RIVER OF THREE PEOPLES: AN ENVIRONMENTAL AND CULTURAL HISTORY OF THE WɁLASTɁW / RIVIÈRE ST. JEAN / ST. JOHN RIVER, C. 1550 – 1850

By

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Abstract

This study investigates how three distinct cultures – Maliseet, French, and British – engaged with and transformed the ecology of the Walastakw/rivière St. Jean/St. John River, the largest river system in the Maritimes and New England. Ranging three centuries, ca. 1550-1850, it examines cultural interactions relative to the river’s fish, banks, and flow to assess ecological changes. By developing comparisons among Maliseet, French, and British relationships to the river, it analyzes how cultural groups modified and expanded on the ecology of other peoples. Drawing upon a vast array of sources, including Maliseet oral traditions and language, archaeological surveys, scientific studies, historic maps and paintings, as well as diaries, letters, and reports of the waterway and its banks, this research makes significant contributions to a number of scholarly fields: river ecologies and human adaptations of them, Maliseet history, seigneurial settlement in colonial societies, Loyalist ecology, colonial and municipal legal history, historical cartography, and the role of ecological knowledge in governance and environmental activism. Moreover, it contributes to early modern North American environmental history, as well as global studies of rivers.

This study brings a historical perspective to pressing economic and political issues facing the watershed today, including conflicts over natural resource use, the impacts of dam construction and removal, climate change adaptations, flood mitigation and prevention, fisheries conservation, and the effects of invasive species.
While most historical scholarship on the region is focused on specific linguistic and ethnic groups, this study bridges these divides, bringing together Maliseet, Acadian, and British histories into a single study. The wider temporal and cultural scope and the centrality of the Walastakw/rivière St. Jean/St. John River to the study's analysis offers a poignant reminder that humanity’s intimate relationship to nature has points of commonality that are as important to understand as our points of difference. This study attempts to do both.
Dedication

To all the young Maritimers and people throughout the world, who choose to stay in and contribute to their home communities despite the hardships they face for doing so, as well as those who wish they could come home.
Acknowledgments

In the mid 1980s two fishermen called me and my friend, Craig Kilfoil, over to their dusty pickup outside of Marilyn’s Lunch Counter in Bath. They were eager to show us their catch - an Atlantic salmon that was as long as we were tall! We were duly impressed, but they warned us that we would probably not see another fish like that in the St. John, and they were right. I owe these strangers my gratitude for teaching me at a young age that there are fewer fish in the river than before, and that locals have a keen awareness of the St. John River and ecological changes.

When I was a hot-blooded teenager, my grandfather, Ambrose Hall, warned me about a dangerous whirlpool below an old milldam as I set off to ride the Monquart River during the freshet in an inflatable fishing raft with a single plastic paddle that barely reached the water. The perilous voyage taught me that the freshet turns calm rivers into deadly torrents and that our elders’ knowledge of the past can be an invaluable guide to contending with present challenges.

The St. John River itself was the main inspiration for this study. It was also the primary power source for my laptop and the heat that kept my fingers nimble on the keyboard as snow piled high across the waterway’s frozen surface outside my window. The St. John deserves respect for all that it offers, especially in an age when many people take it, and much of the world around them, for granted.
When I worked as an apprentice forester for the Carleton Victoria Wood Producers Association in the late 1990s, my supervisor and I spent a sweltering summer day helping an elderly French man, tricked by an English contractor into signing a contract he could not read, seek compensation for the destruction of his beloved forest. The old man’s pained expression and the haunting cries of a family of owls that had lost their home to the clear-cutting, taught me that we cannot always put a price tag on the relationships that people and other living creatures have with land. I am grateful to the people I worked with in my apprenticeship for teaching me how to use maps, survey instruments, computer programs, oral descriptions, and my own senses, to read the land’s history and help steward its future. Traversing hundreds of kilometres of fields and forests to assess silviculture activities and develop management plans, introduced me to riparian buffer zones, habitat preservation, resource conflicts, the not-so-extinct eastern cougar, and local strategies for pulling the wool over the eyes of employers and government officials. Moreover, my experience coordinating activities with forest rangers, New Brunswick and Maine mills, woods workers, and landowners, helped me understand that people’s relationships to the St. John River Valley are complex and not easily reduced to stereotypes based on occupations or political affiliations. I owe a special thanks to Billy Crawford for showing me many of the rivers that flow through New Brunswick’s interior, and for sharing the plant knowledge that his grandfather passed on to him.

My mother, Mary Hall, taught me to follow the sun’s path across the horizon throughout the changing seasons, and kindled my interest in history at an early age.
She encouraged me to think beyond farm and factory work and attend university, as well as to maintain strong ties to my rural roots. And I am grateful to the good people of Johnville, and all of the residents of the St. John watershed in New Brunswick, Maine, and Quebec, who took time to talk with me, or waved as I walked, cycled, paddled, or drove by the landscape they have helped shape.

Teresa Devor, my wonderful partner, shared many of my journeys throughout the watershed, and helped me appreciate the wider web of life that surrounds us. It has been over five years since we climbed the rugged slopes of Bald Peak near Riley Brook and gazed across a landscape of engineered storage ponds for hydro-dams, temporary barriers for protecting Atlantic salmon from poachers, ancient Maliseet portage trails, rare plants, and huge clear cuts. During our stimulating conversation on that old volcano while deer hunters stalked their prey below, I decided that returning to university to study the watershed I call home would give me an opportunity to use my multidisciplinary background to write a book that might help others appreciate the landscapes and peoples that I cherish. With the tireless support of our friend and mentor, Rusty Bittermann, I applied to pursue doctoral research in history at the University of New Brunswick.

The generous assistance of the faculty and staff of the University of New Brunswick and St. Thomas University were instrumental to this study. Most especially: Elizabeth Mancke, Bill Parenteau, Rusty Bittermann, Michael Dawson, Andrea Bear Nicholas, David Frank, Margaret McCallum, and Don Wright. My scholarship benefited from many other supportive agencies and organizations: the Social Sciences and
Humanities Research Council of Canada; the O’Brien Foundation; The late Mary P.
Folster, members of the Folster family, and the New Brunswick Universities
Opportunities Fund; Mary P. MacNutt; the Network in Canadian History and the
Environment; and the tax payers of Canada. Many archivists and librarians in Canada,
the United States, France, and Great Britain assisted me, as did dozens of amateur and
professional computer technicians, who are increasing the public’s access to historic
documents.

The oral history that I absorbed growing up in an Irish-Catholic community held
a different perspective on the past than the majority of my school textbooks that
celebrated the heroic founding of New Brunswick by British Loyalists as the most
important part of local cultural heritage, and cast the British Empire as a virtuous entity
that brought civilization and justice to a chaotic wilderness. The stories I learned
helping relatives with farm chores and visiting elderly neighbours taught me that
history was often written by dominant peoples, and that my ancestors shared a history
of dispossession with the peoples who had called the St. John River Valley home before
it became part of a British colony.

In the summer of 1999, I sat on Oliver Polchies’ porch and shared a pitcher of
iced tea with his family. His daughters told me that when Oliver had been chief of the
Woodstock Maliseet, he opened his cupboards to help feed his neighbours. Oliver had
to walk his dog over sixty kilometres to give him to a friend because the federal Indian
Agent said that if his family could afford to feed a pet, they would not receive the
government support to which they were entitled. When I met Oliver, he was an old
man, whose mind often wandered to past times. Oliver’s family told me that he sometimes left his house on the Woodstock reserve to find his real home. Oliver’s real home, however, was flooded by the Mactaquac Dam in the 1960s, when the New Brunswick government forced Woodstock Maliseet to relocate further up the river bank. Many Maliseet and local settlers lost their homes and livelihoods to Mactaquac and other state development projects, yet they remained on the river and strived to preserve their relationships with it. I am grateful to the Polchies family for welcoming me into their homes, and to all the Maliseet people who have taken time to teach me about their remarkable culture as well as their historic and contemporary struggles with colonialism. Maliseets’ profound knowledge of, and connection to, the Walastakw, and their ongoing struggles for environmental justice, are an inspiration.

While a student at St. Thomas University, I met several of my Acadian friends’ older relatives who had been discouraged from speaking French in public and forced to leave the province to attend university or pursue careers in their native language. Witnessing Maliseet, Acadians, and other minorities verbally and physically assaulted in schoolyards, streets, public washrooms, and UNB dormitories, made me realize that the power dynamics of the past still inform our present. I hope this study helps New Brunswickers appreciate the three major cultures that have called the St. John River Valley home, as well as the need for society to respectfully recognize the past experiences, including remarkable achievements and struggles with oppression, of all the peoples who have come before us.
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<td>AC</td>
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<td>ANOM</td>
<td>Archives Nationales d’outre-mer</td>
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<td>BNA</td>
<td>British National Archives</td>
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<td>BNF</td>
<td>Bibliothèque Nationale de France</td>
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<tr>
<td>CNBHS</td>
<td>Collections of the New Brunswick Historical Society</td>
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<tr>
<td>DCB</td>
<td>Dictionary of Canadian Biography</td>
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<td>JR</td>
<td>The Jesuit Relations</td>
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<td>LC</td>
<td>The Loyalist Collection, UNB Libraries</td>
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<td>PANB</td>
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Introduction

The St. John River, the longest river in the Maritimes and New England, originates in the Appalachian uplands of northern Maine, New Brunswick, and Quebec, and flows 673 kilometers before it reaches the powerful tides of the Bay of Fundy. A twenty-three-metre cataract, Grand Falls, divides the watershed into two roughly equal portions and separates the river’s fish populations. Above Grand Falls, on the river’s upper reaches, the communities are now predominately francophone, and the lower reaches are predominately anglophone. At its mouth, the river squeezes into a narrow passage between cliffs where some of the most powerful tides in the world push its current back twice a day to flow upstream over turbulent rapids, which are known as Reversing Falls. Ships can only safely navigate this treacherous gorge during brief thirty to forty-five minute periods at slack tide when the current passing through the passage is calm and on the brink of changing direction. On the river above the rapids, this dynamic passageway moderates the influence of tides on the interior river and improves navigation. It also slows the drainage rate of flood waters in the spring, and lengthens the duration of inundations on the lower river. The Fundy tides influence the river 140 kilometres upstream from Reversing Falls, giving the lower
waterway and the mouths of the tributaries that drain into it characteristics of an estuary.¹

Numerous tributaries drain into the St. John along its winding path to the Atlantic Ocean. The brackish fjord-like Kennebecasis flows southwest through rugged hills until it joins the lower St. John basin several kilometers upstream from the Reversing Falls. The main stream winds through steep hillsides for roughly fifty kilometres above Reversing Falls before the gradients of its banks lessen into a broad fertile floodplain that begins below Gagetown and the mouth of the long and narrow Washademoak Lake. The floodplain includes the mouth of the short Jemseg River that flows from a system of large interconnected lakes, the largest of which is Grand Lake. Two other major tributaries drain the floodplain. The Oromocto River flows from lakes to the west of the St. John, and the Nashwaak River runs along a winding route from the north and east before joining the St. John in present day Fredericton. The river’s 140 kilometre long tidal basin ends roughly ten kilometres above Fredericton, where the current becomes noticeably swifter. Above this point, the St. John’s banks are a mix of high terraces and rolling hills that extend almost 200 kilometres to Grand Falls.

Several large tributaries flow into the St. John above Fredericton, including the winding Meduxnekeag that enters from the west at present day Woodstock after passing through a steep valley. Further upstream the Tobique River originates amidst the highest mountains in the Maritimes and flows 148 kilometers before emptying into

the St. John’s east bank several kilometers above the village of Perth-Andover at the end of a steep gorge. The Aroostook River flows 180 kilometres though hilly lands and fertile plateaus to the west of the St. John from present day Maine before meeting the St. John’s west bank several kilometres upstream from the Tobique. Above Grand Falls, the St. John’s banks widen again into a large fertile alluvial plain flanked by rolling Appalachian foothills. A large tributary, the Madawaska River, flows from Lake Témiscouata, a deep body of water ringed by steep hills inside the modern boundaries of Quebec, and flows southeastward until it spills into the St. John at Edmundston. The 105 kilometre long Allagash River drains a large tract of land north of Mt. Katahdin before joining the St. John in Maine roughly twenty kilometres above where the waterway becomes the international border between Canada and the United States near the village of St. Francis. The St. Francis River originates roughly 20 kilometres south of the St. Lawrence and flows 120 kilometres through rugged hills before meeting the St. John at the village that shares its name. Almost all of the St. John’s principal tributaries connect to a host of other watersheds via short portages, which made the river an important link in a water-based regional transportation network for lightweight canoe technology.²

The St. John’s character as a river is highly seasonal. Frigid winters blanket its banks with deep snow and turn its waters into a frozen mirror and patches of rough ice. Spring warmth and rain melt the snow and ice, forcing the river to swell over its

² For descriptions of upper tributaries of the St. John, see J.W. Bailey, The St. John River in Maine, Quebec, and New Brunswick (Cambridge, Mass: Riverside Press, 1894); Alec C. McEwen, In search of the Highlands: mapping the Canada-Maine boundary, 1839: the journals of Featherstonhaugh and Mudge, August to November, 1839 (Fredericton, NB: Acadiensis Press, 1988).
low-lying banks in an annual flood pulse or freshet. The narrow tidal mouth that moderates its discharge and the small gradient of its banks in the lower reaches intensifies spring flooding. Floodwaters, ice, and debris scour portions of the shore each year, clearing trees, creating edge habitats, and sometimes threatening human lives and property. These freshets fertilize the flood plain with organic material and create a complex riverine ecosystem of ponds, sloughs, and marshes. Conversely, sustained hot dry summer weather decreases the river’s size and flow velocity, exposing more rapids, sand bars, and other navigational obstacles along its course.

The grasses, forests, and waters of the St. John River Valley provide habitat for hundreds of species of wild mammals, reptiles, amphibians, birds, fish, insects, microbes, and humans. Dozens of coniferous and deciduous tree species and hundreds of smaller plants bind its banks and islands. Verdant meadows of tall grasses and bright flowers complement forested tracts along the waterway. While the riverbanks generally host a mixed forest, deciduous species tend to dominate the islands and valley bottoms, and a greater percentage of coniferous species grow on the rocky hillsides near its mouth and in the highlands where its mainstream and upper tributaries originate. The banks of the Allagash and St. John in Maine are the only place in the world where the parasitic Furbish’s lousewort grows. The forest that developed along the St. John over the past 10,000 years shades its flow and dampens the erosive power of rainwater. Many animals, such as Atlantic salmon, snow
buntings, and black bears respond to seasonal changes, frequenting the river for part of the year and migrating elsewhere or hibernating for the remaining months.³

The vegetation along the banks of the St. John River has changed significantly since sunlight began to reach bare land at the end of the last ice age approximately 13,000 years ago. Climate fluctuations, the erosive power of the river itself, the slow rebound of the Earth’s crust, and the arrival of new species, humans included, have been among the forces shaping change. When humans first arrived on the banks of the St. John River, circa 9,500 B.C.E, the surrounding landscape was shrubby tundra. Small bands of mobile hunter-gathers hunted caribou and other animals with an efficient killing tool, the Clovis projectile point. When climate change altered the vegetation and distribution of animals in this region, people stopped manufacturing Clovis points.⁴


As temperatures continued to warm, birch, spruce, pine, maple, beech, and hemlock began to dominate the landscape, and new human cultures developed along the watershed. The people of these cultures appear to have responded to the shifting climate and new plant and animal species composition by reducing the size of their projectile points and developing more diverse and distinct cultural traditions that were adapted to the changing regional circumstances of eastern North America. The people who lived within the watershed in the centuries that followed adapted to the new microenvironments that were emerging by developing sophisticated ecological knowledge, as well as seasonal patterns of food production and acquisition that mixed hunting and fishing with plant gathering. This mix of habitable niches and subsistence strategies provided humans with a broader array of foods and materials for their sustenance than had been the case in earlier periods. Indigenous peoples harvested the increasing diversity of trees and plants along the river’s bank, using them for food, tools, medicines, shelter, and tinder. Birch bark served for making canoes, shelters, and maps. Humans cut and burned forests, spread seeds, and created garbage heaps; as they did so, they altered the distribution of the existing vegetation. In time, humans would introduce new species to the mix of plants and animals living along the waterway.5

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Native peoples living within the region now called New Brunswick maintained long-distance linkages with peoples living elsewhere. Archaeologists have unearthed evidence of plant material, stone tools, architecture, and burial traditions that demonstrate inter-cultural contact among the Indigenous peoples of the region and those living in Labrador 4,500 years ago, and with people living in southern New England, the Great Lakes, and the Mississippi Valley, more than 3,000 years ago. The early inhabitants of the St. John River Valley shared belief systems, foods, clothing, and knowledge within an exchange network that connected a large portion of the continent’s biomes and human communities.6

This study of 300 years of human interaction with the St. John River addresses a central issue in environmental studies, namely the relationship between nature and human culture. Over the past 500 years, partly in response to European expansion, many people have labelled much of the physical environment of North America as wilderness or virgin landscape that is untouched by humans. The belief that nature is separate from humanity which percolated from the intellectual currents that accompanied the scientific revolution, the emergence of industrial capitalism, the enlightenment, and European colonialism has become central to Western

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epistemology. Environmental philosopher Val Plumwood identifies the perceived separation of humans from nature as a key obstacle to successfully confronting our world’s most pressing environmental problems and creating a more sustainable and democratic society. The increasing recognition that nature is socially and culturally constructed has made it difficult for scholars of the rise of capitalism and the intensification of resource extraction, major themes in Canadian history, to consider natural resources as objective things that are separate from particular human values and relationships to the physical world.7

The Europeans who travelled the world’s oceans to colonize “Neo Europes” in the early modern period often perceived the “new” worlds they encountered as pristine Edens or wild and savage lands that were the Devil’s domain. These colonists often understood the physical environments they encountered through lenses steeped in Judaeo-Christian and European land use systems that obscured the complex and dynamic resource use traditions and land tenures of Indigenous peoples. Europeans’ association of Indigenous peoples with pristine wilderness generated the perspective

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that North Americans had not significantly altered the physical environment, but had lived innocently in a timeless vacuum devoid of civilization until transatlantic contact.8

This study allows us to look in detail at the physical changes people enacted upon a particular environmental system - the St. John River watershed - as well as the different beliefs, languages, values, practices, and realities that situated humans’ relationships to nature within particular cultural and spatiotemporal contexts. It compares the relationships of Indigenous people and settlers to the environment across three centuries to understand how human interactions with nature and one another shaped landscape and history. As well, it demonstrates how climate, the flow of water and riverine flood cycles, soil fertility, and other components of the physical environment influenced human settlement patterns.

Recognizing that nature and humanity are not separate entities is a necessary prerequisite for understanding the complex history of the St. John. The river co-developed with humans. People lived along and relied on the St. John since it formed at the end of the last ice age. The waterway has always been important to the peoples who ate its fish, lived on its banks, and used its flow. The human history of the region is dramatically deepened when it is combined with an appreciation of the watershed’s

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role in that history. In the period between 1550 and 1850, which is the scope of this study, the river was the homeland of Walastakwiyik, a people Europeans initially called Etchemin and later Maliseet. Walastakwiyik means people of the Walastakw, the Maliseet name for the river. Maliseets had centuries to strike a balance with local nature and had more or less done so before meeting Europeans, although their oral traditions of species extinctions and their recent adoption of new forms of plant management and large scale fur trading suggest that nature and Maliseet engagement with it were dynamic.9

In 1604, French explorers “discovered” the watershed and renamed it “rivière St. Jean.” Over the next century, dozens of French (and briefly English) entrepreneurs, priests, soldiers, and settlers shared the lower river with Maliseets and moved along its

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9 In the early 17th century Europeans used the term Etchemin to refer to the Indigenous peoples who lived between the Walastakw and Penobscot rivers. The French began referring to the people who lived along the Walastakw as the Maliseet in the late 17th century. This thesis uses both Etchemin and Maliseet to refer to the Indigenous people living along the river in the early 17th century. See chapter one for further clarification of these and other labels. This study uses the terms Indigenous, Native, Aboriginal, and First Nations to refer to Maliseet and other peoples who lived in North America before Europeans began making records of the continent. It does not use the term “Indian” outside of direct quotations, although this term is still sometimes used by American historians as well as people living in Maliseet and settler communities living along the river today. For discussion of terminology, see Steffi Retzlaff, “What’s in a Name?: the politics of Labelling and Native Identity Constructions,” *The Canadian Journal of Native Studies* vol. 25, no. 2 (2005): 609-26. This study draws on the writing system developed for the Maliseet language by Karl Teeter in the 1960s and continued by Laszlo Szabo in the 1970s and 1980s. It is the system that linguists Philip LeSourd and Conor Quinn have preferred to use to teach Maliseet speakers to write the language. Many linguists and Maliseet educators also consider it a better system for teaching the Maliseet language to English speaking learners than the writing system developed by the Passamaquoddy in the 1970s, as it is more conducive to correct pronunciation. It is currently in use in Maliseet language programs at Tobique, Woodstock, and St. Mary’s. See Andrea Bear Nicholas personal correspondence, 25 Aug 2015; Karl V. Teeter, “Preliminary Report on Malecite-Passamaquoddy,” *National Museum of Canada Bulletin*, No. 214, Anthropological Series, No. 78 (1967): 157-62; Philip S. LeSourd ed., *Tales from Maliseet Country: The Maliseet Texts of Karl V. Teeter*, trans. Philip S. LeSourd (Lincoln: University of Nebraska Press, 2007). This study also draws upon the Passamaquoddy-Maliseet Language Portal, which uses the older writing system in which the Walastakw appears as the Wolastoq. For more on Passamaquoddy and Maliseet language studies, see Eve Chuen Ng, “Demonstrative words in the Algonquian Language Passamaquoddy: a descriptive and grammaticalization analysis” (PhD diss., State University of New York at Buffalo, 2002).
entire length to reach Canada. French plans to alter the river and its banks into a
landscape of farms and mills only partially succeeded for reasons alluded to in the third
and fourth chapters of this study. The remaining three chapters show how thousands
of British colonists made the waterway their home in the late 18th century. Initially
aided by former French and Maliseet “improvements,” these new settlers affected
profound changes to the watershed in three generations.

As humans have been an intrinsic part of this region since the retreat of the ice
shield 13,000 years ago, it is impossible to consider the ecology of the Walastakw,
rivière St. Jean, and St. John River, as the animal and plant dynamic within landscapes
without people. As we have no evidence of humans in this landscape before the
retreat of the last ice age and the formation of the river, it is an excellent place to
examine the relationship between nature and culture that has been so fraught with
debate since European colonization. From the 19th century onward, the trend in
natural sciences has been to view nature as separate from humanity. In local
environments such as the St. John River Valley, however, it is difficult to distinguish
between nature and society. This study examines human interactions with the
landscapes and waterscapes of the St. John watershed to analyze how three different
human cultures interacted with the same physical environment over three centuries.
It reveals that the river has been a cultural landscape influenced by successive groups
of humans. 10

10 For more on the separation of humans from nature, see Cronon, “The Trouble with Wilderness: a
separation, see Bruce Braun and Joel Wainwright, “Nature, Poststructuralism, and Politics,” in Social
Investigating this dynamic hydrographic system offers the opportunity to study three consecutive cultural occupations, and how each cultural group shaped the ecology of the watershed. It reveals that the river had a profound influence on the peoples who lived upon its banks, and those peoples in turn affected the river and surrounding landscape. The river has generated continuities in (and connections among) the histories of the different peoples who have lived along it: the river runs through their histories in ways that tie them together. In fact this study reveals that the history of this region cannot be fully understood without appreciating the role that the river and people’s relationships to it, played in that history. As such, this study contributes to historical analyzes of river systems in different times and places throughout the world. As well, it is an intimate study of the particular microenvironments of the St. John watershed, and how Maliseets, French, and British utilized and modified them, and how they interacted with the river.

Scholars have used rivers as organizational devices to understand history and human geography for millennia. Indeed, rivers have been foundational to the development of historical thinking. The Greek philosopher Heraclitus coined the expression “no man can cross the same river twice,” to help understand how we can

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*Nature*, 50-6. For works that investigate successive human cultures relationship to landscape, see Mart A. Stewart "What Nature suffers to groe": *life, labor, and landscape on the Georgia coast, 1680-1920* (Athens, GA: University of Georgia Press, 1996); James Rice, *Nature & History in the Potomac Country: from hunter-gatherers to the age of Jefferson* (Baltimore, MD: Johns Hopkins University Press, 2009). This thesis refers to the Maliseet, French, and British as separate human cultures. It uses the term cultures broadly to refer to groups of humans who have recognizable traits that separate them from other groups. The Maliseet were a cohesive group bound by language, history, language, and place. The French and British were recognizable as cultural groups through their language, practices, and beliefs, but they were not as cohesive as the Maliseet. The French and British on the river did not all share the same religion, place of origin or history, but they were bound by language and political structures. For further discussion of the term culture, see Raymond Williams, *Keywords: a vocabulary of culture and society* (London: Flamingo, 1983), 91.
never recapture a moment. Many scholars have encouraged their students and readers to think like rivers to recognize the inherent and transient nature of the world. The Greek historian Herodotus discussed the importance of rivers to the boundaries, beliefs, and economies of the numerous lands and peoples he examined in *The Histories*. The second-century B.C.E. Chinese historian, Sima Qian, wrote about the importance of the Yellow River and flood control to the development of the Chinese state.\(^\text{11}\)

In the 20th century, historians of rivers (river biographers) used rivers and other water bodies as organizing devices to understand human history, politics, and economies. French historian, Ferdinand Braudel’s *The Mediterranean and the Mediterranean World*, for instance, discussed the importance of the Mediterranean Sea to the peoples who lived near its shore. In Canada, studies of waterways accompanied the development of history as a professional discipline. Scottish geographer, Marion I. Newbigin, in *Canada: The Great River*, (1926), portrayed the St. Lawrence River as the basis of the geological and political unity of Canada. Four years later the economic historian, Harold Innis, published *The Fur Trade in Canada*, a work that influenced historian Donald Creighton’s *The Commercial Empire of the St. Lawrence*. These latter two books emphasized the influence of river systems on the

history of the Canadian economy and political boundaries and fostered the
development of the staples thesis and the Laurentian thesis. They explained the
impact of rivers on human history, but were less attentive to the influence humans had
on the natural functions of water systems and their ecological integrity.\(^\text{12}\)

The popular appreciation of ecology through works such as Rachel Carson’s
*Silent Spring*, which used data from a New Brunswick watershed, the Miramichi,
increased river historians’ attention to environmental degradation in the 1960s.
Canadian historian, Neil Forkey, for instance, contrasted two editions of Hugh
MacLennan’s popular study of the St. John and other Canadian rivers to note increasing
concern with ecological degradation within Canada. American historian Donald
Worster’s investigation of the relationship between hydraulic engineering and the
economic and political power of the United States reveals that humans had severely
degraded the rivers of the American West.\(^\text{13}\) Historian Richard White in *The Organic
Machine* considers human alterations to the Columbia River to theorize on the
interconnection between natural and human agency. White discusses rivers and the
cultures that use them as hybridized entities that symbiotically effect historical and


natural change. Other recent river histories, such as Matthew Evenden’s *Fish vs. Power*, examine conflicts between social groups that wanted to dam rivers and people who sought to conserve riverine fisheries, to help understand the regional and international factors that influence political ecology and the fate of rivers. Christopher Armstrong, Matthew Evenden, and H.V. Nelles, in *The River Returns*, similarly investigate major human relationships with the Bow River and highlight ecological changes from the pre-contact to the modern era. Jennifer Bonnell’s *Reclaiming the Don* analyzes the principal human plans and visions, the “imagined futures,” that shaped and reshaped the Don River Valley and made it foundational to the development of Toronto from the late 18th century to the present day. There are a number of environmental histories of North American waterways, but few center on the rivers of northern New England or Atlantic Canada.14

The questions raised, methodologies used, and analyzes undertaken in recent studies of waterways from across the globe are central to this inquiry. Historian Marc Cioc’s study of the Rhine demonstrates how examining a river helps to situate the history of a particular region within global events and processes and to draw connections to the history of watersheds in distant locales. Historian David

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Blackbourne in *The Conquest of Nature* explores human modifications to waterways and the creation of new waterscapes in Germany, as well as the cultural values and historical events that shape them. Geoscientist, Ellen Wohl, provides environmental benchmarks for addressing human impacts on rivers across time in the comparative study, *A World of Rivers*. Her work investigates the significance of human alterations to fish populations, riparian forests, and flood plains on major rivers throughout the world. World historian John McNeill’s study of flooding and other natural disasters classifies human responses to floods into two categories, flood resilience and flood resistance. Flood resilience encompasses adaptive practices to minimize the impacts of floods, such as avoidance, or careful zoning of flood plain activities. Flood resistance consists of efforts to control and abate flooding with engineered solutions such as dykes or spillways.¹⁵

Approaching the history of northeastern North America through a biographic study of the St. John River complements, qualifies, and at times, challenges a rich body of scholarship on historical settlement patterns and the culture of Maliseets, Acadians, and British colonists by authors such as Andrew Hill Clark, Naomi Griffiths, Alfred G. Bailey, Ann Condon, W. Stewart MacNutt, Marie-Claire Pitre, and Denise Pelletier. Their principal works examined only one or two of these cultures, while this study compares all three and places the St. John itself and human impacts on it at the

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foreground of inquiry. Military historian Gary Campbell’s *The Road to Canada*
investigates the river as a strategic transportation route for Maliseets, French, and
British colonizers using a chronology that approaches the sweep of this thesis. This
study expands on his work by examining the ecological changes that colonizers made
to the river to improve its transportation value and provides further analysis of
Maliseet, French, and British uses of the river. John G. Reid’s division of the 17th- and
18th-century history of the broader Northeast into Native history, imperial exchange,
and colonisation provides a useful model for investigating patterns and divergences
within Maliseet, French, and British relationships to the St. John. While this study
complements Reid’s framework, it also reveals the unique circumstances of St. John
River history that included Native-settler interactions and land use patterns as well as
alternative chronologies of Acadian dispossession and British settlement that
distinguished the watershed from other parts of the Northeast.\(^\text{16}\)

This study also builds on major works on the early history of the St. John River
by New Brunswick historians, W. O. Raymond, W.F. Ganong, and Esther Clark Wright.
These writers investigated Maliseet and colonial settlement patterns, as well as key

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historical events on the entire watershed. Mirroring the approach of contemporary river biographers throughout North America, they usually framed the history of water modifications and colonial settlement as progressive narratives, rather than highlighting the ecological impacts of colonists. For instance, although the second edition of Clark Wright’s study, *The St. John River and Its Tributaries*, noted modern ecological degradation of the river that resulted from the construction of the Mactaquac Dam, it never explored the impact of colonial dams on fish or the river’s hydrology. This study brings fresh questions and sources to the study of human history along the St. John. Moreover, it keeps humans’ impact on the waterway, fish, and riverbanks at the forefront of inquiry. While Raymond, Ganong, and Clark Wright identified the origins of settlements and economic developments, this work explores the origins of environmentally significant processes—fishing, agriculture, and wood cutting—and significant socio-political events such as river regulation and hydraulic engineering. Because it has a different perspective, it reaches different conclusions from earlier studies of the St. John.17

A handful of excellent studies by Richard Judd, Patricia Judd, Graeme Wynn, Béatrice Craig, and Maxime Dagenais have examined settlers’ relationships to rivers and their ecological impacts on the St. John through activities such as tree cutting, damming, milling, and farming. Their works, however, usually only focus on a single

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cultural group or a portion of the larger waterway: Graeme Wynn in *Timber Colony* investigates the impact of the British colonial timber industry on the political economy, forests, and waterways of New Brunswick from 1800 to 1850; Richard Judd and Patricia Judd in *Aroostook* discuss the spread of the timber industry to northern Maine and the impact of dams, booms, and canals on the upper tributaries of the St. John system, as well as international relations between Maine and New Brunswick over the use of the waterway between the 1830s and the mid 20th century; and Béatrice Craig and Maxime Dagenais’s history of the Madawaska region, *The Land in Between*, examines how Indigenous and settler peoples used the waterways and riverbanks of the upper St. John River system from the last ice age to World War I.18

One of the challenges of researching the biography of a river and the peoples who lived along it and called it home is to blend the physical flow of water and the flow of human time, using the evidence that humans left of their experiences with the river. To understand the history of the St. John River and the peoples that lived upon its banks over three centuries, this study draws broadly from many disciplines and subfields of history. Employing the perspectives of environmental history, historical geography, anthropology, and historical ecology, it uses a wide range of sources. It uses Maliseet oral traditions, archaeological reports, and personal ecological surveys of sites in the watershed to understand plant ecologies, settlement patterns, and hydrology. It uses written sources, such as legal documents and treaties, diaries and

letters, newspapers and censuses, and survey notes and scientific reports. As well as introducing new documents to the scholarly community, it assesses documents familiar to regional historiography with new questions. The study also investigates visual sources such as historic maps, plans, and paintings to help understand settlement patterns and environmental impacts.

Some consistent themes emerge from the rich and diverse body of material about the St. John River. The watershed is a place where we can see geographical layering and the influence of landscape on shaping successive human communities. All cultural groups sought out similar microenvironments to establish their settlements along the river. Peoples chose settlement sites in response to the seasonal vicissitudes of the river and the rich food supplies that fish provided. Moreover, Maliseets, French, and British all cultivated food along the river and sought out rich fertile soils. French agriculture and settlement benefited from Maliseet knowledge of drainage patterns and growing conditions, and the British, in turn, benefited from landscape alterations made by French and Maliseets. All three human communities exploited the diverse species of fish that lived in the river and valued places where they could catch many fish quickly. As well, every people who settled its shores had to adapt to the river’s seasonal flooding, and they all relied on the river for travel and the transportation of resources. Another constant theme is the geo-political competition to control the river and its rich resources. The study considers where people built forts, how they allocated access to outsiders, where they secluded themselves in the face of danger, and how people at times struggled and cooperated with the other human cultures that
sought to use and live on the river. Finally, this study discusses the ways in which people understood, related to, and identified with the river.

Maliseet, French, and British population centres all bordered the watershed at geographically significant locales, places where the river changed, and offered transportation linkages and access to edible and tradable resources. Each of these peoples dealt with flooding by locating on or moving to higher ground, and they all cultivated crops on the river’s bank during the period of study and used the river’s fertilizing capacity. Commercial activities concentrated at the mouth of the St. John where control of transatlantic shipping intersected with access to the continent. All three cultural groups had significant settlements here: Maliseets (Ouïgoudi), French, (Fort la Tour), and British (Saint John). However, each culture relocated their principal centres further into the river’s interior to take advantage of its defensive qualities and agricultural potential.

Noting similarities in geographical patterns within the human history of the St. John River helps us better see connections among peoples and historical processes across time and within the watershed. Historians have usually treated the principal topics addressed within this study in a manner that identifies and contains them within particular eras and associates them with distinct peoples. This investigation suggests that approaching history from the perspective of people's relationships with the river reveals that there is far more in common among Maliseet, French, and British settlement patterns than has been traditionally acknowledged. Fish and domesticated animals, for instance, were important to providing sustenance for all three peoples.
Analysis of human settlement patterns on the St. John also reveals important similarities between European colonization systems. Both French and British relied on river meadows for marsh hay and targeted the same tributaries for their initial timber operations. Moreover, these two cultures understood the river and the landscape that it drained as resources for human use elsewhere, and they brought the watershed’s animals and plants into imperial networks of data collection and commercial exchange. The French and later the British harnessed the power of the waterway to fuel local industries and to produce goods for export. To achieve these goals they undertook commercial surveys, drafted maps, compiled statistics, and imposed European property systems as tools of control and domination.

Close consideration of the patterns of Maliseet, French, and British settlement on the St. John over three centuries reveals the extent to which successive human interventions shaped the landscapes and waterscapes of the region. As scholars have long recognized in other settings, the successive inhabitants of the St. John built their patterns of life on foundations of environmental adaptations made by earlier inhabitants. Just as the modern landscapes of Great Britain are the accumulation of the shaping work of successive generations of inhabitants, the land clearing and cultivation work of Maliseets and Acadians influenced later British settlement and agriculture along the St. John.

Many of the most important patterns of cultural and environmental change on the St. John River were facets of broader continental and global changes during the early modern period. These included the spread of Indigenous crops within the
Americas, European overseas expansion, exploitation of natural products to meet the demands of a transatlantic and then global economy, and the inclusion of the resources of the St. John within property regimes rooted in European traditions. The history of the St. John River offers insights into peoples’ responses to these patterns of change. Close attention to the realities of place helps us understand how Indigenous inhabitants of the watershed managed to maintain agricultural survival strategies during the broad-scale climatic cooling of the Little Ice Age; as well, it helps us better understand Indigenous people’s strategies for mitigating the effects of new diseases that came with the arrival of Europeans. The history of the St. John also sheds light on the challenges that British colonial legislators and landowners faced as they sought to reconcile European property systems reliant on static boundaries with the dynamic nature of the St. John River.

As more humans moved onto the watershed, the integrity of local ecology suffered. The forest cutting on the river’s banks that had been marginal when only Indigenous people inhabited the watershed, increased to several localized hubs with French settlement, and intensified exponentially with British colonization. By the mid 19th century, colonists had deforested and transformed many of the accessible banks of the river into an agrarian landscape of introduced crops, weeds, farm animals, and fences. The ranges and populations of many wild land and marine species were in decline from habitat loss and human hunting.

In the years after the St. John was incorporated within the British Empire, humans began to manipulate the river on an unprecedented scale, causing profound
consequences for the flow of water and the living creatures that inhabited the watershed. Maliseets and French colonists modified the local environment during the 17th and 18th centuries, but neither culture had a large impact on the flow of the river itself. In contrast, British settlement in the late 18th and early 19th centuries created dozens of damming projects that had dramatic consequences for the flow of the St. John River and its aquatic inhabitants. The river no longer ran freely to the sea, and migratory fish could no longer reach many of the spawning grounds they had relied on for thousands of years. Many migratory fish species that had been abundant during the 17th century were in dramatic decline by the early 19th century, and the St. John’s once pure waters ran with new sources of human pollution.

Finally, key differences in cultural relationships to the river and nature distinguish Maliseet, French, and British settlement patterns on the Walastakw, rivière St. Jean, and St. John River. The very act of discussing the river makes it a cultural artifact as its three names are the product of different human societies. Although there was only one physical river, there were three cultural riverscapes within the period of study. The distinct values, beliefs, language and practices of each culture fostered a unique perception and relationship to the waterway. Moreover, as the different names for the river suggest, the cultural waterscapes of the French and British were more similar to each other than they were to the Maliseet waterscape.19

Maliseet culture, identity, and economy were intimately bound to the entire river system. They called themselves the people of the Walastakw, and the Maliseet language was a detailed place-based information system that provided speakers with key ecological information about the watershed, local resources, and the human past. The French, in contrast, approached the river and surrounding landscape as a series of resources and economic opportunities, and they renamed the main stream of the waterway according to European cultural traditions. As well, they were principally concerned with the main stream and the opportunities it provided as a transportation corridor for commodities and people between the St. Lawrence and Bay of Fundy rather than the entire river system, an orientation reflected in the fact that they did not rename most of the principal tributaries that drained vast tracts of land still controlled and dominated by Maliseets. French culture did not develop robustly on the waterway, and although the French settlers who lived there called it home, their affiliation to it was both shallower and narrower than Maliseets’ deeply rooted connection to the river system.

The British understood nature through a cultural framework similar to the French, but the rapid settlement of over 15,000 colonists and the application of a fee simple land tenure system fostered a different relationship to the waterway. Most British colonists were tied to property and livelihoods that fostered the development of localized place-based understandings of and relationships to the river. They developed sophisticated ecological knowledge of their specific niches, but were less attentive to the river system as a whole. Much of the nomenclature the British applied
to the watershed embodied the structure of power within the British Empire rather than the physical characteristics of the river. Moreover, while they anglicized or replaced much of the previous French and Maliseet nomenclature on the main stream, they left Maliseet place names intact on most of the St. John’s numerous tributaries. While Britain valued the river as a transportation corridor, and some colonists identified with the river, most of these claims were shallow and developed within an imperial framework that forged connections to help justify the dispossession of the river’s previous inhabitants from large portions of the waterway. This ecological rhetoric did not reflect a deep association with local nature or a long history with the river. Loyalists may have thought of the St. John as their river, but this claim reflected an assertion of possession more than it did a firmly rooted connection to a river system.

The study is divided into seven chapters, two on Maliseet control, two on French tenure, and three on British settlement. The first chapter examines Maliseet use and control of the river on the eve of European overseas expansion, and offers important contributions to our knowledge of Native trade networks, horticultural adaptations, and climatic resilience. The second chapter begins with the intensification of Maliseet interactions with Europeans in the early 17th century and investigates how Maliseets restructured their use of the river in response to the growing competition for control of the region’s resources and waterways.

When the French named and claimed the rivière St. Jean in the early 17th century, they were operating within a region that had become a contested zone among
European and Native peoples. The third chapter analyzes how the French used cartography, military force, and European land tenure systems to assert control over the river. The fourth chapter looks closely at how a handful of French colonists came to call the rivière St. Jean home, and explores the environmental and geopolitical circumstances of living on a seasonal and contested river.

The watershed shifted from Maliseet and French co-occupation and control to predominately British control in the late 18th century, and this shift severely disrupted the settlement patterns of the former two groups as well as the ecology of the watershed. The fifth chapter investigates British settlement along the river and analyzes the efforts of colonists to adapt to the river’s flow with an eye to the earlier experiences of Maliseets and French. The sixth chapter analyzes British depletion of the abundant St. John River fisheries, as well as the social conflicts and conservation initiatives that emerged in response to their decline. The seventh chapter explores how the British reshaped the flow and bed of the river to improve the transportation of people and commodities along the waterway and its tributaries.

In a growing body of research on human interactions with the physical environment and more specifically, human interactions with rivers, this study argues that the landscapes of the St. John River Valley are the product of successive human cultures’ interactions with the physical environment. Heraclitus was correct in stating that none can enter the same river twice, and thus there is a dangerous conceit in thinking that past interactions with the Walastakw, rivière St. Jean, and St. John River can be fully re-captured. However, rivers are too important to life not to humble
ourselves to the challenge of understanding how people who have called the St. John home have related to the waterway. This study is a contribution to the history of this region as well as the history of humanity’s intimate relationship to waterways.
Chapter 1

Maliseets and the Wəlastəkw: early transatlantic contact

Shortly after the long sun began walking out from the shore, in the last days of Niponi-kisuh (Summer Moon), Chkoudun and the men of his village were thrusting long spears into a shoal of salmon at the mouth of the Wəlastəkw, the large river they lived on. The wooden Manitou bobbed in the churning waters of low tide and everyone was grateful to find the pool below the turbulent rapids at the river’s mouth teeming with fish. Wives and mothers carried the catch in finely woven ash baskets over a worn trail to the walled village overlooking the windswept bay. They placed several large fish into a simmering copper kettle and hung the rest over smoky fires beyond the reach of their panting dogs. Their children gathered strawberries, clams, and firewood along the seashore. The landscape became even busier as frantic shouts from the boy watching the sea for visitors and raiders suddenly echoed over the gurgling water.\(^1\)

Chkoudun looked up and was not surprised to see a tall sail gliding toward the grey column of smoke gently rising from his village. His tensed muscles relaxed when he saw men waving bright cloths from its deck. He had been waiting for this ship. On it were friends he met the past Sikwenemekwi-kisohs (Spring-fish Moon) at Tadoussac where the Saguaney flowed into the Great River and the French had built a trading post 6 years earlier (1598). The portage from the Wəlastəkw to the Great River was short and the Normans there offered good value for furs. He usually made this journey by canoe, following the Madawaska, an upper tributary of the Wəlastəkw, to hunt in the hills near Lake Témiscouata in winter before travelling down the small rivers that flowed into the massive waterway in spring. For three years, he made this journey with relatives and friends to meet in council and trade with Native allies and the Normans, as well as join war parties against their Mohawk enemies. This year was different. ²

While at Tadoussac, Chkoudun invited the Normans to visit his village to set up a trading post within his homeland. He returned to his home along the sea on one of their sailing ships. After passing a few Norman and Basque vessels, he escorted several of his new friends over the small rivers and portages to dig copper at a mine a day’s sail from his village. They treated him with respect and he learned much about their ships, weapons, and language.³

² See Champlain, The Works, 103, 108-10, 164-70, 262 and 374. Records do not indicate if the 1603 explorers visited Ouïgoudi although this was possible. After failing to find mines at the head of the Bay of Fundy from French descriptions, Champlain came to Ouigoudi and asked Chkoudun to guide him in the fall of 1605. Chkoudun agreed and the French proceeded to explore Minas Basin. See 262-3 and 374-5.

³ Champlain, The Works, vol. 1, 96-188. For Etchemins guiding French to Minas Basin and agreeing to mine copper with iron wedge and chisels, see 183, 374, and 394-6. For Massachusetts Natives using inefficient “hatchets of stone (except a few who get them from the Indians of the Acadian coast, with
The ship now approaching Chkoudun’s village stopped near the small island, where its crew waited for the tide to rise before launching a small boat toward him. Chkoudun was pleased when the bearded faces of Samuel and Pierre emerged from the wisps of thin fog drifting across the water. He placed his long spear aside and greeted them warmly. Extending the generosity expected of a host, he took his guests to the feasting lodge where his wife and daughters served steaming bowls of fish stew and fresh berries. Complementing his growing fluency of the Norman language with Basque speech, gestures, and sand drawings, he welcomed them to his village. Talk soon turned to trade.

At the annual regional council the previous year, Chkoudun let other sagamores know he would have copper kettles, iron tools, and red cloth to trade this season. He even displayed one of the strange hatchets the Normans asked him to use to dig copper and traded a few items to garner excitement. Several visiting delegates and a few of his own villagers had been upset with his plan to welcome Normans to his homeland; some found the pale hairy strangers rude and mistrusted their intentions. Many sagamores, however, including the influential Membertou, a Mi’kmaq leader from across the Bay, whose family Chkoudun sometimes permitted to sojourn on the Wəlastəkw, supported him. After long discussion, the entire council consented to his plan.


Chkoudun’s people were accustomed to using rivers, portage trails, and seas to trade with different nations over long distances. They were also used to bartering skins and fresh meat to tall ships at their villages and fishing grounds. Enticing Normans to set up a trading post in his homeland would give Chkoudun’s people access to valuable goods near the base of the rivers on which they lived as well as beyond their upper reaches at Tadoussac. This was an incredible opportunity to improve their position in the regional trading network. Peoples living near warmer wampum waters had traditionally held great influence on trade. However, Norman and Basque interest in the pelts of the animals that lived in the colder waters and forests of Chkoudun’s homeland raised the prominence of Etchemins by giving them access to valued goods southern peoples could not easily obtain. Moreover, having a local trading post would also decrease his need to cross into lands and waters that were frequented by the groups of hostile Mohawks who were attempting to force their way into the trading network on the lower St. Lawrence that Montagnais, Etchemins, and their allies had dominated for a number of years, if not decades.

In anticipation of this visit, Chkoudun asked the men of his village and their neighbours to trap many animals that winter and bring their furs to Ouïgoudi, rather than over the mountains to the Great River. Five moons of cold snowy weather helped his people and their dogs capture many beaver, moose, caribou and otter. When the ice ran out of the Wəlastəkw and the mahsusiyil (fiddleheads) surfaced, men brought fur-laden canoes to Ouïgoudi.
The furs Chkoudun offered Pierre and Samuel pleased them. He was also satisfied. The Normans brought many prized items and they recognized his authority by honouring him with special gifts. Moreover, they asked where he thought they should build their post and if he would introduce them to neighbouring peoples as allies of the Etchemin. Chkoudun encouraged Pierre and Samuel to settle near Passamaquoddy.

Having well-armed allies fortify a part of his homeland closer to the lands of his enemies would increase his people’s security. Moreover, keeping them removed from Ouigoudi also protected his control over the Walastakw’s abundant fish and furs. These Normans, like his other allies, would have to seek his consent and honour him if they wished to use the portage routes to Tadoussac, Restigouche, Miramichi, and other focal points of the growing trade with the Normans and Basque.

Chkoudun is the first Walastakw resident known by name to history. He was the sagamore (leader) of the town, Ouigoudi, at the Walastakw’s mouth. He attracted Pierre du Gua (sieur de Monts) and Samuel de Champlain to his homeland, and the French presence there hinged on his knowledge and goodwill. Chkoudun played a key role in familiarizing French colonizers with the lands, waters, and peoples of the Northeast. He was the guide for their explorations along the Bay of Fundy and New England coast and his friendship enabled the French to join his trading network and live in his homeland. Chkoudun even rescued his new allies when their piloting skills failed them in Passamaquoddy Bay’s rough waters. His familiarity with European goods and technology as well as the geography, languages, crops, and commodities of his southern neighbours was the result of his engagement in regional exchange networks.
and Etchemins’ previous experience with transatlantic trading. Chkoudun and his followers paddled the Walastakw and its tributaries and crossed over their portages to the St. Lawrence, Saguenay, Penobscot, Kennebec, Miramichi, and other rivers. They used canoes of their own design, and by the early 17th century, if not earlier, had also adopted European shallops to travel the Gulf of St. Lawrence, Bay of Fundy, and coastal waters of New England. When Chkoudun met Champlain and de Monts, the Walastakw was a central artery and source of food in a complex and dynamic world. Etchemin control of the waterway and the resources it offered provided them with a diverse subsistence base which positioned them advantageously within a regional trading system. During the late 16th and early 17th centuries, Etchemins and their Indigenous neighbours carefully integrated Western Europeans into this dynamic exchange system.5

Chkoudun met Europeans and Africans throughout his life. He greeted tall ships along the shores most summers and admired the crossed posts their crews placed along his coast to honour their Manitou. He knew Etchemins and Souriquois (Mi’kmaq) who had visited Europe and brought back descriptions of the lands, people, and customs they observed there. His people, the Etchemins, had been intermediaries between the Europeans who visited the Gulf of St. Lawrence and the Bay of Fundy and Indigenous peoples further south since before his grandfathers were born. Early

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access to scarce European goods, nautical skills, exceptional Native boat technology, the adoption of European vessels, and a remarkable system of rivers and portages inhabited by fur-bearing animals, created the context for Etchemin power within their relations with Europeans and Indigenous peoples who lived further south on the eve of European colonization. They bartered furs with Europeans for copper kettles, iron axes, bright cloth, and other goods, keeping some for their own use and trading others with peoples distant from northern contact points for furs, maize, and wampum. Etchemins also hosted visitors from afar at regional councils at Ouïgoudi in summer to take advantage of the excellent fishing at the Walastakw’s mouth and the river’s large transportation network.6

The River’s Flow

By the late 16th century Maliseets had learned about and adapted to the Walastakw’s flow through centuries of experience. They classified freshwater by size and character, choosing to drink from small cold springs, while they used large waterways for fishing and transportation. Sophisticated canoe and snowshoe technologies and river knowledge enabled them to access many habitats and resources across the Northeast (present day New England, Atlantic Canada, and the lower St. Lawrence River Valley) during most weather conditions. The watershed, in both its liquid and frozen states, gave residents of the river a low friction transportation route

to move people and goods. Historic records from the 17th century indicate that Maliseets hauled wooden sleds in winter and built birch bark, hide, and dugout canoes. Maliseets used these sophisticated vessels to traverse fresh and salt waters to trade among native neighbours, find food, and raid enemies throughout the greater Northeast. Commenting on the river’s flow and Native canoe routes, the geographer W.F. Ganong claimed

Of all Indian routes of travel in what is now the Province of New Brunswick, the most important by far was that along the River St. John. This river was, and is, an ideal stream for canoe navigation. It not only has easy communication with every other river system in this and the neighbouring provinces, but it is in itself very easy to travel. Through most of its course the water is never too low for good canoe navigation, and it has few rapids and but a single great fall.⁷

Canoe expert, Tappan Adney, studied Maliseet canoe construction in the late 19th and early 20th century. He praised Maliseet canoes as a highly advanced technology that surpassed the workmanship of other canoe designs throughout North America. Maliseets propelled their canoes with wooden paddles and bark sails when travelling downstream or in deep water and often used long poles to push their canoes upstream against strong currents and across shallows. Canoe-makers employed specific designs suited to transportation needs and particular types of waterways. These types included coastal “v” bottomed vessels, flat-bottomed river canoes, and smaller hunting craft for portaging and use as temporary shelters between interior waters. Maliseet

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development of these three distinct designs suggests that they valued accessing many of the ecotones along the Walastakw, as well as resources and peoples located along the Atlantic coast and other interior waters.

