ice Road* (Vancouver: Harbour, 1991); Svein Sigfusson, *Sigfusson’s Roads* (Winnipeg: Watson & Dwyer, 1992).
- 26 Liza Piper, *The Industrial Transformation of Subarctic Canada* (Vancouver: UBC Press, 2009), 79.
- 27 Michael Bliss, *Right Honourable Men: The Descent of Canadian Politics from Macdonald to Mulroney* (Toronto: HarperCollins, 1994), 49.
- 28 Laurent Turcot, “L’émergence d’un loisir: les particularités de la promenade en carrosse au Canada au XVIIIe siècle,” *Revue d’histoire de l’Amérique française* 64, no. 1 (2010): 31–70.
- 29 On the development of aerial surveying techniques in Canada and their use in the mining and forest industries, see Marianne Cronin, “Northern Visions: Aerial Surveying and the Canadian Mining Industry, 1919–1928,” *Technology and Culture* 48, no. 2 (2007): 303–30; and Jay Sherwood, *Furrows in the Sky: The Adventures of Gerry Andrews* (Victoria: Royal British Columbia Museum, 2012).
- 30 Innis, “Transportation,” 71.
- 31 Richard T.T. Forman et al., *Road Ecology: Science and Solutions* (Washington, DC: Island, 2003), xiii.