Maliseets had developed sophisticated knowledge of the geology of their homeland. They located rock outcrops that they quarried into rare stone for invaluable high quality fishing and hunting tools, as well as weapons. These quarries were cultural keystone places, and ranked among the most important destinations on the watershed for Maliseets and their ancestors. Many stone artifacts found in archaeological digs along the Walastakw originate from places within the watershed such as Munsungun Lake at the headwaters of the Aroostook River, the Tobique River, the main source of Rhyolite stones, and the Belyeas Cove chert outcrop on Washademoak Lake. Durable stones were the principal preserved trade items within and beyond the Northeast, and the quarries that produced them were integral to hunting and plant processing throughout the majority of human history along the waterway. Archaeologists have also found stone artifacts from as far away as northern Labrador on the Walastakw. Moreover, the Norse coin unearthed in Blue Hill, Maine suggests that Norse trade goods may have circulated through the Maliseet homeland before Europeans made written records of the region. The presence of several high quality quarries on the waterway appear to have been important for humans living in the region until contact with Europeans bearing iron tools increased circa 16th century.8

Maliseets used the flow of waterways to lure and entrap mammals in the 17th century. They stalked moose on the river and its tributary lakes at night in canoes during fall rutting season. Hunters trickled river water from birch bark dishes imitating urinating female moose to attract males into bow range. Maliseets also mobilized their knowledge of the waterscape to practice drive hunting. Although unable to match the speed of the largest mammals they consumed, they herded prey into swamps and rivers to slow down the animals’ movements, allowing easy and relatively safe and easy slaughtering with their bows and spears.9

Centuries of experience living along the Walastakw helped Maliseets accumulate knowledge of its seasonal changes in water volume and the corresponding geography of flood risk. They learned, for instance, to predict the onset of winter thaws by observing changes in the river. “If a big river has water flowing from its edges out over the ice on a freezing cold day, then a big rain and thaw is coming.” Walastakw

9 Denys, Description, 472; Gyles, Memoirs, 17. The lack of written accounts of Maliseets before the contact period make it hard to ascertain pre-contact hunting techniques and other subsistence activities.
flooding is a major theme in Maliseet history. Several Klouskap (the Maliseet cultural hero) traditions discuss how Maliseet experienced and resolved serious problems with riverine floods in their distant past. These histories indicate that Maliseets developed intricate understandings of the relationships between animals, the river’s course and currents, seasonal freshets, as well as human activities and social relationships to water.¹⁰

Maliseets maintained place-based oral traditions to understand flooding and foster adaptive resilience. In the story “Gluskap” (a variation of Klouskap), the Maliseet cultural hero snowshoed along the Walastakw killing the giant beavers and destroying the massive dams they had erected at Grand Falls and the mouth of the river. After releasing the waterway from the dams, he sat down with his brother, Mikumwesu, at Reversing Falls

[to] discuss the improvement of the river for Indians. Gluskap suggested that one-half of the river run up and the other half down . . . the Indians would be able to go up stream in their canoes without any difficulty. But Mikumwesu disagreed and said ‘No, the Indians would have too easy a time.’ Gluskap replied, ‘Well, let the water run up stream as far as Spring Hill half the time and the other half of the time let it run down.’ To this Mikumwesu agreed. So Gluskap and Mikumwesu set to work to destroy the rest of the dam at St. John, so that the water could go through more easily.¹¹

Another important oral tradition chronicles how Klouskap restored the waterway from a giant frog pond of unhealthy water into a clear running flow that was useful to Maliseets by killing or reducing the size of the animals that created pools with dams.

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¹⁰ For seasonal changes in river ice, see “puni-apuwockiye,” Passamaquoddy-Maliseet Language Portal.
Some versions of this story emphasize that humans suffer from stagnant water and artificial dams, while others highlight the problems that result from one being or species hoarding and storing water at the expense of others. That these oral traditions detail the presence of large dams at the exact places where glacial till had barricaded the river for thousands of years, suggests that Maliseets maintained memory of ancient environmental conditions. Moreover, Maliseets’ use of the Walastakw’s history to understand and respond to contemporary social and ecological problems speaks to the importance of the waterway within their culture.\(^\text{12}\)

These stories give insight into Maliseet relationships to the flow of the Walastakw. They considered flowing freshwater beneficial to human settlement. Changes to the waterway made by living creatures such as beavers and frogs were considered undesirable and in need of removal if they created stagnant, filthy water, or if they flooded villages. Maliseets knew how dams and canalization affected hydrology and humans. Their oral traditions relate a history of smashing obstructions and forging new pathways for water. In contrast, the ancient Judaeo-Christian story of Noah’s ark chronicles a family that adapted to flooding not by reshaping the land to improve drainage, but by becoming some of the first recorded boat refugees in history and waiting for the waters to naturally recede. Maliseets valued Klouskap’s channel-cutting through Reversing Falls and other barricades as astute responses to historic

hydrological problems. However, they did not reshape the course of the river within the period of study. Klouskap had already improved it for them in their distant past. Maliseets adapted their culture and technology to thrive within the river’s flood regimes and current; they had no need to alter the course of the waterway or reshape its drainage patterns to resist flooding with engineering works such as levees, canals, or dams.\textsuperscript{13}

In the 17\textsuperscript{th} century, the principal Maliseet villages, Ouïgoudi and Meductic, as well as their field crops, appear to have been located above flood-prone areas, such as the broad floodplain that extended for dozens of miles below the head of the tide at Aukpaque, several kilometers above present day Fredericton. Their careful placement of villages and crops let them use the annual freshet’s fertilizing capacity, while minimizing the risk of damage to dwellings, crops, and human lives. Moreover, their positioning of the large village of Aukpaque at the head of the tide in the 18\textsuperscript{th} century, speaks to Maliseets’ detailed understanding of the Walastakw’s unique currents and tidal influences, and the availability of fish. By the time Europeans began making records of the Walastakw, Maliseets had developed ultra-light boat technology that did not require deep water or artificial canals. A major food source, anadromous fish, benefited from an unrestricted flow of water. Maliseets did not harness the river to provide mechanical energy to process food or building materials. Their primary impact on river hydrology during the period of study stemmed from activities such as killing beavers and clearing riverbanks. However, as Mailseets did not use plows and only

\textsuperscript{13} For flooding, see McNeill, “Can History help us with Global Warming?,” 25.
cleared small tracts of land in the 17th and early 18th centuries, their land use impacts on water quality and flow was minimal. Maliseet forest burning removed the sheltering canopy of larger tracts of forest and likely contributed to soil erosion, but they probably let this land to grow up in vegetation again quickly.\textsuperscript{14}

For Maliseets, the animals, plants, rocks, and waterways of their homeland were conscious entities that humans continually had to appease and persuade through personal and group rituals in order to forge positive relationships with them. Hunters, trappers, and fishermen, for instance, communed with their prey through rituals that they considered decisive to the success of their food procurement activities and survival. If Maliseets abused or disrespected the nonhuman inhabitants through improper harvesting practices or failure to express proper respect, they risked dangerous repercussions, such as poor hunting or even death.\textsuperscript{15}

Maliseets believed that a Manitou (spirit) lived at Reversing Falls, and that Oo-na-gess-ook, a race of little people, lived along the shores of waterways such as the Keswick River that empties into the Walastakw above Aukpaque and Little River, a

\textsuperscript{14} For descriptions of Ouigoudi and Meductic, see Lescarbot, \textit{New France}, vol. 2, 356-7; Louis R. Caywood, \textit{Excavations at Fort Meductic, New Brunswick} (Ottawa: National Historic Parks and Sites Branch, Dept. of Indian and Northern Affairs, 1969), 9, 19, and 24. In contrast, the majority of pre-contact camp and village sites on the river were located on the floodplain. See Blair, "Wolastoq'kew landscapes," 358. It is not known when Aukpaque was first established. It was a flourishing village by 1762. See Joseph Peach, “Plan of the River of St. Johns,” (1762) AC, R12567-15-9-E, CARTO24855, Online MIKAN no. 4150988, Item 8. See also Raymond, \textit{River St. John}, 86. See below for more on transportation and resource use.

small tributary of the Grand Lake system. The Acadian entrepreneur Nicolas Denys described a huge upright floating tree that sometimes surfaced in the turbulent pool below the treacherous Reversing Falls in the 17th century. Maliseets honoured it as “the Manitou” by attaching fur offerings to it. Denys’s account noted that Indigenous peoples made these offerings at other treacherous water passages and that the French recently succeeded in pressuring Maliseets to abandon this tradition at the Walastawks’ mouth. However, ethnographer Joseph Lafitau’s 1724 note that Natives in the Acadia-New England borderland still worshiped a sacred tree that had fallen in the ocean, likely referred to this Manitou. Maliseets used more than technology and skill to navigate the river; their offerings and beliefs were fundamental to their perception of the river and life upon it.16

The river and surrounding landscape were integral to Maliseets’ historical traditions and a guide to everyday life in the watershed. Oral traditions that grandparents and elders passed on to younger generations around campfires and on journeys throughout the watershed helped Maliseets understand how to adapt to the changing seasons, develop connections with ancestors, and maintain social codes of behaviour. As Francis Pryor noted in his study of the long history of human interaction with the British countryside, “it was the landscape and the complexities of its interpretation that gave prehistoric people the knowledge they needed to survive and

to prosper.” Maliseets’ deep connections to the watershed and knowledge of history meant that they not only understood how features of the river such as Reversing Falls worked, but they also knew why it functioned as it did. The knowledge that non-human entities had altered the river for Maliseets to use gave them a unique claim to the waterway. As well, it provided Maliseets with a connection to ancient post-glacial landscapes and processes of historical change that had shaped and re-shaped their river long before Europeans began visiting the waterway.17

Knowing and Controlling the River

The Walastakw is the geographical core of the Maliseet nation, which controlled and regulated access to its rich resources. Early European records of the Northeast indicate that the Maliseet sometimes reciprocated the right to live on and use rivers and resources with neighbouring allies, who, in turn, permitted groups of Maliseet to make use of their homelands. Thus, sometimes more than one Indigenous people were present on the Walastakw or other rivers throughout the period of study. A Jesuit writing in 1677, for instance, described their rivière du Loup mission on a tributary of the St. Lawrence estuary as being within the “country” of the Etchemin. They explained the presence of Mi’kmaq there as visitors. “They are Here as in a foreign country; consequently the whole tribe does not gather here. There is only a

band of nearly 200... who follow a Chief who has an affection for this spot.”18 In the late 17th century, Indigenous sagamores from one river sometimes shifted residence and assumed authority along another within their homeland. Maliseets regulated which groups of neighbouring Indigenous peoples could use the Walastakw and other rivers of their homeland. Their enemies, the Armouchiquois, were not welcome on the river and were resisted with force when they tried to visit its mouth. Maliseets and their neighbours had clear ideas about their traditional homelands, but they sometimes negotiated the rights to resources within homelands with their Native allies. Indigenous peoples’ use of rivers and microenvironments sometimes overlapped across time and space within a complex system of land use and diplomacy.19

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19 The Maliseet sagamore Madockawando moved from present day Maine to assume authority on the Walastakw in 1695. See Joseph Robineau de Villebon, “September 17, 1694 to July 12, 1695,” in Acadia at the end of the seventeenth century: letters, journals and memoirs of Joseph Robineau de Villebon, commandant in Acadia 1690-1700, ed. J.C. Webster (Saint John, NB: New Brunswick Museum, 1934), 77. For Armouchiquois, see Lescarbot, History, vol. 2. 357; Champlain, The Works, vol. 1, 181. Courville writes that Native geography approached space linearly: “sinuous lines that followed streams and paths and afforded access to hunting and fishing grounds. This complex defined less a territory... than range, its boundaries and intensity of use varying widely in time and space to reflect resources and travel corridors... Mainly based on rivers and streams, this way of using space encouraged intercultural exchanges that made positive use of differences in Aboriginal groups’ living environments and development... exchanges were numerous and spoke of important relationships between peoples that were often very close... Sometimes, entire groups gathered at river junctions or on islands well positioned on the trade circuit.” See Serge Courville, Quebec: A Historical Geography, trans. Richard Howard (Vancouver: UBC Press, 2008), 32. For Mi’kmaq conceptualizing their land as “Mi’kma’ki” (homeland of Mi’kmaq) rather than Eurocentric “legal fictions” of “Acadia” or “Nova Scotia,” see William Wicken, “Mi’kmaq Decisions: Antoine Tecouenemac, the Conquest, and the Treaty of Utrecht,” in The ‘Conquest’ of Acadia, 1710: Imperial, Colonial, and Aboriginal Constructions, ed. John G. Reid et al. (Toronto & Buffalo: University of Toronto Press, 2004), 90. For more on resource use and land tenure, see Cole Harris, The Reluctant Land: Society, Space, and Environment in Canada Before Confederation (Vancouver: UBC Press, 2008), 113-4; Hugh Brody, Maps and Dreams: Indians and the British Columbia Frontier (Vancouver: Douglas & McIntyre, 1981); and William Cronon, Changes in the Land: Indians, Colonists and the Ecology of New England (New York: Hill and Wang, 1983), 58-67.
Maliseets had lived on the river since time immemorial. By the mid 16th century, they had intimate knowledge of its course, its narrows and wide expanses, the pools where fish fed and the shores that animals frequented. Their presence on the river was firm. Maliseets called it the “Walastakw,” which loosely translates into English as the grand, goodly, or beautiful river and called themselves “Walastakwiyik,” the people of the Walastakw, a name that indicates their strong sense of belonging to the river and their stewardship of the river and its resources. The French initially identified peoples of the Walastakw, St. Croix, Penobscot, and sometimes the Kennebec rivers as a single nation called “Etchemins.” The term Maliseet referred to the Indigenous people who lived upon the river from the late 17th century onward. It was the dominant European name for the Walastakw’s Native residents between the 18th and late 20th centuries, and it continues to be used by Indigenous and settler peoples along the river today. Andrea Bear Nicholas claims that the label Maliseet was derived from a Mi’kmaq word that refers to the slower cadence of the Maliseet language in comparison to Mi’kmaq. George Frederick Clarke noted that Mi’kmaq also sometimes labelled Maliseet “Kukbussoukie-muskrats” due to dietary preferences on the St. John. Etchemin was probably a distortion of “Skidegin,” which means, ‘human being’ in local Native languages. Etchemins shared cultural traits and they could usually speak to each other. In the late 17th century, colonial officials reclassified the cultural grouping Etchemins into several separate nations tied to specific bodies of water and villages, although they continued to inhabit or move to multiple rivers and villages over years or lifetimes. Names such as “Penobscot Indians,” “Passamaquoddy
Indians,” “St. John River Indians,” or “Meductic Indians,” became common. Colonial sources seldom used “Walastakewiyik,” however, Indigenous people and scholars use this term today. British and French colonists sometimes used Abenaki in lieu of Etchemin.20

After the arrival of Europeans, the names for the Walastakw and its Indigenous inhabitants diverged, whereas peoples on the Penobscot and Kennebec Rivers continued to have ethnic names tied to the rivers which flowed through their homelands. This difference may stem from the Walastakw acquiring an enduring Christian name (St. Jean) while Native nomenclature prevailed on the other rivers, and most of major tributaries of the Walastakw. The river’s multiple names signal the

layering of different cultural waterscapes with distinctive nomenclatures and relations to other rivers.  

Maliseet place names are steeped in local environmental knowledge that gave speakers information on how to survive within the river’s ecological niches. Maliseet nomenclature was specific to the use and history of places so that oral traditions are also maps that embodied the Walastakw’s geographical features and history. John Gyles, for instance, recalled that Maliseets named Grand Falls, “Checanekepeag,” which, according to W.F. Ganong, meant “the destroyer place,” a reference to the oral tradition of Malobeam, a Maliseet woman who guided invading Mohawks to their deaths over the falls. The name Checanekepeag reminded Maliseet speakers that the Falls were unnavigable and that the river could kill. Other Maliseet place names conveyed specific information about microenvironments of the Walastakw. Madawaska, a large tributary above Grand Falls that seasonally overflows its lush banks, means “at the place where water flows out over grass.” Meductic refers to a path that “comes to an end.” Drawing from a translation by a Maliseet friend, Clarke suggested this indicated the end of the portage trail that leads from the Walastakw’s middle reaches to the Penobscot. Aukpaque, a settlement site just above present day Fredericton, refers to the head of the Bay of Fundy’s powerful tidal influence. Place names such as the Muniac Stream and Muniac Mountain south of Perth Andover, and “Chipiloginisis” (Cihpolakon) Lakes in present day Northern Maine denote habitats of

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black bears and bald eagles, respectively. Colonial map labels such as “Pegannisicklack” River in Maine originated from the Maliseet word for butternut, recording the presence of that tree species at the northern extremity of its range. Speakers of Maliseet had an unmatched intimacy with the Walastakw and its watershed as well as the creatures living within it and along its banks, a linguistic intimacy that reinforced Maliseet control of the river.22

Throughout the period of study Maliseets and their Indigenous neighbours expressed their identities simultaneously on multiple levels and were responsive to changing circumstances: slowly evolving languages and dialects; pre- and post-marital kinship ties; residency and resource use, which could involve particular villages and watersheds as well as hunting, fishing, and gathering grounds; and cultural beliefs and practices. Some families and individuals, for instance, associated themselves with particular animals through the adoption of names and totems, as well as hunting taboos on species with which they identified. These expressions of identity and ties to places intersected with shifting patterns of trade, military alliances, and migrations as well as seasonal variations in population aggregation. Recognizing the inter-weaving of long, medium, and short-term, patterns and changes is necessary to understand Native identities and relationships to the Walastakw. Frequent intermarriages, captive taking, and inter-residency between polities created multi-ethnic villages and families.

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22 For Checanekepeag, see Gyles, Memoirs, 10; Ganong, “place-nomenclature,” 236. See also “Matawaskiyak,” “muwin,” “mehtaqté,” “Pegannisicklack,” “chpolakon,” Passamaquoddy-Maliseet Language Portal; Clarke, Someone before Us, 47; G. Nicholis, “Plan of the Western Parts of the Province of New Brunswick and Nova-Scotia,” BNA, CO 700/New Brunswick19a; Karen Perley, Gabe (Fredericton, NB: New Brunswick, Archaeological Services, 2005), 6-7; and J. Edward Chamberlin, If this is your land, where are your stories?: Finding Common Ground (Toronto: A.A. Knopf Canada, 2003).
throughout the Northeast. Some Maliseets spoke multiple languages, and nations frequently exchanged knowledge and technology. Individuals and groups regularly visited communities to trade or join hunting and raiding parties, while captives and marriage partners made longer residency transitions.23

A riparian model of ethnicity and resource use dominated scholarship and government policy on Aboriginal geography in the Northeast in the 20th century and was over-simplified and built on conflicting evidence. The model linked Maliseets exclusively with the Walastakw, Penobscots with the Penobscot, and Passamaquoddies with the St. Croix that emptied into Passamaquoddy Bay to the east of the Walastakw. Anthropologist Frank Speck added a finer grain of analysis suggesting that sagamores of local bands controlled trapping territories centred on small waterways. This model has the unfortunate characteristic of reflecting the desires of Europeans to contain Indigenous peoples in carefully bounded territories and to believe they were unchanging until they interacted with Europeans. It does not accurately reflect the complex and dynamic character of Indigenous ethnicity and resource use in the Northeast.24


24 For the riparian theory, see Greg Marquis, “The Story of a Map: W.F. Ganong and Tribal Boundaries in New Brunswick,” Papers of the 39th Algonquian Conference, ed. S. Hele & Regan Darnell (London, ON: The University of Western Ontario, 2008): 479-517. Marquis used Mi’kmag’s presence on the lower River to suggest that “the territory surrounding the mouth of the Wolastook from 1600 onwards was not the exclusive hunting grounds of any specific First Nation, but intercultural borderlands, shared by two
Divisions among Indigenous polities in the Northeast during the 17th century were not always based on geographical features such as waterways. The Jesuit priest Pierre Biard visited the Walastakw and lived with Etchemins and Souriquois (Mi’kmaq) near the mouth of the Penobscot and at Port Royal in present day Nova Scotia in the early 17th century. He wrote some of the earliest accounts of regional Native ethnicity and political structure. Biard claimed that, on the one hand, that peoples divided along a riparian geography. “Sagamies divide up the country and are nearly always arranged according to bays or rivers . . . for the Pentegoet river there is one Sagamore; another for the Ste. Croix; another for the St. John . . . When they visit each other it is the duty of the host to welcome and to banquet his guests . . .” Yet Biard also revealed that bands and sagamores living on different rivers were fluid units within a larger political structure that did not always conform to the boundaries of language, rivers, or recent history. While conflicts usually erupted between people of different languages and locales, “nevertheless the confederation often extends farther than the language does, and war sometimes arises against those who have the same language.” Maine’s first governor noted shifts of alliance and animosity among Natives on the Penobscot and peoples further south. That Indigenous names and ethnicity in the region have evolved

or more aboriginal cultures,” 481. Maliseet scholar, Andrea Bear Nicholas, cautioned against allowing the presence of other Indigenous peoples to obscure the fact that the Walastakw was and is Maliseet Territory. See Andrea Bear Nicholas, “Settler Imperialism and the Dispossession of the Maliseet, 1758-1765,” in Shaping an Agenda for Atlantic Canada, ed. John G. Reid & Donald J. Savoie (Black Point: Fernwood Publishing. 2011), 21-57; Clarke, Someone before Us, 73-5; Bruce J. Bourque, “Ethnicity on the Maritime Peninsula, 1600-1759,” Ethnohistory vol. 36, no. 3 (Summer 1989): 257-84.
since Biard and other early European visitors to Acadia discussed them, adds further complexity to our understanding of Indigenous identities and alliances.25

During the 17th century Native individuals and groups often moved between rivers, sometimes for a season, other times from year to year or permanently. Chkoudun, the Maliseet sagamore of the Walastakw, for instance, spent the winter of 1605-1606 with his band at Port Royal, a location associated with the Mi’kmaq sagamore Membertou. Several years later Membertou’s son, Louis, wintered on the Walastakw. The significance of ethnicity and spatiality for understanding Aboriginal cultures in the Northeast transcends theory when one considers the difficulties First Nations had in retaining access to riparian and marine resources and in gaining recognition as nations by modern states. The United States has only recognized Maliseets and Mi’kmaq for a generation in Maine, and Canada continues to deny the official existence of the Passamaquoddy people on the shores of the bay that bears their name.26

Native alliances and river use changed according to agreements between peoples and the availability of resources, particularly seasonal foods. Sagamores represented their bands in annual regional councils that usually met in warm seasons.

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25 See Biard, “Relation, 1616,” 89 and 91; Bourque, “Ethnicity,” James Phinney Baxter, ed., Sir Ferdinando Gorges and His Province of Maine, vol. 2 (Boston: John Wilson and Son, 1890), 76. The paucity of written records of Etchemins and their Indigenous neighbours in the late 16th and early 17th centuries limits our understanding of the relationships between ethnicity, political structure, and geography. Although Biard, Gorges, and other European visitors to the Northeast offer important insight into these topics, their writings are piecemeal and sometimes contradictory.

The councils shared environmental information and negotiated resource use, as well as renewed or renegotiated diplomatic, trade, and military alliances across an area that encompassed the Gaspé Bay, the Maritimes, and Northern Maine, a region nearly the size of Great Britain. The choice of leadership and decision-making were consensus-based and divisions and realignments were common. Maliseets peacefully regulated dissension through practices like the dog feast ceremony in which war leaders solicited followers by sharing the flesh of their most valued hunting dogs.27

Appreciating the complexity of identity and polity formation is key to understanding the diverse use of Walastakw by multiple Native and settler peoples. The layered ranges that bound Native peoples and places were dynamic; they ebbed and expanded with the passing of seasons and the changing composition of bands, families, and polities that resulted from military conquests and defeats, food supply shifts, epidemics, and weather patterns. Claims that linguistic, territorial, political, and economic relationships neatly overlapped according to rivers do not fully account for the nuanced character of Indigenous political structure and their negotiated use of space.28


28 See Biard, “Relation, 1616,” 91 and 87. Elizabeth Mancke noted the complexities of Native polities, suggesting: “Amerindian strategies for accommodating ethnic differences—social systems that tolerated relocations, and political practices to negotiate wide-reaching alliances for military cooperation, resource sharing, trade, and land use—provided for cultural and political resilience and regeneration for three centuries after 1492.” See Elizabeth Mancke, “Polity Formation and Atlantic Political Narratives,” in Oxford Handbook on the Atlantic World, c.1450-1820, ed. Philip D. Morgan and Nicholas
The Walastakw’s turbulent mouth led outward to maritime trade and its hilly upper tributaries inward to interregional exchange networks that were established before Europeans began making records of the river. Maliseets paddled canoes across fresh and salt waters, and commodities flowed through trade networks. Exogenous marriages and captive taking facilitated the exchange of knowledge, skills, beliefs, and technology, as well as people, between locales. A marriage noted in 1605 between Panounias, a Mi’kmaq sagamore, and a Kennebec woman was one of the many cases of Natives forging ties that shared languages, knowledge, and skills among different regions and cultural traditions. Panounias’ wife, for example, would have had direct experience with maize cultivation. River mouths throughout eastern North America were major transportation hubs and places where people congregated to fish, trade, and gather for political and diplomatic purposes. As sagamore of one of the largest rivers on the Atlantic seaboard, Chkoudun held a key place in the regional polity structure. The Walastakw provided access to trade routes as well as more fish and mammals than neighbouring watersheds.29

29 The Indigenous trade networks that European visitors observed in the late 16th and early 17th centuries likely emerged from established pre-transatlantic contact trading systems. The influences that earlier Europeans who did not leave records of their voyages had upon these system before this time, however, remains ambiguous. For discussion of North American trade networks before transatlantic contact, see McMillan and Yellowhorn, First Peoples in Canada, 48-52; Blair, “Wolastoq’kew landscapes;” Mann, 1491, 289; John R. McNeill and William H. McNeil, The Human Web: A bird’s-eye view of World History (New York: W.W. Norton, 2003). For discussion of transatlantic contact and trade see Whitehead, “Protohistoric Period;” Pastore, “The Sixteenth Century.” For intermarriage, see Champlain, The Works, vol. 1, 311-2; and Thomas Grassman, “Panounias,” DCB vol. 1, http://www.biographi.ca/009004-119.01-e.php?id_nbr=500 (Accessed 22 May 2013).
Native power appears to have fissured and solidified locally and inter-regionally according to purpose and season in the early 17th century. Small kin-based bands whose membership fluctuated were the basic unit of political structures. Individuals and groups chose to follow particular leaders for specific purposes and often gathered together in times and places of abundant food. Records of Chkoudun and Ouigoudi appear to be early European observations of a Native governing structure that likely emerged before Europeans produced written accounts of the Northeast, and endured long after Maliseets and Mi’kmaq lost their monopoly on European trade goods. Summer aggregation sometimes included the formation of large war parties to stage raids on enemies in neighbouring watersheds, but the raids that Maliseet and Mi’kmaw sagamores led on peoples of the St. Lawrence and New England in the early 17th century were not an annual component of their polity structure or river use.30

The first map drawn by Europeans to centre on the Walastakw shows Maliseet living on the river and it provides insight into how they used it. This 1604 plan of the waterscape near Reversing Falls details a rectangular building labelled “Cabin where the Savages fortify themselves.” The large smoking rectangular chimney on this building rather than the smoke holes Etchemins used for ventilation illustrates how

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European cartographers sometimes misrepresented aspects of the people and landscape they encountered overseas. This map also included two groups of fit

**Figure 3.1** -- Samuel de Champlain, “R. St. Jehan” BNF, C106404
Maliseet men holding long spears, one on each side of the harbour. The spears suggest that Maliseets fished here and that they were a well-armed nation in control of the narrow passage to the Walastakw’s interior. This was a settled river that teemed with aquatic life, and merited defensive measures by the Maliseet.31

Two Frenchmen visited Ouïgoudi for a few days in the summer of 1607. One visitor, Marc Lescarbot, described its size and architecture

The town of Ouïgoudi . . . was a large enclosure upon a rising ground enclosed with trees, great and small, fastened to one and other, and within the enclosure many lodges, large and small, one of which was as big as a market-hall, wherein dwelt numerous families; as for that wherein they held their feasts, it was somewhat smaller.32

This palisaded “town” housed hundreds. Its biggest buildings lodged dozens of people, and hosted huge social activities. These types of large buildings tended to only be associated with principal Indigenous villages. Biard’s writings described Native camps and shelters in the early 17th century. “They do not camp except near good water and in an attractive location. In summer the shape of their shelter is different becoming broad and long,” in contrast to smaller winter wigwams. Ouïgoudi appears to fit the

31 For the 1604 map, see Champlain, The Works, vol. 1, plate LXIX, 268.
32 Lescarbot History, vol. 2, 356-7. For the claim that the town was on the mainland highland and that Maliseets called the river, Ouigoudi, a word which meant “voice,” see vol. 3, 83-4. Champlain wrote that Maliseet called the river “Ouygoudi,” but Clarke noted this word in Maliseet meant “camping site” not a specific town, see Clarke, Someone before Us, 73-5. Ganong suggested “Menaguesk,” which he claimed meant “on the little island” in Maliseet, was the town’s name. He noted “Manawoganish,” “Menagouache,” or “Mahogany Island” derived “Ma-na-wag-on-eas’-ek = place of clams,” see Champlain, The Works, vol. 1, 266 and 374; Ganong, “Place-Nomenclature,” 249 and 229. Villebon used “Manawoganish” for a nearby island and the general area. See Villebon, “Siege of Fort Natchchouak” (22 Oct 1696); “Voyage to Acadia in the Ship Union” (1690), in Webster, Acadia, 89-90, 30 and 226. For modern Maliseet distinguishing between “Monestatik,” (clams) and “Menahgeskew” (Saint John), see Passamaquoddy-Maliseet Language Portal. For “Menahèsk” meaning “where there is a grove of trees’ or ‘where there is a ridge,’” see Solomon Polchies, “Klouskap’s Tricks,” Tales from Maliseet Country, 16.
description of a warm season centre. Although Conrad Heidenreich and J.V. Wright have suggested that a Native population of 4,000 to 8,000, the densest concentration in Atlantic Canada circa 1500 C.E., lived at the mouth of the Wəlastəkw, they noted that their tally drew from “meagre data . . . estimates based on a few references to pre-epidemic populations.” Although written descriptions imply that Ouïgoudi was the largest local settlement a century later, they are not sufficiently detailed to allow for a clear estimate of the population at the river’s mouth then or during earlier periods. The presence of six long houses with additional hamlets bordering the river’s mouth in 1607 conforms to 16th-century Huron villages of 300 people that periodically hosted larger gatherings. Lescarbot described 80 to 100 residents, but his tally included Mi’kmaq warriors visiting from Gaspé to join a raiding party. Moreover, Lescarbot’s calculation omitted the Etchemin women and children who remained separate from their European visitors. In 1672, in a vague description of the mouth of the river that appears to encompass both the periods preceding and following contact with French explorers, Nicolas Denys claimed that Indigenous peoples were present there in “a great number.”

Northeastern peoples governed their interregional trading system and resource use with protocols during the time of study. They regulated contact between different bands and peoples with reciprocal feasting and gift-giving practices that took place at gatherings known in early European records as Tabagies. Generosity was a characteristic of Maliseet economic exchanges. Visitors gave their hosts gifts who in turn presented gifts to visiting sagamores. The host and his band would later visit former guests and expect similar treatment. Guests who honoured Chkoudun with gifts and obligations, for instance, might in turn receive temporary rights to fish, hunt, gather plants, and travel on the Walastakw. At a Tabagie, Natives traded, sang, danced and feasted. They also held physical sporting competitions between young men of different nations at some of these gatherings and occasionally executed captives in a public spectacle during times of conflict. These reciprocal trading and hosting practices knitted peoples together in mutual aid and decreased risk of starvation if food became scarce in one area. These customs were an important part of Native economic structure as well as ritual life.34

Maliseets knew what work needed to be done and when to do it to make a living from a wide variety of cultivated and wild plants, fish, mammals, birds, and reptiles. Biard noted Maliseets and Mi’kmaq could find foods in their proper place and time. He saw their ecological knowledge as “the revenues and incomes of our native

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people and such their table and living, everything prepared and assigned . . . to its proper place and quarter.” In his estimation, “Solomon never had his mansion better regulated and provided with food than are these homes and their landlords,” high praise from a Jesuit. Using many types of food and microenvironments helped Indigenous peoples in the Northeast meet nutritional needs without dangerously depleting particular species or areas. Baird likened their eating from many locales to the diffuse nature of France’s agrarian resources. Eating diversely was a practical Indigenous adaption to the uncertainties of game supply, plant growth, and weather.35

Maliseets marked the passing of time with a calendar of thirteen moons. The lunar cycle provided a basic guide for the temporal mapping of seasonal changes. Biard described how Mi’kmaq used a similar calendar to regulate seasonal migrations and subsistence activities: “proper provision . . . is to them like fixed rations assigned to every moon.” Biard, a survivor of winter rationing and scurvy at Port Royal, recognized the moon calendar and Native subsistence strategies as components of an efficient and effective knowledge system. The lunar calendars contained embedded knowledge of the Walastakw, the surrounding landscape, the climate, the movement of animals, and the growth of plants. They were detailed guides to the seasonality of resources and the activities required to survive within the watershed.36

36 See Biard, “Relation, 1616,” 79; James Devine, et al., 2009-2010 Maliseet Moon Calendar; Kwecketen tan elekiman pemikisohsewihit Welastekok (Fredericton, NB: St. Thomas University, 2009); Andrea Bear Nicholas, et al., 2011-2012 Maliseet Moon Calendar; Kweciteten tan Elekiman Pemikisohsewihit Welastekok (Fredericton, NB: St. Thomas University, 2011); and Roger B. Ray, “A Malecite Calendar of
Moving between regions meant moving between lunar calendars. Seasonal patterns and corresponding moon names differed across the Maliseet homeland. Written records indicate that Maliseets were not bound to one specific calendar of seasonal rounds. Like Australian Aborigine songlines, Maliseet calendars are place-specific information systems, rather than generic guides applicable over wide geographical areas. They organized seasonal rounds locally. Choices and practices of neighbouring bands could differ. Moreover, Individuals and bands did not always use the same area or survive in the same way each year; some chose to move between watersheds and alternate activities. While Chkoudun and his band spent the early summer trading and raiding on the St. Lawrence in 1603, for instance, they were fishing and trading on the Walastakw during the early summer of 1604.37

Fish

Indigenous people could access more protein in the Walastakw than most other places in the Northeast when the river teemed with spawning fish. Chkoudun is a French alteration of “Skuhtom,” the Maliseet word for brook trout. When Ganong edited Lescarbot’s writings, he used this name as proof that Chkoudun was Maliseet, as

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Mi’kmaq use another word for trout. It is no accident that the sagamore of an excellent fishing spot in the region shared a name with an edible fish. The fish that swam in the Walastakw’s waters were a key food source between Sikwenemekwi-kisohs (Sixth Moon, Spring-fish Moon) and Ponamowi-kisohs (Thirteenth Moon, Frost-fish Moon). Migrating salmon, sturgeon, gaspereau, perch, bass, sea trout, and shad were predictable and important protein sources. These fish swam up and down the river on yearly migrations to and from the salty sea. Brook trout and other species remained in interior lakes and waterways year round. When Europeans began producing written records of the river in the early 17th century, Maliseets patterned their use of the Walastakw on the availability of different fish at particular places in the waterway. Spring migrations drew Maliseets and neighbouring peoples together at Reversing Falls. In “Kiwaci-kisohs (Tenth Moon, Lonely Going-Away Moon), Maliseets followed spawning salmon to the Walastakw’s upper reaches where they could easily capture them in shoals, pools at the base of falls and rushing rapids, or at narrow passages between ponds and lakes.38

Maliseets had sophisticated knowledge and skills to make the most of this mobile food. John Gyles, a New England youth who was held captive by Maliseet

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38 See “Skuhtom,” Passamaquoddy-Maliseet Language Portal; Lescarbot, History, vol. 3, 83-4 and vol. 2, 192; and Bear Nicholas et al., “2011-2012 Maliseet Moon Calendar.” Two moons relate to birds: Apskowi-kisohs (Ninth Moon, Feather-shedding Moon) and Pentaemowi-kisohs (Fifth Moon, Egg-Laying Moon). Big mammals are noted in: Matsehkiyewi-kisohs (Eleventh Moon, Rutting Moon), and Wihkewi-kisohs (Twelfth Moon, Fattening Moon) may refer to them. Mid-winter when Maliseets hunted moose was: Akelohsemowessit-kisohs (Second Moon, Hard to get a Living Moon). This suggests they found fish, birds, and plants the more reliable foods in most seasons. See also Arthur E. Spiess et al., “Culture Complexity in Maritime Cultures: Evidence from Penobscot Bay, Maine,” in Evolution of Maritime Cultures, 96; David V. Burley, “Cultural Complexity and Evolution in the Development of Coastal Adaptations among the Micmac and Coastal Salish,” in Evolution of Maritime Cultures, 161.
during the late 17th century, noted in his memoirs that the shimmering of autumn’s fall of brilliant yellow, orange, and red leaves signalled to Maliseet that Atlantic Salmon (polam) were done spawning on the Walastakw and returning to the ocean. Most Maliseet left the lower main stream for the mountainous interior of the waterway’s upper reaches or the coast after spawning fish left the river and it froze. They returned with the breakup of ice and beginning of garspereau spawning. Gyles’s discussion of salmon spawning and Maliseet night spearing is probably the most eloquent and detailed account of these activities on the river.

they come from the Sea early in the Spring, . . . with great pains ascent the Falls, till they come to the Heads of the Rivers’ where the Water runs riffling over a coarse Gravel near some Pond or deep still Water: there they work Holes to lodge in, and in the Night resort to them, by two & two, . . . thus lying together the Female ejects a Spawn, like a Pea; the Male a Sperm like Milk, which sink among the Gravel. I have often been fishing for them, with a Torch in the Night, when the Water hath been so shoal that they have lien with their Backs & Tails above the Water: and if our Spear miss’d its stroke, the Fish darted at, would flutter & alarm the whole Shoal, . . . which immediately repaired to the deep Water, and return’d not in plenty for several Nights. When the Leaf falls they have done Spawning and return to the sea.39

Maliseets were adept at both night and day fishing, using their familiarity of the river’s currents, beds, and falls to harvest salmon and other fish with torch, spear, net, and

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brush dam technologies. Denys claimed that Natives could spear up to 200 fish per night.

Some types of fishing were dangerous. Gyles’s noted that sturgeon, the Walastəkw’s largest resident, could be twelve feet long and as thick as a sheep. His observation of a smaller species was accurate, although his editor claimed there was only one type. Sturgeon once lived in all major rivers in the region, and waterways with big estuaries, like the Walastəkw, had large populations while small rivers hosted fewer. Ganong claimed that they were once the totem animal for Mi’kmaq on the southwest Miramichi. Maliseets caught these massive armoured fish at night with canoes, torches, toggle harpoons, and teamwork. Flickering flames drew fish to the surface where a poised harpooner launched a dart at their soft underbellies. Once the harpoon penetrated, the canoeist maneuvered with the injured fish to avoid capsizing. Gyles recalled the difficulty of steadying a canoe while hunting sturgeon on the Walastəkw; “the Indian darting one, his Feet slipt and turn’d the Cane bottom upward, with me under it.” While Gyles floated downstream in a panic, the harpooner got a “fine Sturgeon, which was eight or ten Feet long.” The possibility of obtaining so much food in one catch justified the risk of injury. Indigenous peoples in northeastern North America made many products from sturgeon, such as isinglass for bonding colours to hide clothing and for attaching feathers to arrows.40

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Maliseets did not appear to have traded fish afar. Guests to Reversing Falls in the early 17th century, for instance, may have carried dried or smoked fish back to their villages, but it was more prudent for Maliseets to exchange the use of their fishery than it was for them to transport large quantities of fish. As a result, the ecological ripple effect of the Maliseet fishery only stemmed from the immediate needs of their communities and Indigenous allies. They sometimes cured part of their catch with smoke for later consumption as they did other flesh, and also ate and traded fish soon after catching them. Gyles noted that they preserved meat “by stripping off the Flesh from the Bones, and drying them over a Smoke; by which ‘tis kept sound Months or Years, without Salt.” Biard claimed that Mi’kmaq hung caches of surplus food from trees so there would be an emergency winter food supply in times of dire need.41

Natives also worked together on the Walastakw and other rivers to build efficient fish traps before and after transatlantic contact. In shallow and narrow channels, they made wooden fences or weirs that stretched “clear across the river to hinder the passage of the fish. In the middle of it they leave an opening in which they place a bag-net like those used in France, so arranged that it is inevitable the fish should run into them. These bag-nets . . . they raise two or three times a day, and they always find fish therein.” Natives shifted fish traps to match the direction of migrations


41 Gyles, *Memoirs*, 11; Biard, “Relation, 1616,” 79; Christianson, “Subsistence Strategy,” 105. They may have traded some specialized fish products such as isinglass farther afield.
and used carved stone plummets to hold their nets in place to catch many types of fish. The opening faced downstream in spring and upstream in autumn. Maliseets likely also built stone “flume” weirs above the head of the tide on rivers, as did their Mi’kmaq neighbours. These simple traps appear to be the only obstructions Natives placed in local rivers. There is no evidence Maliseet fishing led to population decline or habitat degradation.42

Maliseets timed when, where, and how they used sites along the Walastakw and its physical features to correspond with available foods, and they positioned settlements to secure access to fish and other important resources. Their large villages and annual meetings were located below Grand Falls, a barrier to spawning fish. They frequently settled near navigation obstacles and tributary mouths, locations that were often excellent fishing spots. Ouigoudi overlooked a narrow passage that acted as a natural bottleneck ideal for spearing fish and accessing shellfish and other seafood. Positioning a fortified town here gave Maliseets control over the largest fish runs in the Northeast. Champlain’s depiction of Etchemins with long spears on the nearby

42 For fish traps, see Denys, Description, 437; Stephen A. Davis, “Pre-Contact Fishing in the Maritimes,” in How Deep is the Ocean?: Historical Essays on Canada’s Atlantic Fishery, ed. James E. Candow and Carol Corbin (Sydney, NS: University College of Cape Breton Press, 1997), 3-14; L. W. Bailey, “On the Relics of the Stone Age in New Brunswick,” Bulletin of the Natural History Society of New Brunswick, no. 6 (1887), 12; and Janet E. Chute, “Mi’kmaq Fishing in the Maritimes: A Historical Overview,” in Earth, Water, Air and Fire: Studies in Canadian Ethnohistory, ed. David T. McNab (Waterloo, ON: Wilfrid Laurier University Press, 1998), 95-113. For a wooden weir complex on the headwaters of the Kennebec that was in use for over 3,000 years (circa 3100 B.C.E – 100 C.E.), see James B. Peterson et al., “An Archaic and Woodland Period Fish Weir Complex in Central Maine,” Archaeology of Eastern North America 22 (1994):197-222. The authors suggest that similar weirs were likely common throughout the Northeast before transatlantic contact, and that Indigenous peoples may have continued to use such weirs after meeting Europeans. See 217. See also David Sanger, Pre-European Dawnland: Archaeology of the Maritime Peninsula, New England and the Maritime Provinces: Connections and Comparisons, ed. Stephen J. Hornsby and John G. Reid, (Kingston: McGill-Queen’s University Press, 2005), 21.
shoreline was no mere artistic flourish, nor was it coincidence Lescarbot ate fresh salmon there.43

The River’s Banks

Maliseets focused settlement, subsistence, and commercial activities on the Walastakw’s shores to take advantage of its transportation, fish, animal habitat, and fertile soils. They used many of the plants that grew along the banks of the large and small waterways in the Walastakw watershed for food, medicine, and building materials during the period of study. Maliseets had been altering the composition of plants on the riverbank for centuries and even introduced new desirable species such as groundnuts and Jerusalem artichoke to the fertile shores of the watershed. They also burned and cut portions of the river’s forested bank before hoeing and mounding small tracts of lush interval land for cultivation.

Maliseets spent most warm seasons living in big villages on the banks of the main stream of the Walastakw in the 17th century. They gathered food from the waterway’s shores year-round, but there were far more plants available between spring fiddleheads and late-autumn high bush cranberries than in frozen winter forests. Early European records of Walastakw observed that many Maliseets hunted throughout winters in the mountainous northern tributaries of the Walastakw before descending to the gentle hills, intervals, islands, and meadows of the middle and lower reaches of the main stream after the river thawed. In these fecund niches, they

gathered wild foods, cultivated desirable plants, fished, and traded. Large groups of Maliseets could only gather when and where food was available, such as during maize harvests, wild fruit ripening times, or fish runs. Seasonal fluctuations in the watershed’s carrying capacity encouraged them to disperse between times of abundance. While winter dispersal lasted months, Maliseets usually only dispersed for short periods in summer as there was more to eat in and along the Walastakw. The riverside location of villages let residentsinterspace weeks of community life with short trips on the river or to the coast to catch fish, and to gather nuts, roots, and fruits before returning to tend crops.44

By the first centuries of the second millennium C.E., Indigenous peoples were successfully raising maize in Maine, within easy reach of Maliseet trade networks. The crucial early developments in maize domestication occurred in South-Central Mexico more than 6,000 years ago. People there developed the plant into a high-yielding grain that became the basis of large populations and civilizations. From Mexico, maize

cultivation spread throughout North and South America as people adapted the crop to meet new climatic conditions. Scholars have suggested Natives may have also spread Eastern Agricultural Complex cultivated plants like goosefoot, knotweed, and sunflower in tandem with maize, beans, and gourd crops throughout the Northeast. The question of when and how maize moved further north and east to become part of the vegetation of the St. John River Valley and nutritional complex of Maliseets has been a matter of debate.45

Most late-19th and early-20th century scholars thought Maliseet maize cultivation had pre-contact origins. L.W. Bailey, for instance, identified two maize crushers found near Grand Falls as “stone age relics.” More recently, however, scholars have suggested that Maliseet maize cultivation began in the late 17th century when European influence caused them to begin growing maize and other crops. Historical geographer, David Demeritt, for instance, suggested that “the arrival of European colonists, fishermen, fur-traders, and their diseases on the shores of North America . . . transformed the human geography of the Northeast” and encouraged Maliseets and other First Nations to adopt maize cultivation. Using regional climatic zoning and maize’s heat requirements as his guide, Demeritt argued that Native Peoples north of the Kennebec River did not cultivate maize before 1689 as cool

weather during the Little Ice Age made it an unattractive option. His analysis built on earlier claims that Maliseets and Mi’kmaq avoided growing crops before European contact because they found hunting a more reliable subsistence strategy given their homelands’ marginal soils and climate.\(^{46}\)

Conceptualizing Maliseet cultivation as a response to European missionaries, traders, soldiers, and pathogens cast Europeans as the central players in a key shift in the human ecology of the Walastakw. There are two problems with this conceptualization: it is historically inaccurate and it obscures the profile of Indigenous peoples in a centuries-long process of adapting plants, as well as cultivation and harvesting practices, to the diverse soils and climate of the region. There is considerable evidence that maize cultivation in the Walastakw watershed began as part of a broad pattern of Native horticultural innovation and adaptation before Europeans visited the region.\(^{47}\)

Our knowledge of early Maliseet history is, in significant part, reliant on accounts of European visitors. Although Europeans had recorded meeting the


inhabitants of the Walastakw in 1603, European knowledge of the river and its people remained piecemeal until much later in the century. Initial European observations of Maliseets and the vegetation on the Walastakw were limited in many ways. The explorers and colonists who came to Acadia initially focused on the coasts and estuaries, as these were places they could easily explore and supply with sailing ships. They had little opportunity to observe the biomes and labour practices that Indigenous peoples used to survive in warmer and more fertile interior regions, such as the Walastakw Valley. There were few accounts of the interior river until the 1680s, and no description of Meductic during cultivation season until 1689.48

All of the major 17th-century accounts of the Walastakw and its inhabitants were written by men. Not surprisingly, they primarily wrote about male activities such as hunting. Modern scholars, thus, have few descriptions of women’s labour on the Walastakw to inform their understanding of the Maliseet economy. Although both Northeastern Indigenous men and women sometimes worked together preparing maize fields for planting, women did most of the plant tending and harvesting work, and observations of these activities by Europeans were rare. Scholars such as McFeat and Pryor who have asserted that Maliseet and Mi’kmaq avoided agriculture because it was easier to rely on hunting in the marginal soils and climate of their homelands embody a big game/male labour bias that overshadows the importance of fish, plants, and women’s work in Native diets. Moreover, most European observers lacked the

cultural and botanical knowledge necessary to understand Maliseet resource use and
to recognize many of the plants they managed.49

The best documented Maliseet agricultural site along the Walastakw was a field
next to the large palisaded village of Meductic, on the river’s middle reaches over 150
kilometres from its mouth. The village was on a mile long intervale that was up to 800
feet wide on the west bank of the river, several kilometers downstream from the rocky
mouth of the Eel River, and a short distance above a large rapid. The intervale was
located at the end of an extensive system of portages that enabled people to move
between the Kennebec and the Walastakw without having to take a longer and more
treacherous route across coastal waters. As the last several kilometers of the Eel River
were usually unnavigable, Natives made a portage trail to move between its deeper
interior waters and a good place to camp on the Walastakw, the Meductic intervale. In
August 1689, New England captive John Gyles recalled seeing “a large Interval-Corn-
Field” near the Meductic fort after an arduous journey over the portage system. Prior
to his captivity, Gyles had worked in farmed fields near Pemaquid Falls, a Native fishing
site recently colonized by English settlers in what is now southern Maine. He
characterized the cultivated land outside of Meductic as a “large” field, suggesting that

49 See David D. Smits, “The ‘Squaw Drudge’: A Prime Index of Savagism” in Native Women’s History in
Eastern North America before 1900: A Guide to Research and Writing ed., Rebecca Kugel and Lucy
Eldersveld Murphy (Lincoln, NE: University of Nebraska Press, 2007), 27-48; Merchant, Ecological
Revolutions, 81. For a study that excludes Maliseet women’s cultivation work, see Montague
Chamberlain, “Primitive Life of the Wapanaki Women,” Acadiensis 2, no. 2 (April 1902): 75-86. See also
Leah Wherry, “Wabanaki Women Religious Practitioners” (Masters Thesis, University of New Brunswick,
2003), 78-9; Pryor, “Adoption of Agriculture,” 890. Archaeological and ethnographic evidence often
come from locations that just reflect part of a seasonal round, and thus only allow for the accurate
reconstruction of the lives of particular peoples at particular places. See Whitlam, “Coastal Adaptation,”
109-24, and 116. While Champlain’s label “a people of no fixed abode” came to characterize Etchemin
and Souriquois, other sources suggest more consistent residency patterns in the region. See Champlain,
it was an established cultivation site and not a haphazard experiment.\textsuperscript{50} The French explorer sieur de Cadillac provided a description of agriculture at Meductic, as well.

Writing three years after Gyles first saw Meductic, Cadillac noted that its inhabitants “clear the land and every year make fine fields of Indian corn, beans, kidney beans and pumpkins (\textit{citrouilles}).” He also described its inhabitants as “pretty warlike . . . well built and good hunters” as well. Cadillac’s use of the plural “fields” suggests Maliseets cultivated multiple fields either on the same interval or spread out along the Walastakw. In 1745, William Pote, who like Gyles wrote from the perspective of a European settler held captive by Native peoples, noted that Maliseets farmed multiple stretches of the riverbank. While paddling to Meductic from Aukpaque, Pote who was a trained surveyor, noted “Several Small Spots Clear\textsuperscript{d} land, where ye Indians had improved and planted Corn and beans &c.” He also observed that Native travellers on this stretch of the Walastakw relied on riverside root gardens.\textsuperscript{51}

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\begin{itemize}
\item \textsuperscript{50} Gyles, \textit{Memoirs}, 6 and 14; John Adams Vinton, \textit{Thomas Gyles and his Neighbours, 1669-1689: or the Settlement of the Lower Kennebec} (Boston: David Clapp & Son, 1867); Caywood, \textit{Excavations}, 9, 19, and 24; and Nick Smith, “Historian Nick Smith’s Comment on the Meductic ‘Removal,’” \textit{Wulustuk Times}, Dec 2011, 8. The Mactaquac Dam’s flooding of Meductic prevents new excavations. This is unfortunate as previous surveys occurred before archaeologists could identify starch grains; see John P. Hart, “Introduction,” \textit{Northeast Paleoethnobotany} II, 2.
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The choice of planting sites reflected Maliseet’s awareness of the risk of raids along the river as well as their understanding of soil fertility. They planted nutrient-rich interior intervals and islands that were isolated from coastal invasions launched by the Armouchiquois and other hostile Natives. The closest fields to the Walastakw known to Europeans during the early 17th century were far up the Kennebec River. These fields were spatially and climatically close to Meductic. They were also removed from the coast and estuaries frequented by European fishermen, traders, and mapmakers, and away from coastal fog as well. After noting that the Kennebec’s rocky and fogbound mouth was dangerous to navigate, Champlain observed that there was “very little cultivable land . . . The people live like those near our settlement; and they informed us that the Indians who cultivated Indian corn, lived far inland, and had ceased to grow it on the coasts on account of the war they used to wage with others who came and seize it.” It appears that Kennebec farmers relocated their crops from the coast to an interior river to protect an important and exposed food source from sea-based raiding.52

Had Europeans spent more time on the river’s warm and fertile middle reaches, they may have found fields on the Walastakw similar to those on the Kennebec in the early 17th century. While French explorers claimed to have sailed up the Walastakw to its headwaters in the summer of 1608, written accounts of this trip are brief and second hand. These records do not mention the presence (or absence) of crops or

people. Moreover, the lack of description of physical features such as Grand Falls in these accounts makes it difficult to discern if the explorers followed the main stream of the upper St. John or one of its long tributaries such as the Tobique or Aroostook. Colonists did not describe the interior of the Walastakw in detail until the 1680s.  

Although Champlain visited the Walastakw several times in the early 17th century, he never sailed far above the rapids at the mouth of the river known as Reversing Falls. His accounts of the Walastakw above its mouth are brief and second hand. Lawyer-poet Marc Lescarbot’s 1607 description of Ouïgoudi, the Etchemin “town” at the river’s mouth, is based on observations made across a few days. Several years later the Jesuit priest, Pierre Biard described a short trip to the lower Walastakw and provided a brief account of a fellow Jesuit, Énemond Massé overwintering with Membertou’s son, whom Maliseets permitted to sojourn there. The scattered records from Charles de la Tour’s trading post at the river’s mouth in the during 1630s and 1640s say little of interior flora or Native plant use. French merchant, Nicolas Denys, wrote about the river in 1672, but his descriptions were mostly concerned with the stretch of waterway near the coast. Vicar General Saint-Vallier canoed down the Walastakw in the spring of 1686. He spent one night at Meductic, but did not comment on Maliseet subsistence or the vegetation near the village. However, when Cadillac described this village during the 1692 growing season, he noted maize and other crops. Governor Villebon’s writings also sporadically mention that Maliseets farmed crops at this village in the 1690s. However, the first detailed record of

Meductic, or any other Maliseet settlement, comes from the memoirs of John Gyles who lived, fished, and farmed with Maliseets while held captive by them between 1689 and 1695.\(^{54}\)

The seasonality of European observations of Meductic and the crops that Maliseets raised impaired European observers’ ability to discern evidence of cultivation. Champlain wrote that the planting season began in mid-May on rivers to the south of the Walastakw. Maliseets typically planted a little later at Meductic, where hard frosts and snow sometimes blanketed the ground as late as May 25\(^{th}\). Maliseet and Kennebec warriors waited for late-May before leaving their fields for raids. Given the timing of planting, the earliest recorded European visitors to Meductic arrived too early to see crops.\(^{55}\)

Scholars have not factored in the seasonality of European visits into their analysis of European descriptions of Walastakw’s interior, and have misinterpreted details of the historic record in their appraisals of pre-1689 Maliseet human ecology. Anthropologist Harald Prins, for instance, cited the failure of New France’s Intendant, Jacques de Meulles and Vicar General, Saint-Vallier, to see crops at Meductic in 1686 as

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\(^{55}\) Champlain, The Works, vol. 1, 101-2 and 450; P.A. Dzikowski et al., The Climate for Agriculture in Atlantic Canada, Agriculture Canada Publication no. ACA 84-2-500, Agdex no. 070 (Fredericton, NB: Atlantic Advisory Committee on Agriculture, 1984), 16 and map 9. For late frost, see Tibierge, “Report on Acadia, October 4\(^{th}\) 1695 to October 27\(^{th}\) 1696,” in Acadia, 150. For May 25\(^{th}\) and raids, see M. de Villeau, “Account of a Journey Made by M. de Villieu,” in Webster, Acadia, 54 and 58; Villebon, “Journal of What has Happened in Acadia from October 13\(^{th}\), 1691 to October 25\(^{th}\), 1692,” in Webster, Acadia, 37; and Leonard, “Mi’kmaq Culture,” 179-80.
proof that Maliseets did not yet practice cultivation. However, a misinterpretation of the intendant’s itinerary informed this argument. De Meulles likely never travelled far above Reversing Falls during his three-day visit to the Walastākw in early May and he certainly did not have time to make a return trip to Meductic during freshet season. Prins confused de Meulles with a French courier who tried to return to Quebec via the Walastākw in the fall of 1685. Stormy weather forced the courier to winter with French settlers on the Walastākw’s estuary. The messenger continued his trip upstream in late-April and passed Meductic before planting began. Saint-Vallier met the courier near Grand Falls before arriving at Meductic on May 18th. As this date also usually predated planting season, it is not surprising that the vicar general did not comment on crops during a cool spring. Moreover, while Saint-Vallier described Meductic as an established settlement, he did not discuss the local landscape or Maliseet subsistence activities. When the village entered the historic record during cultivation season in 1689, Gyles noted a developed horticultural complex. The seasonality of rivers and crops, as well as the timing and duration of European visits, has limited our understanding of Maliseet interior human ecology before 1689.56

Maliseet practices modified the banks of the Walastākw, transforming stretches of it into landscapes that supported edible and healing plants, long before colonists’ axes and plows arrived. Maliseets collected, hewed, and burnt wood, killed animals, and managed groundnuts, and tobacco. As well, they harvested sweet grass, wild rice, and

56 See Prins, “Cornfields,” 60 and 56-7; “Account of the Voyage of Monsieur de Meulles to Acadia Oct. 11, 1685-July 6, 1686,” in Acadia Nova (1598-1779): New and unpublished documents and other data relating to Acadia, vol. 1, ed. and trans. William I. Morse (London: Bernard Quaritch, Ltd., 1935), 91-124; for bad frosts six or seven months after October 31st, see 97 and 106. See also Saint-Vallier, Estat present, 32.
fruits, fiddleheads, and medicinal plants in some of the same meadows and intervales that later nourished colonial farming. Cadillac wrote that Maliseets “cleared the land.” Gyles observed many stumps around Meductic’s field, suggesting that villagers removed numerous trees from the site. Maliseet and their captives carefully weeded the Meductic field site, favouring annual crops over wild flora. Their labour changed the riverbank’s appearance and affected erosion patterns and habitat at planting sites. The hoeing and mounding that characterized Maliseet cultivation practices, however, only lightly disturbed the soil, and only slightly increased erosion. While maize, beans, and pumpkin cultivation reshaped some of the main stream’s bank, these crops were not the only plants Maliseets tended on the Walastakw.57

Maliseets cultivated many plants not typically noticed by Europeans, including large numbers of Jerusalem artichokes they introduced and tended along the river. Offspring of this small sunflower plant that had been part of Maliseet riverside gardens are still growing near former campsites and villages. Scientists also believe Maliseets and Mi’kmaq introduced groundnuts along the Walastakw and other travel routes. They chose a sexually sterile strain of this plant that relies on people and river freshets to spread its tubers to propagate. Human harvesting helps groundnuts become

established by loosening and aerating soil. The decision of Indigenous peoples to introduce sterile groundnuts rather than fertile ones raises the possibility that Mi’kmaq and Maliseets may have begun to alter the physiology of this plant in ways that made it dependent on humans. Gyles’s experiences in the autumn of 1689 highlight the significance of these plants to Native diets. Gyles noted that he moved upriver with his captors to the mouth of the Meduxnekeag River so that they might live “upon Fish, Wild-Grapes, Roots &c. which was hard Living to me.” Both groundnuts and Jerusalem artichokes grow well in cool climates, and frost improves their taste.58

The presence of Native root and fruit gardens at former village sites further suggests Maliseets altered the places they frequented with an array of plants. Abandoned settlement locations such as the Shiketehawk site in Bristol contain an incredible diversity of edible and medicinal plants such as wild ginger, black raspberry, bloodroot, and groundnut. Such a rich density of edible and healing plants do not typically grow together on the river’s middle reaches outside of former Maliseet gardens. Ethnobotanists have classified similar edible managed landscapes on the West Coast of North American, “root gardens” and “cultural keystone places.”

Moreover, cucurbit’s (squash and pumpkins) 5,500 year-old presence in Maine, beans’ compatibility with short growing seasons, as well as evidence of plum and tuber

management suggest forms of cultivation were possible and probable on the
Walastêkw without maize, European colonists, or warmer temperatures. Maliseets’
diverse and creative pre-contact plant use fits patterns noted by ethnobotanists in
locales such as British Columbia and Amazonia.59

Maliseet experience managing many different species of plants highlights their
detailed and adaptive botanical knowledge as well as their understanding of flooding
patterns, soil conditions, and plant growth. Some scholars have claimed that Maliseet
and their neighbours did not think “much about soil types, frost frequency, or the
other settlement criteria required for successful cultivation” prior to the colonial era.
The diverse plant management traditions of the Indigenous peoples of the region and
the long tenure of Maliseets at Meductic and other cultivation sites suggests
otherwise. Maliseet moon calendars on the middle reaches of the Walastêkw, for
instance, named the eighth moon after winter solstice, “Accihtewi-kisohs Eighth Moon,
Ripening Moon,” an indication Maliseets closely observed the growth cycle of edible
plants. They also correlated salmon fishing with changes in seasonal flora such as the
fall of autumn leaves. Meductic’s fields emerged from earlier Native plant

59 See John P. Hart, “Evolving the Three Sisters: The Changing Histories of Maize, Bean, and Squash in
New York and the Greater Northeast,” in Northeast Paleoethnobotany II, 89-90; Nancy Asch Sidell and
James B. Peterson, “Mid-Holocene Evidence of Cucurbita Sp. from Central Maine,” American Antiquity
61, no. 4 (1996): 685-98. Scholars are unsure if this Cucurbita was cultivated for subsistence or as a
bottle gourd (container). For more on the domestication and cultivation of gourds, see Cindy Ott,
Pumpkin: the curious history of an American Icon (Seattle: University of Washington Press, 2012). For
beans, see N.K. Fageria and A. B. Santos “Yield Physiology of Dry Bean,” Journal of Plant Nutrition vol. 31
(2008): 983-1004. The authors’ surveys of the Shiketehawk site and other former settlements inform
this analysis. For root gardens and keystone places, see Turner, Ancient Pathways, vol. 2, 210; Nancy J.
Turner, Douglas Deur, and Dana Lepofsky, “Plant Management Systems of British Columbia’s First
Peoples,” BC Studies, no. 179 (Autumn 2013): 122. For Amazonia, see Fikret Berkes, Sacred Ecology, 2nd
ed. (New York: Routledge, 2008), 73-81. For more on cultivation without maize see Leonard, “Woodland
or Ceramic,” Leonard, Mi’kmaq Culture.
management traditions; they were not the product of a sudden revolution in human ecology.⁶⁰

Maliseets likely learned about maize cultivation when the plant spread into the greater Northeast early in the second millennium C.E. if not sooner. They have an oral tradition on the origin of maize that highlights the kinship between Maliseets (especially women) and that plant. The tradition explains that a dying Maliseet woman, Sakamaskwehsis, instructed her husband to cut the second growth forest around their wigwam and

“drag me seven times around this clearing” . . . After he had felled all the trees and burned them, the clearing was dotted with charred stumps . . . after he had dragged her . . . there was nothing left of her but her skeleton—all the rest had been torn off by the stumps . . . He left his wigwam and that part of the country at once . . . It was in the spring when he left; but when the autumn came . . . he returned. The place was no longer black with charred stumps; it was beautiful with the yellow waving corn. The yellow tassels reminded him of his wife’s golden hair. Then he thought of her words, “If you want to have me with you always, do as I tell you.”⁶¹

Like other Indigenous peoples, Maliseets understood and related to the living entities of their homeland as kin. Similar Maliseet oral traditions speak of kinship ties with medicinal roots and useful trees. Moreover, many Maliseets shared the names of local animals and fostered close relationships with the living beings they harvested, hunted,

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and in some cases, avoided killing. To Maliseets, maize was the most recently adopted sibling of the three sisters’ of beans, maize, and pumpkins/squash, and it was an offspring of indigenous rather than European origins. Maliseet integration of maize into their kinship ecology with living plants differs from European perceptions that highlight the difference between “wild” species and the “domesticated” species that are part of agriculture. As well, although not definitive, it provides yet more evidence suggesting that maize entered Maliseet foodways as part of the spread of Indigenous cultivation traditions.62

The food plants that Europeans noted and documented were limited by their preconceptions, the scope of their botanical knowledge, Native secrecy, and the barriers separating European male recorders from Native women’s knowledge. The limitations of historic records, in turn, have narrowed scholarly discussions of Native cultivation to maize and other crops that interested Europeans. Although a few colonists noted groundnuts and Jerusalem artichokes (and adopted the latter), these plants were exceptions amongst the many species excluded from colonial diets, commodity networks, and descriptions. While the French botanist sieur de Dièreville praised the richness of Maliseet and Mi’kmaq plant knowledge in his 1699-1700 survey of Acadia, he only recorded small portions of it and understood even less. For instance, Dièreville recounted a story of a Maliseet woman who cured a soldier of epileptic seizures with a root, but failed to identify the plant or healer. Some mid 16th-

62 Terms such as horticulture, farming, and husbandry derive from European traditions, and do not fully reflect how Maliseets understood their relationship to maize and other plants. For kin-centric ecology, see Turner, Ancient Pathways, vol. 2, 144, 300, and 310-14. For oral traditions fostering proper behaviour toward kin them, see 376-7; Morrison, Solidarity of Kin; Mathilda Sappier, “Flagroot,” in Tales from Maliseet Country, 2-9; Speck and Hadlock, “Tribal Boundaries,” 364.
century European botanists even ascribed maize’s origins to Turkey rather than the Americas. Less botanically inclined colonists faced even greater obstacles in understanding Native ecologies.⁶³

Maliseets had lived at Meductic and other riverside locations for thousands of years and their deep knowledge of riverine environments informed their cultivation and strategies for adapting new foods. They were intimately familiar with the river’s flood regimes and soil conditions. The intervale land at Meductic was the product of centuries of upstream erosion and soil accumulation. Freshets spread nutrient-rich debris across the lowland at Meductic and other intervales each spring. While maize farmers in Huronia and elsewhere had to relocate and clear new fields every several years to ensure their crops had fertile soil, Maliseets saved time and labour by farming the same intervale for generations. The fields of these “mobile farmers” were more firmly rooted in place than the planting sites of their more sedentary counterparts elsewhere in eastern North America. Rainfall along the Walastakw was sufficient to permit maize farming without modifying the watershed for irrigation. Careful site selection, chosen with excellent knowledge of spring freshet patterns allowed

Maliseets to maintain crops, homes, and fortifications at the same site for decades with little or no manipulation of river water.⁶⁴

Meductic was an outstanding rather than a marginal maize cultivation site. Meductic’s fields were on an elevated ridge surrounded by lower interval land. This topography helped mitigate frost by channeling cold air downslope away from the tender roots and shoots of crops. The fields’ southern aspect also increased the sunshine that the plants received. Moreover, this slope enabled Maliseets to establish fields that periodically received fertilizing floodwaters in close proximity to a more elevated village that remained dry. Thus, their careful site selection helped them position and maintain crops, homes, and fortifications on the same intervale without risking damage or needing to enact flood control practices. As the evidence from the Walastakw demonstrates, scholarly claims that poor soils, bad drainage, and a difficult climate dissuaded Maliseets from farming fail to discern the opportunities that were available to those capable of combining intimate local knowledge of soils and topography with the Walastakw’s diverse microclimates.

The fields at Meductic were more than 150 kilometers inland from the cool foggy climate and rocky coast. Between Grand Lake and a point a few dozen kilometres above Meductic, the Walastakw itself helps to warm the adjacent land by functioning as a heat sink that stores solar heat during hot summer days. This locally stored heat moderates the effects of cool nighttime temperatures and insulates

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⁶⁴ See Caywood, Excavations, 10; Clarke, Someone before Us, 42-3, and 48. For Northeastern cultivators as mobile farmers, see Chilton, “So Little Maize,” 54 and 57. See also Crawford, “People and Plant Interactions,” 431-48; Heidenreich, Huronia, 130.
riverside crops from the onset of fall frosts for a few weeks and sometimes longer. The warm riparian microclimate is crucial for the survival of heat-loving crops such as maize, in a context where summers are short and the risk of late spring and early autumn frosts are high. Modern climate mapping indicates that Maliseets chose to raise maize along the stretch of the Walastakw that has the most degree growing days in present day New Brunswick. Indeed, it is one of the few locations in the Maritimes with a proper mix of soil and heat for maize cultivation.65

During the Little Ice Age when Maliseets grew maize at Meductic, the merits of the site and microclimate were of particular value. Cool and variable weather during this era posed challenges for Native and European agriculturalists across the Northern Hemisphere. According to some scholars, Mi’kmaq responded to this cooling by abandoning maize farming and focusing on trade, fishing, gathering, and hunting. This adaption fits a pattern researchers have noted elsewhere in northern latitudes. Neutral Iroquois responded to colder growing conditions by eating less maize and beans and more deer. In Manitoba, Natives stopped planting, but retained knowledge of farming and their place on the land. The Norse failure to adapt agricultural practices to a changing climate appears to have been a major factor in the demise of their

Greenland settlements. Maliseet maize cultivation followed a different pattern during the Little Ice Age; Maliseets adapted maize farming to their niche and needs. European accounts of maize cultivation at Meductic first appeared during the Maunder Minimum, a decades-long period of decreased solar radiation that resulted in one of the coldest eras during the Little Ice Age. Obviously, if Maliseets could raise maize successfully in this period of extreme cold, they could more easily do so in earlier (warmer) periods.\textsuperscript{66}

Meductic residents understood the labour suited to each stage of maize’s growth cycle. Gyles recalled helping Maliseets with planting, weeding, and “hilling” throughout the summer. These activities amplified growth and yield by giving cultivated plants more light and stronger root systems. Mounding also created a warmer microclimate by elevating plants above frost hollows and increasing the surface area of soil reached by sunlight. On chilly spring nights, this provided a degree of protection from frost, while during the summer it elevated the heat that roots received and enhanced plant growth. The fact that Meductic Maliseets kept planting maize in the 1690s and early 18th century without experiencing crop losses suggests

killing frosts were uncommon. Maliseet cultivation and harvesting tactics were important factors in the success of their agricultural complex during the coldest decades of the Little Ice Age.67

One of the keys to Maliseet success in maize farming was their use of types of maize that ripened early or they could harvest before the crop ripened. Maize does not need to come to maturity to be nutritious or delicious. In northern North America, Native peoples developed maize varieties with features adapted to thrive in cool weather and short growing seasons. These adaptations included maize with small stalks and cobs that ripened early. Maliseets and other northern Indigenous peoples cultivated strains such as those now known as Canadian White Flint Corn, Tuscarora Corn, White Flint Corn, and Early Sweet Corn, all of which Natives could use before they ripened. Settlers’ failure to adopt many of these varieties until the late 18th century may account for Gyles’ differentiation of Meductic’s “Indian corn” from his father’s “English Corn.” Authors of recent studies of Meductic cultivation assume that Maliseets needed maize to mature in order for it to be useful, and in so doing have missed a critical component of Native harvesting practices and climatic adaption on the Walastakw.68

68 Frederica R. Dimmick, “Creative Farmers of the Northeast: A New View of Indian Maize Horticulture,” North American Archaeologist vol. 15, no. 3 (1994): 235-52. For northern strains, see Bement, “History of Indian Corn,” 332-6, 340, and 350-1. For ripe harvests, see Prins, “Cornfields,” 64. For maturity bias and assumption settlers and Natives planted similar maize, see Demeritt, “Agriculture,” 189-90. See also Fitzgerald, “Contact, Neutral Iroquoian Transformation.” Gyles may have also used “English Corn” for wheat, see Gyles, Memoirs, 31 and 2.
When Maliseets harvested some of the maize early as “Green Corn” or “Milk Corn,” they feasted immediately on part of this early harvest. They boiled the rest of the early harvest in kettles, stripped it from cobs with clamshells, and then stored it. Meductic farmers harvested their remaining maize as it matured and oral traditions record that Maliseets made a soup from mature stone ground flint corn. Gyles kept a rough count of the days between his capture and arrival at Meductic. He noted that Maliseets “champ’d [chewed] corn stalks” when he arrived on 22 August 1689. Moreover, he recalled that his captor’s family “laid down a Bag of Corn” when he was presented to the village, an indication that he was being adopted into a family and to ensure his protection from abuse. These observations suggest Maliseets had gathered at least a portion of their maize by then and were deriving nutrition from maize stalks as well as seeds. Gyles worked in Maliseet fields in later years, observing that harvesting began when “Corn was fill’d with the Milk: Some of which we dried then, and other as it ripened. And when we had gathered our Corn and dried it, we put some into Indian Barns, i.e. in Holes in the Ground lip’d & cover’d with Bark, and then with Dirt.” Gyles noted the processed green maize could “keep Years; and boil’d again it swells as large, and tastes incomparably sweeter than other corn.” Maliseets carried some of their processed maize upstream for winter provisions on remote reaches. The multiple harvests Gyles described diffused labour demands, maximized the time maize was useful, increased its nutritional value, and reduced crop losses to early frosts.
Moreover, the intricate processing, transport, and storage practices indicate a long established tradition of maize cultivation and use.\(^6^9\)

Maliseets’ careful selection of short season maize strains, excellent planting sites, staggered harvesting, and elaborate storage practices at Meductic, fits with broader patterns of maize use in the Americas. Maliseet choices reflect the creativity and adaptation that characterized how Indigenous peoples adapted maize to diverse climates. In 1591, Spanish doctor, Juan de Cárdenas, observed early green corn harvesting in Mexico and claimed that it gave maize an advantage over other cultivated grains. In Huronia, Recollet lay brother, Gabriel Sagard, wrote in 1632 that Hurons consumed maize at several points in its lifecycle, including while it was green. English naturalist John Josselyn observed that in New England during the mid 17\(^{th}\) century, Natives ate parched immature maize and made a beverage from its green corn stalks as other peoples did with sugar cane. Similarly, Joseph Lafitau commented in 1724 that immature milk corn, mature corn, and rotten ‘stinking corn’ were distinct Native dishes in Canada. He found milk corn “agreeable to the taste.” Moreover, farmers adopted early maize harvesting and processing in parts of the world such as Thailand, Indonesia, and Africa to embed a new food into local climates and cultures. Maliseet early harvesting is a local example of the wide range of adaptations that characterized

the continental diffusion of maize northward and Native peoples’ resilience to climate change, adaptations that would also characterize its global diffusion.70

Maliseet maize harvesting and storage practices clearly reflected Indigenous traditions. Meductic maize growers used clamshells rather than iron knives to cut the maize from cobs, and “Indian barns” insulated with birch bark to store it. These practices closely resembled Native agriculture further south, but bore little similarity to the clergy-controlled maize storage and distribution model that the French missionary Louis-Pierre Thury instituted on the Miramichi during the 1680s. Thury had the Mi’kmaq keep their maize in a community storehouse from which he doled out rations at intervals. Saint-Vallier noted that

Il les a engagé à défricher la terre dont il set en possession, et à souffrir que les blé de l’Inde qu’on recueillerait chaque année, fussent mix dan un magasin commun, pour être ensuite distribuez par son ordre avec ekonnie aux familles qui auroient travaiillé, en preferant les malades, les veuves et les orphelins, aux personnes saines et aux jeunes gens. Par ce moyen on empêchera d’un côté la fainentise de quelques uns, et de l’autre on remediera au foible qu’ils ont de consumer en peu de semains ou de mois des provisions, que étant bien menagées, suffrirent pour l’année entière.71


71 Saint-Vallier, Estat Présent, 33; Gyles, Memoirs, 11 and 7; “Lettre Du R. P. Ignace de Paris, Capucin Sur L’Acadie,” in Philéas-Frédéric Bourgeois, Les Anciens Missionnaires de l’Acadie devant l’histoire (Shédiac,
These maize consumption practices represented a departure from traditional Mi’kmaw use of tree caches to store surplus food for use in times of serious need during winter. Like many Europeans, Thury thought that Native peoples’ seasonal rounds, involving what William Cronon labeled “Seasons of Want and Plenty,” were unhealthy and were an unproductive use of land and labour. Thury used the stored maize to encourage Miramichi Mi’kmaq to stay in their village during winter and supplement the crop with what fish and game they could find locally.72

The food distribution system that Thury developed stands in stark contrast to the Maliseet system of maize storage and consumption. At Meductic, Maliseets controlled the storage, distribution, and consumption of maize. No record links Maliseet cultivation to Meductic’s missionary, although some Maliseets did visit missions where priests encouraged farming. Gyles commented that maize harvests were a time of frequent feasting, where youths served men a maize, bean, and fish soup, or “hasty-puddin made of pounded Corn.” The village gave each male head of a family a serving proportionate to the size of his family. Unlike in Thury’s system, Maliseet women and children did not eat until the men had finished ingesting as much of the family portion as they chose. Maliseets used dried maize as a transportable food source to supplement winter hunting rather than year round residency at Meductic.

NB: Presses du Moniteur Acadien, 1910), 91-4; and Jean Morain, “of the Mission of the Good Shepherd at Rivière du loup,” in Thwaites, JR, vol. 60, 263-9. Leonard considered the fact that Maliseets used bark to insulate maize caches instead of the grass bags Abenaquis used to protect maize in caches, to counter Prins’ suggestion that Meductic cultivation originated from Abenaquis refugees, see Leonard, “Mi’kmaq Culture,” 181; Prins, “Cornfields at Meductic.” Gyles noted Maliseets stored maize in bags, but did not clarify if they put these in caches, see Gyles, Memoirs, 5 and 8.
They continued their traditional pattern of feasting and fasting. A male member of the feast always sang a Maliseet “feast-song,” not Christian prayers, after the men had finished their soup.73

The patterns of Maliseet cultivation on the Walastakw suggest the need to broaden the parameters of scholarly thinking about how Indigenous people in the Northeast adapted crops to regional circumstances. Previous analyses of Maliseet farming have not adequately considered microclimatic conditions and Native cultivation practices. Maliseets farmed successfully during the height of the Little Ice Age by combining intimate knowledge of the local environment with plant management experience gleaned over centuries of tending edible and medicinal plants. With this knowledge, they successfully grew maize despite the challenges posed by cool weather and a short growing season. Maliseet farmers cultivated maize on the warmest stretches of the Walastakw’s bank in fields with a favourable mixture of soil fertility and warmth. Their use of cold hardy maize varieties and early harvesting practices helped them to overcome climatic limitations at a time when other northern peoples abandoned cultivation altogether.

De Monts told Penobscot Etchemins that the French wished to settle, bring peace, and improve their lives by teaching them to cultivate. Etchemins, however, already knew about agriculture and made choices regarding its adoption. Chkoudun’s trading ventures suggest Maliseets were eating maize on the Walastakw long before the 1680s. The crop’s importance in Native trade networks may have encouraged

them to plant it, especially before transatlantic trading shifted economic power away from peoples who lived in warmer climes that were conducive to agriculture and wampum shells, to Indigenous peoples who lived closer to northern fur and cod habitats. Failures to find crops on the river earlier may better reflect the lack of recorded upstream explorations than cultivation’s historic range.74

The Meductic maize fields that Europeans observed in the 1680s appear to be a well-adapted Indigenous cultivation tradition and not a new addition to Native life along the river. Native peoples developed maize varieties and harvesting techniques suitable to cool growing conditions long before Europeans visited the Americas. Maliseets adopted these Indigenous innovations and used their detailed knowledge of the soils, flood patterns, and microclimates of the Walastakw to cultivate maize before Europeans made records of their planting sites. European failure to notice maize, or other crops, on the Walastakw before 1689 is a reflection of the limitations of European observations; it is not evidence of the absence of maize cultivation. There were no rigid environmental or cultural barriers to Maliseet maize farming. Although climatic change may have tipped the scales against maize cultivation during the Little

74 Champlain, The Works, vol. 1, 295-6; Dimmick, “Creative Farmers,” 248. Dimmick noted the benefits of trading maize among peoples who cultivated it, rather than assuming exchanges were only between peoples who cultivated maize with peoples who did not grow it. Interregional specialization in seed stock as well as harvesting and processing techniques may have encouraged many types of maize exchanges. See also Howard S. Russell, A Long Deep Furrow: Three Centuries of Farming in New England (Hanover, NH: University Press of New England, 1976), 6. Archaeologists have not identified records of pre 17th century maize on the river, and the flooding of Meductic and other prime cultivation sites by Mactaquac Dam makes new excavations impossible.
Ice Age, Maliseets’ extensive horticultural skills and nuanced local environmental knowledge tipped them back.\textsuperscript{75}

Maliseets cleared more forest for palisades, wigwams, and firewood than they did for their intervale fields during the period of study. As they could only move wood by carrying or hauling it by hand over land or floating it in water, most of the large pieces of wood that Maliseets used came from close by their villages. Field and village clearings required opening wide stands of trees of diverse ages and species. Other Maliseet wood use targeted trees of specific size and species and did not entail extensive clearing. They used full-length immature trees to frame wigwams and suspend carcasses over fires. Maliseets also used large pieces of bark, branches, seeds, and roots and fashioned products such as maple bows, cedar arrows, beech snowshoes and spears as well as large strips of white birch bark to make canoe hulls, sails, and wigwam walls. Maliseets also distilled dyes from plants such as alders that they used to produce bright clothing and colourful designs on their canoes. A village of a few hundred residents created significant clearing over a decade. Ouïgoudi, Meductic, and Aukpaque periodically hosted larger numbers of Maliseets and their visiting allies. Natives also harvested small amounts of forest materials (including driftwood) at fishing spots near waterfalls, tributaries, and portages. Maliseets improved their wood technologies over time with innovation and by obtaining information and models from other peoples through friendly and hostile relations. For instance, an oral tradition records that Maliseet switched from cedar plank snowshoes to superior rawhide

\textsuperscript{75} Demeritt introduced the scales analogy in his appraisal of Meductic horticulture. See Demeritt, “Agriculture,” 192.
netted models when hunters slew a war party of enemy Natives at the headwaters of the Allagash River in present day northern Maine, and confiscated their foes’ netted snowshoes.  

Maliseet’s oral tradition of the origin of maize indicates they used fire to help create their initial maize fields from the forest by burning the excess wood they felled and allowing the ashes to enrich the soil. Appreciating their use of fire as a tool for field clearing extends the range of intensively fired landscape further north than Patterson III and Sassaman’s appraisal of Native burning in the Northeast. Richard Judd called fire “the most important land-management tool” of Native New England before trans-Atlantic contact. Appreciating that Maliseets, like their southern neighbours, used this tool, helps us understand the scope and intensity with which they altered the landscape of the watershed to suit their needs. Although there are no surviving European observations of Maliseet forest burning along the Walastakw before the 18th century, that is not surprising given the paucity of written accounts and the difficulty of reconstructing the causes of ancient fires from proxy sources. Maliseets, like their Indigenous neighbours, likely also burned large tracts of forest to create favourable game and berry habitat and make it easier to traverse. Their periodic fires turned the banks of waterways in their homeland into a mosaic of mature stands of sugar maple, beech, butternut, and pines; secondary growth of raspberries, fir, and trembling aspen;

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76 Denys, Description, 406, 419-22; Gyles, Memoirs, 17; Jennings, Bark Canoes, 37; and Jim Paul, “How two Malecites were Captured, and what they did to Escape,” Mechling, Malecite Tales, 115-22.
and other habitats, including the fifteen-to twenty-acre clearing Champlain noted adjacent to a favoured Maliseet fishing hole on the St. Croix.77

Maliseets had turned the watershed into a managed cultural landscape in advance of European contact and colonization. Their more recent adoption of crop cultivation involved them keeping part of the riverbanks perpetually free of trees and competing species in order to support annual domesticated plants that had originated in more southern climes and were imported to the Maliseet homeland individually over many centuries. By the 17th century, Maliseets had begun to think about and use the river as a moderator of climate and conveyor and creator of fertile planting sites.78

The Wəlastəkw was a vital artery in the lifeblood of Maliseet culture and history. In the early 17th century, individual groups of Indigenous people appear to have controlled access to the diverse resources and transportation opportunities that rivers in the Northeast offered. Maliseets controlled the Wəlastəkw and other peoples had to periodically negotiate with them to traverse it and access fish and other resources through an interregional polity system and established protocols. Maliseets had diverse interactions with the waterway and their resource use and economy dispersed geographically from the Bay of Fundy to the upper reaches of the Wəlastəkw and over portages to the St. Lawrence and other waterways.


78 See Gyles, Memoirs; Hurst, Journal of Captain William Pote.
For centuries, Maliseets had lived within an ecological, cultural, and political system that facilitated access to many resources in a variety of ecotones and developed processes that enabled them to adapt to changes in resource access. They altered portions of the riverbanks for their own needs and added new plant species, but their resource use does not seem to have threatened the plants and animals that lived in the watershed, or re-shaped the river’s flow. Maliseet success negotiating with neighbouring peoples such as the Mi’kmaq was so great, and their adoptions to the eco-tones of the watershed and ability to move between these zones and those controlled by other peoples so adept, that it was difficult for them to imagine that such a robust and adaptive system could be disrupted. When Chkoudun invited a small group of hairy men to establish a trading fort in his homeland, some Maliseets were concerned, but few could imagine the ecological and cultural transformation that would take place through increased contact with the Europeans.79

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79 For more on cultural transformations preceding and following transatlantic contact, see the collected works in Mainfort, *Societies in eclipse*. For Indigenous and French perspectives on contact see Ramsay Cook, “Donnacona discovers Europe: Rereading Jacque Cartier’s Voyages,” in *The Voyages of Jacques Cartier* ed. and trans. by H.P. Biggar (Toronto: University of Toronto Press, 1993), ix-xli.
Chapter 2
Maliseet control of a corridor of continental access

In October 15th 1722, the Jesuit priest Sébastien Rale, residing at an Abenaki village on the Kennebec River, wrote to his nephew about a recent exchange among Natives from the Walastəkw, Kennebec, St. Croix, Penobscot, Southern Quebec and New England and British authorities that revealed that these Natives did not consider themselves subjects of anyone.

They asked the English by what right they had thus settled in their territory, and had even constructed forts therein. The answer . . . that the King of France had ceded their country to the King of England—threw them into the greatest alarm; for there is not one savage Tribe that will patiently endure to be regarded as under subjection to any Power whatsoever; it will perhaps call itself an ally, but nothing more. 1

Over more than a century, Maliseets and other Indigenous nations in the region had negotiated with discrete groups of French who wished to live in their homelands. They viewed their association with the French as a negotiated relationship between allies. The idea that the French believed they controlled the territory and could cede it to the British was, as Rale conveyed, little short of outrageous. Never had they made treaty, or even informal surrender, of their lands, waters, and rights. Indeed, their friendship and military strength made French survival possible on the Walastəkw, the Kennebec, and other rivers and bays in the region. Maliseets outnumbered French settlers and could have driven them from the waterway during most of the 17th and 18th centuries;

on occasion they had expelled French colonists who could not live or trade peaceably with them on their terms. The French had little power over the Maliseets beyond negotiation, and negotiations were not always favourable to the French. France, however, as represented by French diplomats at treaty tables, did believe its claim among European contenders could be traded to other European powers. So committed were Maliseets to preserving their claims to the Walastakw that they never negotiated treaties to alienate their lands. By the late 18th century, the influx of thousands of British colonists demographically swamped them and many of the resources they depended upon, but until then they remained the dominant presence on the river, notwithstanding the French among them, new trading practices, frequent war in the Northeast, and the ravages of disease.3

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Indigenous peoples in the Northeast were exchanging trade goods with European visitors in the late 16th century, and it is possible that transatlantic trading had been taking place in the region for nearly a century, if not longer, by this time. In the early 17th century Maliseets and their Indigenous allies used the Walastakw to ferry tens of thousands of furs from remote reaches and neighbouring waters over portages to Tadoussac and to the lower mainstream of the Walastakw after Chkoudun invited the sieur de Monts to set up a trading post in his homeland in 1603. Within a few years, violent conflicts involving Europeans were making Maliseets and Mi’kmaq rethink their geopolitical and economic strategies.4

By the early 17th century, if not sooner, the material goods such as copper kettles and iron knives that Maliseets could obtain from Europeans in exchange for furs had become invaluable within the Northeastern economy. Demand for these items encouraged Indigenous people to trap fur-bearing animals in greater numbers than they had before meeting Europeans and Africans. As a result of the superior quality and availability of the new metals, the lithic quarrying landscapes that had been cultural keystone places within the Northeast for over 12,000 years declined in importance. Places such as Lake Munsungun were no longer as important to Maliseet subsistence.5

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4 For early transatlantic trading, see Whitehead, “Protohistoric Period”; Pastore, “The Sixteenth Century”; and Bourque and Whitehead, “Tarrentines.” The paucity of written sources from this era makes it difficult for scholars to evaluate the frequency of transatlantic trading. It is possible that trading was taking place in earlier decades between Indigenous people and Europeans who did not leave records.

5 For discussion of cooper, see Deal, “Aboriginal Land and Resource Use,” 331. For adoption of iron blades, see Denys, Description, 443 and 113. For Africans on early French voyages to Acadia, see Lescarbot, History, vol. 2, 260.
During the 17th century Maliseets trapped most furs in winter when they were thicker and more valuable than lighter summer pelts. They usually appear to have dispersed from their riverine fishing and cultivation sites in autumn to the small tributaries, ponds, and swamplands that beavers reshaped and frequented. Maliseets also hunted in the hardwood ridges along the Walastakw’s outer tributaries that were the winter browsing grounds of moose. Early Maliseets and Mi’kmaq trading with Europeans typically occurred in Native coastal villages or at other points along the shoreline during the summer when tall ships visited the region, and by 1603 they were also trading at the French trading post at Tadoussac. By the early 17th century Maliseets and Mi’kmaq had become middlemen between Europeans and people further down the coast that were not as frequently visited by the tall ships. Maliseets travelled considerable distances from the Walastakw and traded European goods for thousands of furs from many different peoples. Obtaining furs through barter rather than solely relying on the animals they hunted within their homeland may have saved Maliseets labour and shifted part of the ecological impacts of their early fur trading onto the resource bases of other peoples. Their access to transatlantic tools that saved time and effort, and their control over the largest riverine hinterland of furs in New England and Acadia, as well as extensive contacts with other peoples to the south, gave them a favourable position within the regional economy. Maliseets also benefited from controlling a larger watershed that had colder winter temperatures than many other parts of Acadia or New England.6

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6 For debates on the role of Indigenous people in the fur trade, Calvin Martin, *Keepers of the Game:*
The transatlantic fur economy that developed in the northeast during the late 16th and early 17th centuries appears to have made cold winter weather a favourable climatic feature for Maliseets. The snowshoes and domesticated dogs that they depended on for successful winter hunting worked best in cold winters with deep snow that was not too fluffy or sticky. Moreover, hunters had a far easier time tracking large mammals through malleable snow than on barren ground. Pierre Biard clearly noted that warm winters with too little frozen precipitation or too much soft snow impeded Maliseet and Mi’kmaw subsistence and commercial hunting.

Weather is against them if it rains a great deal and does not freeze, because under such conditions they can hunt neither deer nor beaver. Also, they suffer when it snows a great deal but does not freeze over, because now they cannot put their dogs to the chase because the dogs sink down into the snow. The natives, however, wear snowshoes on their feet which help them to stay on top of the snow but they cannot run as fast as is needed because the snow is too soft.7

Maliseets called fluffy snow that covered animal tracks and frustrated hunters, “Rabbit Snow.” Moreover, their fur trading benefited from mammals developing thick furs in response to cold, while abundant snow helped them to capture moose and caribou.

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The cooler temperatures associated with the Little Ice Age generally produced more favourable winter hunting conditions than later or earlier eras and may have played a role in encouraging Maliseets to increase their focus on winter subsistence and commercial hunting when transatlantic trading intensified. However, there were still years in the 17th century when the winter temperatures were too warm to produce the snow that Maliseet hunting depended upon.\(^8\)

The warm winter that Chkoudun and his band spent at Port Royal in 1605-06 was disastrous for Natives, although it was a boon to French settlers. The mild weather that winter and the next impeded Maliseet and Mi’kmaq hunters and encouraged their participation in food exchanges with the fur traders who had begun overwintering at Port Royal. Chkoudun’s food sharing in the first Port Royal winter probably helped inspire Champlain to develop “The Order of Good Cheer.” The communal food sharing of Port Royal elites embodied aspects of Indigenous feasting and hunting reciprocity and often relied on Mi’kmaq and Maliseet hunters. The Order appears to be as much Maliseets and Mi’kmaq integrating Europeans into their food sharing and mutual aid practices as it does a European invention. That the Natives suffered during the warm winters that French traders preferred reveals contrasting cultural experiences with cold and snow. Associating “severity” with these conditions obscures the fact that warm winters were often harder on Indigenous people than cold ones on the Walastakw and elsewhere in the Northeast. In the context of weather, “severity” relates to a degree

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\(^8\) For more winter adaptations, see Thomas Wickham, “‘Winters Embittered with Hardships’: Severe Cold, Wabanaki Power, and English Adjustments, 1690-1710,” *William and Mary Quarterly* vol. 72, no. 1 (Jan 2015): 57-98.
of harshness or badness that scholars of North America usually associate with cold and snowy environmental conditions. Considering the evidence of Maliseet and Mi’kmaq experiences with winter suggests limiting the term’s use to appropriate cultural, temporal, and geographical circumstances.9

The structure of the Maliseet and Mi’kmaq fur trade began to change a few years after they invited Europeans to set up trading posts in their homelands. In 1606, Chkoudun and Messamouet, a Mi’kmaq sagamore who had lived with the Governor of Bayonne in France a generation earlier, sailed south with colonists to trade with Onemecchin, a sagamore on the Penobscot River. Chkoudun and Messamouet were upset that Onemecchin offered an unsuitable gift of corn, beans, and pumpkins in exchange for their French food and other European trade goods. The bitter feelings that resulted helped provoke Chkoudun and Membertou, a Mi’kmaq ally, to attack Onemecchin and his allies the following year. Chkoudun’s introduction of the French to nations further south may have helped weaken the importance of Maliseet and Mi’kmaq traders. The increase in direct English and French contacts with Indigenous peoples along the coastline of the Northeast after this voyage enabled previously isolated Native peoples to obtain European goods without Maliseet and Mi’kmaq intermediaries. Maliseets and Mi’kmaq subsequently made fewer long distance

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9 Peter Lewis Paul, “Rabbit Snow,” in LeSourd, Tales from Maliseet Country, 8-11; Lescarbot, History, vol. 2, 342-4; and Champlain, The Works, vol. 1, 381-2, and 447-8. For cold and snow resulting in “A severe winter” that “was often the greatest threat to supplies of food resources,” see Margaret Conrad and Alvin Finkel, History of the Canadian Peoples, 5th ed. (Toronto: Pearson Education Canada, 2009, [2002]), 14; Laurel Sefton MacDowell, An Environmental History of Canada (Vancouver: UBC Press, 2012), 17. Histories that treat cold only as an antagonist may fuel a misconception that warmth was always positive to humans, and obscure challenges North Americans faced with mild winters. A more nuanced understanding of historic climatic conditions and human adaptations may help researchers comprehend recent climate change.
trading voyages to the south and began concentrating their fur trading almost solely on the animals that lived within their homelands. Although the 1606 exchange may have led to decreased Mi’kmaq and Maliseet influence in the regional economy, it had little political and military impact on the power structure within the region.\footnote{See Lescarbot, \textit{History}, vol. 2, 324; Bourque and Whitehead, “Tarrentines,” For Native polities shifting between expansionist and self-contained “niche” modes of operation, see Mancke, “Polity Formation,” 393. McFeat’s assertion that trapping encouraged Etchemin to concentrate “on rivers for the first time” and led to an intensified power structure overlooked their earlier focus on the river and similarities between 1603 polity structure and river use with later eras. Chkoudun does not appear to have commanded more authority than sagamores in other eras such as Madockawando in the 1690s or Pierre Tomah in the late-18th century. See McFeat, “Big Men.”}

Native-European fur trading on Walastakw during the 17\textsuperscript{th} century appears to have occurred within an established Indigenous political geography and economic system. Maliseets required the European traders who visited them in the early 17\textsuperscript{th} century to conform to Native economic practices and show them respect. Guests’ behaviour at Tabagies affected how their hosts responded to them. Maliseet considered improper trading conduct an insult worthy of violent retaliation.

Maliseet-Malouin relations soured in 1607 during a trading visit of Lescarbot and sieur de Chevalier’s to Ouïgoudi because the guests did not conform to Maliseet trading etiquette. Maliseets gave their visitors fresh salmon, and they traded flour for worn furs. Chevalier’s stingy haggling, however, irritated Maliseets who disliked ruthless bargaining. Marc Lescarbot claimed they disdained men who

\begin{quote}

bargain for an hour to beat down the price of a beaver-skin; as I saw how at the river St. John . . . they called Chevalier, a young merchant of St. Malo, \textit{Mercanteria}, which is a word of reproach . . . of the Basques . . . seeing the base fashions of some of our men, they demanded sometimes what they came to
\end{quote}
seek in their country, saying that they went not to ours; and that seeing that we are richer than they, we should give them liberally whatever we have.\textsuperscript{11}

Chevalier and Lescarbot’s failure to follow Tabagie protocols and honour their Maliseet hosts, provoked hostility from Ouïgoudi’s residents. In contrast, Champlain and de Monts’ polite behaviour at Tabagies built positive relations.\textsuperscript{12}

The final minutes of Lescarbot’s 1607 visit to Ouïgoudi reveal that at least some Maliseets were willing to use force against disrespectful European visitors. A ptewolon (shaman) approached Lescarbot as he was leaving the village and asked for help defending Ouïgoudi against an impending Armouchiquois attack. When Lescarbot spurned his request, the ptewolon became irate and threatened “that before two years’ time either they must kill all the Normans, or the Normans them. We laughed at him, and told him that we were going to bring our long-boat opposite their fort to put them one and all to the sack. But this we did not do.”\textsuperscript{13}

Suspicion and threats of violence saturated early Maliseet-French relations on the river. Chevalier behaved rudely during trading, and Lescarbot refused to aid the hosts who sheltered and fed him. An influential Maliseet responded by issuing a death sentence on all Normans. As Etchemin distinguished among Malouins, Basque, and Normans (a term they use to refer to French who were not Malouin), the ptewolon’s death sentence may have excluded the two earlier groups, but restricted other French

\textsuperscript{11} Lescarbot, History, vol. 2, 213. Cook drew from part of this passage in his analysis of Native trading etiquette, but he did not comment on Lescarbot’s behaviour or the hostilities that resulted from the exchange, see Peter Cook, “Vivre comme frères: Native-French Alliances in the St. Lawrence Valley, 1535-1667,” (Ph.D. diss. McGill, 2008), 386. For reciprocity, see Biard, “Relation, 1616,” 89.
\textsuperscript{12} Champlain, The Works, vol. 1.
trading on the river. Lescarbot criticized the trading practices of the Malouin, Chevalier, and later blamed another Malouin merchant, Robert Gravé, for souring relations between Port Royal colonists and Maliseets, and influencing Chkoudun to abandon the Christian practices he appeared to be adopting, such as the erection of crosses. However, Lescarbot, a Norman appears, to have provoked a more hostile response from Maliseets than his Malouin peers. Evidently, early-17th century contacts between Maliseet and French were not always harmonious.  

This animosity may have been solely a response to the traders’ rudeness or reflective of broader hostilities. Lescarbot earlier praised Chkoudun for warning settlers of a malicious plot devised by Membertou. That Lescarbot still thought highly of Chkoudun after 1607 suggests that the shaman who issued the death threat may have represented a faction who dissented from his sagamore’s policy toward Normans. Moreover, the fact that Maliseets permitted the 1608 explorers to ply the Walastakw suggests that they considered these particular Europeans allies, or that the ptewolon failed to gain support to sustain hostilities. As French missionaries and colonists strived to diminish the influence of ptewolons, it is not surprising to find Ouïgoudi’s spiritual leader promoting hostility against Normans, while a sagamore-trader welcomed them.  

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14 For positive Native-French relations, see Bailey, Conflict of, 15. For Maliseet categorization of Europeans, see Biard, “Lettre au R.P. Chrstophe Baltazar,” JR, 163. For degrading Port Royal – Maliseet relations, see “Lescarbot” “La Conversion des Sauvages,” JR, vol. 1, 67 and 78-9. Chkoudun may have considered erecting crosses more of an extension of Manitou worship than a new belief system. For more on crosses, see chapter 3.

15 For Chkoudun’s warning, see Lescarbot, History, vol. 2, 355. For Europeans and shamans, see the writings of Biard, Lescarbot, Dièreville and other early observers noted through this study.
In mid August 1629, Scottish colonist Richard Guthrie observed Maliseets from the Walastakw open diplomatic and trade relations with the Scottish colony at Annapolis Royal with a gift exchange that led to feasting.

They beginne by giving of first which they call Garramercies [Grand Mercies], and yet expecting gifts again when they cannot have any trucke according to there minds, they will come with garramerciers, knowing they shall have meat, drink and other necessaries . . . The 14 day came some Salvages, men and boys in a shallope, from S’ Johns river with beavers and orragine hydes, a more civil and sober company asking of us if we wer a friend. Gave our Generall a gift. Which company our Generall entertained a boorde, and trucked for some small commodities.16

Maliseets integrated the Scottish colonists into the regional economic system and food sharing safety net just as they had the French at Port Royal and St. Croix Island. Colonists’ willingness to engage in respectful trade and mutual aid may have been more important to Maliseets than the particular language, religion, or monarchs that settlers honoured.17

The earliest recorded fur traders to settle on the Walastakw had learned Native languages and customs before moving to the river. In 1611, Maliseets permitted the seven-fingered Malouin, Robert Gravé du Pont, to set up a fortified trading post six leagues above Reversing Falls on Emenenic (Canton’s Island). Gravé had learned to speak Etchemin while living with a Native woman and exporting furs from Passamaquoddy Bay. Moreover, his status as a Malouin may have insulated him the hostility of the ptewolon who had issued the death sentence on all Normans four years

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17 Lescarbot History, vol. 2, 356-7. Guthrie noted that Maliseets supplemented their language with a mix of Basque and French words. The fact that only Maliseet males attended this Tabagie could be a sign that they were continuing to insulate women from Europeans, as Lescarbot had observed in 1607.
earlier. After arriving at Gravé’s post under dancing Northern Lights in early October, Biard gave him instructions to help the trader translate Christian doctrine and practices into Maliseet. Gravé and his men may have been instrumental in introducing Catholicism to Maliseets, as well as European plants to the Walastakw through their gardening.¹⁸

In 1631, Maliseets allowed Charles la Tour to build a fort at Reversing Falls. He had lived and traded with Mi’kmaq and Maliseets for twenty years before moving to the Walastakw. He spoke their languages fluently and married a Mi’kmaw woman in an Indigenous and later a Christian ceremony. They had children and he brought one of their daughters to Paris along with two of his Indigenous friends. La Tour signed legal documents in France as a “Grand Sagamos des Souriquois, Etcherines, Pantegois, et Quiniban” alongside his French titles. He defined his relationship to the river and Acadia as a sagamore within an Indigenous polity structure, as well as being a holder of French commissions. In contrast, when Maliseets found Lescarbot and Chevalier rude and unwilling to make alliances on their terms, they drove them from the river. Maliseets also reacted strongly to Charles d’Aulnay’s efforts to oust la Tour from the Walastakw. D’Aulnay’s unsanctioned trading ventures on their river and hostility towards their sagamore ally (la Tour) evidently angered Maliseets enough for them to respond with deadly violence. They killed d’Aulnay’s men and confiscated their wares.

Gravé and la Tour, in contrast, entered into relations on terms acceptable to Maliseets, a decisive factor in gaining permission to live and trade on the Walastakw. Maliseet decisions and customs mattered more than European documents and titles when it came to who could use the waterway or trade with them.\(^\text{19}\)

A shift in Maliseet settlement appears to have coincided with their permitting du Pont and la Tour to live on the lower estuary. While Maliseets retained control the over the river’s mouth and the waters above Reversing Falls, they now chose to share these spaces particular groups of Europeans. Maliseets kept bringing furs to the river’s mouth, but some trade now took place in European enclaves there rather than Native communities. Moreover, Malouin traders were venturing further upstream. For instance, Pont Gravé likely made his three-day trip up the river from his post in October 1611 to trade at a Maliseet village. Allowing Gravé, la Tour, and a few other select Europeans to travel on the Walastakw may have enabled Maliseets to increase their mobility and access to a variety of ecotones and resources rather than having to make long journeys to the coast with their furs and await a visit from a European ship. Ouïgoudi vanished from records shortly after Lescarbot’s 1607 visit and European maps soon began to mark the river’s mouth with French forts rather than a Maliseet town.

\(^{19}\) Macdonald, *Fortune & La Tour*, 13, 44-5, and 77. Kinship ties to Maliseets continued to be key to French success in later eras. The Acadians who settled the Walastakw’s mouth in the 1670s and at Belle Isle in the 18\(^{\text{th}}\) century were descendants of la Tour’s marriage to a Mi’kmaq and an Etchemin Sagamore respectively. For rivalry between Native traders of the same language mirroring rifts between their French trading partners, see, Bailey, *Conflict of*, 27.
and fishery. The next written evidence of a big Native village on the river dates from the 1680s at Meductic.20

The profile of Maliseet settlements and fisheries tended to diminish on the French maps that appeared in the twenty-eight years following de Monts and Champlain’s initial visit to Reversing Falls in 1604. Champlain’s 1607 manuscript map of the region surrounding the Bay of Fundy placed Native lodges on each side of Reversing Falls and a larger concentration of dwellings in the Bay above this turbulent passage, but it did not depict Maliseets. Similarly, the map of New France that Marc Lescarbot drew in 1609, two years after visiting Ouïgoudi, only showed a group of unenclosed dwellings on both sides of the river’s mouth. The map did not illustrate the palisades, Indigenous people, and fish that Lescarbot described in his writings. Champlain’s 1612 map of New France depicted several square cabins bordering the less-exposed bay above Reversing Falls. The lodges’ resemblance to the 1604 images of Ouïgoudi suggests a Maliseet village rather than the Malouin post that traders set up nearby the year before. Champlain’s 1613 and 1632 maps illustrated a different landscape than earlier images of the river’s mouth. They portray the region as uninhabited and full of unused resources. The maps did not place people or houses on the Walastakw, although they do so in other regions. The 1613 map includes the label,

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20 For forts, see Alaric Faulkner and Gretchen F. Faulkner, “Fort Pentagoet and Castin’s Habitation: French Ventures in Acadian Maine,” in American Beginnings, 221. Massé stayed with Natives rather than du Pont when he wintered on the river in 1612. Living amongst Natives with his young servant helped him learn their languages. See Biard, “Relation, 1616,” 221. For Gravé’s upstream trip, see 211. Source do not clarify the nature of the trader’s trip. For unsupported claims that a Mi’kmaq village was opposite Fort la Tour, see MacDonald, Fortune and la Tour, 79-80, and 158. The Indigenous people MacDonald discusses at Fort la Tour were most likely Maliseet, see 13, 44-5, and 77. For a wigwam on a harbour island and nearby Natives in 1645, see James Kendall Hosmer, ed., Winthrop’s Journal: History of New England, 1630-1649, vol. 2 (New York: Charles Scribner’s Sons, 1908), 225-6.
“Riuiere des Etchechemins” between the St. John and St. Croix, whereas Champlain put that name squarely on the latter river on his 1632 map. The changes between 1604, 1607, and 1612 suggest a decrease in Maliseet presence on the lower river as represented by French maps.21

The 1604 harbour plan emphasized that Maliseets lived along and worked the land and waterscape surrounding Reversing Falls, but Champlain’s later maps obscured Maliseet history and occupation of the river and adjacent seacoast. These maps were more serviceable to French imperial ambitions because they reduced the watershed to a blank slate, a wild unsettled area devoid of human civilization. It is unclear whether the differences among early French maps of the St. Jean reflect Champlain’s shift in focus to the St. Lawrence, a depopulation of Maliseets on the lower river, or an attempt by the cartographer to minimize Maliseets’ presence on the Walastakw. Regardless of motivation, removing Maliseets from images of the river helped entrench European claims to it. The visual context of empty and unused space made it easier for French officials to use resources and enact their vision of the landscape and river, a vision that historian Ramsay Cook called “Making a Garden out of a Wilderness.”

Imperial and colonial officials considered European settlement and resource extraction

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the proper use of nature. Moreover, many Europeans did not recognize Native tenure as laying legitimate claims to lands or rivers. Local maps and other colonial sources often cast Indigenous landscapes and people as “wild” and in need of physical and cultural alterations.22

Accounts from across the Bay of Fundy suggest that exposure of Ouigoudi’s residents to new diseases after contact with Europeans increased in the early 17th century. In 1611, Jesuit Pierre Biard claimed that the coasts of Acadia were only sparsely populated. He noted that the Mi’kmaq sagamore, Membertou, claimed that during his lifetime new diseases had killed many Mi’kmaq and coastal Etchemins as contact with French visitors intensified: “they have thus diminished since the French have begun to frequent their country; for, since then they do nothing all summer but eat; and the result is that, adopting an entirely different custom and thus breeding new diseases, they pay for their indulgence during the autumn and winter by pleurisy, quinsy and dysentery, which kill them off.” Biard revealed that the majority of residents of the Mi’kmaq village at Cape de la Hève had perished in the winter of 1610-1611 alone. Writing in 1672, Nicolas Denys claimed that switching from their traditional diet of salt free fatty soups of wild foods to European imports earlier in the century had resulted in Indigenous people experiencing large scale population loss in

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Acadia. Considering that Maliseets had retained their maize cultivation complex when Mi’kmaq abandoned it as European foods became more available suggests that residents of the Wəlastəkw retained more of their traditional nutritional and subsistence practices after meeting Europeans than did their coastal counterparts. If Baird and Denys’s theories of disease are correct, Maliseet maintenance of healthy eating and an active lifestyle would have helped insulate them from the deadly illnesses of the early 17th century. However, the large death toll Biard recorded, and the fact that the French fur traders overwintering at Port Royal did not suffer from these ailments, suggests that prolonged exposure to Europeans and the lethal pathogens they introduced, and not shifts in diet, were responsible for the large scale depopulation of Indigenous communities.23

Maliseets and Mi’kmaq were biologically unprepared for the new microorganisms that transatlantic visitors brought to the Wəlastəkw. Europeans and Africans had habituated themselves to diseases that originated from their domesticated animals over millennia of sustained contact among relatively dense populations of humans and warm-blooded animals. Even after a century of sustained contact with Europeans, Maliseet and Mi’kmaq were still unfamiliar with some types of domesticated animals that were common to Europe. The surgeon-naturalist, sieur de Dièreville, for instance, recounted in verse their astonishment at meeting a horse on his botanizing expedition to Acadia in 1699-1700.

23 See Pierre Biard “Lettre au R. P. Christophe Baltazar,” JR, vol. 1, 177-8; Denys, Description, 403. Although Biard and Denys observations offer important insight into the impact of Eurasian diseases on Indigenous people in the Northeast, their brief discussion of this topic should not be mistaken for a comprehensive analysis. Until scholars discover new records of epidemics in the Northeast, this issue is likely to remain cloaked in ambiguity.
Take note in all these Tribes, how great
Is both audacity and fear!
Like valiant Heroes, they attack a Bear,
When he makes his appearance in the Chase;
But when they meet a Horse, and this
Is no mendacious tale, they tremble at
The aspect of this docile Beast.
This in Port Royal, more than once
I saw, and I may be believed.24

Whereas the mammals, fowl, and plants that settlers imported to the river in the 17th century were easy to see and respond to, the microbes they carried were invisible.

Horses and other new animals did not directly threaten the health of Maliseets, but the Pale Horseman (Death) followed in the wake of Maliseet-French contact. While the immune systems of Eurasians and Africans had adapted to moderate the effects of “crowd diseases” such as measles and small pox, Maliseet ancestors had migrated from East Asia to the Western Hemisphere with dogs before people tamed other animals or lived in populations dense enough to sustain crowd diseases. They never had a chance to develop immunities to Afro-Eurasian pathogens, and contact with contaminated visitors from across the Atlantic took deadly tolls on their population. Using statistical data from other Indigenous peoples’ experiences with epidemics, anthropologists have estimated that the Maliseet population fell from 7,600 to 2,500 in the early 17th

century, but the exact timing and nature of their encounter with Eurasian pathogens remains a mystery.\textsuperscript{25}

According to observations made by French visitors to the Northeast in the early 17\textsuperscript{th} century, interior riverine Maliseet populations did not appear to have suffered great losses from new diseases before 1611. In that year Pierre Baird noted that “What I say about the sparseness of the population of these countries must be understood as referring to the people who live upon the coast; for farther inland, principally among the Etchemins, there are, it is said, a great many people.” Membertou’s Maliseet allies would have known that Natives frequenting the coast were dying in mass numbers while those more isolated from Europeans remained relatively safe. This realization may have influenced them to spend less time at Ouïgoudi and focus their subsistence and population centres further into the interior where they had greater insulation from epidemics, but could still access a variety of resources throughout the vast river basin. In contrast, Mi’kmaq of present day Nova Scotia only had short rivers with few tributaries to fall back on, and thus, less opportunity to withdraw from the coastal areas frequented by European fishermen, traders, and their germs. The size of the Walastakw watershed, and Maliseets’ winter dispersal throughout remote backwaters up to 400 kilometres from either the Fundy or


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the St. Lawrence coast to hunt fur-bearing animals may have enabled Maliseets to protect themselves from epidemics to a greater degree than most other peoples in the Northeast. The lack of discussion of epidemics on the river in the abundant records of the controversy between Charles de Menou d’Aulnay and Charles la Tour suggests that Maliseets may have also escaped the diseases that decimated the Iroquois and other Native peoples in the continental interior during the 1630s and 1640s. The absence of Maliseet dwellings or people on Champlain’s later maps could very well reflect a change in Indigenous settlement patterns in response to the river’s mouth becoming a less safe place for them to live.26

Maliseets allowed small groups of French traders to settle at the mouth of the river and along its lower estuary, while they moved their principal villages further upstream. Permitting the French to settle in their homeland enabled Maliseets to continue trading furs, while further reducing contact between shiploads of unknown Europeans and Maliseet villages. Maliseets had been isolating their women and children from European traders since at least 1607, suggesting they perceived such contacts as dangerous. Moving their population centres upstream enabled them to further control and moderate their contact with Europeans. Groups of Maliseets, such

26 See Biard “Lettre au R. P. Christophe Baltazar.” For devastating plagues depopulating New England between 1613 and 1619, see Baxter, Ferdinando Gorges, vol. 2, 77; Daniel Gookin, “Historical Collections of the Indians in New England,” Collections of the Massachusetts Historical Society vol. 1, (1792), 148. It is also possible that epidemics introduced by Europeans who did not leave records of their contact with North America had already impacted the Maliseet and Mi’kmaq populations. For discussion of 15th and 16th-century epidemics in Mesoamerica, see Henry F. Dobyns, “Disease Transfer at Contact,” Annual Review of Anthropology vol. 22 (Oct 1993): 273-91. For possibility of epidemics in Maine during the 1500s, see James B. Peterson et al., “‘Mawooshen’ Revisited: Two Native American Contact Period Sites on the Central Maine Coast,” Archaeology of Eastern North America vol. 32 (2004), 7. For discussion of pre-17th century European voyages to the Northeast, see Whitehead, “Protohistoric Period”; Pastore, “The Sixteenth Century.”
as those who approached the Scots colonists in 1629, could approach European enclaves or ships on their own terms and carry on trade with less risk of having villagers kidnapped or threatened, directly exposing their entire village to illness, or experiencing other problems that could result from openly welcoming European visitors into their settlements. Inviting their French allies to settle on the lower river provided Maliseets with a buffer against the increasingly chronic seaborne invasions that English, French, Scots, and other undocumented European mariners were launching along the coast. These relocations appear to have constituted a shift in Maliseet residency and subsistence activities, but there is no evidence that Maliseets perceived the French presence on the Wəlastakw differently than they did Mi’kmaq’s historic presence on the river.27

Maliseets recognized the value of aligning themselves with the French and they realized that Europeans were often politically fragmented as graphically represented by the struggle between la Tour and d’Aulnay. Maliseets sometimes supported their French allies in the military conflicts that engulfed the greater Northeast in the 17th and 18th centuries, but they recognized that they did not need to be foot soldiers in the squabbles and violent conflicts between Europeans or on the front lines of conflict. Some aspects of the French coming to the river and the re-orientation of Maliseets are difficult to date. We know that the river was used intensively by Maliseets and other Indigenous peoples and intermittently by small groups of Europeans from the 1610s to the 1660s, such as the group of Recollet priests and French fur traders that Maliseets

27 See above for isolating women and trading with Scots.
escorted up the river and over the portage to the St. Lawrence. There are, however, no detailed descriptions of the watershed above Reversing Falls until the 1670s when Maliseets permitted a few hundred French soldiers and colonists to establish farms and conduct trade on the lower river as well as help defend it from their mutual enemies, the English.\footnote{28 R. Bacon, “Père Jacques Cardon” in Dictionnaire Biographique des Récollets Missionnaires en Nouvelle-France 1615-1645–1670-1849, ed. Odoric Jouve et al. (Montéal: Bellarmin, 1996), 79-80. See chapters three and four for details on French settlement.}

Writing about the Walastakw’s mouth, Acadian merchant, Nicholas Denys claimed that in the mid 17th century “The Sieur d’Aulnay traded there . . . three thousand Moose [skins] a year, not counting Beaver and Otter,” and noted that the Maliseets and other Indigenous peoples continued to bring their furs to the English trading posts on the river in the 1670s. Indigenous people likely took far larger numbers of the small animals. This tally, however, represents a good trapping season, but not all winters were favourable to commercial trapping.\footnote{29 Denys, Description, 121.}

Fur trading on the Walastakw in the late 17th century was concentrated near the entrances to major portage routes to the St. Lawrence, Miramichi, and rivers to the southwest as well as at Reversing Falls. Maliseets and their Native allies frequently brought their furs to the forts that the French military built at the mouth of the Jemseg River and Reversing Falls. They also exchanged their furs at the trading posts that French seigneurs operated at Lake Témiscouata and the mouths of the Jemseg and Oromocto rivers. French Fur traders visited Meductic to collect furs from Maliseets, and the Frenchman who lived with a Maliseet woman near the village may also have
traded furs. French traders funneled furs from the lower St. Lawrence by travelling up rivière du Loup and then down the Madawaska to the Walastakw to avoid paying taxes levied on fur exports in Quebec.\(^{30}\)

Maliseets used their canoeing skills as well as their local environmental knowledge of the waterways and portage systems of the Northeast to carry furs between watersheds and access favourable trading terms among different European traders and jurisdictions throughout the 17th century. During the 1690s they also sent Native delegates overseas who monitored French trading shipments and prices, and then used this information to help strengthen their position in economic exchanges with Europeans. In the spring of 1695, the son of the Walastakw’s sagamore returned from France with the annual shipment of trade goods to Acadia. He noted that the French commander on the river, Villebon, was not giving them all the presents that the King had sent. Maliseets and their Indigenous neighbours used his observations, coupled with France’s failure to deliver supplies to the Penobscot during an epidemic that had broken out the previous fall, and the availability of English goods, as grounds for lobbying the French at Fort Nashwaak to provide them with better trading terms. In June 1695, a large delegation of Indigenous people from the Kennebec, Penobscot, the Walastakw, and other areas met with French officials at Fort Nashwaak to negotiate. The delegation explained why some of its members had traded with the

English and suggested that their economic loyalty to France depended upon reliable supplies and fair pricing.

... It was our need for many things and our distress at seeing our families destitute, which drove us to make overtures to the English, but it only depends on thee that we do not in further, have the same cause. Therefore, tell us what merchandise will be for sale on this river; when thou hast agreed with us on the price we promise to cease all negotiations with the English and to prevent our youths from trading with them.31

The Royal Instructions France sent to Villebon the next year mandated that Natives receive better prices for furs. They also specified that local officers stop interfering with legitimate trading. Maliseets and their allies were not passive members of the economic and military alliances made on the river in the late 17th century; they lobbied for favourable trading terms and demonstrated that they could turn to higher paying English factors if they wished or needed to do so.32

In 1715, the governor of Nova Scotia complained to the British Board of Trade that Maliseet mobility and preferences to trade with Acadian merchants prevented British traders from making inroads into the Maliseet fur trade. Rather than bring their furs to Port Royal to trade with British factors as Nova Scotia authorities had requested, Maliseets favoured carrying the furs and feathers they obtained on the watershed to Chignecto to trade with Acadians. Evidently, maintaining their economic

31 Villebon “Journal, September 17, 1694 to July 12, 1695,” in Webster, Acadia, 78; M. De Villieu “Journey Made by M. De Villieu,” in Webster, Acadia, 60-1; and “Letter de Champigny au minister,” 24 Oct 1694, ANOM, COL C11A 13/fol.80-94.
relationships with French merchants was more important to Maliseets than obeying the requests of British colonial authorities.³³

Europeans recorded that Maliseets and Mi’kmaq used different beaver hunting strategies in winter and summer during the 17th century. Writing in 1672, the seasoned Acadian fur trader, Nicolas Denys, noted that in warm seasons when furs were less valuable and Maliseets had ample supplies of food “the commonest and most certain way was to break their dam . . . Then the Beavers found themselves without water, . . . The Indians took them with blows of arrows and of spears; and, having a sufficiency, they left all the rest.” Maliseets and Mi’kmaq left a few beavers to repair dams in summer. In winter when beaver flesh and furs were more valuable, hunters killed every animal they could by breaking open lodges and harpooning rodents through breathing holes that they cut into the ice.³⁴

Denys claimed that while Maliseet and Mi’kmaq hunters had only killed what animals they could use or trade locally before they met Europeans, the transatlantic fur trade had greatly increased their impact on riparian mammals. Maliseets at the beginning of the 17th century appear to have diffused the ecological impacts of their fur trading across the homelands of Native peoples throughout the Northeast, but they obtained most of the furs they exchanged from the 1610s onward from their direct trapping of the waterways of their homeland and those that their allies sometimes permitted them to use. The continuance of a European demand for furs and the loss of

³⁴ Denys, Description, 429-33 and 363-7.
their middle man status in the Northeastern economy appears to have led Maliseets to intensify their commercial hunting on Walastakw’s small tributaries.35

The transatlantic fur trade affected Walastakw’s flow and the character of the woods surrounding the riparian habitats that beavers inhabited. Beavers are an ecological keystone species that play an integral role in regulating stream flow and creating aquatic and riparian habitats for many species of fish, birds, mammals, and reptiles. When Maliseets and Mi’kmaq continued Klouskap’s legacy of breaking beaver dams and killing their furry architects, they disrupted the aquatic transformations that beavers created with their dams. Slaying large numbers of this industrious species sent ripples throughout riparian ecosystems of North America. The removal of beavers decreased tree cutting and pond creation, which in turn, resulted in a decrease in biomes and sediment retention and led to more small streams running dry in summer droughts. Modern ecologists have revealed that the removal of beaver dams sometimes extended the spawning range of Atlantic salmon on watersheds and created more favourable (cooler) water temperatures for them downstream. These types of ecological changes on the Walastakw, however, went unnoticed by early European record keepers. European settlement, trading, and written descriptions of the watershed focused more on the mainstream rather than the small tributaries and swampy lands that beaver and trappers frequented. Moreover, European discussions of trapping on the Walastakw were more concerned with trading profits than ecological changes. While Indigenous peoples and colonists seriously depleted beavers

35 Denys, Description, 419.
and dams in other parts of North America, M. de Bonaventure’s 1701 survey of the Walastakw claimed that beavers were still abundant. Two years later Lahontan noted that beavers and otters were still common throughout Acadia. These reports suggest that Maliseets had not seriously depleted beavers earlier, or that the rodent populations rebounded during years when epidemics and warm winters reduced Maliseet trapping capacity.36

Europeans overlooked and obscured key aspects of the Maliseet role in reshaping the land when they began keeping records of the interior river. The census taken by the Acadian clerk, Gargas, in 1688 was the most detailed description of the Walastakw in that decade. While it located five arpents of cleared upland between Jemseg and Meductic, it did not specify if this included Maliseet fields. A 1695 census tallied fifteen arpents of cultivated land at “Medoctec, the seigneur of René D’Amours.” It did not mention Maliseet fields, dwellings, or people, although they were the only farmers at Meductic. The census credited Maliseet cultivation work to the local seigneur, whom French officials most often criticised for not developing agriculture. In an unfortunate twist of irony, d’Amours, whose liquor trading may have introduced a disease that caused Maliseets to flee Meductic earlier that year,

benefited from their cultivation work and abandonment of the village. Although European recorders classified Maliseet agrarian improvements on similar terms as settlers’ fields, they credited a colonist with the cultivation labour performed by Natives.\(^{37}\)

Meductic was not the only location where colonists overlooked Native contributions to Acadian agriculture. In 1610-1611, starving Port Royal settlers survived by gathering ground nuts from a field Mi’kmaq had already harvested. Mi’kmaq established and tended this field before colonists founded Port Royal. Colonists, thinking the rich broken soil left after their harvest was an ideal place to plant, sowed the groundnut fields with Eurasian grains in the spring. The initial success of the Acadian grain cultivation that followed came at the expense of both the groundnuts and the Mi’kmaq, who lost an important food supply after sharing it with desperate colonists. Settlers, however, praised God for their salvation rather than Mi’kmaq plant management and generosity. Moreover, as William Wicken observed, Acadian surveyors in the early 18\(^{\text{th}}\) century, such as M. de Bonaventure, noted that Mi’kmaq groundnuts fields were “tres bien marque de bonne terre dans cetter provinces.” Native peoples thus, helped create some of the first fields credited to pioneering colonists on both the Annapolis River and the Walastakw, and prospective colonists used the presence of Native cultivated plants to locate good farmland. This

\(^{37}\) Gargas, “Recensement General du Pays de Cadie,” in Morse Collection, Dalhousie University Archives, MS-6-13; “Recensement des terres que les sieurs Damours possèdent,” 6 Nov 1695, AC, R11577-28-5-f, No. 17; Villebon, “Villebon to Count Pontchartrain,” in Webster, Acadia, 86-7; and Saint-Vallier, Estat Présent, 32. For works that attribute the fields to d’Amours, see Pitre and Pelletier, Les Pays Bas, 95; Raymond, River St. John, 271-2. For epidemic, see Gyles, Memoirs, 21.
suggests that 17th-century Indigenous cultivation sites may have provided the foundation for settler agriculture throughout Acadia.\textsuperscript{38}

Evidently, Europeans misread the ostensible naturalness of the Acadian landscape they began to inhabit and describe in the 17th century. While Maliseets considered the Walastakw a familiar and managed environment, colonists perceived the mixed woodlands, lush meadows, and cultivated gardens outside of Native villages as underdeveloped wilderness. For the most part, the Europeans who visited the Walastakw understood cultivation in terms of deforested fields, domesticated animals, and year-round-tenure on intensely cultivated lands. People who hailed from French and English ecologies and land use systems could thus recognize Maliseet maize fields as human landscapes, but they were less able to see other environments that were also the product of Native management, or to understand the practices that Maliseets used to create them. Europeans thus obscured many of the alterations Maliseets made to the landscape that surrounded them, just as they misread the naturalness of Africa and other parts of the world they colonized.\textsuperscript{39}

Many aspects of Maliseet life on the river during the late 17th century appear to have remained on a continuum with practices that Europeans recorded in earlier decades. Individuals and bands continued to alter residency and food procurement


strategies from year to year, which enabled them to access a wide variety of resources and opportunities throughout and beyond the watershed. Gyles’ captors, for instance, journeyed to Canada in 1691 rather than to Meductic to assist with spring planting. Madackowando, a Maliseet sagamore, moved from the Penobscot to Walastakw in the 1690s. He probably had a slightly different seasonal round in his new home, perhaps eating more “pasokosuwok” (sturgeon) and fewer blueberries. Maliseets supplemented their diet with food from French forts, trading posts, and ships, but European provisions were usually only a staple when they left Walastakw for raids on New England and received flour and beans from French officers and priests. Moreover, while missionaries attempted to ban traditional hunting practices such as the shaking tent rituals (divination), some groups of Indigenous people continued practicing them at Meductic.40

Maliseets continued to fish and hunt using their established technologies and adding new European tools that appeared useful throughout the 17th century. After adopting firearms, for instance, they used their knowledge of local geology to develop a new type of mining landscape along the river. In 1692, Cadillac reported that Maliseets were smelting bullets for hunting from a lead mine near Jemseg. Maliseets continued to fish with their torch, spear, and net technology unimpeded by settler restrictions, but by 1670 they were attaching iron blades to their spears and harpoons. They supplied fish to nearby colonial outposts and visitors who could not provision

40 Gyles, Memoirs, 12, 32, and 21; Villebon, “Journal, September 17, 1694, to July 12, 1695,” and “Acadia, Oct., 1696 to Oct. 1, 1697,” in Webster, Acadia, 77 and 105-6; “pasokosuwok,” Passamaquoddy-Maliseet Language Portal; and Dièreville, Relation, 152.
themselves sufficiently. Maliseets sold sturgeon to the Order of Good Cheer and other Port Royal residents, and provisioned Lescarbot and Chevalier when the traders visited Ouïgoudi in 1607. Ouïgoudi’s disappearance from records and the few references to Maliseet fishing at Reversing Falls following Lescarbot’s visit suggest that Europeans’ intermittent use of this spot as a settlement site and battleground from the 1630s onwards may have sometimes deprived Maliseets and other Indigenous people of one of the most important access points to fish on the Walastök. Maliseets frequented Fort la Tour, but d’Aulnay’s sieges probably curtailed their fishing during some seasons. Maliseets, however, continued to enjoy excellent access to fish further upstream. The proximity of Meductic to Eel River and the Meductic rapids, and the large eel spear, toggle harpoon, and barbed hooks unearthed by archaeological surveys suggest fishing was important to this community.\footnote{“Excerpts from M. Lamothe-Cadillac,” in Documents, vol. 9, 547; Craig and Dagenais, Land in Between, 366. See also Lescarbot, History, vol. 2, 343; Denys, Description, 443 and 113; and Caywood, Excavations, 34-5 and 97. For Meductic Maliseet fishing in the 1690s, see Gyles, Memoirs, 27, 12, and 18.}

John Gyles’s description of Meductic in his memoirs noted palisades and a thirty- to forty-foot hut that held forty dancers. The presence of palisades and a big central meeting hall closely resemble the built landscape at the river’s mouth in the first decade of the 17th century. Moreover, the large central lodge suggests that the village was also a nucleus of polity formation and governance. Meductic’s palisades were not a new architectural feature that Maliseets had developed in response to contact with Abenaquis refugees or Europeans in the late 17th century, as Harald Prins suggested. They were part of an established architectural tradition that Maliseets had
established on the river before Europeans produced written descriptions of the watershed.42

When Maliseets began having closer contact with Europeans on Walastakw’s interior in the late 17th century, pathogens took a greater toll on their population than warfare. Deadly pathogens spread on the river and disrupted Maliseet cultivation, hunting, and trading in the 1690s. The Walastakw’s became a vector for foreign microbes in 1694, resulting in the first clear record of an epidemic amongst Maliseet. The 1694 outbreak disrupted rather than fostered cultivation and dense settlement as some scholars have claimed. Investigating this tragedy offers insight into how Maliseets understood and responded to disease, as well as the importance of domesticated animals and pathogens to the Walastakw’s environmental history.43

The river played a central role in spreading disease. Gyles’s memoirs are the most detailed account of the epidemic and its catastrophic impacts. In late summer, Meductic villagers were

frequently frightened by . . . strange Indians passing up & down the River in Canoes, and about that Time the next Year died more than One Hundred Persons of Old & Young: all or most of those that saw those strange Indians! The Priest said, that it was a sort of Plague. A Person seeming in perfect Health, would bleed at the Mouth & Nose, turn blue in spots, and die in two or three Hours . . . The Indians all scattered, it being at the worst as Winter came on; and the Blow was so great that the Indians did not Settle or Plant at the Village while I was on the River.44

43 For diseases influencing Maliseet to settle and cultivate, see Demeritt, “Agriculture,” 197. See above for the possibility of earlier epidemics.
44 Gyles, Memoirs, 20-1.
Maliseets traditionally associated sickness with the harmful intentions of sorcerers and supernatural entities. Considering the “strange Indians” a vector of the epidemic suggests they linked its origin with contact with unfamiliar Natives who were travelling on the Walastakw, perhaps to take part in French raids during the Nine Years War or fleeing an epidemic elsewhere. In contrast, Father Simon’s use of the term “plague” suggests the missionary understood it within the context of Euro-Christian history that included experiences with Bubonic Plague. The high death toll resembles virgin soil epidemic impacts and suggests that Maliseets had not encountered this particular pathogen before.45

Native canoers likely spread the disease up the river from French supply ships, forts, and farms. The ship that brought supplies from France to Acadia that year, The Bretonne, unloaded cargo on the Walastakw just shortly before the plague ravaged Meductic. The captain of the ship, Simon Denys de Bonaventure, was so sick that he was unable to finish his mission and deliver the rest of the presents and supplies to Natives on the Penobscot. Pathogens probably diffused from the Bretonne’s crew to the inhabitants of the river when it stopped to unload its cargo of supplies and presents to soldiers, settlers, and Maliseets. The Meductic outbreak coincided with a visit by René d’Amours, the farmer-trader whose seigneury included the village. D’Amours would have acquired his trade goods from The Bretonne and may have directly contracted the pathogen from its crew before travelling to Meductic to trade

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45 For sorcery and epidemics caused by violating cultural taboos, see Bailey, Conflict of, 80. Simon did not blame the illness on un-Christian conduct, as he did with other incidents of sickness and death. See Gyles, Memoirs, 19-20. For priests, epidemics, and shamanism on the Penobscot, see Morrison, “The Mythological Sources of Wabanaki Catholicism,” in Solidarity of Kin, 79-101.
with the Maliseets living there. Gyles recorded that Maliseets “Before they thus deserted the Village . . . they would be drunk and fight for several Days and Nights together, till they had spent most of their Skins in Wine & Brandy, which was brought to the village by a French Man, call’d Monsieur Sigenioneer.” While it is not clear if d’Amours carried the disease, his alcohol weakened villagers’ health and unity during the most horrific crisis they had faced. While Bonaventure soon recovered from the illness, many Maliseets were less fortunate.\footnote{See Gyles, \textit{Memoirs}, 21; James Hannah, “The Brothers D’Amours,” \textit{The New Brunswick Magazine} vol. 1 (July-Dec 1898): 24-40. For the ship, see Villebon, “Acadian Journal, September 17, 1694 to July 12, 1695,” in Webster, \textit{Acadia}, 75; “Champigny au minister,” 24 Oct 1694. AC, Series C11A, R11577-4-2-F, 80-1, and “Observations sur l’Acadie,” Feb 1695, Series C11A, R11577-4-2-F, folio 280-1.}

The epidemic temporarily changed how Maliseets related to the river. Indigenous people from the Penobscot and Walastakw agreed to a quarantine to stop the lethal malady from spreading between the two interior rivers during the outbreak’s early stages. Villebon recorded that his second in command left for Meductic on September 17\textsuperscript{th}, 1694 to join a Maliseet war party,

but having reached Pentagoet they were told by some members of the tribe to go no farther lest they should bring contagious disease into their territory, several Indians having died of it on the St. John River since the departure of the \textit{Bretonne}. For this reason they returned on October 14\textsuperscript{th} without having accomplished anything.\footnote{See Villebon, “September 17, 1694 to July 12, 1695;” “Champigny au minister,” 24 Oct 1694.}

Evidently, the Meductic party reached the mouth of the Penobscot before the disease had spread up that watershed. The Penobscot evidently realized that contact with their neighbours on the Walastakw would spread the disease to their homeland. They responded by restricting travellers from affected areas from visiting uncontaminated places where they were usually welcome. Moreover, the Meductic party’s decision to
heed the appeal of the Penobscot residents suggests that Maliseets considered their
neighbours’ health and request more important than immediate Maliseet-French
military goals and traditional mobility patterns between watersheds. Indigenous
people on the Penobscot and the Walastakw appear to have imposed this quarantine
of their own volition rather than in response to missionaries or fur traders. Some
scholars of historic epidemics have recently claimed that Native practices such as going
barefoot, burying maize in baskets, and taking sweat baths increased susceptibility to
contagions. Such interpretations suggests that Indigenous people were unable to
respond to disease, and overlook practices such as winter dispersal, nutritious diets,
and bathing that may have strengthened Native peoples’ health and impeded the
spread of pathogens. The actions of Indigenous people from the Walastakw and the
Penobscot demonstrate that Natives were not powerless victims of foreign microbes.
They adapted and tried to stop the biological assault from spreading.48

Maliseets made their 1694-1695 winter dispersal from the Walastakw’s
mainstream more pronounced than usual to try to mitigate the epidemic’s impact.
Two Maliseets visited Villebon on 17 January and claimed that they “were leaving the
river, because of the contagious disease which had broken out among them. They
informed me of the death of the Chief and several others of importance.” Maliseets’
avoidance of Meductic and spring planting indicates that the sickness temporarily
changed subsistence patterns on Walastakw. Moreover, at least a few Maliseets chose

48 For missionary and trader-led quarantines, see Paul le Jeune, “Relation de ce qui s’est passé en la
Bay Company and Smallpox in Western Canada during the Late Eighteenth and Early Nineteenth
Centuries,” Bulletin of the History of Medicine vol. 78, no. 3 (Fall 2004): 575-609. See also Marr and
to leave the waterway associated with death and sorrow for healthier climes until the disease ran its course. Almost a century later, Maliseets continued this practice of abandoning the mainstream when young Loyalist, Hannah Ingraham, cruelly tricked them into thinking smallpox had broken out in Fredericton.49

A contagion swept through the watershed again in 1695 with deadly results. That it did so just after a French vessel arrived with provisions may be further evidence that French supply chains introduced diseases up watersheds. Colonial officials, however, appeared more alarmed by losses to their military capacity and trading profits than the death and suffering experienced by Maliseets. In his 23 July 1695 journal entry, Villebon noted upon learning “from Meductic Indians that sickness had again broken out. In one year more than 120 people of both sexes and of all ages have died on the St. John River and this has deprived us of our best warriors.”50 As warriors and hunters came from the same age and gender, there were fewer men to hunt for food and profit. Tibierge, an agent of a French fur trading company, reported from Fort Nashwaak on November 3rd that thirty Natives from Meductic arrived to visit Villebon, including “the chiefs Madokawando and Chebackouides . . . . They then presented M. de Villebon with about 40 lbs. of beaver skins, and excused themselves

49 See Villebon, “September 17, 1694 to July 12, 1695,” in Webster, Acadia, 76. Manidoubtik was the sagamore, See Villebon, “September 15, 1693 to September 2, 1694,” in Webster, Acadia, 53. Gyles’s master died in the epidemic. He noted Maliseets returned to Meductic after Father Simon sold him to Louis d’Amours in July 1695. His earlier quote, however, suggests that they did not plant that year. See Gyles, Memoirs, 32, 34, and 20-12. For this outbreak as evidence that epidemics prevent shifting from a nomadic to agrarian lifestyle, see Bailey, Conflict of, 78. See also R.P. Gorham ed., “The Narrative of Hannah Ingraham, Loyalist Colonist at St Anne’s Point,” http://atlanticportal.hil.unb.ca/acva/loyalistwomen/en/documents/ingraham/ (Accessed 20 Aug 2014); For Meductic in 1717, see “Délibération du Conseil de Marine sur une lettre de Vaudreuil et Bégon,” 20 Oct 1717 AC, Série C11A R11577-4-2-F.
50 Villebon, “Journal, July 22, 1695 to September 5, 1695,” in Acadia, 82 and 72.
for not giving him a more valuable gift because so many of their young men and good hunters were dead.”\textsuperscript{51} Colonial surveys focused on warriors and hunters rather than general population, reflecting French concerns with military and trapping capacity, and obscuring the total population of Maliseets living on the river. In 1697, Tibierge, for example, estimated there were “90 to 100 hunting or fighting Indians on this river.” Tallies that noted women and children as well as men, such as Gargas’ 1688 census, were less common. Gargas recorded that sixty-two men, sixty-two women, and 134 children lived at Meductic in 1688, while twenty Natives lived near the Freneuse Seigneury and another twenty-nine at the river’s mouth. Applying the 1-1 gender ratio, and 1-2 adult to children ratio, Gargas suggests that there were as many of 400 Maliseets living on the river in 1697, in addition to a small number of men too old to engage in combat, as well as aged women.\textsuperscript{52}

Maliseets suffered from the warm winter conditions that followed the epidemic. Tibierge reported in the autumn of 1697 that Company profits “will not be high. As there has been very little snow, the Indians have been starving this winter, and have been compelled to eat the skins of the moose they had killed; moreover no Indians have come from Pentagoet, Restigouch or Richibucto, from whom we usually receive some pelts.” The lull in the fur trade continued three years after the initial outbreak due to fewer hunters, poor hunting conditions, and famine. Snowless winters were deadly for Maliseet people and European profits. Evidently, winter warmth

\textsuperscript{51} Tibierege, “Acadia, October 4, 1695 to October 27, 1696,” in Webster, Acadia, 147.
\textsuperscript{52} Tibierge, “Memoir on the Present State of the Province of Acadia,” 30 June 1697 in Webster, Acadia, 153; Gargas, “Recensement.”
remained a hardship for Maliseets long after colonists arrived in their homeland. That it did so during the height of the Maunder Minimum suggests that abnormally warm winters could occur even within eras of extreme cold.\(^{53}\)

The abrupt loss of dozens of men, women, and children including the sagamore affected Maliseet unity. The French botanist sent to survey Acadia, sieur de Dièreville, described dramatic population loss on his trip to the Walastakw in 1700.

Of all these Tribes, reduced to direst need, The greater number are already gone, Those that remain will not last long, unless Protection from above be granted them. Yet are these wretched Dwellers in the Woods Good Subjects of their August Prince, and well Do they defend his greatest Province, when The hostile Neighbours trespass on his Rights.\(^{54}\)

The poetic botanist dressed his fatalistic account in a genre of paternalistic rhetoric that French and British officials echoed on the river in later generations: the Crown owed aid to Native allies due to their loyal service and dire need. Maliseets, however, were not near cultural collapse. They quickly re-established strong leadership on the river, reoccupied Meductic, and continued their alliances with other Indigenous peoples and the French. Had plagues not decimated their population, Maliseets may have had a greater impact on the banks of the waterway.\(^{55}\)

Maliseets used two strategies to prevent the 1694 epidemic from spreading: quarantine and prolonged dispersal away from infected villages. They prioritized containing the sickness over maintaining sustenance patterns, inter-watershed mobility, and military-economic relations with the French. European diseases did not

\(^{53}\) Tibierge, “Province of Acadia,” 154-5. His fears of low prices may also be informed by the collapse of fur prices in France during King Williams War, see Eric Jay Dolin, The Epic History of the Fur Trade in America (New York: W.W. Norton & Co., 2010), 104-5.

\(^{54}\) Dièreville, Relation, 116.

\(^{55}\) Villebon, “September 17, 1694 to July 12, 1695,” in Acadia, 77-8.
influence Maliseets to form dense settlements or adopt food cultivation on the Walastəkw. They stopped planting and living in their largest village during the only recorded epidemic on the river in the 17th century. These events reflect a dynamic society developing innovative strategies to thwart an invisible foe that overwhelmed immune systems, but not human adaptability.

Maliseet concentration of settlement at Meductic above the reach of ocean going vessels, and their willingness to let their French allies provide a buffer against sea-based raids, may have saved their village from an invasion not long after the epidemic had run its course. When English soldiers destroyed French farms and laid siege to Fort Nashwaak in October 1696, Maliseet warriors helped the French military and colonists defend the lower river and repel the invaders without risking the exposure of their women, children or principal village to the English. French farms and a small Mi’kmaq village of Native trappers on the Nerepis River, a small tributary located about ten kilometres above the entrance to the Kennebecasis, were the settlements most at risk during this campaign. When a second invasion fleet burned Acadian homes and maize along the Bay of Fundy in 1704, Meductic residents and their crops remained secure on the interior river beyond range of the heavily armed fleet.56

While discussing eating large amounts of trout and salmon at the French fort at Reversing Falls in 1700, the sieur de Dièreville, a trained botanist, observed that Indigenous peoples and French settlers in the region still depended on fish for their survival. He claimed that Natives would suffer “evil days” if they did not have access to

abundant fish. While a survey of Acadia conducted in 1701 clarified that fish remained abundant on the Walastakw at this time, British settlement in the 18th century significantly disrupted Maliseet fisheries, depleted local populations, and affirmed Dièreville’s concerns.57

Maliseets’ Indigenous allies who travelled on the Walastakw continued to fish its interior waters using Indigenous weir technologies in the 18th century. On 14 July 1745, the Huron captors of an English surveyor caught dozens of Atlantic salmon in a few hours by building an ad hoc fish weir in a small cove several miles downstream from the rushing rapids and deep gorge at the mouth of the Tobique River.

There was Salmon playing in ye Cool water, at ye head of ye Cove, we . . . Cut Bushes. . . . and wile Some of us was Imployed, with perches and our paddle &c. thrashing in ye water, to hinder ye fish from Coming out of ye Cove, ye others built a ware across ye Entrance of ye Cove, with Bushes and our Blanketts &c and we Caught . . . fifty four Salmon.58

The salmon provided welcome respite to the travellers after days of hungry paddling. Indigenous people familiar with fishing methods and the temperature needs of Atlantic salmon could interact with the river’s geography to find cool currents and pools and catch fish. Maliseets no doubt fished extensively using these methods as well, despite the lack of colonial descriptions of them.

Maliseets burned large tracts of forests along tributaries of the lower watershed in the mid 18th century. Nova Scotia surveyor, Charles Morris, reported in 1768 that “all the Timber upon both sides of waschedemoiac, burnt by the Indians.” In 1783, Loyalist planner, Edward Winslow, described nine miles of land near Hammond

57 Dièreville, Relation, 115-6. See also “Mémoire de Bonaventure.”
River, a small tributary of the Kennebecasis as “indifferent and chiefly burnt.” He also observed that uplands “20 miles up Oromocto . . . very much burnt & barren.” While Winslow did not comment on the origins of these fires, British surveyor Robert Morse claimed the thirty miles of unsettled burned lands above Reversing Falls and other fires were “occasioned by the carelessness of the Indians and probably sometimes by lightening.” Peter Fisher noted that fire raging between the Saint Croix and St. John before 1783 “was only checked in its progress northward by the latter river.” The drought that foreshadowed the tragic fires of 1825 likely weakened the ability of the St. John and Miramichi to block flame, although both rivers helped arrest blazes and save lives. While Fisher believed that cycles of drought and fire had periodically affected New Brunswick forests, he attributed contemporary blazes to the campfires and pipes of “Indians, lumberers, and others . . . unheedful of the evils of their thoughtlessness.” The colonists who commented on Maliseets role in burning forests overlooked key aspects of their environmental management.59

Maliseets used fire to create favourable cultivation sites long before British colonists arrived on the river. At least a portion of the fires they set in the 18th century were likely deliberate efforts to reshape the forest landscape to meet their needs.

Torching the shores of Lake Washedemoiac, for instance, created favourable game and

berry habitat for them while making the region less hospitable to prospective European colonists and entrepreneurs. Maliseets did not welcome British settlers in the 18th century as they had the French. In 1779, for instance, they deliberately burned out British settlers on the Nerepis River. They may have set the larger fires noted by Morris to alter their landscape to reinforce their resistance toward British colonization. Moreover, these extensive Maliseet fires coincided with changes in local animal populations. By the early 19th century the ranges of white tail deer and caribou were moving northward in tandem with climatic warming and the subsequent end of the Little Ice Age. While caribou declined after this time leaving only names such as Caribou, Maine, on the watershed, white tail deer returned after several centuries of scarcity during the Little Ice Age. Deer thrive on recently burned landscapes. While scholars have claimed that colonial clearing was a principal factor in the northward spread of deer into the Maritimes, Maliseet burning in the 1760s and 1780s also helped create a favourable landscape for these browsers, while exacerbating the decline of the caribou that depended on old growth forest habitat. Maliseets’ increased use of fire may have been a prudent response to their recognition that climatic conditions were once again becoming more favourable for deer than caribou.60

The 18th century fires were not the only aspects of Maliseet land use the colonists who settled among them misunderstood. The increasing number of written

descriptions that colonists produced of the middle and upper reaches of the river from the mid 18th century onward, reveal the presence of many Maliseet cultivated fields along the river. In addition to the small maize and bean fields that William Pote glimpsed in 1745, maps and written descriptions of Aukpaque, Tobique, and Madawaska, reveal that Maliseets continued to grow maize at their villages as well as on islands and intervale land near the lush mouths of the Walastakw’s tributaries almost as far north as the modern border between Quebec and New Brunswick. Maliseets were the pioneering cultivators in these locales just as they had been at Meductic and Fredericton.61

Acadians and Maliseets farmed some of the same stretches of intervale land in the mid and late 18th century. The first detailed British map of the watershed, which was drawn by Joseph Peach in 1762, depicted several miles of cultivated fields, gardens, and houses on the south shore of the river above St. Ann’s Point (present day Fredericton). The fields extended upstream to Aukpaque, a large Maliseet village, ninety miles above Reversing Falls, where maize was grown. The French fields were a patchwork of irregular trapezoids extending back from the river two and three fields deep, and many, quite unlike the long narrow fields along the St. Lawrence, were without river frontage. In contrast, the Maliseet fields adjacent to Aukpaque directly bordered the river, and had more rounded edges that followed the contours of the intervales. The presence of small stream valleys between the Maliseet fields suggests that they continued to favour cultivating raised intervales that channelled frost into

surrounding hollows. Unlike at Meductic in the 1690s, Maliseets and their French neighbours cultivated the same stretch of land here in the mid 18th century and perhaps even worked some fields together, or at least were on hand to share their cultivation knowledge. Major Gilfred Studholme’s 1783 survey of settlements on the

Figure 3.2 – Detail from Joseph Peach, “Plan of the River of St. Johns from Fort Frederick in the Bay of Fundy to the River of St. Lawrence Surveyed by Lieut. Joseph Peach of the 47th Regiment” (1762) AC, R12567-15-9-E, CARTO24855, Online MIKAN no. 4150988, Item 8.

St. John River revealed that in Burton Township, Israel Kinney’s “15 acres of cleared land . . . was chiefly done by the French and Indians.” When Scottish traveller Patrick Campbell visited Fredericton in 1791, he noted that Lieutenant Governor Thomas
Carleton’s potato fields and the rest of the soil of the town was poor and had “been long cultivated by French and Indians.” Raymond asserted that Maliseets had traditionally camped at the site that became Fredericton, which they “tilled in very early times,” but he did not substantiate his claim.62

Maliseets’ role in clearing some of the land that British settlers first farmed along the river was not acknowledged by all settlers and travellers. Hannah Ingraham, who narrated one of the most widely read accounts of early Fredericton, based in part on her childhood memories, recalled that Scottish settlers had cleared the original town site “but the Indians had killed them all and burned up their houses.” While Jerusalem artichokes still grow in abundance on the islands and riverbanks near Fredericton, the city is usually not considered a former Maliseet horticultural site. Moreover, while Patrick Campbell noted in 1791 that the fields of Fredericton Loyalists were layered on top of earlier Maliseet cultivation, he overlooked changes that Maliseets had made to the landscape further upstream. When he visited Captain Atwood’s farm at Meductic, where Maliseets had temporarily abandoned their village and fields, Campbell thought that the ruined fort there and the clearing that Atwood farmed had been made by earlier French colonists and soldiers. He seems not to have realized this built landscape was the product of Maliseet labour. Not surprisingly,

62 Joseph Peach, “Plan of the River of St. Johns from Fort Frederick in the Bay of Fundy to the River of St. Lawrence,” (1762) AC, R12567-15-9-E, Online MIKAN no. 4150988. For Studholme, see W.O. Raymond ed., “Sunbury County Documents,” CNBHS vol. 1, no. 1, 100-18; Campbell, Travels, 38; and Raymond, River St. John, 24.
agricultural historian Karl Rasmussen subsequently overlooked Maliseet cultivation when he sought to understand the origins of agriculture in New Brunswick.63

Writing in the 1960s, geographer Andrew Hill Clark argued that Acadian settlement did not disrupt Mi’kmaq land use or result in strained Mi’kmaq-colonial relations, because French farmers and Mi’kmaq hunters focused on different environmental niches and subsistence strategies. A generation later, Loyalist historian, Ann Gorman Condon, claimed that along the St. John “before 1776, one can assume that, except for occasional bartering, the Indians, the Acadians, and the New England settlers each kept to themselves and had little contact with each other. The land was too vast, their life styles too different to encourage much interchange.” More recently, William Wicken and Greg Kennedy have suggested that Mi’kmaq and Acadians initially practiced different and complementary resource use patterns and got along well. Then relations deteriorated as the growing settler population expanded its resource use and gradually displaced Mi’kmaq from their homelands. These previous inquires have overlooked cases such as Port Royal, where Acadians quickly disrupted Native ecologies by turning an important Mi’kmaq cultivation site into fields for European grains. Moreover, Acadian agricultural scholarship has focused more on examining the interactions of Mi’kmaq and settlers in areas of salt marsh, rather than in locales where Acadians developed upland niches inhabited by Maliseets. On the Walastakw,

Maliseets and Acadians appeared to be moving toward more close interactions in the 18th century, while Mi’kmaq and Acadian relations were deteriorating.64

The broad range of Indigenous cultivation in Acadia suggests that the land use patterns of Native peoples and early settlers were not always as separate as scholars have previously suggested. Indigenous peoples and Europeans sometimes used the same microenvironments for cultivation on the Walastakw and elsewhere in Acadia. French and British colonists gravitated to the rich soils and clearings that characterized Mi’kmaq and Maliseet cultivation sites; thus pioneering European and Euro-American settlers sometimes displaced Natives from important food production niches. In other cases, Indigenous peoples and colonists peacefully shared the same fertile microenvironments. Port Royal and Fredericton, as well as other colonial settlement locations, were former Native cultivation spaces which settlers over-laid with successive waves of colonial farming.

There are no accounts of Maliseet maize harvests to evaluate whether they continued their layered harvesting practices and use of maize stalks, but there are signs that Maliseets had begun to use seed stock obtained from colonists as well as Eurasian crops in the late 18th and early 19th centuries. Campbell noted that Maliseets

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who agreed to send their children to Christian schools received provisions of flour, “beans and corn,” which probably encouraged them to desist from cultivating their own seed. They also adopted potatoes, an Andean crop transplanted to the river, as well as European grain crops and flax. By 1841 Maliseet farmers at Madawaska had formed a partnership with one of their French neighbours who worked part of their lands with them for a share of the crops.65

Maliseets moved their village at the head of the tide at least twice between 1762 and 1783. While Meductic was located on the same intervale for generations, Maliseets moved their settlement at Aukpaque from the western bank of the river to a nearby island after the British had deported most of their Acadian allies further downstream in the 1750s and early 1760s. Joseph Peach’s 1762 map places the village clearly on the riverbank above St. Ann’s point, but seven years later the British surveyor Charles Morris claimed that the Maliseets had demolished the buildings of this village and relocated their settlement to a nearby island,

the Place where the Indians of St. John's make their annual Rendezvous. On this Island is their Town, consisting of forty mean Houses, or Wigwams, built with slender Poles, and covered with Bark. In the Center of the Town is the Grand Council Chamber, constructed after the same Manner as the other Houses.66

Maliseets’ reasons for relocating are not recorded, but the fact that the move coincided with the British military’s occupation of the Walastakw and the subsequent

66 “Charles Morris to William Spry,” 25 Jan 1768. http://archive.org/stream/cihm_39602#page/n5/mode/2up (Accessed 13 Aug 2013); Peach “Plan of the River.” See the following chapters for more on conflicts between Acadians and British forces.
deportation of most of their downstream French allies suggests it was a defensive strategy. The river’s estuary ends at Aukpaque Island where canoeists encounter strong currents as well as sand and gravel bars that force them to put in to shore and portage around portions of the next few kilometers of the waterway. Aukpaque is part of a chain of islands and sandbars formed by the large volume of silt that the river collects further upstream and deposits as it slows down and widens when it reaches the estuary. The sandbars restrict passage to the island by vessels larger than canoes to only a few narrow channels during periods of low water in summer and autumn, making it harder for navigators to access than the nearby shores. Maliseets probably considered the island a better location from which to repel or flee an attack by the British, and abandoned their more accessible village site on the mainland as they had Ouïgoudi in the early 17th century. Their relocation to the island, however, was temporary. While the village was still located there in the 1770s, the Loyalist planner Edward Winslow’s 1783 survey of the waterway placed “Aupac” six miles above St. Ann’s Point and separated from the Keswick River on the opposite shore by four islands, the same general location it had been in 1762.67

From the mid 18th century onward, Maliseets continued to locate their villages near falls and rapids that were good locations for catching fish, as well as near navigation obstacles on major transportation routes. Aukpaque was positioned in

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short paddling distance of excellent fishing locations on the Nashwaak and the narrow bottlenecks that interconnected the lakes of the Grand Lake system, which in turn, led to the portage paths that linked the St. John watershed to the Richibucto River and Gulf of St. Lawrence. The Maliseet village at Madawaska was near Little Falls, where the Madawaska tributary plunged into the Walastakw and created a barrier to fish and travellers seeking to travel to Lake Témiscouata and over the mountainous portage trail to the St. Lawrence. In the 19th century Maliseets also lived in the village of Tobique next to the major rapids of the tributary that shared its name and within a short walk and paddle to excellent fishing on the Walastakw, and on the nearby Aroostook tributary. This long tributary abounded with fish and originated in the fresh waters of Lake Nicatau at present day Mount Carleton, where a portage trail led to the headwaters of the Nepisiguit River, which empties into the Baie des Chaleurs. While located near many of the same geographical features as their villages in the 17th century, the built landscapes of Aukpaque, Tobique, and Madawaska in the 18th century lacked the rows of tall palisades that encircled the lodges at Ouïgoudi and Meductic in a protective ring. The decrease in Maliseet wood use for defensive walls may have been a response to the reduced risk of an invasion by Mohawks and other Native enemies, the protective buffer of French forts and settlements that insulated Aukpaque from the late 17th to the mid 18th century, and eventually, the advent of more peaceful relations with the British following the Revolutionary War.68

68 The above descriptions and image of Aukpaque do not note palisades. For Madawaska as an unenclosed village, see Nicholis, “Plan of the Western Parts.” For Tobique, see “Perley’s First Report.” For thoroughfares, see Bailey, “Relics,” 6
The Seven Years’ War (1756-63) and the American Revolutionary War (1775-83) engulfed the river’s estuary and involved the Maliseet nation. The participation of groups of Maliseets in the defensive and offense campaigns during both wars disrupted their hunting, fishing, and planting activities on the Walastakw and increased Maliseet dependency on European rations during and immediately following these prolonged conflicts. Most Maliseets who had left the river to support their allies in other regions returned to the watershed as the wars were drawing to a close and negotiated with Britain through treaties of Peace and Friendship, as they had earlier in the century to obtain provisions to supplement their subsistence activities and to ensure that they could continue fishing, hunting, planting, and gathering in peace. From a Maliseet perspective, informed by almost two centuries of successful negotiations with French authorities, the treaties they signed with Christian names or traditional animal totems were agreements between two separate nations to live in accord with each other, not formal surrenders of lands, rights to resources, or political agency.

Maliseets appear to have continued using their ability to trade with multiple European powers to their advantage during the Revolutionary War. They held the balance of power in the watershed during most of the conflict and their response to

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the war was complex. Frustrated with the British failure to live up to their treaty
promises, and the growing encroachment of English-speaking settlers onto their
hunting and fishing grounds, the principal Maliseet sagamores, Ambroise Saint-Aubin
and Pierre Tomah, initially pledged their support to General George Washington’s
forces in 1775. In the resulting treaty, Washington agreed to provide them with
protection, provisions, and a truck house in their homeland where they could conduct
regular trade. While they had complained to rebel leaders that the British had not
provided them with a trading post to trade, the supervisor of the Machias truck house
claimed that “the Offers they have from the Factors of Nova Scotia causes them to be
Troublesome . . . I have hitherto given 8slb [8 shillings per pound] for Beaver to hinder
their Trading with Nova Scotia.” This suggests that Maliseets were once more using
their mobility to create a competitive market between rival groups of Europeans to
improve the prices they received for furs.70

Maliseets continued their consensus-based polity structure and practice of
using allies as buffers during the Revolutionary conflict. After realizing that
Washington was not able to honour his promises to protect or provision Maliseets on
their homeland, Tomah and a small group of supporters decided to pursue a course of
neutrality and cooperation with Great Britain. The majority of Maliseets, however,
elected to continue supporting Saint-Aubin after they secured their alliance with
Colonel Allen and his soldiers through feasting and gift exchanges at Aukpaque. When

70 “Ambroice & Piere Toma to Council,” 12 Sep 1775; “Petition of the Inhabitants of the Eastern Part of
the County of Lincoln,” 5 Feb 1776; “General Washington to Brothers of the St. Johns Tribes,” 24 Dec
1776; and “Letter from Stephen Smith, Machias, to Council,” 33 Jun 1776, in Kidder, Military Operations,
54-6 and 59-61.
British forces ascended the river to Aukpaque, Allan and many Maliseets retreated across the Eel River portage route to the upper waters of the St. Croix and eventually to Machias, Maine, to join with Washington’s forces stationed there. Tomah and the Maliseets who chose to live in peace with Britain once more positioned themselves on the lakes behind the Maugerville settlement when Revolutionary forces threatened the river in 1778, using the British settlers who remained loyal to the Crown on the mainstream as a buffer between them and the rebel army. While Tomah agreed to permit and defend British mast cutting on the river in exchange for security and provisions for his people, he never volunteered to join Britain’s offensive operations. Tomah’s negotiations with British authorities, and his ability to eventually convince the Maliseets who supported the Revolution to follow his lead after Saint-Aubin’s death in 1780, were instrumental in securing Britain’s presence on the river while the Penobscot and other watersheds further west became the territory of the unified rebel states. Maliseets maintained strong political positions with both Britain and the Revolutionary Army, and they did so on their own terms.71

Many Maliseet appear to have incorporated increasing amounts of British supplies into their diet from the 1760s onward, but they continued to move throughout their homeland and obtained large amounts of food from cultivation, hunting, fishing, and gathering. The size of the waterway and expanse of its large

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tributaries provided Maliseets with access to resources for subsistence and trade. Their interregional mobility and diverse resource use informed the nature of the second treaty signed between Great Britain and the United State of America. The Jay Treaty (1794) recognized the rights of Maliseets and other Indigenous peoples to move, live, and use resources on both sides of the new international border between British North America and the United States. Article three of the treaty recognized the importance of the traditional portage routes between waterways and provided Indigenous people the right to traverse these trails and waters without paying duty on “peltries . . . proper goods and effects of whatever nature.” It specified, however, that, “goods in bales or other large packages, unusual among Indians, shall not be considered as goods belonging bona fide to Indians.” The agreement enabled Indigenous people to move and market small quantities of material, but evidently restricted them from developing larger international commercial enterprises. It did however, enable Maliseets to continue moving throughout and beyond the extent of their traditional homeland to trap and take part in seasonal blueberry and potato harvesting, gathering herbs, and seeking wage employment throughout the expanding economies in the Northeast.72

Maliseets’ loss of access to many field sites, fishing holes, and hunting grounds, as well as colonists’ depletion of mammals and fish from 1760s onward, increasingly curtailed their ability to make a living outside of the colonial structure. By 1768 French

trappers from the Kamouraska region of the St. Lawrence were travelling to the upper watershed and seriously depleting the beaver population on which the Maliseet depended. Colonists told Patrick Campbell in 1791 that good Maliseet hunters drew “from twenty to thirty guineas in some seasons for peltry.” The next year, however, Francis Lazes, a Maliseet hunter living on the Keswick River above Fredericton, petitioned the government for cultivation land, as there was no longer enough game to sustain his hunting. Eight settlers verified that as hunting had become “dull,” Lazes could no longer feed or clothe his wife and eight children.73

The widespread reshaping of the landscape and modifications to the river’s flow made by thousands of colonists in the late 18th and early 19th centuries affected Maliseets’ sense of place as well as their livelihoods. Within a few generations, European colonial settlement altered important physical and cultural landscapes that Maliseets had shaped and thrived upon for centuries. Settlers turned Maliseet medicine gathering sites, villages, and spiritual places into hay meadows, farms, and places of industrial production. Milldams blocked the passage of fish and canoes at traditional fishing spots on the lower river, ruining important Maliseet fisheries and impairing Maliseet mobility. Colonialism destroyed important parts of their cultural waterscape. Some of the plants and animals with which they had forged complex relationships over centuries, such as wolves and large white birches, were increasingly

73 “Governor Francklin to Governor Carleton,” 18 Aug 1768, in Akins, ed. Public Documents of the Province of Nova Scotia, 356; Campbell, Travels, 92; “Petition of Francis Lazes,” 16 July 1792 and “Petition of Francis Lazes, 7 Aug 1792 PANB, RS108, reel F1038. See also Reid, “Empire, the Maritime Colonies, and the Supplanting of Mi’kma’ki/Wulstukwik.”
becoming scarce as a colonial landscape of bellowing cattle and fragrant clover
replaced large parts of the landscape that Maliseets had known and helped to shape.\textsuperscript{74}

Maliseets’ responded to the impacts of British settlement in the decades following the American Revolution by maintaining their access to natural resources when possible, and adapting new ways of making a living from local plants and animals. Maliseet fresh and saltwater fisheries appear to have been vital to early colonial subsistence in the 17th and 18th centuries, and Maliseets faced no legal restrictions in marketing their catch at this time. The British surveyor S. Hollingsworth, for instance, noted in a 1787 discussion of present day Nova Scotia and New Brunswick that “Lobsters are found on all parts of the sea-shore in great abundance, and the catching them is chiefly confined to the Indians, who carry them to market in their small canoes.” They manufactured, sold, and rented canoes, as well as brooms and other items, to settlers and visitors to New Brunswick. Maliseet women made and sold moccasins for Loyalist women to wear as dancing shoes to colonial balls. Maliseets living on the lush intervale lands at Tobique and Madawaska sold their hay each year to nearby settlers. Thus, from the late 18\textsuperscript{th} to the mid 19\textsuperscript{th} centuries, Maliseets were an important part of the emerging settler economy, transportation network, elite social activities, and colonial agriculture. These transactions represent an extension of their traditional economy and skills and not a departure from them.\textsuperscript{75}

\textsuperscript{74} See the following chapters for the impact of French and British colonization on the river.
Some Maliseets also continued to play a role in the colonial mining economy. In 1799, a Maliseet, Lewis Joseph, supplied the New Brunswick government with Grand Lake coal with a schooner that he owned and operated. Moreover, Maliseet knowledge informed the first British geological surveys of the watershed, just as they had informed the French explorers who searched for valuable minerals in the 17th century. An anonymous British map of the river in 1778, for instance, labelled the land between Eagle and Square Lake in present day northern Maine as “Valuable mines of Copper, Iron and Lead are here, by the information of the Indians.” In the 19th century, Maliseets escorted Abraham Gesner to important geological deposits within the watershed in the first colonial geological survey within British North America.76

Maliseets also retained their status as important river and portage guides in the British colonial economy. They helped cartographers develop some of the first British maps of the watershed. The first surveyor general of New Brunswick, George Sproule, for example, labelled a section of his 1787 map of the watershed “Indian sketch of their communications from the Saint Lawrence to the Saint John by Lake Tamasquatat.” He also attached phrases such as “information by the Indians,” and “the Indians report” to descriptions of the watershed’s lateral tributaries and portages. Sproule’s cartographic notes suggests that Maliseets drew parts of the map and supplied information for other sections. In the 19th century, Maliseets escorted and

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guided hundreds of sports fishermen and hunters throughout the waterway and even paddled a British Prince across the Walastakw.77

Maliseets did not always receive fair value for their labour and resources from settlers. Some farmers refused to pay them the price they had mutually agreed on for their hay. Residents of Fredericton claimed that one of the largest merchants in the town, Peter Fisher, blatantly cheated Maliseets who came to his store to trade: “He would put his fist on the scale and say it weighed a pound.” Even the New Brunswick colonial government included a discriminatory clause in the first colonial predator bounty laws. These laws only awarded Maliseet hunters one half of the reward that whites received for killing wolves that threatened colonial livestock. Maliseets continued to use their cultural elasticity and resilience to adapt to the changing circumstances on the waterway long after meeting Europeans and Africans, but now faced a state regulatory regime and settler culture that was largely hostile to their equal participation in the local economy.78

In the face of Loyalist settlement in the aftermath of the American Revolution, Maliseets sought to consolidate their control of key sites on the Walastakw that would enable them to maintain extensive access to the river’s diverse resources, including agricultural land, fishing sites, and hunting zones. They continued to see the entire length of the river and access to its many microenvironments as critical to their


subsistence and economic strategies, and they used their mobility throughout and beyond the waterway to their advantage in their negotiations with European colonists. What they discovered was that the British wished to allocate homesteads to all residents of the new colony of New Brunswick. Although the state eventually recognized several small Maliseet reserves in the 19th century, British settlement resulted in a trend toward individual land ownership that isolated Maliseets from many of the microenvironments and resources they depended upon, as well as engendered profound transformations to the river.
Chapter 3
Rivière St. Jean: Defining France’s claims, ca. 1550 to 1720

Europeans accumulated knowledge of the rivière St. Jean slowly throughout the 16th and 17th centuries. European explorers and merchants realized that the waterways that drained into the Bay of Fundy were important for moving goods and accessing Indigenous trade networks. The navigational obstacles of the Bay of Fundy’s powerful tides and the Reversing Falls barrier at the mouth of the St. Jean, however, ensured that Europeans were slow to gain the knowledge necessary to establish trading posts and settlements. Most early maps depicted the rivers flowing into the Bay of Fundy and coastal waters further south as dead ends. Explorers knew that these rivers led to Indigenous peoples who could supply them with fish and furs, but they also realized that these watercourses were not passageways through the continent. The geographical representation of these rivers as short encouraged early European visitors to North America to centre their economic and colonization activities away from the Bay of Fundy, although they realized the area offered valuable resources and potential alliances with its Indigenous residents.

European monarchs commissioned explorers to cross the Atlantic throughout the 16th century to discover and claim commercial networks to China and India. Asian spices ranked among the most profitable trade items in early modern Europe, but merchants could only obtain these spices via long overland routes or perilous sea
voyages around Africa and across the Indian Ocean. They hoped to find a northern passage to China by sailing around or through the new lands that European expeditions had been encountering in the western Atlantic since 1492. Europeans knew little about these lands in the early 1500s. An Italian father and son sailing for England, John and Sebastian Cabot, had landed on Cape Breton or Newfoundland in 1497. Portuguese expeditions, headed by two brothers from the Azores, Gaspar and Miguel Corte-Real, later visited the New World following the Cabots. Another Portuguese explorer, João Alvares Fagundes, sailed to Newfoundland in 1520, and scholars have speculated that he may have briefly founded a Portuguese colony in Cape Breton. As these explorers had poor knowledge of the region they were “discovering” and only vague accounts of their journeys have survived, it is difficult for scholars to know exactly where they went and what they did. By 1521, Europeans had surveyed and landed on stretches of the coastlines of Newfoundland and Cape Breton, but they remained uncertain of what was further to the west. Many merchants and navigators believed that it would be possible to find a sea route to Asia by extending exploration further.¹

The expeditions France began sending across the Atlantic in the 1520s located and explored large swaths of the continental coastline of North America as well as the

islands along it. Bays and rivers that offered potential routes through the continent were of particular interest to these voyagers. An Italian, Giovanni de Verrazano, led the first recorded French voyage to the New World in 1524. From late winter to early summer he sailed along the coast between Florida and either Cape Breton or Newfoundland with a fifty-man crew. A group of merchants operating in France sponsored this voyage in the hopes of locating a trade route to China. Verrazano’s voyage revealed that the new lands were of continental size. He named a section of the coastline Francesca, after François I, who had endorsed the voyage. Not long into his trip, he mistook barrier islands for a narrow continental isthmus and thought the sound he could see across them was the Western Ocean that the Spanish explorer, Vasco Núñez de Balboa, had seen on his 1515 trek across the Isthmus of Panama. Verrazano met Etchemins in present day Maine who acted as though they were accustomed to trans-Atlantic trading. They only allowed the explorers to exchange iron fishhooks and other specific goods for furs by swinging trade items between ship and shore where rough waters prevented Europeans from landing. The Etchemin wish to keep Europeans at rope length may have stemmed from previous conflict with explorers or an understanding that disease followed physical contact with pale strangers. Verrazano disliked these Natives because they showed him disrespect by barring their buttocks and making rude gestures to his crew. Etchemins forced the explorers to flee the shore when they tried to venture away from the coast and survey the interior of the Etchemin homeland without the permission of its Native residents. Verrazano decided to have no further contact with these people or their northern
neighbours as he sailed further up the coast, which he described as “beautiful, open and bare of trees, with high mountains in the interior.” He did not comment on rivers along this part of his voyage, but the maps his voyage inspired illustrated several waterways in the vicinity as well as a large island “S. Joan” near a mainland location labelled “C. De Breton.”

Jacques Cartier made three voyages to North America for France between 1534 and 1542. His explorations focused on the islands and waters to the west of Newfoundland and Cape Breton and a massive river that led far into the continent, the St. Lawrence. Cartier traded with Native people (most likely Mi’kmaq) along the north shore of present day-New Brunswick and interacted with other Indigenous peoples on the “rivière de Canada,” which was consistently called the “fleuve Saint Laurent” in the 17th century. After news of this huge waterway reached France, the monarchy added colonization to its goals for the newly discovered lands. France hoped that by settling subjects, it could secure a sovereign claim over newly discovered lands and resources and control the passageway to the lucrative Asian trade. François I commissioned the Protestant noblemen, Jean-François la Rocque de Roberval, Lieutenant-General of Canada in 1540 and ordered him to found a Catholic colony along the large river.

Roberval complied and expanded a fortified trading post established by Cartier into a small town, Charlesbourg-Royal. Cartier, who had crossed the Atlantic in advance of Roberval, was supposed to guide the Lieutenant-General, but he disobeyed his orders and returned to France with a cargo of fool’s gold. This incident marks the first of many rifts among the leading French officials tasked with administering New France. Ill-provisioned and full of unruly criminals, Roberval’s colony was a disaster. The colonists who survived the long cold winter returned home in spring.3

Sixteenth-century maps of North America reflect a slowly changing set of competing geographic theories, arguments, and imaginations at play, not only between documents, but within single documents, rather than a progressive narrative of increasingly accurate and more detailed knowledge. Cartographers worked for rival monarchs who benefited from appearing to possess superior geographic information of foreign lands and waters, and they did not always have access to the works of rival nations or even those of their predecessors within their own imperial network. For instance, while the Portuguese cartographer Diogo Homen mapped the Bay of Fundy and rivers flowing into it in 1558, later French explorers, such as Samuel de Champlain, do not seem to have had access to this image.4

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4 Sébastien Cabot, “Océan Atlantique nord,” 1544 BNF, GED-27. For Diogo Homen, who was in the employ of Charles V, deliberately erasing details of Verrazano’s voyage on his maps to preserve Spain’s claims, see http://cartographic-images.net/Cartographic_Images/346_Ribero.html (Accessed 30 Mar 2015). See also, Ganong, *Crucial Maps*.
A map of New France drawn by Italian cartographer Giacoma Gastaldi in 1556 detailed an unnamed river in present-day New Brunswick with roughly the same course as that of the St. Jean. It depicted a person sitting on the riverbank next to a small nondescript animal and groups of Native peoples dancing and sitting under flat-roofed shelters. The map expressed the Bay of Fundy as a passage leading to the Gulf of St. Lawrence and it depicted European fishermen hauling in a catch from small boats in what is now the Gulf of Maine. Further west, the mouth of a huge waterway labelled the “Angoulesue” appeared strikingly similar to the unique shape of St. Jean harbour, the Reversing Falls narrows, and Courtney Bay. This passageway led northward into the interior until it connected to a large east-west waterway, probably the St. Lawrence. Gastaldi drew both without tributaries, suggesting that natives or other European explorers had reported that these two waterways penetrated inland, but did not relate much about their branches or headwaters. His placement of the label “Cape Breton” on both the large island to the southeast of the unnamed river, and on the mainland to the east of the Angloulesue, Port Real, and Port du Refuge attested to the confused and conflicting state of European geographical information of Northeastern North America at this time.5

Merchant-explorer Étienne Bellenger passed by the Walastakw’s mouth in 1584 on a voyage from Cape Breton around peninsular Nova Scotia to the upper Bay of

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Concerning Brunswick P. Vaulx,” Bellenger, www.oshermaps.org/map/1666.0001 Service de de... Labradora.” 7

By 1593, European explorers and cartographers had charted the Walastakw’s mouth many times and at least a few probably realized that its mainstream extended far into the interior. They could have acquired this knowledge from conversing with

Etchemins or observing the high volume of its discharge. Some Europeans may have learned about the river’s interior from personal observation made from European vessels or Native canoes, but they would have needed permission from the Maliseet who controlled its narrow tidal mouth to voyage up the river. The fact that groups of Indigenous peoples in present day Maine and the Bay of Fundy had responded with hostility to Verrazano and Bellenger’s expeditions to their homelands may have deterred Europeans from attempting to penetrate the interior of this region. As well, the Reversing Falls itself likely deterred most explorers from penetrating the river, especially if they only visited its mouth at low or high tide, when safe passage through the narrows at the head of Saint John harbour is impossible. This barrier certainly would have discouraged them from considering the river a safe navigational route into the continental interior. In addition, the name St. Jean had appeared in various locales (often as a small or large island) throughout the 16th century. The maps European cartographers produced in the 16th century, however, do not agree on where these specific micro-features occurred within the greater Northeast. It took another generation of explorers and cartographers to assemble these discrete localized features into a cohesive body of regional geographic information that fixed the name St. Jean on the river Maliseet knew as the Walastakw.

In 1598, with the Wars of Religion and the war with Spain ended, Henri IV began commissioning French merchants and military associates to undertake North American ventures. That year he gave the Marquis de la Roche a commission as lieutenant general, and a grant to establish a colony on the “Islands of Canada.” The
Marquis situated his colony on wind-swept Sable Island, a small island 175 km southeast of present day Nova Scotia, and it lasted only a few years. In 1599, the Norman military captain and entrepreneur Pierre de Chauvin and the Governor of Dieppe received a royal commission for ten year monopoly for the fur trade in New France. In 1600, after protest from la Roche, Henri IV gave Chauvin a new commission that made him la Roche’s lieutenant, and narrowed his monopoly to the St. Lawrence. With the assistance of Pierre de Gua and François Gravé du Pont, Chauvin established a twenty-five by eighteen-foot trading post where the Saguenay River emptied into the St. Lawrence’s northern shore amidst rolling hills. This was a strategic location within the Indigenous trading networks of northeastern North America, but it was poorly suited to agriculture. When Chauvin died, one of his associates, Aymar de Chaste, took over the commission and became Vice Admiral of New France. In 1603 he dispatched an expedition to New France that included Pierre du Gua de Monts and Samuel de Champlain.7

In the early summer of 1603, two natives who had overwintered in France escorted de Monts, Champlain, and other French visitors to New France up the St. Lawrence to Tadoussac. Shortly after arriving at the post they befriended the Etchemin sagamore, Chkoudun, who told them of the large river that he lived on and that Etchemins frequently travelled with furs over the short portages that led to the St.

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Lawrence. The French found the sagamore eager to trade with them and they appreciated the furs that he brought from his homeland. Chkoudun also told them about a rich mine not far from his village that excited them. In 1603, he led a small party of Frenchmen in the employ of Malouin merchant Jean Sarcel, sieur de Prévert, along the upper Bay of Fundy identifying mines, rivers, portages, and Native villages.8

De Monts realized that the cold climate and barren soils of Tadoussac were unsuitable for an agricultural settlement. The prospect of furs, mines, good relations with Natives, and portages and river systems that connected the St. Lawrence to the Atlantic, enticed him to centre future colonization efforts further south. De Monts believed that these lands would be warmer and more fertile than the rocky soils of Tadoussac and thus provide a better base for farming. After the death of de Chaste, King Henri granted de Monts a Royal commission for a ten-year-monopoly on Acadian trade and colonization in the fall of 1603. When he received this commission, de Monts and his associates knew where the Walastakw entered the Bay of Fundy, and they likely had arranged to meet Chkoudun at his village during the following spring or summer.9

Members of the de Monts expedition to Acadia renamed the Walastakw, “rivière St. Jean” on June 24th 1604, the feast day of Saint Jean de Baptiste, when they sailed into the turbulent waters at its mouth. This feast day was one of the most important days of the year for Catholics. The night before, Lescarbot claimed “the

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8 Champlain, The Works, vol. 1. See also chapters one and two of this study.
De Monts’s crew fired canons in honour of St. Jean and a leading member of the voyage who shared the name Jean. In this instance, North Atlantic sailing conditions and the Christian calendar of saints influenced European naming practices in North America. Had de Monts arrived two months later the river may have entered the annals of history as “St. Bartholomew.” North Atlantic waters are treacherous to cross in fall and early winter because of cyclonic windstorms that form in the mid-latitudes offshore of North America and track north and east across the ocean. Sailors learned to wait until the relative safety of late winter before crossing the Atlantic. The 1604 explorers may have been drawing from an older European nomenclature of “Montognas S. Iohan,” “C. de S. Ioan,” and “Isle St. Jean” when they attached the name “Cape St. Jean” to the river’s mouth and “St. Jean” and “St. Iehan” to the river. Like “Acadia,” cartographers moved these names around the Atlantic seaboard throughout the 16th century. Christening the river introduced a new way of thinking and relating to it by incorporating the waterway into the narratives of European language, history, and culture. The river was reborn as a masculine gendered Christian space. The new name did not evoke the waterway’s physical characteristics as did the name, Walastakw. Nor did it suggest a Maliseet relationship to it.10

The French who visited the Walastakw sought to replace Maliseet traditions on and toward the river with Catholic practices such as worship of saints and erection of crosses. Champlain’s 1604 harbour plan shows a cross on a gravelly point near Ouigoudi. In the minds of Europeans, this cross and Chkoudun’s placement of crosses on lodges were steps in remaking the river’s mouth into a Christian waterscape. They may also have been evidence of Maliseets appropriating crosses and thus attempting to control the signs of the visitors who plied the Bay of Fundy with increasing frequency. Historians H.H. Langton and William F. Ganong claimed that the de Monts expedition erected the shoreline cross in 1604, but explorers’ writings do not verify this claim. That Champlain did report finding a “very old cross, all covered with moss, and almost wholly rotted away” near Parrsboro a few years later suggests earlier visits by cross-erecting Christians to the Bay of Fundy who did not leave records of their voyages.11

Nicolas Denys noted in 1672 that Christian colonists associated with Charles de la Tour’s fort at the mouth of the river branded the Manitou in the waters below Reversing Falls “the Devil.” Maliseets traditionally left offerings on the large wooden tree in the tidal pool, but Denys claimed that the French had convinced them to stop leaving “those offerings so frequent and usual . . . made as homage to their manitou in passing by places in which there was some risk.” Joseph-François Lafitau wrote in 1724 that Natives in the region kept worshipping a submerged tree, a sign that Manitou

veneration continued despite French counsel. Although European accounts usually distinguished between Maliseet and French traditions, there were similarities in their symbolic structures and cultural relationships to rivers. The French, like Maliseets, endowed large wooden objects with spiritual meaning near important water routes and practiced rituals to ensure safe passage on rough waterways. Moreover, the blessings of priests invested water with spiritual power that they used to baptize people and ward off pests that threatened grain crops. Lafitau compared Native Manitou worship to ancient primitive European practices that Christianity had ostensibly replaced. However, many “Christian” European contemporaries of Lafitau continued honouring pre-Christian practices such as leaving offerings at holy wells and healing springs, as well as pagan solstice rituals on St. Jean’s day.12

In renaming the river, the French asserted a claim to it, and made it more intelligible to Europeans. When French explorers labelled the river St. Jean, they made it more readily recognizable to other Europeans and thus easier to discuss in Indo-European languages that had not developed within the watershed. Moreover, France’s replacement of Maliseet nomenclature with the name “St. Jean” fostered the perception amongst the Europeans who saw it on documents, or heard it in conversation, that the river was European space and a carrier of Judaeo-Christian historical tradition. Indeed, the Jesuit priest Francesco Gioseppe Bressani claimed that

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the rivers of New France had a “destined use, which is to serve for washing and as a drink for men and animals.” Bressani, like many Europeans, primarily viewed North America rivers as resources that existed to serve the needs of colonists and their livestock.\textsuperscript{13} Henri IV considered the St. Jean watershed and the surrounding region French territory, giving a group of French subjects exclusive rights of “occupation, possession, and colonisation” to all lands, waters, plants, animals, and minerals. The King’s commission to de Monts noted a long history of contact with Natives and sailors in Acadia. It commanded de Monts to treat for and to make peace, alliance, and confederation, lasting friendship, correspondence . . . with the said peoples and their princes . . . to form, maintain, and sedulously observe the treaties and alliances upon which you and they shall agree, provided that they on their part do likewise, and failing this, to make open war upon them to constrain and bring them to such terms . . . for the honour, obedience, and service of God, and the establishment, maintenance, and preservation of our authority among them; . . . at least as may ensure that you and all our subjects may go out and in among them in full assurance, liberty, intercourse, and communication, and may there trade and traffic in friendship and in peace.\textsuperscript{14}

The 1604 voyage focused on fur trading, finding mines, spreading Christianity, and planting an agricultural colony. De Monts needed friendly relations with Native trappers to profit from his trading monopoly and his commission mandated that he extend olive branches before musket muzzles. Moreover, he had to set up a trading post that both fur-laden Native canoes and French supply ships could reach. These

\textsuperscript{13} Bressani, “A Brief Account of Certain Missions,” JR vol. 38, 223.
\textsuperscript{14} See “King’s Commission,” and “Commission from Admiral.” See also Griffiths, Migrant to Acadian, 3-8. Names such as “Musquash Island” on mid 18th century English maps suggest the significance of furry animals to French and English relationships to the St. John, see Raymond, The River, 117.
variables made rivers especially important sites for linking the salty Atlantic to the source of thick furs in the northern interior.

France’s plans for North America relied on European perceptions of reality based on abstract coordinates, maps, and the decisions of distant people to control the river. As James C. Scott notes in his study of high modernity, maps and scientific surveys rendered nature into data that was ‘legible’ and useful to states and empires that sought to control rivers and exploit natural resources. Champlain’s mapping of the St. John was part of a global process that helped European empires entrench sovereign claims over lands and resources in distant locales. Employing mathematics and scientific surveys, mapmakers represented landscapes with abstract associations, such as the use of letters and numbers to denote the location and name of villages and rivers. People living along the river heard the sounds it made as it gurgled and rushed to the sea, they watched and sometimes felt its changes in volume, and observed many of the river’s other properties. Indeed, some of the river’s characteristics, such as its seasonal flooding, were difficult, and at times impossible, to ignore. Cartographers, however, reduced complex and dynamic natural systems to a small number of static symbols that were important to the transatlantic market economy and the entrenchment of European power on the landscape. French maps of Acadia, for instance, depicted fur and hide bearing animals, cod, and big trees, but not bullfrogs, jellyfish, or hobblebushes. People who relied on maps to know the St. Jean quite literally could not see the surrounding forest for the trees; they overlooked the associations among living creatures, as well as their seasonal migrations and other
dynamic behaviour. Maps of the St. Jean helped Europeans position the river as a small feature within a transatlantic imperial trading and political system, not as a complex and distinct hydrographic system or storied landscape.\textsuperscript{15}

To Europeans, the St. Jean watershed and surrounding region was composed of discrete resources that represented present and future opportunities, rather than a homeland with a long history to which they had personal and cultural ties. European maps and early written accounts of the waterway were rough sketches, compiled through relatively quick study that were, at most, grounded in observations made throughout one person’s career or drew upon a few generations of previous works. These documents did not represent the historical processes that shaped the river, or in the case of Champlain’s later maps, the Maliseet who had modified the regional environment and considered themselves inseparable from the riverine landscape. Thus, European maps and written descriptions in the early 17\textsuperscript{th} century drew from a shallow observational base compared with the understandings that Maliseets had accumulated and passed on through oral traditions, calendars, and engagement with the river and surrounding landscape.\textsuperscript{16}

The French barely knew the waters and lands that they claimed. Whereas Maliseet understanding and use of space embodied concepts that evoked the physical


\textsuperscript{16} Scott, \textit{Seeing Like a State}. See also chapters one and two for more on Champlain’s maps.
geography and seasonal practices patterned on deep connections to local landscapes and a broad resource use, French explorers and officials did not have generations of experience with the river and surrounding region. Their early 17th-century geographic knowledge of Acadia was so poor that they needed help finding the most basic landmarks. On the ground, their jurisdiction and authority was often confusing and contradictory. De Monts knew that portages linked the St. Jean and St. Lawrence watersheds, but the latitudinal boundaries in his commission did not include them. It instructed him to make “explorations and surveys along the sea coasts and other districts of the mainland, which you shall order and enjoin within the said region extending from the fortieth degree unto the forty-sixth, or otherwise so far and to such distance inland as may be possible.” In modern context, these coordinates extend north from New Jersey, to a line just shy of Prince Edward Island and Cape Breton. Meductic is on the forty-sixth parallel, but the river winds close to this latitude further downstream near present-day Fredericton and Mactaquac. River bends and latitudinal measurements may have led de Monts to believe that most of the river was outside his commission. The stipulations of de Monts’s charter informed the mapping work that Champlain performed in Acadia in 1604 and 1607. He used instrumental reckoning and Maliseet informants to conclude that Acadian rivers were short without visiting their headwaters “because the great river St. Lawrence runs parallel to the coast of Acadia and Norumbega, and the distance between them by land is not above forty-five leagues, or sixty at the widest part.” The boundaries of de Monts’s monopoly encouraged the surveying of more southerly regions fully inside the commission, thus
prolonging French ignorance of the St. Jean’s upper reaches. Henri IV, however, contradicted the latitudinal boundaries in other documents, giving de Monts jurisdiction over locations north of the forty-sixth parallel. Had he received a grant to higher latitudes or to the watershed itself, exploration and settlement on the St. Jean may have unfolded differently.¹⁷

French explorers’ initial mistrust of Etchemins probably influenced de Monts in ignoring the St. Jean as a settlement site. Living near the big fortified Indigenous town that dominated the entry into the river from the ocean might well have intimidated a small group of settlers wary of potential hostilities with new neighbours. Moreover, Lescarbot and Chevalier’s antagonistic encounter with residents of Ouïgoudi in 1607 suggests that at least some early French traders learned that they were not welcome here. The 1604 explorers initially settled an island in the St. Croix, a river they thought only a few Etchemins visited to fish in summer. Lescarbot, however, reported that de Monts’ colonists lived in fear of attack from Natives who camped on the island near the trading post during the winter. Expedition leaders’ selection of the island reflected European perceptions that colonists should follow English settlement promoter Richard Hakluyt’s advice to “plant upon an Island in the mouth of some notable river, or upon the point of the land entering into the river” to take advantage of fertile soils and trade. De Monts and Champlain chose the island because it was defensible and a

¹⁷ See “The King’s Commission,” and “Prohibition issued by the King to all his subjects other than Monsieur de Monts and his Partners, to traffic in furs or otherwise with the Savages,” 221-3; Champlain, The Works, vol. 1, 293. For Champlain, see C.E. Heidenreich, Explorations and Mapping of Samuel de Champlain, 1603-1632 (Toronto: B.V. Gutsell, 1976). Champlain’s maps and journals contain errors and discrepancies in distance and location. As scholars do not know which league he used to map rivers, claims of the extent of exploration based on coordinates and distances are hard to confirm.
good place to conduct trade with Natives. Expedition leaders, however, branded the climate along the north shore of the Bay of Fundy unsuitable to cultivation and settlement after their colonists suffered a winter of misery and death on the tiny island. They looked to either warmer and more accessible locations across the Bay, further south along the coast, or the St. Lawrence rather than the waterways of present-day New Brunswick for future locations for settlement and trading posts.\(^{18}\)

The French state and its commission holders could not easily impose and enforce trading monopolies on the St. Jean and surrounding coasts. French and Basque merchants had been visiting the coasts to trade with Indigenous peoples in this region for decades with minimal royal interference. De Monts’ 1603 commission disrupted the established pattern of unrestricted access to Acadian resources and Native peoples. Moreover, European patents carried little or no weight in Maliseet and Mi’kmaw decisions to conduct trade with the people who visited the lands and waters they controlled. Under pressure from rival French merchants who resented the disruption of their customary rights and a chief minister who questioned the merits of colonization, the King revoked de Monts’ commission in 1607. De Monts responded by abandoning his settlement attempts in the region. Most of the colonists he had brought to Acadia returned to France, and a few stayed to operate within the competitive trading environment. When he received a new commission, de Monts centred his trading and settlement activities further inland at Quebec, a location that

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did not have a long history of rival European merchant operations. As well, the single waterway that connected Quebec to the Atlantic was an easier geography for commission holders to defend against competitors and to police their associates than was the indented, sinuous Acadian coastline.\textsuperscript{19}

Much of the St. Jean watershed was a mystery to the French for most of the 17th century. Champlain never ventured very far above Reversing Falls. His 1604 harbour plan and 1607 map only portrayed the river’s mouth. He claimed that it was sixty-five leagues from Reversing Falls to Tadoussac, but this distance is difficult to comprehend. Champlain did not note which of the several French leagues he used to tally this distance. Depending on his choice, the entire distance could be as short as 210 kilometres or as long as 380 kilometres. In addition, Champlain did not note if this distance was a straight line or along the winding river. Even if Champlain had used a larger league for this measurement, his estimate fell roughly 200 kilometres short of the actual distance (approximately 500 km). The sixty-five league measurement estimated at 300 kilometres does, however, reflect Champlain’s 1612 map, which compressed the north – south gradient of the St. Jean and surrounding region. Lescarbot and Champlain claimed that the first recorded European voyage upriver, in 1608, traced the river to a point that was close to its source. Their individual discussions of the fifty-league trip of the mariner Pierre Anglibaut, sieur de Champdoré and Jean Ralleau, de Monts’ secretary, however, were brief and second-hand. They do

\textsuperscript{19} For revocation of de Monts’ monopoly as a reflection of the dispersal of economic, political, cultural, and military power, and the beginning of more state involvement in the Northeast than was typical in North America, see Mancke, “Spaces of Power,” 40-2. See also John G. Reid, “The ‘Lost Colony’ of New Scotland and its Successors, to 1670,” in Reid, Essays, 60.
not clarify what measure the men used to describe their journey or who accompanied them. Moreover, the absence of key features such as Grand Falls in these accounts makes it difficult to know if the explorers followed the mainstream or a large tributary such as the Tobique or Aroostook to its source. The French initially underestimated the extent of the river and made few records of its interior for seventy years. The few Europeans who wrote about the St. Jean did not traverse its reaches or accumulate years of experience living along it. Moreover, they were unfamiliar with the Indigenous language that helped Maliseet navigate the river and find food along its banks. The vague and contradictory knowledge presented in earlier maps of the region did not provide colonizers with much practical information for using the waterway effectively.20

Writings from the 1610s only describe the St. Jean upstream as far as the trading post operated by Robert Gravé, du Pont on Caton’s Island, roughly thirty-three kilometres above Reversing Falls in a straight stretch of water known as Long Reach. Gravé used this island as a base to export furs to France until 1618, when he left Acadia to join an ill-fated expedition to the East Indies. On 11 Oct 1611, two Natives “conducted” the vice admiral of New France, Charles de Biencourt, to the post to collect his overwintering fee of furs from du Pont, suggesting that the official needed Native guidance or permission to visit the lower river. Gravé was upriver when Biencourt arrived, an indication the Malouins were trading above their post. Biencourt, like de Monts, had encountered resistance from rival French traders, who

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resented the economic privileges his commission extended. Gravé had earlier clashed with Biencourt’s father, and the visit of the vice admiral resulted in minor violence that almost led to full-scale conflict between the two groups. Father Biard accompanied Biencourt on this voyage and held mass on the river. The Jesuit’s account of this trip detailed the character of the lower St. Jean, its Native population, and fur trading.

Biard considered the waterway an excellent place to establish a mission as it was in the heart of Etchemin territory. Biencourt, perhaps fearful that the Jesuits and Pont Gravé would unite to oppose his authority, refused the missionary’s request to relocate there without the company of the vice admiral’s men. Biard disobeyed Biencourt and sent his Jesuit comrade, Father Massé to overwinter along the estuary with Membertou’s son, Louis, in 1612. This is the earliest record of a Jesuit living with a Native band.

Massé subsequently used his experiences on the Wəlastəkw to help train the next generation of missionaries. Moreover, it is evident that the French authority on the river continued to be fractured. For both Gravé and the Jesuits, settling further up the St. Jean presented an opportunity to carry on their activities away from the supervision and interference of imperial authorities.²¹

The 1609 map drawn by Lescarbot and those produced by Champlain in 1612 and 1613 testify to the confused and limited nature of French knowledge of the river at

this time. These maps illustrate French conceptions of different rivière St. Jeans.

Lescarbot separated its mainstream into twin branches just north of forty-six degrees
in his 1609 map. Champlain’s 1612 map depicts mountain ranges bordering the
waterway and a long estuary in which several tributaries intersect. The map shows the
river branching into three headwaters above its estuary: the Eastern most flows from a
series of mountains, the middle from a large lake, while the third branch descends
from the Northwest. The 1613 map was cruder. It only showed two branches and
their ostensible headwaters, the eastern most originating in a small lake. These maps
suggest that France knew the river’s size and general course, and realized that it did
not provide a passage to the interior of the continent. The images do not detail
portages, waterfalls, or fishing locations. In addition, Champlain’s depictions continued
to compress the north-south gradient of the land between the St. Lawrence and the
southern shore of present day Nova Scotia.22

Early French visitors realized that the lower rivière St. Jean had destructive falls
and rapids that made navigation difficult. They portrayed the river’s mouth as
dangerous, a reputation that stuck. Biard journeyed above Reversing Falls and
described it as
described it as

very narrow and very dangerous: for the ship has to pass between two rocks
where the current of the tide is tossed from one to the other, flashing between
them as swift as an arrow. Beyond these rocks lies a frightful and horrible
precipice, and if you do not pass over it at the proper moment... of a hundred
thousand barques not an atom would escape, but men and goods would all
perish.23

Champlain included soundings of water depth, currents, and navigation hazards on his 1604 harbour plan. While this information helped make the area legible to ship pilots, he gave faulty directions for passing Reversing Falls. He claimed the Falls were navigable at high tide, but noted that ships that try to pass through them then (when harbour waters are fourteen and one half feet higher than the river above the Falls) face tremendous risk. Forty-minute periods when tidal current has stopped rushing through the passage, roughly two and a half hours after high tide and almost four hours after low tide, are the only times that vessels can pass through the channel in relative safely. Champlain’s error may have compounded Europeans’ difficulties in navigating and getting to know the river. Ocean going French vessels were too heavy to portage around rapids, unlike Maliseet canoes. Thus, European access to the biggest river in Acadia and New England was limited to brief slack tide intervals within the rhythmic seething of the restless sea and the St. Jean’s current. In 1613, Champlain added that rapids kept shallops from sailing further above Reversing Falls than thirteen leagues. In 1672, Denys repeated Champlain’s erroneous directions for the Falls, and claimed ships could ascend the river “eighteen to twenty leagues” above them.

Europeans could not easily penetrate the interior St. Jean as most of the watershed remained beyond the reach of the sailing technology France relied on to assert military strength and conduct transatlantic trade.24

Scottish nobleman, Sir William Alexander, labeled the river “the Clyde” in his plans for the colony of New Scotland in the 1620s and 1630s. The entire watershed

was included in the territory of this colony, but the Scots never settled the Clyde.

French trader-colonist, Charles la Tour, preserved France’s claim to the St. Jean in the 1630s. He built fort Sainte Marie (Fort la Tour) at its mouth in 1631, three years after France lost control of most of New France to English forces during the Anglo-French War (1627-1629). La Tour moved to the St. Jean in 1631 from peninsular Nova Scotia, as the St. Jean was distant from the Scottish settlement at Port Royal and its supply lines, and north of the 45th parallel that New England claimed as its northern border. Moreover, the river offered la Tour access to fur and alliances with Maliseets. In 1632, after England restored Acadia and the St. Lawrence to France in the Treaty of Saint-Germain-en-Laye, la Tour became a lieutenant of Acadia’s new governor, Isaac de Razilly. De Razilly acknowledged la Tour’s control of the St. Jean, where he was developing a bustling commercial settlement at Reversing Falls. It included tradesmen, soldiers, women, children, and Recollet priests who probably had knowledge of the river gleaned from their previous mission. These colonists drew drinking water from a deep well, planted gardens, pastured livestock, and brought cats to defend their grain stores from the rodents that their ships brought to Acadia. La Tour obtained thousands of furs from Maliseets on the watershed, but he had a hard time defending his property and securing his claims to the area.25

French tenure was seldom secure on the St. Jean. Poor imperial knowledge of the geography of Acadia, rival European claims, and dissension among the leaders of New France weakened France’s hold on the river in the 1630s and 1640s. Scottish raiders in 1632 obtained 1,200 hundred beavers, 300 moose, and fifty otter pelts from Fort la Tour. After de Razilly died in 1635, his influential cousin, Charles de Menou

d’Aulnay (also a lieutenant governor in Acadia) clashed with la Tour and claimed the rights to the St. Jean fur trade. La Tour’s 1635 patent entitled him to trade and share fur profits with de Razilly to the extent of ten leagues in the vicinity of Fort la Tour and Fort St. Louis on Cape Sable. Royal officials, however, later demonstrated their instrumental ignorance of Acadian geography by awarding d’Aulnay and la Tour the rights to each other’s territories. La Tour continued to live on the St. Jean, but now only held trading rights to lands and waters along the southern coast of the Bay of Fundy. His nemesis, d’Aulnay, on the other hand, lived at Port Royal and held the privileges to St. Jean trade. Neither official honoured the other’s claims to what they perceived as their respective territories. La Tour, for instance, confiscated a cargo of 400 beaver and 400 moose skins d’Aulnay had collected from the St. Jean. D’Aulnay won favour at court and persuaded royal officials to strip la Tour of his authority and rights in Acadia, the second time in forty years that France had revoked the commission of its most knowledgeable official in the colony. La Tour, realizing that he could not rely on French Imperial power to aid his attempts to make a living and home on the river, turned to Boston merchants and mercenaries for aid, bringing the St. Jean into the sphere of New England capital and trade. In 1643, his New England Protestant allies exported a cargo of coal and lime from the waterway as partial payment for their military aid. The cargo indicates that Europeans had learned to navigate pinnaces through Reversing Falls as far up as the Grand Lake coal deposits. After d’Aulnay sacked Fort La Tour in 1645, la Tour left Acadia for the St. Lawrence until his enemy
drowned in 1650. He then married his rival’s widow and rebuilt his fortified home at the river’s mouth.²⁶

French control of the river continued to waver in the mid 17th century. A 1651 commission from Louis XIV and the Queen Regent reinstated La Tour’s previous rights in Acadia. The English Commonwealth, however, took control of the river in 1654. La Tour used a baronet he had received from Sir William Alexander through his father’s intrigues in England to convince the Lord Protector, Oliver Cromwell, to sanction his rights to Acadia and allow him to continue living there. Cromwell co-granted Acadia to la Tour and two Englishmen, Sir Thomas Temple and Colonel William Crowne. The three men were to pay Cromwell twenty moose and twenty beaver skins each fall for exclusive rights to the forests, inshore fisheries, and waters of Acadia to a distance of thirteen leagues (thirty-nine miles) from the sea. This grant included less of the river than de Monts’ 1603 commission, but more than La Tour’s French privileges. La Tour sold his share to his partners who “repaired St. Jean’s Fort and built a trading house 150 miles up the River,” near the Jemseg River, signs that Europeans were moving upstream beyond official commission boundaries, limits that meant little to Native trappers and English traders. In 1662, King Charles II granted Temple an English commission that included Jemseg, “St. Jean’s Fort,” and “up the land 100 leagues [into

the interior] and thirty leagues into the sea.” This new grant encompassed a large swath of the Bay of Fundy, including the shoreline at Port Royal and it extended inland up the St. Jean to Grand Falls, farther than previous English and French privileges.27

France was supposed to resume command of Acadia after the Treaty of Breda restored the colony to its control in 1667. Thomas Temple, however, used France’s delay in transferring a portion of the Caribbean island of St. Christopher to England as justification to stall relinquishing control of Acadia for three years. After regaining Acadia in 1670, the Intendant of New France, Jean Talon, and Jean-Baptist Colbert, France’s minister of finance, tried to set up a line of communication and defense between the ice-free Bay of Fundy and the seasonally frozen St. Lawrence to secure the colony against English expansion. They sent canoe parties to scout the suitability of the Kennebec and St. Jean for transportation. When the surveyors found the St. Jean easier to navigate, French officials launched plans to colonize the waterway and develop it into a militarized buffer zone. Over the next two decades, France tried to establish forts, soldiers, and settlers as well as sedentary fisheries along the St. Jean and elsewhere in Acadia to reinforce its trading policies and entrench its sovereign claims to the region. The French reoccupation of the river coincided with Louis XIV’s 1670 decree to end colonial dependency on trade with rival nations. Provisioning the

lucrative West Indies sugar plantations with fish, wood, and food from New France rather than New England was a key component of this economic policy.28

In 1671, royal officials instructed the governor of Acadia, Hector D’ Andigné de Grandfontaine, to “travillier pas toutes sortes de moyens à l’establishissement des soldats et des familles dans les postes du Port Royal, rivière St. Jean et dans toute l’estendue de la Coste.” The governor dispatched a lieutenant under his command, Pierre de Joybert, to accept the surrender of the St. Jean from English officials. In 1672, the military governor of New France, Buade de Frontenac, made Joybert a major and gave him command of the re-occupation of the St. Jean. True to the pattern set by earlier French officials in Acadia, Joybert and Grandfontaine had a difficult time working together. Moreover, officials only provided Joybert with nine soldiers to maintain France’s claim to the river. This tiny detachment settled at the fortified trading post that Temple had set up at the mouth of the Jemseg River, the short tributary that connected the mainstream of the St. Jean to the largest lake on the watershed, Grand Lake. This small force proved unable to resist the raid of a Dutch privateer, Jurriaen Aernoutsz, who in 1674 briefly disrupted French tenure and kidnapped Joybert. France secured Joybert’s freedom in late 1675 and he returned to

the river shortly afterward. In 1677, France made Joybert administrator of Acadia, and Jemseg became its administrative centre. To help solidify Joybert’s control and better enable him to attract settlers to the watershed, France granted him the right to strategic locations for communications and fur trading; the lands surrounding Jemseg, the mouth of the Nashwaak, and part of the river’s mouth.29

French royal officials attempted to regulate the colonization of the St. Jean through the seigneurial system, an economic, social, and legal apparatus that facilitated settlement and commercial development in France and New France. As historical geographer Richard Colebrook Harris indicated in *The Seigneurial System in Early Canada*, seigneurial grants were a type of contract between individuals or companies on the one hand, and the monarchy, on the other. The *Coutume de Paris*, a French civil law code that provided for a variety of landholding arrangements, governed seigneurial concessions in New France. Colonial officials often modified or ignored the code to adapt to the different circumstances of New France, including larger tracts of land, and lighter governmental control over people and resources. These agreements enabled male and female seigneurs to hold rights and obligations to land and resources and to French subjects on the land. Many seigneurs owned and rented farmland, but not all grants centred on leasing land or agriculture. Seigneurial

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contracts often had a commercial focus, with the terms of specific grants reflective of local geography and resources such as timber, furs, or fish. Concessions near the sea, for instance, were often orientated toward developing commercial saltwater fisheries.30

Authorities awarded most seigneurial contracts on the St. Jean between 1672 and 1699, in tandem with Louis XIV’s expansion of French imperial power. These concessions were the basis of the first comprehensive European attempt to settle the St. Jean and develop its resources, and reflected French understandings of their relationships to the river. Studies of the seigneurial system in Canada and Acadia have often overlooked or marginalized St. Jean concessions, but the river was not a forsaken backwater in New France. Four seigneurs on the banks of the St. Jean were sons of a prominent member of the Sovereign Council, the governing body and Court of Appeal of New France. The brother with the largest farm, Mathieu d’Amours, replaced his father on the Council. Canadian officials partially administered Acadia and they managed and discussed St. Jean and St. Lawrence seigneuries in tandem. Historians’ marginalization of St. Jean seigneurs appears to be as much the influence of modern political boundaries on the geographical framing of contemporary scholarship as it is

historic differences in settlement trajectories and land tenure systems within New France.31

Regional histories have also marginalized or misrepresented the St. Jean seigneuries. In 1899, Ganong claimed that while the seigneurial history of New Brunswick was interesting, it was an ineffectual failure. “This extensive attempt was . . another of those barren branches of which history has so many, one whose interest must be chiefly sentimental, and whose details may be omitted altogether in any work which attempts to follow the line of evolution of present-day conditions.” Writing in the 1960s, Andrew Hill Clark dismissed the seigneurial system’s significance in Acadia. Naomi Griffith, in From Migrant to Acadian, discusses the importance of St. Jean seigneuries to New France and appraised the challenges faced by local seigneurs and habitants. Her treatment of the river, however, focuses on military activities and largely overlooks the farming settlements that seigneurs developed on the river in the 1680s and 1690s.32


32 See Ganong, Historic Sites, 90-1; Clark, Acadia, 115-20; and Griffiths, Migrant to Acadian, 109-10 and 153-67. For a comparative study of Acadia and Loudunais, France that discussed St. Jean seigneurs, see Greg Kennedy, Something of a Peasant Paradise?: comparing rural societies in Acadie and the Loudunais, 1604-1755 (Montréal: McGill-Queen’s University Press, 2014). In this thesis, the term ‘habitant’ refers to farmers who lived on a seigneur’s land, but who were not servants. “Settlers” refers to all Europeans who came to live on the river.
French officials divided large stretches of the riverbank between its mouth and Grand Falls, 335 kilometres further upstream, into seigneuries. Seigneurs, however, only developed settlements below the head of the tide approximately 140 kilometres into the interior, where European sailing ships could help supply and defend them. This region constituted the core of French settlement north of the Bay of Fundy in the late 17th century just as it would be the heartland of a British state a century later.

These grants were accompanied by a single concession to an established French trader far above Grand Falls at the outflow of Lake Témiscouata into the headwaters of Madawaska River. Seigneurial boundaries followed the contours of waterways. All concessions shared a riparian orientation and many of the same terms, but they were not uniform in size, shape, or focus. Differences among individual seigneuries offer insights into local microenvironments as well as the commercial and settlement plans of specific seigneurs and officials.33

The first seigneurs on the river included men from aristocratic families with military experience. Officials granted Pierre Joybert and his brother Jacques concessions at the mouth of the St. Jean in 1672. Pierre’s concession also included Jemseg and extended upstream along the east side of the “basin” at the river’s mouth. Jacques received a concession to lands bordering Pierre’s seigneury at Reversing Falls. The Joybert concessions did not specifically mention commercial or agricultural activities, but they included provisions for establishing manors and settling “tenants,”

33 For concession locations, see Ganong, *Historic Sites*, 302-14; Craig and Dagenais, *Land in Between*, 38-9. Ganong portrayed upland boundaries as straight lines rather than paralleling the river’s contours.
who presumably were to work the land. They also mandated that colonists must reserve high quality oak for the royal navy.\textsuperscript{34}

The government of New France granted two additional seigneuries at the Reversing Falls that directly reflected the local composite environment of shore and sea as well as the important role France intended merchants to play in the river’s development. The first concession went to Martin D’Aprendestiguy, an experienced Basque merchant who knew Acadia well and may have even earlier lived at the river’s mouth in Fort la Tour. D’Aprendestiguy was married to Jeanne la Tour, the daughter of Charles la Tour and his Mi’kmaq wife. Although heir to la Tour’s claim to the river, he had to petition French officials for his grant as Louis XIV had repossessed older seigneurial titles following the Treaty of Breda (1667) on the grounds that the English occupation had prevented French seigneurs from settling and cultivating their lands as required by their seigneurial contracts. The concession made D’Aprendestiguy, sieur de Martignon. The terms of his grant indicate that he and colonial officials intended the seigneury to be the basis of a profitable settlement that would develop the region and supply food to the African slaves working on France’s sugar plantations in the West Indies. D’Aprendestiguy planned to “improve” the land “by cultivation . . . transporting thereupon a large number of cattle, with which he might in the course of time, be able to assist not only this country, but also the West Indies (Antilles) Islands and other

\textsuperscript{34} MacBeath “Joybert.”
countries . . . also to establish sedentary fisheries therein for the purpose of taking cod and other kinds of fish with which the coast abounds.”  

The next day the Intendant Jean Talon granted another merchant, Jacque Pottier, sieur de Saint Denis, lands bordering the Martignon seigneurie. The River’s mouth, once the centre of a large Maliseet fishing settlement, was to become a French farming and fishing community. The Pottier concession stated:

having been informed of the good quantity of the lands adjoining the River St. Jean . . . capable of producing grain of every kind in abundance, and becoming profitable to those who may settle . . . by their cultivation or by the establishment of sedentary fisheries for . . . taking cod or other kinds of fish which abound on the coast; intending, with the help of a sufficient number of men whom he would bring over from France . . . to settle on the said lands . . . not only for his principal manor house, but also for a sufficient number of men to form a settlement (bourgade).  

In order to facilitate the speedy settlement of the river, the grant required Pottier and his tenants to occupy their lands within a year. Interestingly, these four seigneurial deeds do not mention furs or Indigenous inhabitants. Their economic focus appears to support Louis XIV’s initiatives to develop denser trading networks for food and wood products within the French Empire.


36 Munro, Titles and Documents, 7. For reference to Pottier’s petition for a grant to fish for cod, seals, and oils, see “M. Talon au Roy,” 2 Nov 1671 in Blanchet, Collection, vol. 1, 213-4. For more on these grants, see Gustavus Myers, History of Canadian Wealth (Honolulu: University Press of the Pacific, 2004. [1914]), 24-6.

37 For Joybert, see Munro, Titles and Documents, 9-11. For Martignons living humbly, see “Relation de la province d’Acadie par le sieur Perrot,” 9 Aug 1686, ANOM. Col C11D 2/fol.20v.
France granted these four seigneuries in 1672; the same year it cancelled the assisted migration program, which over the previous decade had aided the development of New France by transporting thousands of women and men as well as agricultural supplies, to the St. Lawrence settlements. This change in imperial policy toward New France became a major impediment to the colonization of the St. Jean. Seigneurs such as Pottier and D’Aprendestiguy had to rely on their own resources to attract workers and settlers to their lands, no easy task for entrepreneurs based in New France. The officials who crafted the plans to settle the river in the 1670s had never visited the watershed and had only a minimal understanding of it. Their ignorance of the diversity and location of microenvironments along the St. Jean may have hindered seigneurs’ plans by concentrating agriculturally-orientated concessions near the rocky mouth of the waterway rather than along its more fertile interior. Pottier did not develop a village or even move to the river. D’Aprendestiguy’s plans to export large numbers of cattle and fish never materialized. Instead, he developed a meagre fur-exporting establishment on his lands. After ten years, he was the only seigneur left on the river and the merchant had only settled a few workers alongside his small family. France’s initial attempt to use the seigneurial system to entrench its presence and authority on the river was a dismal failure.38

In 1682, the King gave the Compagnie de la Pêche Sédentaire de l’Acadie (The Company of Acadia) the rights to develop a fishery and trade furs along Acadia’s coasts.

and up the rivière St. Jean. The Company centred its fishery on Nova Scotia’s south shore at Chedabouctou (present day Guysborough) rather than on the rivière St. Jean. Its decision to ignore the river as a base for fisheries may have stemmed from the waterway’s distance from the lucrative fishing banks off the coast of Nova Scotia and Newfoundland. The Company did station its chief agents in Acadia on the St. Jean in the 1690s from where they oversaw the shipping of supplies, furs, and news between the colony and France from Fort Nashwaak and later Reversing Falls. Dièreville’s claim that his work stimulating a green cod fishery and truck system at Port Royal in 1699 surpassed twenty years of the Company’s efforts suggests that sedentary commercial fisheries had remained meagre within the Bay of Fundy during the late 17th century.39

French fisheries regulations focused on excluding rival nations and Protestants from territorial waters rather than controlling how many fish French subjects caught in the seas and rivers of Acadia. This made the Company of Acadia vulnerable to criticism from French Catholic officials who feared that the Protestants that composed a large part of the firm’s backers and employees (including the director of the Company, Clerbaude Bergier), would align with New England in the wave of intolerance surrounding the issuing of the Edict of Fontainebleau and the revocation of the Edict of Nantes in 1685. Writing in 1684, Bergier himself complained that some of their French

Protestant fisherman had defected to Boston and that New Englanders had ransacked the firm’s property and captured their agent. He also noted:

Les Anglois n’ont pas cessé pour cela de continuer leur commerce, de venir pescher et fair sescher leur poisson dans les meilleurs forts, d’enlever toutes less pelleteries, s’emparer des meilleurs endroits des rivières de l’Acadie, comme celle de Sainet Jean et aultres, par où les Sauvages descendent et les apportent, et d’avoir mesme des magasins au Port Royal . . . y ayant près de 600 aames qui n’ont point de commerce avec d’aultres qu’avec les Anglois de Baston et de Salem.40

The Intendant of New France, Jacques de Meulles, objected that many Company employees were token Catholics who still lived as Protestants. During his 1685-86 visit to Acadia, he passed laws requiring that these fishermen attend “Mass on feast-days and on Sundays, and . . . working only on those days on which they were permitted to work,” which according to official Church practices excluded dozens of holy days each year.41

Acadian governors often treated New Englanders’ access to saltwater fisheries and other resources in Acadia as a necessary and profitable evil that required toleration, if not official endorsement. French imperial supply networks did not sufficiently provision Acadia. Villebon worried that barring English fishing vessels from Acadian waters would lead to restrictions on French access to important items such as the New England cattle and horses that the colony needed to improve its herds.

Indeed, the commander believed the French could alter the lax working habits of Acadian fishermen by placing experienced English workers on French vessels to encourage greater efficiency amongst their crews. The weakness of French supply chains and difficulties in balancing commercial fisheries and agricultural interests may have impeded Martignon and Pottier’s plans to develop large fish and cattle export enterprises at the river’s mouth.42

Illegal trade persisted between New England and the rivière St. Jean despite official animosities between France and England. Villebon arrested Boston merchant and heir to Thomas Temple’s claim to the river, John Nelson, and his crew at Reversing Falls in 1691, when the Governor’s return from France interrupted their illegal trading venture. Jean Martel, the Acadian seigneur of present-day Machias, Maine, accompanied Nelson and briefly escaped in a small ship. Villebon soon confiscated Martel’s goods, but evidently valued his skills and character, as Martel later married the commander’s daughter and become a seigneur on the St. Jean. Villebon, the bastion of French authority on the St. Jean, also kept mercantile ties with New England that he had cultivated during his factoring days in Port Royal. Ironically, the Company of Acadia appears to have remained tied to the French economy despite its Protestant

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connections, while the commander and other Catholic officials frequently traded with Boston.43

The geography of the river and its relation to surrounding waters and landforms influenced the course of French settlement, commercial enterprises, and military activities. The interior waterway offered more insulation from sea-based raids than coastal villages throughout Acadia. When Port Royal and other seaside settlements fell to English raids in 1690, Villebon used his knowledge of the St. Jean to his advantage. During an emergency meeting, Villebon and other colonial elites opted to relocate within the lands of their Maliseet allies above Reversing Falls. The commander believed this move would delay and deter English hostile forces while offering secure communication to Canada. France later endorsed this relocation, and developed a plan to use the St. Jean as a staging ground for launching Native-French raids on New England to divert English attention from Canada during The Nine Years’ War (1688-1697). The deadly attacks of Maliseet warriors and French soldiers provoked English retaliation on the fort and settlements on the St. Jean in 1696. Villebon, however, had ample warning to mobilize defenses and call for Maliseet aid before the tide let English troops enter the river to threaten Fort Nashwaak. He stationed sentries on the high bluffs near Reversing Falls, who travelled upstream by canoe to warn settlers and the

Fort Nashwaak garrison as soon as they spotted the English fleet. In contrast, the invasion force of 400 to 500 New Englanders and their Indigenous allies had to proceed cautiously up the unfamiliar mist-enshrouded waters. As the fleet’s four largest warships could not safely ascend the river, the English had to launch their assault from smaller vessels with less firepower and troop carrying capacity. When the English reached Fort Nashwaak it was already mid-October and fears of being trapped inland by river ice helped prompt the invaders to abandon their assault after several days and return to the sea. The river was not an easy conduit for a naval invasion. In the fall of 1758, another British incursion lost a warship in the Falls, and shallow water above Jemseg prevented them from burning St. Ann’s, enabling hundreds of burned out settlers from the lower river to seek shelter and aid in the upper village.\footnote{A.R.M. Lower “Geographical Determinants in Canadian History,” in Essays in Canadian History, ed. R. Flenley (Toronto: The Macmillan Company of Canada Limited, 1939), 230-1; Villebon, “Voyage to Acadia,” in Webster, Acadia, 24-5. The move resembles Kennebec farmers’ relocation and Loyalist debates over placing New Brunswick’s capital. For defense, see Villebon, “Siege of Fort Natchouak,” and “Acadia since the Departure of the English;” Gyles, Memoirs, 37. See also, Donald F. Chard, “‘Pagans’, Privateers and Propagandists: New-England-Acadia Relations, 1690-1710” (M.A. Thesis, Dalhousie University, 1967), 48-51. For raids as diversion, see “Roy au sieur comte de Frontenac,” 7 Apr 1691, in Blanchet, Collection, vol. 2, 54-5. The Falls still menaced French ships, but Villebon understood them better than his English adversaries. See Villebon, “11th November 1692 to 7th August 1693,” in Webster, Acadia, 44; W.F. Ganong, ed., Report of the Proceedings of the Troops on the Expedition up St. Jean’s River in the Bay of Fundy Under the Command of Colonel Monckton,” CNBHS vol. 2, no. 4 (Saint John, NB: The Sun Printing Company, 1899), 165-74.}

In the 1690s, Monsieur Tibierge, the Company’s agent on the rivière St. Jean, claimed that moving Acadia’s seat of government to the interior of the river had injured commerce and the ability of the French military to police its coastline and fishing banks. He advocated relocating Villebon’s Fort Nashwaak garrison to a new fort at Reversing Falls to improve inter-colonial trade while also providing a protected base for French naval forces to secure Acadian waters from English fishermen, raiders, and
merchants. Evidently, for transatlantic firms, isolation from markets and decreased control over oceanic space offset the benefits of security on the river’ interior.\(^{45}\)

Most St. Jean seigneuries granted in the 1680s and 1690s were on fertile interior lands away from the lure of saltwater fisheries. In 1684, the same year that New France granted a concession to the Company of Acadia, officials granted Mathieu and René d’Amours, the sons of one of the most powerful men in New France, Mathieu d’Amours des Chauffours, concessions on the St. Jean. Their grants and those that followed were orientated toward attracting settlers to raise livestock, exploit wild animals and plant resources, and forge trading ties with Natives. France divided most of the lower half of the river into agricultural and commercial seigneuries aimed at developing the region into a strategically-placed colony of farmers, fishers, shipbuilders, and craftsmen who could export raw and finished products to France and other French settlements in the Americas. The location and orientation of the new concessions suggest that French authorities were slowly moderating their colonization and economic plans to fit the St. Jean’s microenvironments and resources.\(^{46}\)

French officials never intended agriculture to be the singular focus of St. Jean seigneuries. Two of the four principal grants from the 1670s had a commercial fisheries focus, and later seigneurs held the rights to trade with Natives, as well as to develop timber, animal, mineral, and fish resources. Officials gave seigneurs a monopoly on fur trading to divert skins from going to New England and to generate

\(^{45}\) Tibierege, “Present State of the Province of Acadia,” Jun 30, 1697, in Webster, Acadia, 152.

profits to fuel settlement. Several seigneurs were local factors who operated trading posts. Gyles worked at Louis d’Amours’ store and noted a trading post at Madawaska. René d’Amours visited Meductic to trade. Gabriel Godin operated a post across the St. Jean from Fort Nashwaak. 47

Agriculture slowly increased on concessions as seigneurs’ trading profits became more secure. The development of interior trapping and trade on the St. Jean accompanied Colbert’s opening of the upper St. Lawrence to increasing numbers of traders and the accompanying glut in fur prices from over supply. Scholars such as J.C. Webster, who criticized St. Jean seigneurs for trading rather than developing larger farms, did not adequately note the mixed focus of local concessions or the fact that trading reinforced rather than retarded agricultural expansion. Although Webster correctly observed that the d’Amours brothers failed to fulfill their concession contracts, this was not due to their moral character or “the temptation to engage in fur-trading,” but rather to the primary obstacles in settling and farming the region. Scholarly claims such as Webster’s do not adequately recognize the d’Amours’ contributions to settlement and the broader challenges they faced in developing their lands. 48

French social conflict on the river in the 1690s was largely a clash between two families with rival claims to authority. The d’Amours, with the ear of the Sovereign

47 Gyles, Memoirs, 37, 10, and 20-1; George MacBeath, “Godin, dit Bellefontaine, dit Beauséjour, Joseph,” DCB vol. 4, http://www.biographi.ca/EN/009004-119.01-e.php?id_nbr=1915 (Accessed 15 Feb 2013). For fur trade policy, see “Rapport de M. de Meules au Ministre,” 4 Nov 1683 in Blanchet, Collection, vol. 1, 298-300. For Colbert, see Harris, Reluctant Land, 101-2; Webster, Acadia, 7; and Dolin, Epic History of the Fur Trade, 104-5.
48 See Webster, Acadia, 7. Webster’s argument resembles 19th-century claims that lumbering detracted from farming.
Council and positive relations with local clergy, had concession rights to develop
crime and agriculture. The Robinau brothers, who included Villebon and two
other military officers, derived power from military commissions and gained influence
through illegal trading with French and New England merchants. They controlled
military forces, official diplomatic relations with Natives and New England, as well as
the distribution of royal supplies and presents. Most criticism of the d’Amours
stemmed from Villebon, who claimed they “have been so much given to libertinism
and independent action . . . they cannot submit to authority. It is necessary to watch
them closely. They are seditious and have a dangerous influence over weaker minds.”
Indeed, French officials believed their libertinism was cultivated through contact with
Natives.49

The Intendant of New France, Jean Bochart de Champigny (1686-1702), drew
on a report of the Recollet missionary at Meductic, Father Simon, and concluded that
the d’Amours were respectable sons of a member of the Sovereign Council. “C’est bien
mal à propos, Monseigneur, que l’on vous a mandé qu’ils mesnent une vye licencieuse
avec les Sauvages, puisque j’ay des tesmoignages assurez que leur conduittte est fort
bonne.”50 It took copious amounts of capital and labour for colonists to clear and plant
farmland. Pioneering colonists, like the d’Amours, had to import livestock, settlers,
and supplies. The fur trade was the most viable commercial activity open to seigneurs
on the St. Jean’s interior and they used profits from it to settle their lands. In addition,

49 “Villebon to Count Pontchartrain,” Oct 1 1695; “Villebon to Minister,” 26 July 1696, in Webster,
Acadia, 86-7.
gaining reliable access to trade goods was a principal reason Maliseets permitted the French to settle on the river and the d’Amours’ trading helped cement the alliance between the two cultures. The pull of the fur trade was not pervasive, nor did it detract from agriculture. Louis d’Amours formed partnerships with other French traders to help him manage his fur enterprises on the St. Jean and at Richibucto, freeing him to focus more on developing his St. Jean seigneury. Censuses indicate a steady growth in the farms owned by René, Mathieu, and Louis. By the mid-1690s, the holdings of the latter two were large by both Acadian and St. Lawrence standards.51

St. Jean seigneurs were social and economic leaders. They built a mill, developed commerce, led settlers in battle, and were their tenants’ advocates against abuses by Villebon. Louis d’Amours and his wife Marguerite Guyon peacefully worked with Father Simon to liberate English captives from Maliseets and return them to English domains. Moreover, seigneurs used their contracts to condemn the infringements that local officials made upon their trading rights. Most French colonizers had struggled to attract colonists to Acadia and elsewhere in North America throughout the late 16th and early 17th centuries, and St. Jean seigneurs, like many of their peers throughout Acadia, did not have the benefit of lucrative state resources. Moreover, the d’Amours also struggled against uncooperative local officials.52

Many of Villebon’s peers were critical of his behaviour on the St. Jean. The commander regularly interfered with seigneurs’ legitimate efforts to develop

51 D’Amours, Mathieu D’Amours, 51. For farm sizes, see Harris, Reluctant Land, 62 and 79.
commerce and agricultural settlement despite repeated reprimands from superiors. Several years before assuming command in Acadia, Villebon had been a clerk at Port Royal. While he held the position, a clerk stationed in Acadia, Joseph Gargas, labelled him “the horror of the country,” claiming that his ruthless and illegal trading undermined the development of the colony. Promotion and relocation to the rivière St. Jean did not temper this conduct. Accusations mounted by seigneurs, habitants, junior military officers, and intendants claim that Villebon improperly distributed presents to Natives and illegally traded with New England. Settlers protested that the bullying by Villebon and his friend, the judge Goutins, forced them to abandon the river. The priest attached to the garrison was so disgusted with the conduct of the commander that he refused to hold Villebon’s funeral service until a French officer (who also disliked the commander) paid the clergymen in advance. Rampant strife amongst the military, seigneurial, and religious authorities charged with administering French power stifled the settlement of the river at the close of the 17th century.53

Seigneurial concessions in 1672 mandated that seigneurs locate and report precious minerals to the royal officials or the recently established French West India Company. Later concessions only stipulated they report to royal officials. Pierre

Hameau’s 1687 mineral survey appraised the river’s geology, but did not foster local mining projects. The pinnacle-load of coal and “marble” [limestone?] that “makes very good lime,” that la Tour’s Boston allies exported, probably indicates regular French mining of these materials along Grand Lake and the limestone cliffs near the mouth of the river. A report from 1701 indicated that the French were extracting marble or limestone from the mouth of the river to build their new fort at Port Royal. These activities, and the bullets Natives refined from the Jemseg lead deposit, mark the limited impact of mining on the watershed’s shores during Acadian settlement.54

By the early 18th century, French cartographers had represented the waterway and its principal features in two-dimensional maps that helped reinforce French claims to the watershed and guide French colonization. A cluster of French settlers had successfully established farms, developed working relationships with Maliseets, and called their seigneuries on the rivière St. Jean home. Their success, however, did not keep the French government from ceding Acadia to the British in the 1713 Treaty of Utrecht. The part of Acadia to the north of the Bay of Fundy was contested; both the British and French claimed the St. Jean watershed, but neither government had sufficient resources to impose sovereignty. That ambiguity, however, was not new, but

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to a great extent, a continuation of the historic contestation over the rivière St. Jean watershed by rival European powers.
Chapter 4
Settling along the rivière St. Jean, ca. 1604 to 1790

Marguerite Guyon shivered as a frigid North wind propelled a scarlet leaf across the skim of lake ice glistening in early dawn light. Careful not to awaken her two small children, she rose from the makeshift bed of moose skins and boughs to survey the tranquil shoreline. Marguerite’s cheeks felt the frost as she recited a prayer for her children’s safety. Her servants had kept their fire low, lest flickering flames betray them to the enemy. They were scared. Marguerite feared for the boy who did not return from last night’s watch on her farm and hoped the English soldiers who captured him showed mercy. The cannons echoing in the distance sent more shivers up her spine.¹

Marguerite had sailed on this lonely lake a few times with her husband, Louis d’Amours, to explore the portages that led to their holdings on the Richibucto River and to meet Mi’kmaq who came to their seigneury to trade and share prayers with her devout husband and the priest who sometimes lived with them. She wished Louis was with her now, but he was not due back from France until spring. Young John Gyles had been a huge help through this ordeal. Father Simon the kind priest who lived with the Maliseets at Meductic, had delivered this wide-eyed youth to her in rags and he was repaying her kindness tenfold. John knew these waters better than any settler as he travelled them with Maliseets during his years in captivity. His hunting and fishing skills

¹ The vignette is take from Villebon, “Siege of Fort Natchouak,” 22 Oct 1696, “Acadia since the Departure of the English,” in Webster, Acadia, 89-97; Gyles, Memoirs, 37.
were keeping their small party alive. She hoped that the note she had left for the
invaders about rescuing John from Maliseet captivity would spare their seigneury from
the soldiers’ torches. She conversed with John primarily in Maliseet and Mi’kmaq,
although he was rapidly learning French. He had set a fish trap the night before and
was now roasting several large trout over the small flickering flames. The fresh fish
would be a welcome complement to the dried bread, cheese, and withered plums at
breakfast.

The year 1696 had been disappointing. The fur trade had not recovered after
the epidemic that killed so many of their Maliseet friends over the past two years. As
well, commander Villebon continued cutting into their monopoly with his illegal trading
and bullying. Moreover, just when she thought they were comfortable on their new
lands, the weather or the river did something unexpected. That spring Louis and their
labourers had sown their largest crop of wheat. Yet only a few days after they planted,
a late flood covered the field and prevented them from planting their Indian corn for
two weeks. Summer rains and blackbirds plagued their wheat and the early frost
ruined some of their corn. John had tried to explain how Maliseets reaped their corn
early, but Louis did not want to risk their crop to such strange practices. Now a huge
invasion force from New England had sailed up the rivière St. Jean to assail the
seigneuries and Fort Nashwaak.

She was glad they had warning of the enemy from the scouts Villebon had
positioned at Reversing Falls. It had given her time to load their small shallop and the
canoe Louis had purchased from their Maliseet friends with a few valuables and
supplies. The small party had set off up the short Jemseg River that led to the large lake where they were now anxiously waiting further news.

Marguerite enjoyed her life on the St. Jean, but worried that the floods, invasions, and lack of support from France would force them to leave. The farm and trading post that she operated with Louis was almost completely unprotected from this invasion as Fort Nashwaak and their Maliseet allies were upriver. As most of the improvements they had made on their seigneury were located at the mouth of the Jemseg, in plain view of the mainstream, the enemy soldiers were bound to see their dwellings and fields from their ships. They might starve if the English slaughtered the hens, cattle, and sheep that were to provision her seigneury through the winter. Thankfully, their hogs were still on their island pastures in the St. Jean, and she hoped the soldiers sailed by without noticing them. She also feared for the sawmill her husband and his brother had almost completed. There was no grist mill on the river, however, and flour was always in short supply. The soldiers and settlers had almost starved the previous winter when their flour had run out. Within a few weeks, the river would freeze and make it difficult for colonists to get supplies from Port Royal and the settlements on the Minas Basin, especially if the English lingered in Acadian waters.

The rivière St. Jean was the largest fresh waterway in the colony of Acadia and its potential for agriculture, furs, navigation, and fisheries were largely untapped by Europeans in the 17th century. France needed to plant large numbers of settlers to entrench its claims to the region and develop it into a profitable landscape capable of
supporting European livelihoods. On the north side of the Bay of Fundy, the river was Acadia’s main highway, carrying news, commercial exports, life-saving provisions, and soldiers, both friendly and hostile. Settlers depended on the St. Jean for fish. Farmers cultivated the fertile soils that centuries of freshets had deposited on broad flood plains. Initially the presence of French settlers was minimal, resulting only in la Tour, Gravé, and the Martignon’s fur exporting operations. However, toward the end of the 17th century, colonization expanded as Acadians established farms and gardens, introduced Eurasian domesticated animals and crops, and built trading posts and forts along the ninety miles that ocean-going ships could reach in the lower waterway. Their settlements and commercial activities had an impact on forests, soil, fish, and eventually the flow of the river itself.

The St. Jean was a constant for the small parties of French colonists who re-established their lives along it. Unlike imperial planners, settlers had direct contact with the rivière St. Jean each day, season, and year. Its sheer size and seasonal changes required that they initially needed to subordinate themselves to its power and learn from Maliseets. This chapter investigates how French colonists on the waterway adapted to the river’s riches and risks, and how over time their settlements and trading transformed the St. Jean. It shows that to succeed, settlers had to learn how to adapt to the unique circumstances presented by the river’s flood regime. It also reveals that French imperial resources and policy often failed to meet the needs of colonists on the river, a deficiency that limited the impact of French colonization on the watershed. In addition, when colonists did develop sufficient environmental knowledge to adapt to
the river, it attracted competition from the British whose military forces disrupted their settlements and resource use.

Fish

The arrival of massive seasonal migrations of gasperaux, bass, shad, and Atlantic salmon were a key source of sustenance for the French settlers who lived on the St. Jean. The 1608 French explorers who sailed up the river fifty leagues claimed they “would put the kettle on the fire and catch enough fish for dinner before the water was hot.” Their claim was surely apocryphal, but the nutritional relief that Acadians received each year as fish migrations broke the hungry months of winter was not. Charles de la Tour built a weir near Reversing Falls after moving to the St. Jean in 1631 “in which he caught a great number of . . . Gasperaux which were salted down for winter. Sometimes there was caught so great a quantity that he was obliged to break the weir and throw them into the sea, as otherwise they would have befouled the weir.” Evidently, la Tour and the other French settlers at his fort stored the bony gasperaux in spring with salt, and consumed the preserved fish during winter. Nicolas Denys noted that shad, salmon, and bass lived in the river and that the latter resembled “maigre,” a prized European species. During his 1687 mineral survey, Pierre Hameau observed many types of fish and Antoine Laumet, la sieur de Cadillac, added that the river’s salmon fishery was “incomparable, extending eighty leagues into the interior; trout, shad, gasparot, sturgeon, turbot and a hundred other species of fish abound there.” By the 1690s, the French had identified most of its edible fish, even
those that ranged far from their settlements as they slowly enlarged their knowledge of the rivière St. Jean, its tributaries and the portages into other watersheds. Knowing where fish lived was often critical knowledge for a successful journey on the region’s waterways.  

La Tour’s recognition of the cause and effect of weir pollution and his willingness to break his fish trap to prevent problems suggests that he understood some of the ecological impacts and constraints of weir technology on the St. Jean. His efforts to prevent befouling indicate a concern with organic pollution within enclosed fish traps. A close reading of Denys’s account however, suggests that la Tour was more worried about this pollution ruining his weir’s ability to attract and entrap new fish, than a more general concern with its impact on the health of the river’s fish populations. Complaints of later settlers that not enough fish swam into their traps and la Tour’s problem of too many fish, hints at the profound changes that Europeans wrought on the river over the centuries.

At the beginning of the 18th century, a culinary-minded botanist, the sieur de Dièreville, introduced an idea absent in earlier discussions of rivière St. Jean fish: the possibility that they could be a finite resource. The intendant of la Rochelle, Michel Bégon, a renowned naturalist in his own right, sent Dièreville to Acadia to systematically categorize nature and strengthen French medicinal practices with the discovery of new plants and ethno-botanical knowledge. Dièreville brought the

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Walastakw’s plants and animals as well as Maliseet medicinal and culinary traditions into the network of French imperial botany. Dièreville shipped specimens such as the riverside flower “chelone,” (balmony) and the bush honeysuckle that became his namesake, to the Royal Jardin des Plantes in Paris, where he later worked. He also made the rivière St. Jean and its fish better known to Europeans and raised some of the earliest warnings of decline of fish and by extension the impacts on human communities that depended on catching them. He observed

Trout & Salmon are also found in abundance in some places, but I never saw a slice broiling at Port Royal. In a journey I made to the St. John River . . . I ate so much that I lost my taste for it; but I never grew tired of Sturgeon, prepared with the sauce which is used for a fricassee Chicken. If catching all these Fish is of such benefit to the Settlers, it is no less so to the Indians; without Fish they would have to endure evil days, for they do not always have fresh or smoked meat to eat.3

Dièreville visited the rivière St. Jean in mid-summer when it teemed with sturgeon, salmon, bass, and other fish. His memory of gorging on salmon and trout suggests that colonists ate them regularly during this season. Dièreville was part of the travel-writing tradition of learned travellers such as early modern surgeon-naturalists who began to observe and record the impact of humans on their environments in European overseas settlements. These naturalists wrote about human-induced ecological changes across the globe, and historian Richard Grove cast them as important forerunners in the development of Western conservation. While there is no further evidence of declining

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fish stocks on the St. Jean at this time, Dièreville’s warning of evil days would ring true for Maliseets and settlers in later eras. ⁴

Denys’s comparison of bass to “maigre” indicates how European culture influenced colonial dietary preferences and aquatic resource use. Humans usually have to recognize that a plant or animal is edible or valuable before they exploit it. European traditions influenced colonists’ sense of taste, nutritional worth, as well as the monetary value they discerned in flora and fauna. French dietary practices incorporated beliefs around balancing hot and cold foods, as well as warnings about the poor quality of European freshwater. People commonly paired fish, a cold food, with wine, a warm beverage that was often safer to drink than water. Lescarbot recorded that Natives consumed large quantities of fish that threatened to “extinguish their natural heat,” but prevented this danger by substituting wine with tobacco, which he considered a hot food. The French who visited the St. Jean perceived the river’s aquatic resources as an important and potentially harmful influence on the vital energies that they believed sustained their life forces. Moreover, the requirement of the Catholic Church that Catholics could only eat scaled flesh on Friday, during all of Lent, and on the numerous fast days within the Christian calendar put a premium on fish consumption to prohibit landlords and peasants from killing the livestock European agriculture depended upon. Settlers living near clergy, or pious colonists such as

⁴ Richard H. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860* (New York: Cambridge University Press, 1995). For uses of specimens, see 75. Lescarbot suggested St. Croix Island mussels were small because colonists ate the “largest, and left only the seedlings and small fry.” See Lescarbot, *History*, vol. 2, 250. This is one of the earliest recorded impacts of settlers on a North American estuarine. The practice of leaving “seedlings” suggests riverine conservation.
Mathieu d’Amours, would have especially felt this pressure. This dietary policy fueled North Atlantic exploration and commercial and subsistence fisheries in Acadia.5

Catholic dietary practices encouraged subsistence and commercial fishing throughout New France and thus placed additional demands on aquatic animals. Lent and Easter are on the lunar calendar like the Maliseet Spring Fish Moon. Lent occurs for the six weeks preceding the first full moon after the spring equinox. As the lunar cycle does not match the solar calendar, Lent begins on a different day each year between February 3rd at the earliest and March 9th at the latest. In North America, the Lenten season occurred during late winter when Acadian settlers’ provisions ran desperately low and ice rather than migrating fish filled the St. Jean. While visitors to coastal Acadia, like Dièreville, complained of the monotonous salt fish Lenten diet, interior settlers complained of hunger. Colonists living on seasonally frozen rivers such as the St. Jean could not harvest the seafood that sustained coastal settlements, such as Fort la Tour, during winters. Most St. Jean soldiers and settlers lived far above Reversing Falls where they could not access the “sea-partridges” (lobster) which were “very good eating with all kinds of sauces,” and the oysters that proved “a great manna for the winter” on the Gulf of St. Lawrence. These conditions made it difficult to survive and comply with Lenten practices. The first bishop of New France, François de Laval, drew on his local environmental knowledge of the colony and successfully petitioned the Church to classify beaver, muskrat, and otter as fish to meet the dietary

needs of the people in his see. The witty Baron de Lahontan noted that Acadia’s most common animals were “Beavers, Otters, and Sea-Calves, all of ‘em being very numerous. Those who love Meat are indebted to the Doctors, who persuaded the Popes to Metamorphose these terrestrial Animals into Fish; for they are allow’d to eat of ‘em without scruple in the time of Lent.” Laval’s logic for loosening standard Catholic prohibitions on wild aquatic game increased the Lenten food available on interior rivers for Catholic colonists and Indigenous peoples. This suggests that European Church officials understood how the social logic that worked in one climate shifted in another. They responded to colonial needs by modifying Catholic practices to account for the environmental conditions of winter life in the interior of New France.6

Dièreville’s praise of the sturgeon fricassee dish (sautéed and braised meat strips served with a white sauce) gives insight into how Acadians cooked that species on the St. Jean, or at least the fare the local garrison served to important visitors. Denys discussed other sturgeon cooking practices “Their flesh is as good as beef, and like it is carved into slices; and its fat is yellow. It is necessary to boil it four or five hours in order to cook it.” Louis Nicolas claimed one could boil them into a delicious jelly or bake their eggs into foul-smelling bread that “tastes good when there is nothing better to it.” Colonists could also use sturgeon for lamp oil and tanning hides.7

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6 Lahontan, New Voyages, 221; Denys, Description, 278, 356 and 359-60; Jacques Lacoursière, Une histoire du Québec racontée par Jaques Lacoursière (Sillery, QC: Septentrion, 2002), 37-8; and Dièreville, Relation, 114 and 120.
7 Denys, Description, 353-4; Nicolas, et al., Codex Canadensis, 383-4.
The depletion of freshwater fish stocks in Europe influenced what French colonists and visitors sought and prized on the St. Jean, just as the decimation of European fur animals made the pelts of North American mammals worth shipping across dangerous seas. Richard Hoffman, a historian of medieval Europe, discussed how human damming, water diversions, and waste dumping on European rivers interacted with population growth and culinary preferences to cause dramatic declines in slow-growing sturgeon and salmon. French nobles considered sturgeon a favoured delicacy. It became so rare that chefs learned to disguise veal as sturgeon. Denys described sturgeon as “besprinkled with a sort of Fleur de lys,” a symbol of the French monarchy, indicating the high esteem Acadian entrepreneurs had for this fish and its importance among the French aristocracy. The abundance of sturgeon in the St. Jean and other Acadian rivers excited both Europeans’ bodily and financial appetites.8

Acadians did not create a commercial sturgeon fishery on the St. Jean despite the high demand in Europe for sturgeon by-products to make gel and glue as well as to clarify ale. Nicolas, a skilled artist, recorded that European painters used sturgeon glue (isinglass) to make paints. Denys wrote that most isinglass came from the Short Nose Sturgeon: “That would be worth something, and, if the country were inhabited, numbers of them could be taken.” A generation later, Lahontan wrote that Acadian rivers “would afford a plentiful salmon fishery, if there were any body to undertake it.” Evidently, commercial fisheries for these species did not develop in Acadia during the 17th century. In 1739, New France’s Intendant sent a letter labelled, “Peche histoire

8 Hoffman, “Aquatic Ecosystems.” For veal, see 649. For Fleur de Lys, see Denys, Description, 353 and 361.
Colle de Poisson,” to France discussing the potential benefits of making glue from sturgeon. That the letter did not note an existing presence or history of this lucrative industry in the colony further suggesting that Denys’s plans failed to materialize. Thus, St. Jean sturgeon and their counterparts in neighbouring rivers remained safe from French commerce.9

French supply networks did not meet the needs of colonists who tried to fish, settle, exploit, and defend the watershed. Joybert, for instance, had to import a New England carpenter to repair Jemseg’s defenses against New England attacks when he re-established French control of the river in the 1670s. Acadian settlers often relied on English food provisions. Although New Englanders traded regularly with coastal Acadian villages in the 1690s, they did not want their supplies redistributed to the French military on the St. Jean. New England’s threats to destroy Acadian villages that traded with the French on the St. Jean made supplying the settlers and soldiers on the river especially difficult. French goods were supposed to circulate from Port Royal and Minas to the rest of Acadia, but Tibierge observed that Port Royal settlers “because of their fear that, if the English learned of it they would be burned out . . . All the settlers are . . . extremely timid about venturing into this river.”10 English vessels regularly patrolled the Bay of Fundy, and Acadian merchants risked losing their property and lives if they traded with settlers on the river.

9 Denys, Description, 354. Ganong, the editor of Denys’s work, thought isinglass was made from hake, but he based his claim on the late 19th century practices. For glue, see “Lettre de Hocquart au ministre,” 28 Sept 1739, ANOM COL C11A 71/fol. 142-3. For lament the industry did not develop, See “Sessional Papers of the Parliament of the Province of Canada,” 29 Victoria Sessional Papers vol. 2 (Ottawa: Hunter, Rose & Co., 1865), 68-9. See also Dièreville, Relation, 75 and 97; Lahontan, New Voyages, 220.
The seasonality of fish and river ice, and the interior focus of most of French settlement on the St. Jean, meant that settlers and soldiers had a surplus of fish in the spring, summer, and a shortage in winter. The difficulties that St. Jean colonists faced in gathering and growing enough food for subsistence on the riverbanks and islands compounded their difficulties.

The River’s banks

Europeans first noted the watershed’s cornucopian attributes in the early 1600s when explorers described numerous meadows, small grapes, wild onions, and herbs. Robert Gravé and his men planted the first European garden along the river in 1611 on their island settlement, beginning a colonization process that would eventually reshape many of the waterway’s banks and islands below its mountainous and boggy headwaters. In 1670, the Intendant of New France, Jean Talon, noted that the St. Jean was more suited for agriculture than the Penobscot. However, the commercial farms he sought to develop at its mouth did not materialize. Sixteen years later, vicar general Saint-Vallier travelled the watershed and christened the area now known as Fredericton, “Saint-Marie” noting that “la riviere s’élargissant est entrecoupée d’un grand nombre d’îles qui seroient apparemment fort fertiles si ells étoient défrichées.”

11 Lescarbot, History, vol. 2, 240; Champlain, Works, vol. 1, 267; “M. Talon au Roy,” 10, Nov 1670, in Blanchet, Collection, vol. 1, 203; and Saint-Vallier, Estat present, 30. For lack of crops to supply garrisons on the St. Jean and Penobscot in the 1670s, see Griffiths, Migrant to Acadian, 111-2. For the garden, see Marcel, Factum, 24.
Saint-Vallier wanted his flock to turn the riverbanks into a pastoral landscape of crops and pastures, a vision that informed his criticism of the recently settled d’Amours brothers who he thought should do more to develop farming. The mineral expert Pierre Hameau, however, praised their improvements two years later when he commented on the watershed’s agricultural potential in his mineral survey. He observed that the d’Amours had built several buildings on the best pick of lands for growing maize and many kinds of vegetables. The fields, pastures, and dwellings of these and later settlers hugged the St. Jean’s shores and islands, following the riparian pattern established on the St. Croix and the rivière du Dauphin that flowed by Port Royal. The roots of Acadian agriculture got off to a sandy start on the St. Croix where ignorance of local soil and river conditions led to poor nutrition and tragedy. The sandy soil settlers planted dried out and their crops died. Seigneuries granted on the lower St. Jean in the 1670s were also ill-suited for agriculture, as they were composed of an abundance of rocky uplands that were often enshrouded in thick Atlantic fog. The d’Amours’ selection of farmlands, however, suggests that French colonists in the 1680s had learned what types of soils their crops needed and where those tracts of land were located along the river.12

The seigneurs who settled along the rivière St. Jean in the 1680s favoured developing low-lying intervales into farmland. The d’Amours chose land where the

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Jemseg and Oromocto rivers flowed into the St. Jean. These locales offered the mix of treeless meadows, huge marshes, and forested intervales that explorers first noted along the waterway in 1608, and they had advantages over other potential Acadian farming sites. Being able to plant a crop without clearing trees and brush and having natural edible grasses on hand for winter livestock fodder were important assets to new colonists. The soils along the interior St. Jean, beginning a few leagues downstream of the Jemseg and Oromocto and continuing to a few leagues above the Nashwaak, were far richer and deeper than those near the mouth of the river. The d’Amours’ farms did not require the group labour and several years of fallow that Acadians needed to dyke and desalinize tidal salt marshes or drain inundated land of freshwater. As the colonial population along the St. Jean was small and the best farmland located far from tidal marshes, there was no need to create the dyked landscape that Acadians reclaimed from the enormous tides that swept up the Bay of Fundy. Treeless meadows and freshwater marshes enabled new settlers to immediately pasture livestock, gather the large quantities of hay they needed to over winter their livestock, and plant crops without years of swinging sharpened iron to clear forests. Their farms also had a second labour-saving advantage. Spring freshets annually renewed the fertility of low-lying intervales with nutrient-rich debris. This flooding saved colonists the time and energy of applying fertilizer to their fields. Moreover, locating their farms near the mixed forest that enshrouded large stretches of the riverbank and nearby islands gave the d’Amours and their habitants access to firewood, construction materials, and pasture ground where their pigs could subsist on
butternuts, acorns, and roots. While the St. Jean’s banks and islands did not yield an Arcadian paradise, they were some of Acadia’s best lands.\textsuperscript{13}

French farming altered the islands on the lower river between Grimross and Aukpaque. Seigneuries encompassed the islands near present day Fredericton that the vicar general favoured. René d’Amours lived and farmed on Eccles Island upstream from the Nashwaaksis near the Maliseet village Aukpaque where he traded with them. Acadians called the island “Cleoncore,” a version of his seigneur’s name. Dièreville noted that settlers pastured and bred their hogs on river isles where “it costs nothing to feed them, because Oak & Beech trees are plentiful. Five or six gravid Sows are turned loose on them in the Spring; they litter, & their young grow fat on the fruit of the trees . . . at the beginning of Winter they are brought back to the Settlement . . . before they are put into the salt barrel.”\textsuperscript{14} River islands afforded an easy way for farmers to manage their potentially troublesome pigs without erecting fences. Names such as Sheep Island, and Ox Island on a 1758 British map, suggest that Acadians also pastured these species on river islands. French records do not discuss the local impact of livestock on islands or intervales, but studies have shown that grazing dramatically altered local ecologies in numerous colonial settings and on St. Jean isles in later eras;


sharp hooves loosened soil; hungry mouths consumed potential seeds and green shoots; and difficult to digest thorny shrubs thrived as a result. English surveyors in the 1760s also noted that Acadians continued to alter the islands near St. Ann’s into fields crops that yielded the bulk of their subsistence. Acadians’ use of island pastures may have helped maintain harmonious relations with Maliseets on this stretch of the river, as animosity often broke out between Natives and settlers when livestock wandered freely.¹⁵

Settlers needed to alter the riverbanks to survive. They tried to fill their bellies and make money by supplementing Eurasian grains, Native maize, and imported provisions with the intense use of a few wild resources like grapes and beaver. Settlers did not eat many of the wild nuts, fruits, and other plants growing along the river or know which ones had nutritional value, despite their contact with Maliseets who used a wide variety of local plant resources. Cadillac reported in 1692 that, “the greatest variety of timber is to be found on its banks: hazel, walnut, cherry, vines, all bearing fruit which is not had, and indicating that if care were taken in its cultivation it would succeed much better.”¹⁶ Similarly, the 1698 Acadian census distinguished the St. Jean settlements by an absence of orchards in comparison to the hundreds of fruit trees in

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¹⁵ See Cronon, Changes in the Land, 144-6 and 130-2; Elinor Melville, A Plague of Sheep: Environmental Consequences of the Conquest of Mexico (New York: Cambridge University Press, 1994); Henry P. Barkhouse, “A Description of the Flora and Wildlife of Gilbert Island, New Brunswick and the Impact of cattle on those resources” (Masters Thesis, Acadia University, 1975); and “Morris to Spry,” 25 Jan 1768. For French livestock and conflicts with Mi’kmaw hunters and Maliseet farmers at Madawaska, see Wicken, “Re-examining Mi’kmaw-Acadian Relations;” Craig and Dagenais, Land in Between, 61. See also “Ordonnance de M. Deschambault permettant l’abandon des bestiaux excepté sur les terres sur lesquelles les Sauvages ont encore leur blé d’Inde,” 28 Sep 1697, AC, R11495-0-8-F; and Russell, Long Deep Furrow, 32.

¹⁶ “Excerpts from M. Lamothe-Cadillac.” See also Denys, Description, 394-8.
Port Royal, and the dozens in Beaubassin. Cadillac’s forest discussion focused on the potential profits of timber harvesting and the food value of local nut and fruit trees.

His appraisal contained an improvement ethos premised on the belief that nature can, and indeed should, be made more useful to people through work that turns wilderness into groomed fields and fruit groves. According to this logic, the wild fruits growing in the watershed were underutilized resources that settlers could improve with labour.17

Colonizers extended the idea of improving nature to the climate of Acadia. Denys thought the wild grapes growing along the St. Jean shore were a sign that the river shared the same climate as France. These vines had grapes that were large and of very good taste; but its skin is thick and hard . . . if it were cultivated and transplanted . . . it would produce very good wine. This is a sign that the cold there is not so severe, nor the snows so abundant as everyone says . . . there are actually districts in France which are not worth so much as this place, so far as climate is concerned, and where many people live in less comfort than they would have in these parts.18

Denys’s Description was the most up-to-date guide to conditions on the river and it was grossly misleading. He drew on the popular theory that lands of equal distance from the equator shared climates. According to this latitudinal logic, Acadians could raise every crop grown in France, including wine grapes. Denys attributed Acadia’s cold to the wild uncultivated state of the colony. He thought that European settlement and

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17 Contrasts in Maliseet and Acadian resource use fit Cronon’s study of Native and settler ecologies, see Cronon, Changes in the Land, 166. See also Whitlam, “Models of Coastal Adaptation;” “Recensement des habitans de la rivière Saint-Jean” (1698) AC, R11577-28-5-F, No. 20.

warming went hand in hand; humans could alter the climate of the St. Jean with axe and plow to make it more hospitable to plants and people. Denys’s claims that France’s poor could improve their luck in the climate of Acadia held several degrees of self-interest, as he needed workers for his fishery. He published his book in 1672, the year France began dividing the river into seigneuries and ended state support for immigration. Its discussions of plant acclimatization and the latitudinal approach to climate may have led to over-optimistic planning on the part of officials and encouraged settlers to make “on-the-ground” choices poorly suited to actual conditions on the watershed.¹⁹

In the generations following Denys’s publication, French colonists pastured, cut, hoed, and defined small tracts of land on the lower St. Jean’s banks and islands into an agrarian landscape of fields, stumps, and dwellings. Their environmental impacts were associated with small hubs of settlement along the ninety miles of navigable water in the river’s long estuary above Reversing Falls, rather than either total dispersal throughout the entire watershed or centralization. Small groups of traders, habitants, and servants lived on several seigneuries. Forts housed dozens of soldiers, as well as a few civilian officials and servants.²⁰

Riverbank alterations and collateral ecological transformations increased during the 1680s and 1690s as settlement spread. In 1686, St. Jean colonists only numbered twenty-four: five men, four women, four children, and ten servants. The 1695 tally of

¹⁹ For early modern clearance-induced climate change, see Grove, Green Imperialism, 58 and 65-69.
²⁰ A priest, a trader who lived with a Maliseet women near Meductic, and the old man who operated the trading post near Lake Témiscouata were the only French above the estuary in the 17th century.
the d’Amours’ holdings noted forty-nine people were sowing wheat, peas, corn, and oats and storing their harvests in granaries. The settlers imported livestock and built stables for thirty-eight horned cattle, 116 pigs, and 362 chickens. Complaints from officials who lived with Villebon accused him of using the scant water supply at the Reversing Falls fort for his mare, indicating that at least one horse lived along the river. Farmers cultivated 166 arpents (or 122 acres) along the riverbanks and held another seventy-three in pasture. Their fields yielded 130 minots (slightly heavier than English bushels) of wheat, 370 of maize, thirty of oats, 170 of peas and three of beans. As most families in Acadian marshland communities cultivated less than five acres in 1707, it appears that the St. Jean intervale farmers had established themselves relatively quickly. Censuses did not tally weeds, but Denys noted the presences of thistles in Acadia. Considering that sorrel naturalized from French gardens on the St. Croix as early as 1607 and is now a common weed in New Brunswick, it is likely that Acadian gardens also entrenched this and other botanical imports to the watershed.21

Acadian agriculture thoroughly transformed small patches of the riverbank into a new landscape organized on mathematical principals, European plants and animals, and French sensibilities. Joseph Peach illustrated five French gardens between St. Ann’s and Aukpaque on his 1762 map. Settlers had neatly divided their gardens into four quadrants with two perpendicular lines, which presumably represented pathways

21 Gargas, “Recensement Général;” “Recensement des les Damours;” and “Recensement fait par de Meulles,” 1686 AC, R11577-28-S-F, No. 10, MIKAN No. 2319364, Finding Aid No. MSS0446. Some English translations substitute “bushel” for “minot” despite variances. For measurements, see Harris, Seigneurial System, x. For mare, see Raymond, The River, 64. For ‘pois’ as peas or beans, see Courville, Quebec, 84. For thistles, see Ganong’s notes in see Denys, Description, 397. See also Lescarbot, History, vol. 2, 577 and 358. For marshland farms, see Kennedy “Marshland Colonization,” 52.
or distinct beds of plants. Thus, the tracts of land that were the most intensely managed by the French were distinguished with the imprint of a cross distinguishing them from surrounding fields. French elites and religious orders introduced this style of built landscape to their North American colonies to serve both aesthetic and practical purposes. The gardens ordered nature into geometric patterns and usually included ornamental flowers, as well as medicinal herbs and vegetables, such as lavender, carrots, parsnips, and cucumbers.  

The presence of distinct parallel furrows running diagonally, horizontally, or vertically across at least sixteen separate French fields on Peach’s map suggests that these colonists farmed with European plow technology. In addition to creating distinct linear patterns that differed significantly from Maliseet oval fields and mound planting, plows intensified settlers’ impacts on the riverbank. Plow technology also encouraged the cultivation of larger fields, as well as loosened soil, and increased erosion more than hoe and clamshell tilling. The river near these and other plowed fields would have carried more sediment following heavy rains during and after cultivation season.  

An extant five-year lease between Mathieu d’Amours and Michael Chartier gives insight into how French farmers affected the riverbank and how they sought to address problems by including land conservation practices in legal contracts. The lease embodied the paternalistic tone of French law. Chartier had to fulfill his

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responsibilities without diminishing the extent or value of cultivated lands and “work it in suitable seasons and not to injure it nor work it out of season, and to use everything as a good father or a family ought to do, and to return everything in good and proper order.”

The lease gives details missing in censuses and other records such as the presence of sheep and goats on the river. It distinguished between oxen, cows, and bullocks, while also noting a fully rigged cart and plow, an indication that oxen helped till soil and pull wagons to carry people. The documentary record indicates that Acadians used few draft animals before the 1680s and the presence of them on the St. Jean in the 1690s suggests the area kept pace with other French settlements on the Bay of Fundy. Chartier had to pay half his annual rent in money and half in the small furs that served as currency in New France. Moreover, the lease obligated him to avoid land degradation and be attentive to the seasonal impacts of land use. D’Amours could hold Chartier accountable if he was not a good steward. This document suggests that seigneurial contracts did not give people unlimited use of the St. Jean’s banks and conservation extended beyond moral duty. Seigneurs had to consider and work toward long-term agricultural sustainability on the riverbank. The contract, however,

became void when d’Amours died in an English attack that razed his seigneury near the mouth of the Oromocto River a few weeks after he prepared the lease.25

Colonial military policy sacrificed the security of the region to divert aggression away from Quebec and made it difficult to maintain settlements on the St. Jean. Twelve years of Mathieu d’Amours’ improvements were lost along with his life in the 1696 raid. Moreover, Villebon had another settler’s home near Fort Nashwaak burned for fear that the English would fortify it and gain advantage over the garrison. Placing the principal French fort on the Nashwaak drew invaders upstream, yet left most farms unprotected from sea-based attack. Frontenac, the aging governor of New France, noted the vulnerability of St. Jean settlers in 1695. “Le fort de Naxouat estant en hault de la rivière St. Jean et les habitans au dessoubs, il ne peut pas server à leur sureté, sy les Anglois veulent entreprendre de les attaquer par le bas de la rivière qui est le seul endroit par où ils peuvent faire.” While a defensive asset for the military, the upstream location of the fort made the river unattractive to prospective French farmers as it left those who settled there vulnerable. Monsieur de Tibierge wrote to officials in France that he thought that the interior location injured commerce and reduced the ability of soldiers to provision themselves on wild food during winter. The King had ordered Villebon to build a new fort at the river’s mouth in 1696, but the commander did not have enough men to begin construction work, and during the October raid New Englanders made off with some of the supplies for the new fortification. The

25 For skin currency, see Lahontan, New Voyages; Roeliff Morton Breckenridge, “The Paper Currencies of New France,” Journal of Political Economy vol. 1, no. 3 (Jun 1893), 407. For draft animals, see Griffiths, Migrant to Acadian, 132; Clark, Acadia, 232-3.
geopolitical situation during the war prevented the fort’s construction. Ironically, Villebon could only safely relocate his garrison and build a new fort at the mouth of the river after the Treaty of Ryswick (1697), which removed the immediate threat of English invasion and the pressing need for stronger defensive works on the river.26

Property, labour, and dietary differences distinguished how seigneurs, habitants, and servants affected the riverbanks. While Harris claimed that “many seigneurs were no better off than their censitaires . . . there was little economic basis for class in Canada,” there were important social distinctions on the St. Jean. Seigneurs cultivated larger tracts of land and owned more livestock than their habitants or servants. Moreover, a few of them maintained economic ties that enabled them to take trips to Europe and Quebec, whereas habitants were less mobile. Seigneurs primarily cultivated Eurasian grains and habitants mostly planted legumes (pois in the French documents) and maize. Habitants and seigneurs may have sometimes worked side by side, but the latter did not own most of the cattle that produced the milk and cheese that settlers enjoyed pairing with the pork dishes that supplied a large quantity of protein to Acadians’ diet.27

St. Jean colonists did not grow enough food to support themselves. Nor could they rely on trans-Atlantic French networks or other Acadians to supply them. Acadian

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27 See Harris, Seigneurial System, viii and 5; Acadian censuses listed above; and Gyles, Memoirs 35, 37-8. For using cows more for dairy than meat and preferring milk to butter, see Dièreville, Relation, 110; 114.
traders did not always prioritize helping St. Jean colonists and soldiers. In the spring of 1696, Port Royal merchants shipped wheat to Boston rather than heeding Villebon’s orders to supply French vessels. The illicit exchange helped the English provision privateers and left the French military paying higher prices for food. Three years later, during peace, Villebon and Goutins, Acadia’s civil administrator and judge, ordered “800 minots de blé d’inde” from Boston to thwart starvation on the St. Jean.28

Wild mammals and birds frequented the St. Jean’s largely forested banks in the 17th and early 18th century. Colonists killed and ate many of the creatures they encountered. Hunting was a gendered activity where men exchanged gossip and disputes arose between soldiers and colonists. Wild mammals supplied valuable protein to settlers. Villebon’s description of Port Royal residents as hunters who ate lots of hare and fowl appears to fit the St. Jean as well. When the commander travelled upriver and over the portage route to the St. Lawrence with Goutins and two Natives, they “took no provisions and lived by hunting and fishing.” Tibierge’s gift of eighteen moose tongues to his superior suggests the French had adopted the Native practice of giving them to sagamores. A 1711 French map labelled the land north of Nashwaak “Chasse de élan” suggesting moose and caribou hunting grounds. Gyles used his woodcraft and knowledge of Native languages to hunt, and trade with Maliseets and Mi’kmaq, while living with the d’Amours. The commercial and administrative nature of most colonial sources may account for the scant references to

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subsistence hunting. Imported food and exported furs produced more records than did wild foods. Geographer Andrew Hill Clark reasoned that St. Jean settlers relied heavily on hunting wild game, as their farms were not self-sufficient. However, he also claimed that Acadians did not severely deplete wild animal populations.29

Colonists hunted and ate the birds that migrated through the region and exported their feathers. Lescarbot dined on duck near the St. Jean’s mouth. The name “Isles aux Perdrix” which appeared on maps labelled on the archipelago now called “the wolves” before later cartographers moved it to Saint John harbour, also suggests bird consumption. The name derives from a colony of “loups-marins” (literally sea-wolves, but more precisely seals), whose cries Lescarbot heard piercing the night on a voyage from Reversing Falls to St. Croix Island. Upon arriving at the Island, he made passenger pigeon pasties and a steaming stew from cabbage, lettuce, and sorrel that had over-wintered in local gardens. Lescarbot’s meal is an early sign of an ecological crossroads of introduced invasive species and extinction of Indigenous species. Later colonists entrenched the foreign cultivated plants throughout the region and hunted the indigenous pigeons to extinction.30


By the early 18th century, French farmers, soldiers, and professional woodcutters had opened small clearings in the riverbank forests near the mouths of major tributaries and at Reversing Falls. French settlers used local trees to fuel, frame, and defend their dwellings. The military used the river as a conduit for wood products, but did not have enough animal or human labour to harvest forest commodities efficiently. Moreover, they had insufficient shipping resources to get the wood to France. Timber harvesting and maritime transportation required peace and stability, and these conditions were fleeting and relatively brief on the watershed.31

European visitors and colonists offered assessments of the forested banks and islands of the St. Jean throughout the 17th century. Accounts of the 1608 trip upstream by Pierre Anglibut and Jean Ralleau described oaks, butternuts, beeches, vines, and cedar. Most French mapmakers depicted the forests that bordered the river as composed of scattered large individual hardwood trees or mature clusters of these species. Their tendency to illustrate mature hardwoods rather than stands of mixed ages that included coniferous species may reflect the greater value Europeans attached to the wood of large deciduous trees, their abundance, or cartographic conventions. Seigneurial concessions reserved oak for naval use and the name of sieur de Goutins’s grant, “Point aux Chesnes,” speaks to the presence of that species. That grants reserved oaks rather than the more abundant and useful white pines suggest that some imperial standards had not been modified to fit local resources. In 1672, Denys

31 See Hannay, “Brothers D’Amours,” and the collected letters in Webster, Acadie.

claimed trees from Port Royal, the St. Jean, and the Penobscot were of better quality than those within the territories he controlled along the Gulf of St. Lawrence. He mentioned that oaks, beech, walnuts, and grapevines grew along the St. Jean. Hameau vaguely noted many fine species of wood bordering the river in his 1687 mineral survey. Five years later, the first signs of a St. Jean pine mast trade surfaced. After commenting on diverse hardwoods, Cadillac observed that, “around a lake near Gemseq [Jemseg] is a pinery in which material for very fine masts could be found.”32

Pirates stole most of the supplies that Villebon brought to provision the first recorded colonial clear-cutting operation on the St. Jean. Marauding English buccaneers ambushed his flight to the river in the autumn of 1690 and captured the engineer who was to oversee a new fort’s erection. As Villebon’s men only had a few axes to begin felling trees, the commander postponed building a new fort for a year. Soldiers cut more than 1,000 trees along the St. Jean and Nashwaak when they started raising Fort St. Joseph in the winter of 1691-1692. In addition to dwellings, they built a double palisade with 600 sixteen-foot logs and 600 eight-foot logs. Human muscles hewed and hauled each log, as there were no draft animals on hand and there were no sawmills on the watershed.33

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32 See Lescarbot, History, vol. 2, 239-40; Champlain, The Works, vol. 1, 267. Champlain noted Penobscot oaks looked like they “had been planted for pleasure,” but did not say if he thought the stand was natural or shaped by Etechemins. See vol. 3, 358. For timber quality, see Denys, Description, 108, 120-1. For Point aux Chesnes, see Munro, Titles and Documents, 151-2. For misprint as Point aux Chenilles, see Blanchet, Collection, vol. 2, 224. See also Hameau, “Mémoire des mines,” “Excerpts from M. Lamothe-Cadillac.” For 17th century forest composition, see Clark, Acadia, 44-55. Raymond noted French mast cutting, but did not consider its impact on the river, see Raymond, The River, 58 and 64.
The French military affected a large environmental footprint on the watershed’s forests in the 17th century. Just as earlier English and Maliseet forts at Jemseg, Ouigoudi, and Meductic, had required large volumes of wood to respond to the threat of invasion, the French used massive amounts of timber to build defensive walls. Two plans of Fort Nashwaak show how soldiers used wood, the amount of land they cleared for construction, and a line of sight to prevent enemies from approaching the fort unseen. They hewed a large clear cut around the fort and Villebon’s journal suggested that his men surveyed other locations for suitable logs. Supplying firewood for several hearths, including one for a blacksmith and two outdoor ovens, required additional clearing near the Fort. Garrison duty included cutting and hauling firewood and this labour intensive task kindled conflict. Soldiers refused to supply their unpopular surgeon with wood. However, a superior officer forced them to deliver the fuel as they had agreed to supply the armourer who shared a hearth with the surgeon. Heating and manufacturing needs thus led to further felling. A French fort on the river in the 1750s used about 1,200 fifteen foot spruce logs of eight to nine inch in diameter for palisades as well as numerous cedar, pine, and spruce logs for buildings.34

Farmers opened up patches of the forest canopy for building materials, firewood, and fields. The description that the British officer, Colonel Robert Monckton, 

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gave of the Acadian village of Grimross on the river’s lower reaches in 1758 noted there had “lately been some Birch Canoes made—Much Cleard Land here—Fine Country—This village was settled by the Inhabitants of Beau Sejour, when drove off from thence in 1755.” Charles Morris’s discussion of this settlement in 1768 distinguished between “great Quantity of Meadow for Grass, and cleared intervale.” Farther upstream, residents of St. Ann’s cleared 500 acres of upland for homes and fields. The thousands of trees Acadians removed from the riverbank decreased wild animal habitat for some species while amplifying local soil erosion and the amount of sunlight that struck the water.35

Timber harvesting, which removed the largest plants from the watershed, impacted animals indirectly through habitat destruction. The fur trade had targeted the largest ungulates and rodents that lived near and in the waterway, such as caribou and beaver. European traders required mammal habitat and Native labour, but the timber industry brought French workers to the river to destroy the forest. Growing French interest in the watershed’s forests in the 1690s grew out of the overuse of European timber. Population growth in Europe and increases in transoceanic trading and naval conflicts contributed to wood shortages and encouraged conservation of French forests. France turned to New France for masts after losing access to Baltic trees when war broke out in 1689. Farmers, fishers, and tradesmen, however, had already cut most of the best timber near Acadia’s accessible coasts and populated rivers. In 1699 Villebon declared that at Port Royal “since the first settlement . . . the

finest pines have been taken for dugouts, and many others for planks and timbers have been cut on the river banks.” In contrast, the St. Jean’s isolation and small settler population had insulated its trees from Acadian saws and axes. Commercial timber harvesting does not appear to have altered the watershed until 1699.36

French priorities for the river shifted from defense to developing a trans-Atlantic timber industry in the final years of the century. This change was part of an important historical pattern in the geography of the river: commerce and settlement thrived at its mouth during peace, whereas vulnerability in war encouraged peoples to move population and political centres to the river’s sheltered middle reaches. Villebon laid the groundwork for a St. Jean mast industry over the winter of 1697-1698. He surveyed forests and had a three-foot-diameter pine cut for French officials to appraise. In May, soldiers floated the sample mast to Reversing Falls between cargos of sawn boards and planks for the new fort. In late summer, a military engineer named Jacques L’Hermitte, and one of Villebon’s brothers, escorted a master mast-maker upriver to evaluate the forest. On 3 September 1697, Villebon wrote that “M. L’Hermitte returned from the upper reaches of the river where he had found an abundance of fine and sound masts, and excellent elms suitable for pumps and gun mounts, and quantities of good ash for pulleys and other articles.” While officials

planned to use several tree species for multiple purposes, they considered pine masts the highest priority.37

Masts from the St. Jean were big and of good quality. Jean-Pierre Rigord, navy commissioner for Marseille and overseer of woodcutting in the Pyrenees, reported on Acadian timber that winter. After favourably assessing the trees from the Penobscot, he proposed taking “grosse masture dans la riviere de St Jean, ou il y a de tres beaux et gros mats et beinsuivis qui sont a un quart de lieue de la riviere de Ratzamoutou et a quinze lieues de l’endroit ou on les embarque.” Officials chose to cut on the Oromocto, rather than the Nashwaak, the likely source of Villebon’s specimen. These same tributaries became the focus of the earliest British timber operations on the watershed in the late 18th century.38

Five and a half weeks after Rigord penned his report, France’s Minister of the Marine, the powerful Comte de Pontchartrin, informed Villebon that cutting would soon begin. The captain of the Nieuport, Monsieur de Coubon St. Leger, received orders to go to Acadia and

remettre une escouade de charpentiers et aultres ouvriers que vous employerez pendant tout le cours de l’esté à exploiter des bois d’ormeau, de fresne, et d’aultres qualitez, pour composer le chargement d’une fluste de 400 tonneaux que Sa Majesté vous envoyera au mois d’avril prochain.39
A timber crew was hard at work before all the autumn leaves had fallen in 1699. Villebon speculated that France could reduce future cutting costs by employing habitants and soldiers under the supervision of a master woodcutter and carpenter. His suggestion of using habitants to cut wood in winter is a prelude to the seasonal farmer-wood cutter labour division that became a familiar feature on the St. Jean a century later. The commander’s plan may have been an attempt to help colonists remain productive and turn a profit during long winters when they could not generate income from farming. Villebon intended to send soldiers to move the wood as soon as the ice melted, indicating that cutters were not using draft animals or low-friction snow and ice to move the heavy logs.40

Villebon soon learned that France could not provide an adequate shipping network to transport St. Jean masts. He was, for example, unable to fulfill a royal request to export lumber in three vessels because repairs delayed the arrival of two of the expected ships. This delay did not inspire confidence in the development of a trans-Atlantic industry. His remark, “I am certain that the settlers will not fail to undertake this work when they know that vessels will surely come for the timber they have cut,” may have been a cordial reminder to his superiors that the industry’s success hinged on reliable transportation. Masts were especially hard to transport

across the ocean. They could only fit in large flûtes with long, narrow cargo holds.

France had few flûtes available and their hull design confined mast shipping to a short season lest the rough autumn seas shiver timbers and crew into the North Atlantic’s dark depths.\(^41\)

Dièreville experienced firsthand that shipping St. Jean timber was hazardous. He left for France on 6 Oct 1700 aboard the king’s ship, *l’Avenant*. Captained by sieur de Chevalier de Chavagnac, the vessel carried “thirty or forty fine Masts provided by the Settlers for the King, in addition to those . . . shipped at the St. John River by fourteen Carpenters & Mast-makers who were maintained there by His majesty.”\(^42\)

Sieur de Fontenu, the marine commissioner in charge of this venture, was a music-lover who brought a professional musician with him to Acadia. The masts sailed to the lilting sounds of a harpsichord and cello and sailors’ woodwind pipes until a raging storm destroyed the instruments.\(^43\)

France paid less attention to affairs on the St. Jean, and sent fewer ships to the river after the death of Villebon in 1700, and the relocation of the garrison to Port Royal. The Intendant of la Rochelle Michel Bégon found Canadian masts to be of poor quality and unusable for the construction of naval vessels. Although sea captains


\(^{42}\) See Dièreville, *Relation*, 191. See also, “Mémoire pour servir d’instruction au Sieur Chavagnac,” 1 Apr 1700. AC, Series B, R11577-3-0-F; “L’Hermitte au Ministre,” 20 Aug 1699, AC, Series C11C, R11577-6-6-F.

assured him that Acadian masts were of better quality and closer to France than those from the St. Lawrence, the Intendant thought poor governance and instability stunted that colony’s commercial initiatives, an observation supported by frequent accounts of infighting and corruption amongst Acadian officials. France did not have sufficient labour or ships to remove more than several dozen masts from the St. Jean. The larger numbers of Acadians who settled the river in the 18th century slightly increased the extent of forest clearing, but Maliseets’ burning of large tracts of forests likely far exceeded colonization’s impact on trees at this time.44

The River’s Flow

The St. Jean linked the colonists on its shores to France, Canada, and the West Indies. It was also their highway for furs, supplies, and people. Settlers and soldiers needed access to the river to benefit from imported provisions, military aid, and large cargo holds for furs. One of the only toys from the French period that archaeologists have unearthed along the river was a single mast lead ship found near Matthieu d’Amours seigneur at the mouth of the Oromocto River, suggesting that ocean-going vessels were a vital part of the lives of settlers of all ages. Sailors plied numerous vessels on the river and privateers captained and crewed many of them. Villebon’s entourage arrived in two ketches. He later rented canoes from Maliseet to move supplies in exchange for provisions, one of the first commercial exchanges of wood

44 See “Michel Bégon à Cabart de Villermont,” 3 Dec 1701, AC, Collection Dangeau, R11313-2-2-F, fol. 421-2v. For inferior Quebec wood, see “Le ministre à M. Bégon,” 21 Jan 1699, AC, Series B, R11577-3-0-F, fol. 140.
products between Maliseets and Europeans. A few years later, he sailed upstream from Reversing Falls with two full barques. Leaving on 22 July he took twelve days to reach Fort Nashwaak “having been unable to get there sooner, although I had the boats towed for five or six leagues.” Low water impeded the heavily laden vessels. This first record of towing freight on the waterway suggests that St. Jean navigation was important, but challenging.45

Colonial officials strived to ensure that settlers did not impede navigation. René d’Amours’ Clignancourt concession included the clause “qu’il ne souffrira ladite rivière Saint Jean être embarrassee, afin que la navigation y soit libre.”46 The river’s importance for transportation appears to have influenced officials to restrict d’Amours from obstructing it with dams and other impediments. This proscription suggests that mobility, not power supply or flood control, dominated official plans for the St. Jean in the late 17th century. The distinctiveness of these concession terms on the river may also reflect local geography. D’Amours’ seigneurie straddled the Meductic rapids, a logical place to harness the river for power, and one of the most treacherous spots to navigate with boats on the roughly 330 kilometres of water between Grand Falls and

45 For canoes, ketches, shallops, barques, and a warship, see Villebon, “October 13th, 1691 to October 25th, 1692;” “July 22, 1695 to September 5, 1695;” “Villebon to Count Pontchartrain, August 20, 1694,” in Acadia, 31-2, 81, and 70. For the privateer Baptiste’s corvette, see Villebon “September 15, 1693 to September 2, 1694,” in Acadia, 57; Chard, “Pagans,” 35 and 160-7. Tibierge and the freebooter, Guyon left in a sloop charted by Villeue. The sloop, Deux Frères, ferried supplies from Minas to Nashwaak and was co-owned by the French state, Baptiste, and Martel. See Tibierge “October 4, 1695 to October 27, 1696,” in Acadia, 144-9. Louis D’Amours was supplied by a man of war and he captained his own ship in a New England raid. See George MacBeath “Damours (d’Amours) de Chauffours, Louis,” DCB, vol. 2, http://www.biographi.ca/009004-119.01-e.php?biold=34856 (accessed 17 July 2013); “État des dépenses que le roi veut et ordonne être faites,” 19 May 1699, ANOM Col C11A 113/fol.111-20v; and Gyles, Memoirs, 37-8, and 34. For the toy ship, see Whitehead, Protohistoric Period, 26.

Reversing Falls. The clause in d’Amours’s concession is the earliest known regulation to address damming and transportation issues on the waterway. Transportation clauses in other seigneurial grants on the rivière St. Jean only obliged seigneurs to establish and maintain passages and roads between the lands of their tenants as well as to neighbouring seigneuries. Road building, however, did not receive much attention and the river remained the colony’s highway. The lack of roads is ironic given that a St. Jean seigneur, André Vachon, was “clerk of the chief road officer of New France.”

St. Jean colonists had trouble coping with flooding. The river’s shape and flow changed dramatically on a seasonal basis, especially in spring, and sudden overflows hindered French settlement. Settlers’ preference for low-lying intervales exacerbated this unpredictable and deadly threat. In 1692, Cadillac claimed that the waterway’s fertile soils, beauty, and abundant fish and furs made it the richest river in Acadia. However, he noted a problem with the river’s character. “The finest parts, or the low lands, are overflown every spring at the breaking up of the ice, and this inundation continues a long time, as the rivers cannot empty themselves on account of those two rocks . . . which contract the mouth of this river.” The narrow Reversing Falls passageway and strong tides of the Bay of Fundy made the St. Jean’s mouth unique and its drainage complicated. As only a limited amount of water can pass through the

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48 “Excerpts from M. Lamothe-Cadillac.”
passage between high tides, massive volumes of spring melt water back up above it. This dynamic, combined with the low-lying aspect of large portions of its extensive estuary, created long periods of dramatic flooding each year. Gargas claimed that freshets surged more than a half-league over low-lying shores. Colonists’ decisions to fortify, live on, and cultivate low intervales exposed them to these devastating floods. High freshets periodically rendered their homes and forts uninhabitable, ruined valuable farming improvements, delayed planting, and endangered the lives of people and livestock.\(^{49}\)

While colonists such as the d’Amours quickly realized the advantages of settling lowlands, it took them longer to grasp the dangers flooding posed. Settlers’ ignorance of the rivière St. Jean’s flood cycles were decisive obstacles in the long-term maintenance of fields, homes, trading posts, and defenses. Villebon’s diaries detail high variability in snow accumulation, ice formation, and thawing on the river throughout the 1690s. He described the impact of a week of flooding on the newly erected Fort Nashwaak in March-April, 1692.

29th—The Ice began to break up and a more prodigious flood could not be imagined.
30th—We were obliged to abandon the fort, the water having quite suddenly reached the interior of the dwelling. I had the powder and provisions removed on the previous day.
31st—The water rose still higher, and I thought the fort and house would be carried away by the pressure of the ice. The Indians and the oldest settlers say they never saw the like before.
April 1st—The waters subsided sufficiently for us to return to the fort . . .

5th--We began to set up the logs and to straighten those which had been displaced by the ice and 6th--Rain interfered with the work, but on the 15th the fort was ready.50

The unpredictability of a freshet’s arrival and its extent made it especially hard for newcomers to know where and when to plant fields, build homes, and erect forts. While Maliseets avoided floods by settling and cultivating higher ground, the first Acadian settlers on the river’s interior met with disaster trying to settle and work low lying intervale land between Jemseg and the Nashwaak, a stretch of river that frequently experienced devastating floods. Colonists in the 1680s had developed environmental knowledge of soil fertility along the St. Jean, but it took them longer to understand and adapt to the variability of river flooding. No two freshets are identical. As years or decades of moderate flooding typically interspace major inundations, newcomers could not fully perceive the risk St. Jean floods posed after only several years of residency. Villebon’s soldiers repaired the freshet damage to their fort within a few weeks, but setters found other effects of flooding harder to resolve.51

In 1696, a high spring freshet delayed colonists from sowing maize for two weeks. Officials feared that the shortened growing season would lead to a ruinous harvest. After affirming that veteran settlers had finally begun sowing large amounts of wheat, Tibierge predicted the “Indian corn” that the new settlers planted

... will be worth nothing, for, owing to the inundation of their lands, it was put in too late. They sowed the wheat before the floods, and, although it was

50 See Villebon, “October 13th, 1691 to October 25th, 1692,” in Acadia, 36. The military’s removal of trees near the fort likely made it more susceptible to ice damage. For a chronology of flooding that omitted this event, see A.D. Kindervater, Flooding Events in New Brunswick: An Historical Perspective (Dartmouth: Water Planning and Management Branch, Inland Waters Directorate, Atlantic Region, 1985), 54.
51 See Kindervater, Flooding Events.
under water for more than fifteen days, it did not fail to come up abundantly, but there is danger that it will not mature, because the rain has been continual and it is not sufficiently advanced for the season.\textsuperscript{52}

This flooding event suggests that the French were not using Maliseet knowledge of flooding and microenvironments to help guide the positioning of their fields and homes. Unlike Maliseets, Acadians needed their maize to mature. A two-week planting delay could wreck a harvest. Moreover, wheat preferred longer growing seasons and did not mature well during wet summers. The next report Tibierge penned detailed how English invaders had destroyed the livestock, homes, and barns of the biggest estate on the river. Settlers’ hunger that winter suggests that the spring flood and summer rains contributed to poor harvests that were insufficient to meet local needs. Colonists needed an adequate supply of freshwater for nourishment, crops, and transportation, but excess water ruined fields, homes, and lives. When French agricultural settlement succeeded on the riverbank, it did so in close proximity to Maliseet farmers at Aukpaque.\textsuperscript{53}

The initial French appraisals of St. Jean floods were optimistic. Gargas claimed the flooding “could be remedied if the country were worth the effort.” Cadillac specified in his 1692 account that

\begin{quote}
It would not be very difficult to facilitate the discharge of these waters. It would only be needful to mine the rock which is on the right hand in entering, and which seems on the point of falling of itself. It is inevitable that the waters
\end{quote}

\textsuperscript{52} Tibierge, “October 4, 1695 to October 27, 1696,” in Acadia, 149.
\textsuperscript{53} Tibierge, “Memoir,” 1697, in Acadia, 154; Gyles, Memoirs, 35 and 37. For wet summers, see David Phillips, The Climates of Canada (Ottawa: Dept. of Supply and Services, 1990), 84. For New Englanders only eating early maize in desperation and preferring wheat despite its unsuitability to local climate, see Russel, Long Deep Plow, 14, and 41-2.
would promptly discharge, and that this gulf would be abolished, or at least lessened in height, and all this flat country protected from inundation. \textsuperscript{54}

Cadillac identified the narrow mouth of the river as the primary cause of flooding. He suggested that cutting through the rocks at Reversing Falls to widen the passage would increase the discharge rate of freshets. British surveyors, John Marr and Charles Morris Sr., reported in 1764 and 1766, respectively, that the French had planned to dig a several kilometre long channel through the peninsula that separated the basin above the Falls from Duck Cove on the coast. The channel would increase the river’s discharge rate and reclaim submerged estuary lands. They did not, however, dig this canal and there is no record that Acadians modified the Reversing Falls gorge. \textsuperscript{55}

After Villebon died in 1700, the new governor of Acadia, Jacques-François de Monbeton de Brouillan, commissioned his second in command, Simon-Pierre de Bonaventure, to conduct a survey of the colony, which he developed into a report on 12 Oct 1701. Bonaventure, a military officer and ship captain who had visited the St. Jean during the 1690s, examined the river in 1701 as far as Aukpaque. He developed his report from observations and interviews with established settlers. Bonaventure reported that a massive spring freshet had swelled over the seigneuries established on the floodplain and forced colonists to abandon three homes and halt the construction of three new ones. This flood forced Louis d’Amours and Marguerite Guyon to leave their farm and trading post near Jemseg and move to Port Royal. When René


d’Amours tried to re-establish himself on the St. Jean after losing property in the 1696 raid he reported “dut affronter des pertes au cours de l’inondation de 1701.” In August 1704, Boston newspapers claimed that another New England raid on the Bay of Fundy “burnt and destroyed all the French Settlements except the Town of Port Royal.” Meanwhile, France invalidated most seigneurial grants on the St. Jean. While Louis and Bernard d’Amours received compensation for their losses in raids in 1703, they gave up trying to contend with the St. Jean’s unpredictable flow.56

Bonaventure was more pessimistic about the colony’s ability to tame the river than Gargas and Cadillac had been. He claimed “Redescendre, Il Est tres facheux que l’on ne puisse pas Etablir cette Riviere plusieurs personne ont cru et croye que lon peut empecher les y nondations.” Contrary to Cadillac, who thought widening Reversing Falls would prevent the flooding of fertile low-lying farms, Bonaventure claimed it would not work. Drawing on the experience and the local ecological knowledge of seasoned settlers, he claimed that the problem was too complex for such as simple solution. He reasoned that as freshets flooded lands higher up the river before water backed up behind Reversing Falls, increasing the river’s discharge capacity would not prevent floods from sweeping over the farms of settlers. He noted, however, that if

people could figure out how to prevent the floods, the lush lowland meadows bordering the waterway could support 1,000 families and 20,000 head of livestock.\textsuperscript{57}

Governor Brouillan drew upon Bonaventure’s report to justify his decision to abandon the St. Jean. Writing on 22 October, he claimed

\textit{La rivière est tout à fait impraticable pour les habitations. Le peu qu’il y en avait ont été détruites cette année par les inondations qui ont entrainé maisons, bestiaux et grains. Il n’y a pas d’apparence qu’aucunes familles veuillent s’exposer dans la suite à accident si facheux et si ordinaire dans cette rivière.}\textsuperscript{58}

Lowland farmers could not endure the powerful seasonal floods that characterized the river. Brouillan also thought that the strong currents at the river’s mouth made mooring there too dangerous. Moreover, he found that the lack of freshwater on the one hand, and excess humidity on the other, injured the health of soldiers as well as compromised rations and munitions at the new fort at Reversing Falls. In an echo of de Monts’s abandonment of the St. Croix a century earlier, the governor branded the St. Jean’s climate unhealthy and moved the garrison to Port Royal, leaving the river to Maliseets, fur traders, and missionaries.

Brouillan thought that leaving the St. Jean rather than improving it for colonization made more sense in the cash-strapped context of early-18\textsuperscript{th} century Acadia. The state withdrew from the river and focused on engineering projects at Port Royal. St. Jean settlers were sparse in comparison to settlers in coastal Acadia and officials did not consider their scattered farms valuable enough to undertake a large engineering endeavour to mitigate spring flooding. Governors and other French

\begin{flushleft}
\textsuperscript{57} “Mémorial de Bonaventure.”
\end{flushleft}
officials during the brief peace with England following the Treaty of Ryswick in 1697 focused more on exploiting the river’s forests than on establishing settlers along its shores. State support for repopulating and defending the St. Jean did not resume until after Port Royal fell to the British and the river became contested territory following the 1713 Treaty of Utrecht. Evidently, the French lacked the resources and security to dig a large canal around Reversing Falls. Had the river remained at the centre of military and commercial interests in the colony, Acadians may have added to Klouskap’s channel-cutting at Reversing Falls to improve upstream settlement conditions for the newest group of humans to settle the waterway.\(^{59}\)

Acadian colonists on the St. Jean did not build engineering works to contain the flood-prone flow of the river, in contrast to the extensive dyking that characterized Acadian colonization along the Bay of Fundy. The river’s mix of islands, low-lying meadow and marshlands, and higher intervales presented different opportunities than the shore of the Bay of Fundy. While Acadians accomplished renowned hydraulic engineering feats elsewhere, and there were no restrictions on altering the St. Jean aside from the Clignancourt clause, they left the St. Jean unmodified. The complexity of the rivière St. Jean’s drainage and flood patterns, as well as the sheer volume of water and ice that flowed in its frigid freshets, presented a major hydrological problem. On the Bay of Fundy, Acadians could master the predictable daily lunar cycles of the tides by becoming skilled at building earthen and wooden dykes. Although French

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colonists on the St. Jean developed sufficient ecological experience to understand the river’s freshets and the risks they posed to low-lying settlements, Acadian officials lacked the resources and interest to undertake flood control initiatives on the watershed. Many leading colonists, such as the d’Amours brothers, had grown up in communities along the St. Lawrence that did not typically experience devastating floods, or require large flood control works. Thus, they were ill equipped to contend with the flood regime of the St. Jean. Moreover, St. Jean settlers were too few and too spread out to pursue the community-based dyking projects that characterized many Acadian coastal communities. As a result, most of the people who had moved to the river in the late 17th century chose to relocate elsewhere in New France rather than attempt to modify the St. Jean’s fluctuating flow. Thus, the Acadian settlement pattern on the St. Jean does not appear to have been as compatible with aboiteaux technology and intense modifications to streams and rivers.60

Colonial leaders failed to remove at least one navigation impediment on the lower river. La Tour ordered his men to haul the wooden Manitou that Maliseets honoured from the churning gyre below Reversing Falls. This huge tree circulated randomly in the pool making the treacherous passageway even more dangerous to navigate. Colonists branded this sacred object the “Devil.” La Tour’s former employees noted that, “boats with ten oarsmen, rowing with all their strength and aided by the current, were never able to pull it out of the hollow.” The French claimed

60 For dyking, see Bleakney, Sods, Soil, and Spades; Butzer, “Wetland Agriculture.” While Reid noted that the diffused nature of Acadian settlement limited the seigneurial system’s ability to organize colonization, this study suggests that diffusion also made community-based flood control on the colony’s largest river unfeasible, See John G. Reid, “Environment and Colonization Styles in Early Acadia and Maine,” in Essays, 49-52.
the river with crosses, maps, and property deeds, but they failed to destroy the wooden cultural icon that Maliseets venerated. The only recorded attempt to remove an obstacle from the waterway was thus both a physical and symbolic failure. Acadians had insufficient resources to alter the physical waterscape and their cultural domination of it was limited.61

The inability of pioneering St. Jean settlers to grow, import, and process sufficient quantities of grain led to winter starvation. Eurasian grains that required milling made up an important part of the diet of soldiers and settlers. French officers realized that their armies marched on their stomachs a century before the conquest of Napoleon. Wheat bread was vital to St. Jean garrisons. Villebon had outdoor ovens erected in advance of the building of both Fort Nashwaak and Fort St. Jean, but his generation of colonists never built a gristmill on the river. The lack of this essential technology for large-scale bread making hindered French settlement as colonists and their protectors had to rely on remote mills and cumbersome hand grinders which many colonists disdained, to turn their wheat into flour. Moreover, settlers were not growing enough grain to provision the settlement. Tibierge expressed concerns about insufficient winter provisions in October 1697. “All these settlers were short of food last winter and, as they sow little grain, and have no mill in which to grind the wheat they harvest, they are in danger of faring badly again this winter, unless they have recourse to Minas or Port Royal.”62 Colonists’ dependency on imported flour left them

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61 Denys, Description, 117-8; Lafitau, Customs, vol. 1, 115-6.
vulnerable. Small watermills and windmills took months to grind grain from late summer and early fall harvests and it was difficult for St. Jean colonists to obtain supplies after the river froze in late fall. Settlers, thus, could likely only import small surpluses between harvest and freeze-up. These circumstances led to hunger and dangerous early spring supply trips to the coast. Soldiers were even sometimes too weak to march after enduring winter rationing at Fort Nashwaak. 63

Early Acadian settlers altered the riverbanks to farm Eurasian crops, but they never modified the St. Jean’s current to process their harvests or protect their croplands from flooding. Farmers of Eurasian grains in North America benefited from tame rivers. The St. Jean was too wild and powerful to easily support farmers and soldiers that were reliant on wheat bread and local crops. The Company of Acadia requested state support for building gristmills on the river, but France failed to respond. Aside from the Nashwaak sawmill, settlers did not alter the flow of the river in the 17th and early 18th centuries. British reports from 1787, however, reveal that later generations of Acadians built at least one gristmill above St. Ann’s, which Loyalists used to grind some of the first British grain crops in the area. A dwelling that appears rotting, see Villebon, “Oct 1696 to Oct 1, 1697,” in Webster, Acadia, 99. For hunger and supply runs, see Gyles, Memoirs, 35; Tibierge, “October 4, 1695 to October 27, 1696,” in Webster, Acadia, 148 and 150. For starvation and eating cats on the Penobscot, see Alaric Faulkner and Gretchen F. Faulkner, “Fort Pentagoet and Castin’s Habitation: French Ventures in Maine,” in American Beginnings, 217-40.

63 For cold grinding water powered gristmills to a halt, see Eccles, Canada under Louis XIV, 208; Dechêne, Habitants and Merchants, 140. That maize did not require mechanical milling may have influenced its popularity amongst St. Jean habitants. For unpopularity of hand mills, see Jean du Brebeuf, “Relation en l’année 1635,” JR, vol. 8, 111; Champlain, The Works, vol. 1, 277; and Lescarbot, History, vol. 2, 282.
to straddle a small stream downstream from Aukpaque on Joseph Peach’s 1762 map of the St. Jean could possibly indicate the mill.64

Colonists harnessed the river’s energy to help build a new fort at Reversing Falls. In 1696, Mathieu and Louis d’Amours built the first sawmill on the watershed. They erected it on the Nashwaak, where a large rapid made a good mill seat. The nearby garrison used this mill to saw lumber for their new fort. The raft of fresh planks that soldiers floated from the Nashwaak to Reversing Falls is an early example of seigneurs and soldiers using the river to produce and ferry manufactured goods to its port. Moreover, the mill demonstrates that seigneurs spearheaded industrial development.65

Flooding and shifting state priorities did not force all colonists to abandon the St. Jean. While Raymond claimed that little happened on the river in the early 18th century, a few settlers established under seigneurial tenure stayed along with their imported crops and animals.66 In the 1690s, Gabriel Godin, le sieur de Bellefontaine, and his wife, Marie-Angélique Robert Jasne, received a concession across the St. Jean from Fort Nashwaak on a high fertile intervale that escaped most floods. Gabriel served as a royal interpreter and occasionally carried dispatches to Quebec for Villebon. The Godins spoke Maliseet and Mi’kmaq fluently and ran a trading post.

64 See “Établissement à faire à l’Acadie,” 1696, ANOM, COL C11A 14/fol.18-22; Benjamin Marston’s Diary, 22 Jun 1787, Edward Winslow Papers, LC, MHC-Loyalist FC LFR. W5E3P3; Peach “Plan of the River.”
65 Raymond, The River, 72; Villebon, “Acadia since October, 1697,” in Webster, Acadia, 110, 113, and 115. This contradicts Clark’s claims that Acadian seigneurs’ failure to build mills was proof that the seigneurial system had little impact in the colony, see Clark, Acadia, 120.
When officials left the river, they kept their holdings and continued trading with Maliseets. Birth records suggest that the family often moved back and forth between Port Royal and the St. Jean between 1691 and 1717. Their son Charles, for instance, was born on the river in 1708. In the early 18th century, traders no longer suffered illegal competition from Villebon and other officials. As well, New England aggression was less focused on the river after French officials shifted Acadian military power to Port Royal, and after 1713, to Louisbourg. St. Jean settlers now had less risk of conscription (corvée militaire) or meeting their demise in an English invasion. Moreover, colonists did not have to worry about French officers tearing down more homes due to fears that the English could fortify them and gain advantage over the French military. While the power struggles and intrigues that characterized the administration of state power in Acadia stifled the colonization attempts made by Pont Grave, La Tour, and the d’Amours, 18th-century French colonization of the river took root and flourished within the interstices of empire. While there was never a “Golden Age” on the St. Jean, the absence of state power in the early 18th century had a silver lining.67

The river was a refuge for Acadians fleeing the turmoil and insecurity that followed Great Britain’s conquest of Port Royal in 1710. In 1718, a group of Port Royal

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residents told the governor of New France that they desired to move to the St. Jean. The leading petitioner, Louis Allain, wanted to resettle lands formerly granted to Pierre Chesnet on the Hammond River, a small tributary of the Kennebecasis. Governor Vaudreuil replied that the rivière St. Jean was French territory and Acadians could move and live there under France’s protection. He also promptly advised the acting governor of Nova Scotia, John Doucett, that British ships were to respect France’s claim and avoid the St. Jean. Vaudreuil gave the missionary on the St. Jean, Father Loyard, the authority to grant lands to French settlers. A new colony soon emerged on the river’s banks, the second planned withdrawal from Nova Scotia to the St. Jean in thirty years. While military and commercial officials spearheaded the first relocation, settlers and missionaries led the new exodus.68

Catholic priests and descendants of French seigneurs helped organize settlers and asserted French authority to British colonial officials in Nova Scotia. The chapels that missionaries built at Meductic and Aukpaque represented portions of the riverbank as sacred Catholic space. They also connected Maliseets and French settlers within an institution that spanned much of the world. Father Loyard’s successor, Pierre Danielou, developed a census in 1739 that identified 116 colonists on the river, almost three times the 1690s population. He celebrated the virtues of the new colony in a report attached to his 1739 census, and claimed that it deserved French protection.

68 “Marquis de Vaudreuil to Lt. Governor Doucett,” 22 Sep 1718; “Marquis de Vaudreuil to M. Louis Allain,” 22 Sep 1718, in Cecil Headlam, ed., CSP vol. 30, 1717-1718 (London: Her Majesty’s Stationary Office, 1930), 406-7; While Ganong suggested Acadians fleeing expulsion had established a village there in the 1760s, this evidence suggests colonists resettled it earlier, see Ganong, Historical Sites, 60. For Chesnet, see “Provisions de l’office de procureur du Roi Accordées a Me Pierre Chesnet,” Archives de la Province de Québec, Rapport L’Archiviste de la province de Québec, 1920-1921 (Québec: Ls.-A. Proulx, 1921), 307-8; Munro, Titles and Documents, 102-3.
Officials continued viewing the St. Jean as a barrier to British expansion. They also noted that the river abounded with fish, fertile land, and timber that Acadians used to build ships.69

Acadian refugees kept flocking to the river in the 1740s. On 27 June 1745, Huron captive, William Pote, shared a dram with the Acadian skipper who ferried him across the Bay of Fundy. The kind captain, Jacques Bomaus, was moving his family to "ye River of Saint Johns . . . On ye account of ye Fear and Dread, they had of ye English making an Incurtion upon them." Bomaus was wealthy enough to own a schooner, spoke good English and got along well with visiting and local Natives. When the Hurons and their captive entered the mainstream of the St. Jean at Cambridge Narrows via the Petitcodiac portage, they visited the home of a Spanish man who spoke English. While paddling upstream to Aukpaque they met an Acadian husband and wife in a sloop and passed several French homes. "Some we Stoped at for provisions, but they was Exceeding poor and Could not Supply us." Evidently, diverse ethnicity, languages and economic status characterized the twenty French that Charles Morris recorded as living on the St. Jean below St. Ann's in 1749.70

French settlements in the mid 18th century continued to have strong continuities with earlier settlement patterns. All of the newer communities hugged the river and most of them were located on sites of earlier seigneurial settlement. The

69 P. Danielou, "Etat actuel de la nouvelle Collonie françoise de la Rivière Saint-Jean," AC, Recensements et documents divers, R11577-28-5-F, No. 29. Mikan no. 2319383. For Church and seigneuries as spatial institutions, see Mancke, "Polity Formation," 397; Mancke, "Spaces of Power," 34; and Jaenen, "French-Amerindian Contact."
parish of St. Ann’s was the geographical unit that organized and upheld French settlement and sovereignty on the St. Jean in the mid 18th century. The principal French village on the river shared the parish’s name, reflecting the sustained importance of religious authority to this era of settlement. The village of St. Ann’s was located on the lands of the Bellefontaine seigneury. The new village at Grimross, the Freneuse seigneury, and settlements on Belle Isle and the Kennebecasis were the other main French settlements on the river, the latter two locations had been sites of earlier seigneurial settlement. Marie La Borgne de Belle Isle’s 1730s relocation to the stretch of the river that now bears her family name along with her husband, François Robichaux, is another example of continuity between 17th-century concession holders and 18th-century settlement. Marie had strong ancestral claims to the St. Jean. Her family tree included former St. Jean seigneurs, Charles de la Tour, Alexandre le Borgne, and Baron de St. Castin on one branch, and the Maliseet sagamore, Madockawando, on another. The continued importance of intermarriages to Native-colonial relationships is evident in Marie Belleisle’s interpretation of the 1749 Treaty negotiations between Great Britain and Maliseets at the request of Nova Scotia authorities. In 1751, the Intendant of New France appointed Charles Gaudin a surveyor to settle new refugees. In addition, his brother Joseph became the leader of the St. Jean militia and worked with missionaries as a diplomat and informant for New France. Thus, despite Ganong’s claim that seigneurial settlement had little bearing on
later history, the lands and descendants of former seigneurs and Maliseet sagamores
were at the core of 18th-century French settlement on the river.\textsuperscript{71}

After the 1713 Treat of Utrecht in which France ceded Acadia to the British,
Britain considered the river within its domain. Nova Scotia officials were initially
appeased enough by a group of French settlers from the St. Jean who journeyed to
Annapolis and swore allegiance to Britain to grant them title to their lands. However,
the British hardened their stance toward French colonists a generation later. In 1754,
Nova Scotia mirrored the trade embargo that New England had imposed on the St.
Jean in the 1690s with a new corn act that banned Acadians from shipping grain there.
A few years later, they sent soldiers to destroy the French villages on the St. Jean.\textsuperscript{72}

When British forces sailed up the river to deport the French settlers living there
in 1758, they discovered that most Acadians had moved away from low-lying
floodplains. The soldiers destroyed buildings, grain, and cattle on the Jemseg, but
noted that most Acadians had abandoned the settlement years ago, “On account of its
being overflow’d in the Spring by the Freshes.” Many settlers had also recently
vacated the “city” of Grimross to avoid capture by the invasion forces. Monckton
ordered his men to raze “Houses & Barns, being in all about 50—And for destroying all

\textsuperscript{71} See 1739 census; “Commission d’arpenteur à la Rivière Saint-Jean pour Charles Gaudin,” 23 Sep 1751,
Bibliothèque et Archives nationales du Québec, fonds Intendants, Ordonnances, 03Q_E1,S1,P4054;
“Memoire pour le sieur Joseph Bellefontaine,” 15 Jan 1774, AC, Série C, MG6-A15; Léon Pouliot, “Loyard,
Jean-Baptiste,” \textit{DCB} vol. 2 \url{http://www.biographi.ca/009004-119.01-e.php?Biold=35083} (Accessed 26
Aug 2013). For treaty, see
\url{http://www.novascotia.ca/nsarm/virtual/mikmag/archives.asp?ID=612&Transcript=612} (Accessed 12
Mar 2014). See also Raymond, \textit{The River}, 86 and 123. For St. Castin’s St. Jean seigneury, see Munro,
\textit{Titles and Documents}, 97. See also Ganong, \textit{Historic Sites}, 90-1.

\textsuperscript{72} “Governor Armstrong to Lords of Trade,” 10 Jun 1732; \textit{Nova Scotia Council Minutes}, 4 Sep 1732; and
the Grain of which there was a good deal & everything else, that could be of the least Service to the Inhabitants.” Military officer, artist, and naturalist, Thomas Davies documented the burning of Grimross. His brushstrokes depicted two clusters of large homes positioned just meters from the river. While colonists carved this community from the surrounding hardwood forest, the woods across the St. Jean appeared uncut. Davies’ image of stately two-storey homes suggests that Acadians had improved their holdings from the humble hovels that Pote described along this stretch of river thirteen

years earlier. That Monckton’s men also burned the estate of François Belleisle Robichaux, suggests that his wife’s service for Great Britain as a translator did not garner special treatment for their property during the deportation campaign.\textsuperscript{73}

Jemseg’s freshet refugees appear to have abandoned their low lying farms and moved to higher intervales at Grimross and St. Ann’s. British surveyors classified the large fields at this village of 140 houses as deforested “uplands,” giving evidence of Acadian forest use. In addition, it also gives evidence of a trend toward moving to higher elevations over the period of French colonization of the St. Jean, and in the case of St. Ann’s, closer to Maliseet farmers at Aukpaque who had excellent knowledge of flood risks and soil fertility. Acadians kept trying to settle lowlands and freshets continued to push them to higher ground. They thrived on elevated intervales until the British massacred, relocated, or accepted them.\textsuperscript{74}

Following the British deportation campaigns of the late 1750s, many Acadians relocated above the head of the tide beyond the easy reach of British forces, where they remained for the next generation. Following the influx of over 15,000 British Loyalists to the lower St. Jean in the 1783 and 1784, a few dozen Acadians, including Louis Mercure, a courier who had carried letters for the British up the Madawaska

\textsuperscript{74} Pitre and Pelletier, Les Pays Bas, 99; “Morris to Spry,” anonymous, Seven Years’ War Journal of the proceedings of the 35th regiment of foot by a British officer, and illustrated by a military engineer, 1757-1765. www.archive.org (Accessed Mar 27 2015); Peach, “Plan of the River.” See chapter 2 for more on St. Ann’s and Aukpaque.
River and over the portage to the St. Lawrence, petitioned colonial authorities in the new colony of New Brunswick and Quebec, for land grants along the upper St. Jean and its northern tributaries. These Acadians knew that the region offered fertile soils and relatively abundant game and fish, and close proximity to a principal village of their Maliseet allies. As well, it was over 200 kilometers from British settlements.\textsuperscript{75}

James C. Scott notes in \textit{The Art of Not Being Governed} that state power does not flow easily up hill and discusses how marginalized groups can effectively use rugged topography and navigational obstacles to retain their cultural autonomy and resource base in the face of encroachments by foreign states. Viewed from this perspective, the Acadians' decision to relocate above the 75-foot Grand Falls thus appears to be deliberate strategy to place a physical barrier between themselves and the new Loyalist state on the lower river. Their relocation also allowed them to maintain communication with the francophone communities on the St. Lawrence through the portage system. These petitioners realized the lands of the upper watershed would provide an opportunity for them to develop their communities and carry out their livelihoods and traditions without fear of losing their lands or cultural practices to the expansion of British settlement or anti-Catholic regulations. Their defensive relocation, however, effectively cleaved the river system into francophone and anglophone sections that largely kept to their separate spheres for over two centuries.\textsuperscript{76}

\textsuperscript{75} Craig and Dagenais, \textit{Land In Between}, 63-6; Harris, \textit{Reluctant Land}, 171.
\textsuperscript{76} Scott, \textit{Art of not being Governed}. 
Groups of French colonists from the 1670s onward attempted to call the river home and to raise their families along its shores, but flooding and conflict continually disrupted the bonds they were forging with the local landscape. People often need decades, lifetimes, and generations to forge deep understandings and spiritual relationships to place. Humans gain a more profound sense of place and their connection to it through daily and seasonal practices of farming, raising families, burying and honouring their ancestors through the generations, and developing complex environmental knowledge of their surroundings. Most French families in the 17th and 18th centuries never had a chance to see their grandchildren grow into adults on the lands they developed. Only with the resettlement to Madawaska in the late 18th century were most Acadians able to remain unmolested in one place on the St. Jean to forge and maintain deep roots.77

Documents suggest that in addition to the several prominent fur traders and seigneurs on the St. Jean who intermarried with First Nations in the 17th and early 18th century, later French colonists also married and had children with Maliseets. Catholic Church records reveal relatively frequent intermarriage among Maliseets, Mi’kmaq, Passamaquoddies, and Acadian families such as the Godins. These marriages suggest that at least some descendants of mid-18th century Acadian settlers were learning French traditions from one parent and Maliseet traditions from the other. The children of many of these mixed marriages probably learned at least some Maliseet oral

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77 For developing ties to landscape, see Charles Bruce, The Township of Time: a Chronicle (Toronto: McClelland and Stewart, 1986); For disruption of these ties see, John F. Richards “Toward a Global system of Property Rights in Land,” in Burke III and Pomeranz, Environment and World History, 72.
traditions, language, and cultivation practices, as well as gained an appreciation of spiritual connections to place. Métissage may have increased settlers’ appreciation of the waterway and helped them call it home. As well, it helped them forge familial connections to place that were layered upon the deep traditions and practices of Maliseets. Moreover, the hybridization of people and landscape traditions on the St. Jean is similar to the histories of peoples and waterways across the world such as the Ribereños of the Amazon, Métis of Red River, and Seminoles of the Florida swamps.\textsuperscript{78}

French officials repeatedly reacted to the St. Jean with frustration at the persistent ways the river seemed to defeat their attempts to control and impose their vision upon it. French settlers responded to the river by trying to figure out its niches and develop practices that minimized the negative impacts of the St. Jean’s seasonal fluctuations on their lives and livelihoods. Those people who most consistently adapted to the river had close relations with Maliseets, although it is difficult to know the full extent of métissage, either biological or cultural. Ironically, New England and British settlers on the river repeated the same mistakes as the French, and had to learn to adapt to the seasonal fluctuations of the St. Jean that to this day defy human attempts to control its seasonality. To some degree, the river acted as a barometer of the extent to which specific groups of Europeans thought they should be able to

dominate the North American environment, and it offered frequent readings cautioning residents against too much environmental hubris.
Chapter 5

A flood of colonists on the floodplains of the St. John River, ca. 1760 to 1850

Frederick was soaked to the bone and grateful to finally get a chance to remove his wet garments. The pint of cold maple beer his son passed him tasted refreshing after the long day’s labour. It had been a good sap spring, but the late snows had made for a dreadful freshet. The St. John River had risen fourteen feet in the past twenty-four hours and was wreaking havoc along its banks. The jagged ice and loose logs traveling in its frigid flow had torn his front rail fences asunder. He and his sons had spent the entire day trying to salvage them and move to safety other items at risk of being swept away. A few of his neighbours had suffered even worse damage to property and livestock. He prayed that his parishioners had fared well, but he feared for several families that he knew had built closer to the river than his own farm. He would visit them in his canoe as soon as the waters let him travel safely.

St. John River settlers had learned not to build on the low intervales that flooded each year, but they usually considered the higher intervales dry and safe. Today his high intervale fields were under six feet of water. He had lived on the riverbank for almost twenty years, but never beheld such a flood. The rivers where he had lived in Connecticut and New York did not flood this dramatically, but in New Brunswick, the melting waters of enormous winter snowfalls rushed into the rivers each spring and caused waterways to overflow their banks. While these freshets helped timber drivers
ferry their logs to markets and enriched riverside fields, they were a great nuisance to property owners, mill operators, and navigators.¹

Large floods like this one could also delay the fishing season and he hoped that the river would recede soon so that he could safely set his nets. Frederick glanced proudly at the new net on the porch that he had almost finished. His calloused fingers ached more than they had when he was younger, but they had grown quicker at lacing nets after two decades of living along the St. John. Shad would begin spawning any day now and bass, as well as salmon, would soon follow. Each spring his family looked forward to dining on fresh fish after the long winter. Fishing also gave him needed income to supplement his modest pastor’s salary. Fishermen on dammed tributaries were catching fewer fish and he was grateful that his farm and glebe land fronted on the mainstream where nets remained full.

He shared the hope of his neighbours who looked forward to a tamer river soon. He had heard that politicians and engineers were discussing plans to cut a larger channel where the river discharged into the Bay of Fundy to increase its outflow and reduce spring flooding. There were also rumours that the government would soon begin more projects further upstream to help improve navigation by removing rocks and sand bars. He hoped these navigational improvements happened soon because the St. John was the principal route of travel in the colony. Many of his parishioners

paddled and poled their canoes to Sunday services, weddings, and funerals. In winter, they travelled the ice with sleighs, skates, and snowshoes to visit and to bring their hay to barns and markets. Improved transportation would make travel safer and help the upper settlements market their farm goods to the more populated towns on the lower waterway. He was excited that men were taming the wild rapids and conquering the swift currents and hoped that the St. John would soon be as genteel as the colony on its banks. Frederick was proud of the farm he had cleared and the thirteen children he and his wife had raised there. When they arrived on the River fleeing persecution for remaining loyal to King George, the countryside was still a wilderness. Now planted fields and pastured livestock covered the hillsides rising above the St. John near Woodstock and along its lower reaches. His trips up and downstream to minister to the expanding settlements revealed that the forest was quickly giving way to farmland and sawmills.

He arrived on the Upper River under the auspices of the Society of the Propagation of the Gospel to bring the gifts of Christian civilization and settlement to the Maliseet. He learned their language and taught over 150 families, although most of his pupils remained dedicated to the Catholic religion. Former students still visited him to attend his services on their travels between villages below and above his farm. He worried about their welfare now more than ever. British settlers had pushed Maliseets off most of their best cultivation and fishing sites. Although Maliseets conducted a lively trade in wood and skin goods, game was quickly growing scarce throughout the colony, and their lives were becoming more precarious.
In the second half of the 18th century, the low-lying lands that bordered the river attracted new groups of colonists like a siren’s song. These new settlers came not in dozens, like the French, but in hundreds and thousands, this time under the auspices of the British Empire. They favoured the lowlands for the same advantages these areas offered French settlers: fertility, cleared meadows, and access to transportation and trade. Moreover, these newcomers also experienced serious flooding that prompted relocation. The British town that became Fredericton encompassed the former French clearings at St. Ann’s that Acadians had begun developing in the 1690s. Just as René d’Amours and Port Royal settlers benefited from the work of Native farmers, Acadian plows had already loosened and moistened some of the first soil used by New England Planters in the 1760s, and Loyalists in the 1780s, along the river now called the St. John. When the British merchant, John Anderson, set up a trading post on the Nashwaak, he settled in the clearing that Villebon’s garrison had made for the fort, whose ruins were still visible.²

British officials used the name the de Monts expedition gave the river in 1604. They translated it as the “St. John River,” instead of adopting Scottish colonizer, Sir William Alexander’s “Clyde” or the Maliseet name for the watershed, the Walastakw. While often enemies, the British and French honoured the same God and shared ship designs, domesticated animals, hydro-engineering toolkits, and attitudes toward nature. British planners and settlers understood the St. John on terms quite similar to those of the French and thus did not need to rename the waterway to establish a

² For English settlements, see Ganong, Historic Sites, 114, and 120-3.
familiar rapport with it. While British officials renamed St. Ann’s and many other locales, New Brunswick’s first governor, Thomas Carleton, reported to the British Home Secretary, Lord Sydney, that the mix of established settlers and newer Loyalists living at the river’s mouth in 1785 adopted the name “St. John” for the new colony’s largest settlement and only incorporated municipality. This choice in names suggests that the people living near Reversing Falls identified their town more with the local river than with nomenclature patterned after established British settlements elsewhere or prominent elite personalities. Similarly, the French who resettled above Grand Falls retained the Maliseet name “Madawaska.” The majority of British settlements and counties established on the waterway in the late 18th century such as “Fredericton” or “King’s County,” however, reflected the power structure of the British Empire rather than the history of the watershed or its physical or built landscape.

The new flood of settlers varied significantly from earlier settlers and the human ecologies that they developed along its shores. British colonists moved to the St. John in numbers that quickly surpassed the prior size of human settlements, and they gained secure tenure that helped them entrench their colonial visions for land and waterscape. Moreover, the British benefited from the earlier land clearing work that Acadians and Maliseets performed on the river’s banks. Although coastal raids such as John Allen’s insurrection against Great Britain during the American Revolution, and Maliseet resistance briefly disrupted the earliest British settlers, later colonists fished,

farmed, and cut wood along the waterway in safety from both the invasions that had torched seigneuries and raided Maliseet villages, and the violent internal strife that stagnated Acadia’s early development. Although colonial officials concentrated the nucleus of settlement on the river’s broad and long estuary just as had the French, by the early 19th century British colonists had also established towns and farms as far upstream as Grand Falls.

After the brief presence of Thomas Temple’s fur trading posts at Reversing Falls and Jemseg in the mid 17th century, British subjects did not settle on the river again until the late 1750s. This second British attempt to colonize the St. John began not with colonists, but with a military establishment, Fort Frederick near Reversing Falls in 1758. This small fort secured the waterway’s mouth and provided a staging ground to remove Acadians from the St. John’s interior. In the following decade, the river became an important part of Britain’s plan to secure its claim to both sides of the Bay of Fundy through the granting of land to thousands of British subjects. Through collective organizations, civilian and military elites established “Planter” enclaves along the St. John’s estuary and lower reaches in the 1760s and 1770s. The vanguard of British settlement on the St. John consisted of a group of land speculators known as “The St. John River Society,” a small commercial firm (usually known as Simonds, Hazen, and White) based in Massachusetts, and a community of self-organized New England settlers, who founded the farming settlement of Maugerville. In the 1780s,
the arrival of over 15,000 Loyalist refugees from war-torn former British colonies to the south escalated the pace and extent of settlement on the waterway.4

The river itself, not Maliseets, the French, or internal strife, was the greatest challenge to the new settlers on the banks of the waterway. The agrarian and cultural experience that British colonists transplanted to the St. John was inadequate to the task of contending with the unique character of the waterway and its unequivocal seasonal influences on their settlements. The St. John was a far larger river than what most colonists had seen or grown accustomed to further south. Moreover, it behaved differently than the other rivers they had known. Its mouth was more complex and dangerous to navigate than most rivers in eastern North America or Great Britain. Its tidal estuary was longer than many waterways and some of the most powerful tides in the world influenced its flow 140 kilometers into the interior. The river and its tributaries also experienced more cold, snow, and ice buildup than rivers in New England and the British Isles. These factors limited settlers’ navigation and agricultural opportunities in ways that they did not foresee. The melting of so much snow and ice subjected the St. John to more extreme annual floods than occurred on most of the rivers that cradled other British settlements in North America. Indeed the great swelling of the waterway in the spring that brought thousands of tonnes of ice out of the North and kept riverside fields sodden late into the spring was a regular reminder of the river’s vastness as an ecological system. That vastness also included massive populations of anadromous fish with specific

4 For overview, see Raymond, The River.
migration times and habitat needs. As colonists discovered, understanding the distinctive combination of the waterway’s characteristics was a challenge they could not ignore. The St. John in its entirety was an enormous and dynamic organism that dominated the landscape. Many settlers treated the river as if it were animate.

Great Britain’s successful control of the St. John River and the seas beyond, as well as the development of a colony centered on the watershed, hinged on gaining practical knowledge of the waterway’s course and behaviour. Colonial officials quickly realized that they needed to understand the effects of the St. John’s enormous spring freshet for their colonization plans to succeed. They adopted an instrumental approach to understanding the river’s course and flood cycles. Echoing the sieur de Cadillac’s 17th-century appraisal, British Royal Engineer, Captain R.G. Bruce told the chief administrator of Nova Scotia, Jonathan Belcher, in 1762 that “the worst circumstances attending the River is that the most valuable of the Lands are overflowed every Spring and do not become dry enough for culture till late in the Summer.” Belcher responded to these concerns by ordering more systematic mapping of the St. John to help identify viable settlement sites and to provide a base to help protect British shipping in the Bay of Fundy. That same year, the military surveyor, Joseph Peach, mapped the entire rivers’ contours as well as intervalles and cleared land along its shores and islands. His work complemented a series of maps of the river that Nova Scotia’s chief surveyor, Charles Morris, drafted from its mouth to several kilometres above the estuary. Morris based the earliest British system of classification of the waterway’s banks on the influence of flooding and localized drainage patterns.
His maps and reports emphasized the extent of the freshet and its relationship to local agricultural conditions, as well as the location of British land grants and clearings. To help officials understand the agricultural potential of the river and guide the expedient and efficient settlement of the waterway, Morris differentiated the riverbanks and islands into several categories: sunken lands of lush marshes and meadows, seasonally flooded treed intervales, and uplands that escaped most flooding.5

While professional surveyors charted the contours and intervales of the St. John watershed, the earliest New England settlers at Maugerville mapped the extent of freshets to understand agricultural potential and flood risk in their township. Morris wrote to an absentee landowner who had extensive holdings on the St. John that “I measured the Overflowing in 1765, by the Marks the Inhabitants of Maugerville had set up, and I found the water had flowed above the common Heighth of the Water in Summer, near seventeen Feet and an Half; last Year twenty Feet.” Like ancient Nile River farmers, St. John colonists systematically compiled freshet data and erected markers of the freshet’s extent to make historic flood patterns visible to guide their land use. But, unlike the nilometre system of ancient Egypt, which was composed of elaborate state-financed stone structures to predict crop yields and set taxes, farmers measured the St. John’s floods through bottom-up data collection that colonial officials then used to produce maps and reports to help foster efficient settlement. British mapping of the St. John thus relied on both local and professional knowledge. The

measurements of early settlers constituted a new way of understanding the river, the
creation of a long-term accumulation of flood data to build a knowledge base for
planning human activities. Later British settlers continued recording flood data to aid
settlement.6

Devastating floods discouraged officials from selecting frequently inundated
regions as settlement sites. Seeing the devastation wrought by the high freshet of
1783 on the lowland farms of Maugerville, for instance, deterred Loyalist planners
from making that community a county capital. Hannah Ingraham recalled that her
father bought one of the first cows in Fredericton from a Maugerville farm after this
flood. “The cow was so poor and starved looking when he brought her that she could
hardly walk home. You see Maugerville is mostly under water at the freshet season,
and they have to stage up their cattle on scaffolds in the barns and they do still.”7
Maugerville farmers built barns with raised platforms for livestock to protect them
from rising currents during freshets. Like Amazonian pastoralists, they fostered flood
resilience with innovative architecture.8

Flooding also helped prompt British military commanders to relocate the
garrison at the river’s mouth. A 1758 painting, “A North View of Fort Frederick,” by
Thomas Davies depicted its low elevation. Although in easy reach of fish and
transatlantic supply chains, it was precariously close to the turbulent mouth of the St.

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6 “Morris to Spry;” Morris, Plan of the River; C. Jarvis, "Flood-Stage Records of the River Nile,”
Transactions of the American Society of Civil Engineers vol. 101 (1936): 1012-71; and

7 “Narrative of Hannah Ingraham,” 7; Clark Wright, St. John River, 125-6.

8 Wohl, World of Rivers, 24. For resilience, see McNeill, “Can History Help us?,” 25.
John. Local merchants lost goods when a storm surge swept away part of the
storehouse at the fort. Commanding officer, Gilfred Studholme, built a new
stronghold, Fort Howe, on the nearby highland in 1777 to provide better defense from
attack and floods.\(^9\)

Riverbank settlers realized that understanding and contending with the freshet
was crucial to their survival. Many people tried to avoid inundations by positioning
their communities and farms on higher ground, rather than trying to cultivate flood
resilience or resistance on lowlands. Like Acadians, Loyalist planners thought that the
upland of St. Ann’s was an excellent town site as it was “exalted above all Freshets and
directly opposite to the beautiful River Nashwaagh.” Isaac Allen, a future member of
the Executive Council of New Brunswick, similarly demonstrated his knowledge of local
flood patterns when he claimed that the Kennebecasis’s banks were as fertile as
Maugerville fields, but not as prone to destructive freshets. Although most early
French colonists learned about flooding by painful trial and error, Loyalists, like
Maliseets and mid-18 century Acadians, sometimes benefited from the local
environmental knowledge accumulated by their predecessors. Access to information
about St. John flood patterns helped Loyalists understand freshet geography and locate
their buildings on less risky elevations, but floods still washed torrents of tragedy over
many fields, homes, and human lives throughout the 18\(^{th}\) and 19\(^{th}\) centuries.\(^{10}\)

\(^9\) Davies, “A North View of Fort Frederick”; “Beamsley Glasier to Nath’l Rogers,” 25 Oct 1766, in
Raymond, “Old Townships,” 334; “Fort Howe, from a sketch by Benjamin Marston” (1781), \(WP\), 98; and
\(^{10}\) See “Edward Winslow to Ward Chipman,” 26 Apr 1784, \(WP\), 194; “Isaac Allen to Edward Winslow,” 7
Aug 1783, 117.
Catastrophic floods sometimes destroyed properties that had previously been safe from water damage. In 1798, the prominent Loyalist, Edward Winslow, reported on a devastating ice freshet that ravaged his riverside farm at Kingsclear.

Many others above me, lost every animal . . . I escap’d . . . by a hair’s breadth. The water was up to my front door & 6 feet deep in my cellar. I . . . expected to lose my House. The mountains of ice were 40 feet high . . . the stoutest of Elms & Maples were broke like pipestems—luckily . . . they took a direction just to avoid the buildings . . . they tore all before ‘em. I detach’d my wife and all the Light Infantry part of my family, and stood ready with a boat to run like a lusty fellow for the Highlands. The ridge where the buildings stand was completely insulated. I sav’d all my cattle, and even my sheep and hogs—my fences of course went to the devil.11

The St. John Gazette reported that this large freshet displaced twenty families but did not kill any settlers. Winslow had lived on his land for over a decade, but never experienced such a flood before. Thankfully, his positioning of farm buildings on a ridge saved them from damage, illuminating how local topographical features on properties could be the difference between safety and destruction for riverside residents.

A freshet’s unpredictability often thwarted attempts to plan for it. Flooding resulted from a complex mix of seasonal and daily weather conditions, ice movements, snow packs, and tidal forces that defied the scope of colonial ecological knowledge just as they continue to confound weather experts and local residents today. Settlers became skilled in identifying risk-prone areas like Maugerville, but they had a harder time foreseeing the exact timing and extent of flooding and ice jams, and even more difficulty anticipating the extreme floods that would soak Fredericton and other high

intervals every few decades. In 1764, Beamsley Glasier, the agent for the St. John River Society, noticed that the river sometimes briefly flooded and deposited rich manure over a tract of Society land, but had not done so for “several years past.” Loyalist diarists recorded when icy freshets surged metres over previous high watermarks bringing cold devastation to farms and families that had considered themselves safe from floods. Reverend Dibblee watched the St. John destroy his improvements below Woodstock when it ominously rose ten feet in one day to heights unprecedented within local memory. Such dramatic and unpredictable flow changes left residents little time to secure properties and seek safety.\textsuperscript{12}

St. John freshets fostered a unique seasonality to people’s work and land use. British colonists developed resilience and adapted their lives and livelihoods to the river’s annual overflow. Lumbermen used frigid flood pulses to ferry thousands of bulky logs to downstream mills. Reflecting back on his life along the St. John, William T. Baird recalled that during freshets the river’s current roared to “over eight miles an hour . . . rafts are run in the light of one day from Tobique to Fredericton.” Farmers, like Edward Winslow, learned to dismantle their fences and tie them to trees in the fall to keep floods from carrying them away. They also planted imported large willow species to grow aquatic fences. Moreover, British colonists discovered that while they could safely plant highlands in May, lowland fields near the river did not usually dry out until June. To contend with the flood regime, they staggered planting and stratified

their crops over different elevations based on the growing needs of particular species. Some settlers migrated away from the floodplain or built their homes extra high to protect their families and possessions from inundation. Lady Hunter wrote that residents of low-lying Long Island took “their departure every freshet, and return when the flood subsides.” Other lowlanders adopted land use patterns that were aided by floods, rather than hindered by them. Many colonists, for instance, used the fertilizing capacity of freshets to provide lush hay, food crops, and pasture rather than trying to live on floodplains. When they did reside on the flood plain they appear to have tried to position their buildings on high points on their land as Winslow had done. British military officer, Lieutenant William Wolfe’s 1854 watercolour, “Maugerville on the St. John River,” for instance, depicted a canoer passing a flooded farm, whose owners had placed their buildings on higher ground that escaped the flood waters observed by the artist.13

New Brunswick colonial and municipal lawmakers responded to the dynamic nature of the St. John’s flow with more regulations than the previous colonial regimes had. New France primarily administered the river from afar and only addressed its flow with concessional provisions that prevented landowners from barricading the St.

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John and speculative assertions that flood control was possible. The waterway was also peripheral to the political geography of Nova Scotia, and only home to minor officials. In contrast, most New Brunswick politicians and legislators lived on its banks for decades or lifetimes, and many were involved with agriculture, timber harvesting, milling, commerce, or other occupations that the river impacted. Thus, they experienced the fluctuating flow of the St. John more closely, and over larger swaths of time than had the earlier colonial regimes.14

Figure 3.5 -- William S. M. Wolfe’s watercolour, “Maugerville on the St. John River,” 1854, Library and Archives Canada, Acc. No. 1985-3-37

New Brunswick land grants often zoned seasonally flooded land as commons. Although floodplains were unsafe for homes, businesses, and fences, they provided lush grass and freshwater access that was suited to collective pasturing. Some seasonally flooded common lands, such as Fredericton’s Green, became a popular recreational space in the mid 19th century. Most floodplains, however, were private rural holdings.15

Entrepreneurs learned that the St. John resisted damming and that construction and commercial activities had to cope with flooding. Strong currents during the spring freshet made Reversing Falls impassible. The large chunks of ice carried by the 1770 freshet wrecked Simonds, Hazen, and White’s weirs near Fort Frederick just as fish began spawning, and prevented them from unloading supplies from their sloop for five days. Another freshet also destroyed their first trading post at St. Ann’s. While overseeing the construction of the first British sawmill on the river, Beamsley Glasier wrote that “everything will be prepared to raise the mills & Dams as soon as the freshet will let us in the Spring, which some times is the first of June.” The operator of the second mill on the watershed, Samuel Peabody, reported in the fall of 1782 that “The Mill I have got up and sent Hands this weak to build the dam & flumes, but was drove off by the great flow of water.” These mills needed running water to operate, but too much current impeded their construction and damaged them. Millers could anticipate the arrival of a spring freshet by observing the timing of the melt, but summer and fall flooding from heavy rains brought unexpected disasters and delays.

15 Squires overlooked the role of the freshet in officials’ zoning Fredericton’s Green as a common pasture and park space, see Squires, History of Fredericton, 157.
Although invaluable for powering saws, as well as for moving timber to mills and markets, the St. John’s freshets could destroy the dams and mills upon which the lumber industry depended.  

Human attempts to control the St. John sometimes exacerbated flood damage. Jonathen Burnell’s unfinished milldam channelled the surging floodwaters flowing in Long Creek onto the shore during the spring freshet of 1829. The three men that the local justice of the peace sent to appraise the damages on this normally calm tributary of Washademoak Lake claimed that the diverted water destroyed the mill frame and caused £55 damages to the mill seat. The commissioner of Crown lands, Thomas Baillie, refused to compensate Burnell for losses, as the mill owner had exacerbated flooding with his “improvements” and devalued rather than improved his property. Baillie used the unnatural flood damage as grounds to transfer Burnell’s mill privileges to another entrepreneur who coveted the mill seat.

New Brunswick officials appear to have applied different policies to natural and unnatural flood damage. The state’s response to Burnell stood in stark contrast to its

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treatment of John Pond, Philip Weade, and James Stewart’s petition for relief for their drowned livestock and other damages received “from a great rise of water” on the Nashwaak on 6 December 1811. Like the d’Amours a century earlier, who received aid from New France for losses from floods and raids, the three British settlers convinced their colonial government to compensate them. However, while the d’Amours’ petition only highlighted raids as a factor in their losses, the New Brunswicker’s petitioned directly for flood relief. The assembly agreed to divide £100 compensation among the three men. Evidently, when floods were an “Act of God” the British colonial government was often sympathetic, but it refused to compensate, and even punished people such as Burnell, who caused unnatural flood damage that degraded their holdings.18

The St. John’s variable flow made waterpower unreliable. The difficulty of transporting skilled millwrights and milling machinery to the remote St. John meant that most early New Brunswick mills were simple undershoot models that were easy to repair on the spot. Baillie claimed that these machines were efficient and economical “provided that power remained at its usual maximum. But during the summer months, and in the depths of winter, the water, which is generally so abundant, becomes much reduced in quantity, and the machinery is then in want of sufficient power to continue in operation.” The overseer of Hazen, White, and Peabody’s Oromocto lumbering operations in 1782 had to borrow a barrel of flour because his crew was starving “thro Dissapointment of the watter not flowing the mill our people was much in want of

meal.” Beamsley and Simonds decided that damming the Nashwaak was a better idea than harnessing several smaller waterways. Although it would cost £200 to build the big dam and initial two mills, they could eventually save money by adding more mills onto the same barricade. Moreover, they knew that the Nashwaak maintained enough summer water volume to supply power, in contrast to “small brooks that will be almost dry near half the year.”

The unreliable flow of rivers and unequal distribution of mill seats throughout the colony prompted some industrialists to attempt running their mills with power sources that neither froze nor dried up. In 1767, Simonds, Hazen, and White operated a tidal mill on a creek that flowed through their lands near the river’s mouth. The latter two partners expanded the mill twenty years later. In 1797, New Brunswick entrepreneur, James Hunter, requested “a patent for 14 years for his invention of new and improved method of applying wind to obviate the inconvenience attending the present form of grist and saw mills.” In 1839, the assembly rejected a petition with over 100 signatures to grant William Edgar support to build a wind-powered gristmill to aid settlements along the Oromocto’s headwaters. In the same session, it allotted £20 to John B. Terrio for building a similar wind-powered gristmill at Grand Aunce, a community on New Brunswick’s north shore with “no site for a Mill to be driven by water power.” Evidently, early New Brunswick legislators believed that St. John River

industry should primarily rely on harnessing flowing water, but they were willing to fund alternative energy sources in locations that lacked sufficient waterpower.\(^\text{20}\)

Steam power freed industrialists from the St. John’s changing flow and gradients in the 19th century, but the new technology required a much larger financial investment than water mills. George Hayward Jr. and William Gibson petitioned the assembly for the exclusive rights to operate a steam gristmill in Lincoln for twenty years to help them secure the local market so that they could recover the cost of their investment and generate a profit. They grounded their request in the reasoning that, “water Mills in general cannot grind but a small part of the year for the want of sufficient water, and a steam Mill can grind at all seasons.” The assembly did not oblige their petition; instead it promised William Morgan fifty pounds upon completion of a water-driven grist and hulling mill on the Nashwaaksis in Fredericton. The lack of colonial support and high operating cost evidently prevented steam technology from making large inroads into milling until mid-century, and wind and tidal power remain marginal to the present day. New Brunswick transportation and manufacturing, as well as the political support backing power generation, remained primarily tied to the St. John’s erratic flow.\(^\text{21}\)

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\(^{21}\) “Petition of George Hayward, Jr., and William Gibson,” 27 Feb 1824, \textit{PANB}, RS24, S32-P81. For Morgan, see “An Act to appropriate a part of the Public Revenue, for the services therein mentioned.
British colonists altered drainage patterns and habitats on the backwaters of the St. John to affect resistance to deluges, increase arable land, and build and insulate extensive road networks from flooding. Men drained and filled in swamps, erected causeways that cleaved wetlands in two, and dug ditches along roads and fields that altered the natural flow of hundreds of small streams and springs. Hazen and White, for instance, paid Aaron Hovey twelve shillings to dig a drain on their lands outside Saint John in 1787. In 1837, *The New Brunswick Almanack* instructed farmers to create furrow drains in low-lying parts of fields “by passing the plough three or four times through the same furrow.” It also specified that these drains “should be well cleared of loose earth by means of shovel or hoe so as to admit the surface water in wet seasons to pass freely off.” Drawing upon local governmental traditions in England and New England, New Brunswick developed a position, the commissioner of sewers, to “consult, consider and devise means and methods for building, erecting or repairing such dams, dykes and wears . . . to prevent inundations, and for the draining or drowning of marshes, swamps and other unprofitable lands.”22

The assembly mobilized statute labour to alter the waterway to improve land transportation. Parish surveyors and committees supervised the building of causeways over sunken lands and the digging of ditches to drain standing water and run-off away

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from roads. In 1819, supervisors of a road running across the Oromocto’s headwaters to Saint Andrews reported that it was improved “by ditching and bridging some swamps near Brisley’s Creek . . . digging out rocks and leveling and ditching some swampy places—Part of the Road near McDougal’s, has been causewayed. . . and two swamps have been causewayed between Shine Creek and the Barrens.” They also reported that the causeways had sustained damage from the numerous cattle and horse herds that famers drove to New Brunswick from Maine the past summer. That same year, another road supervisor, N. H. de Veber, stated that several miles of “the road between Jemseg and the Washademoac lake, have been cleared, drained, turnpiked, and otherwise improved.” Some hydraulic construction projects, like the Burton Causeway, required dozens of labourers and copious amounts of rum. These are only a tiny fraction of the work projects that illustrate the stark departure of British colonial settlement from earlier human ecologies on the river. On a yearly basis, individuals, companies, and the colonial state undertook projects to reshape the flow of water to create a massive road network that gave residents transportation alternatives to the river’s natural course and portage footpaths.

Flooding bred conflict between the public need for transportation and private interests. Baillie labelled spring ice breakup and freshets a “great and terrible destroyer of our bridges. Permanency, strength, and durability, therefore, should be the ruling considerations in the erection of them.” Some landowners mobilized their

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local knowledge of the St. John to counter state proposals to build roads across their lands. When residents of St. Mary’s Parish learned of a plan to reroute a road across their properties, they used their knowledge that floods would damage and block the road for several weeks each spring to lobby legislators against the project. When the 1803 freshet dislodged a big pine that Maugerville residents had fashioned into a footbridge, locals harvested it for private use and refused officials’ request to procure another log for a public crossing.24

The River’s banks

The large number of British subjects who settled along the St. John River altered its banks and islands more extensively than had Maliseets and Acadians. Their settlements concentrated on the river’s shores to take advantage of transportation, fish, wood supplies, and the fertile intervalles. British land grants along the river from the 1760s onward required landowners to improve their holdings by populating them with colonists and livestock. They also stipulated that settlers had to undertake cultivation, pasturing, and construction projects on their lands. The St. John River Society, for instance, had to ensure that “One Third of the Premises to be inclosed or cultivated” every ten years. Proprietors also had to settle one quarter of their lands

with one Protestant settler per 200 acres for four years. The Crown reserved the right to repossess (escheat) the land if property owners did not meet these terms.\textsuperscript{25}

The Crown instructed Thomas Carleton, the governor of the new colony of New Brunswick, to maintain the importance of rivers and riverbank clearing. Carleton was to establish towns on navigable rivers and coasts, and ensure that properties did “not extend along the Banks of any River, but into the Main Land” so that all citizens could access rivers for transportation and other purposes. Fredericton, the colonial capital he established was bordered by water on three sides: by the St. John, and two small tributaries, Phyllis Creek and Mill Creek. The Crown obliged New Brunswick settlers to improve three acres per fifty within three years to secure titles to their properties. On dry land, this meant cutting trees and opening pastures, cropland, and quarries. Wetland colonists had to clear and drain swamps, sunken grounds, and marshes. Clustering both rural holdings and urban centres near the St. John ensured that much of the environmental impact of British colonization in the region centred upon the waterway’s shores. It also meant that the river’s physical characteristics and habits had a profound influence on the new colony.\textsuperscript{26}

The fee simple system of British property holdings and the agricultural focus of settlement bound colonists to specific microenvironments spread out along the waterway. Through the daily and seasonal activities of farming the men, women, and


children who lived on the river developed nuanced local ecological knowledge of the St. John, as well as the plants, animals, and weather patterns they encountered in their nearby surroundings. Most colonists’ relationships with the waterway were orientated locally to their properties and immediate needs. Their experience with the river was thus primarily one of procuring water for livestock, contending with floods, paddling to market, catching fish, or watching a pendulum of sunsets and sunrises reflect on the waters near their properties across the seasons. They had little concern with the river as a large ecological system and were physically far more locally orientated than were Maliseets or even the French settlers of the 17th and early 18th century. Although most Maliseets traveled the entire mainstream of the river and many of its tributaries throughout their lifetime, British colonists typically changed locales only infrequently, and few aside from lumbermen ventured above Grand Falls, which now acted as a divide between anglophone and francophone settlers. Timber cutters and log drivers sometimes operated on several parts of the river system in winter and spring, but they seldom traversed the entire waterway.

British settlers constructed their identities from political affiliations to the parish, the county, the province, and the empire, from the property boundaries of their lands, and from religious beliefs. Their larger spatial affinities were more orientated toward the colony of New Brunswick and the British Empire, rather than the watershed upon which they lived. While some British settlers claimed the St. John as their river and early New Brunswick maps represented most of the waterway, this appears to have been more of an attempt to legitimize British control over the watershed and

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obscure the previous tenure of Maliseets and Acadians, than it was an expression of
cultural affiliation with the local landscape. When strong ties of identity between
colonists and landscape emerged over generations, settlers usually continued to
identity with their local communities and landscapes rather than the river system as a
whole.27

Riverbank clearing increased in tandem with the growth of settler and livestock
populations. In 1775, there were 144 Protestants with more than 350 horses, oxen,
cows, calves, sheep and swine grazing near the river’s mouth and at Maugerville. The
largest number of horses and almost half of the other animals belonged to Simonds,
Hazen, and White in Conway township, which encompassed the rocky headland and
salt marshes surrounding Reversing Falls. Thirty Acadian families also pastured animals
and grew crops along the riverbanks above the rapids at Aukpaque. In 1804, Edward
Winslow recalled that there were 130 Planter, 340 Acadian, and 340 Maliseet families
living on the river in 1783, suggesting a rapid growth in settler population. Moreover,
this indicates that Maliseets were present on the river in far larger numbers than the
populations observed by Gargas and Tibierge following the epidemic of the 1690s.28

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27 For Loyalist settlement and dominance over landscape, Ann Gorman Condon, “1783-1800: Loyalist
Arrival, Acadian Return, Imperial Reform,” in Atlantic Region to Confederation, 197; Harris, Reluctant
Land, 168-9, and 192. For log drives, see Wynn, Timber Colony; Judd, Aroostook. For later settlers
claiming the river as a Loyalist river, see Greg Marquis, “Celebrating Champlain in the Loyalist City: Saint
John, 1904-10,” Acadiensis vol. 32, no. 2 (Spring/Printemps, 2004): 27-44. For identity and ties to local
community near Gagetown in the mid 20th century, see Joy Parr, Sensing Changes: technologies, 

28 “Conway, Digby County – 1775,” Commissioner of Public Records, Nova Scotia Archives, RG 1, vol. 443,
no. 8 http://novascotia.ca/archives/virtual/census/returnsRG1v443.asp?ID=315 (Accessed Aug 27 2014);
“Notes on New Brunswick History by Edward Winslow—1804,” WP, 508. See chapter 2 for Gargas and
Tibierge.
British surveyor, Charles Bruce, described 1,500 acres of cleared upland along the 140 kilometers of the river’s estuary in 1762. Acadians had cleared most of this land, while Maliseets and British settlers had improved the rest. Bruce specified that there was no cleared land above Aukpaque. Major Studholme’s 1783 survey noted that British colonists lived near more than 845 cleared acres and 130 acres of improved marsh below St. Ann’s. With the 520 acres at St. Ann’s, this amount equalled Bruce’s tally. Studholme, however, claimed that more than sixty Acadians had made “considerable improvements” above St. Ann’s while hundreds more worked smaller holdings. The total agricultural and village clearing along the river was still smaller than 2,500 acres, far less than the tracts of forest that Maliseets burned during this era.29

Britain’s dispossession of Acadians and Maliseets provided British settlers with improved farmland. Colonial proclamations enticed new settlers (Planters) to Nova Scotia with promises of cleared fertile riverbanks. While Maliseets stopped a group of New England farmers from settling on the lands of deported Acadians at St. Ann’s in 1762, six years later the planters were travelling from their settlement at Maugerville to reap most of their hay from “five Hundred Acres of cleared Upland in English Grass” that Acadians had earlier sown at St. Ann’s. Although historian D. Murray Young called Maugerville a “Do-it-Yourself” settlement, its residents gave their livestock a free lunch because of Acadian and Maliseet labour. Thomas Langin farmed “4 miles above St. Ann’s . . . about 20 acres of land improved, chiefly cleared by the French . . . drove off .

. . by the Indians.” In Burton Township, Israel Kinney’s “15 acres of cleared land . . . was chiefly done by the French and Indians.” Simonds, Hazen, and White hired Acadians to dyke and drain a salt marsh that drained into the river’s mouth below Reversing Falls. They mowed hay and pastured cows on this fertile land and almost had their herd stolen by American privateers. The dyked land accounted for large part of the 150 acres of improved marsh that Edward Winslow noted here in 1783 during his summer appraisal of the St. John. The map that British cartographer Robert Campbell drew of the St. John in 1788 labelled these lands “Great Marsh” and revealed that farmers had subdivided it into approximately fifteen smaller fields. The dyke built by Acadians and the lands that French and Maliseets had cleared further upstream were instrumental to the newly arrived St. John River colonists “improving” enough property to secure their tenure. Beamsley Glasier even recommended that the St. John River Society import French horses and labourers from Canada to help settle their lands because they were acclimatized to the region and affordable.30

Loyalists also benefited from Maliseet, Acadian, and Planter riverbank clearing and the escheat process that “Cleared the Decks” for them. Stretches of previously cultivated riverbank made it easier for Loyalists to begin farming. These contributions were not simply ignored by Loyalists; they were, on occasion, erased from historical

memory. Edward Winslow branded Acadian intervale farming haphazard and lazy: “The Acadians had seated themselves upon the margins of the rivers, upon spots of intervale, fertile by nature and annually enriched by the over-flowing of the water—and there this improvident and slovenly race, obtained with very little labour, all the necessaries of life.” Ironically, Winslow established his own farm on lowlands that Acadians had previously worked, and he praised the labour-saving fertilizing effects of freshets on intervale farming. The Loyalist dream of New Brunswick thus emerged from the nightmare of deportation, dispossession, and death that British authorities inflicted on Acadians and Maliseets.31

Although most Loyalists had never met Acadians or Maliseets face-to-face before moving north, their landscape alterations, racial prejudices, and reconstruction of history fits within historian Ben Kiernan’s ideological framework of genocide. Moreover, popular and state mythologizing of Loyalists as victims forging a peaceful agrarian paradise of Elysian Fields and genteel improvements masked the violence that the British military inflicted on the former occupants of the “Land of the Loyalist.”

Hannah Ingraham, for instance, went to school in Fredericton in the 1780s and lived in the region the rest of her long life. She recalled that the town was originally “settled by Scotch people . . . but,” according to the story’s she heard, “the Indians had killed them all and burned up their houses.” Although most Loyalists did not directly inflict harm upon Maliseets or Acadians, their superiority complex, views on race, and

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selective reconstruction of the past reinforced the physical destruction of Maliseet and Acadian ties to the lower St. John.\textsuperscript{32}

In the decades that followed, evidence of the bloody clearances and more subtle acts of genocide were overshadowed by progressive narratives of British Loyalist settlement that trivialized the key role Acadians and Maliseets had played in improving the St. John’s shores for British farms and towns. Yet Loyalists also realized that the environmental impacts of Acadian settlers had depleted the fertility of parts of the river’s bank in advance of their arrival. Patrick Campbell noted that Thomas Carleton’s potato fields and the rest of the infrequently flooded soil surrounding Fredericton was poor and had “been long cultivated by French and Indians.” The 1803 survey return for Kings County claimed, “The Improvements of the Hammond River are at a stand, as the rich parts were originally cultivated by the French.” This soil decline is further evidence that Maliseets and Acadians had altered the riverbank into a cultivated landscape and influenced the opportunities available to British farmers.\textsuperscript{33}

Riverbank clearing expanded steadily from the 1780s onward. British soldier William Corbett remarked that he saw “the wild woods and river banks turned into


\textsuperscript{33} Campbell, \textit{Travels}, 38. For more discussion, see chapter 2. See also Report on King’s County in Winslow’s survey (1803), \textit{WP}, 494. For Judge Allen’s questionable purchase of Indian Island at Aukpaque that included 200 cleared acres, see “Suspect Sale of Eqphahak Reserve,” \textit{Wolastoq Times} (Mar 2013): 1-7. For Loyalist grant at Meductic, see “Captain John Munro to Edward Winslow,” Oct 1788, \textit{WP}, 743-4; “Perley's First Report,” 12 Aug 1841.
settlements” while stationed on the river from 1785-1791. The surveyor general for New Brunswick, George Sproule, drew a map in 1787 that shows that within a few years of Loyalist immigration and Acadian resettlement, colonists had cleared acres of forests around hundreds of dwellings along intervale and upland shores of the river. Four years later, Patrick Campbell described British settlements extending along the river as far north as Woodstock, with eighty miles of uninhabited land between there and Grand Falls, and fifty miles of French farms bordering the river between the cataract and the mouth of the Madawaska River. He reflected that a “bird’s eye view” of New Brunswick would see that not even a thousandth of the colony was cleared of forest. Travelling upstream to Fredericton in July 1792, Bishop Inglis remarked that, “there is more land cleared along each bank of the river, than there was in 1788,” the year he had previously visited the colony. Lady Hunter recorded that while settlers only sporadically cleared the poor soils along the lower estuary, the fertile banks above Long Island were “more extensively clear” and settled.34

Settler alterations to the vegetation growing along the river and the grazing, watering, and sanitation habits of their livestock affected soil retention and wild animal habitat. Campbell’s picture of a colonial farm, for instance, revealed fields of stumps that slope directly into the river, a case of erosion waiting for rain. The corrals and barns depicted in the painting attest to the presence of cattle and other domesticated animals that devoured vegetation, loosened soil, and befouled water on newly cleared

landscapes. A painting of the new town of Stanley in 1833 showed that colonists had almost completely cleared the trees from the shores of the Nashwaak to make room for their town and farmland. The extensive clearings that settlers then plowed, particularly those on sloping riverbanks, were especially vulnerable to erosion. Plowed furrows that cross-sloped the river’s clear-cut mouth in 1781, for instance, fed into steep muddy cart paths that funnelled runoff directly into the harbour. In these cases, colonists’ removal of almost every tree from their fields and settlement sites destroyed the root systems and standing trunks that bound riverbank soil and protected it from ice scouring during spring freshets. Other images, however, revealed that settlers at Spring Hill (Aukpaque) and Lincoln below Fredericton left a line of trees growing along the St. John, perhaps in appreciation of the vital role these plants played in preserving riverbanks.35

The census that Edward Winslow administered in 1803 to accompany Lt. Governor Carleton’s return to England added statistical evidence to support observations of increased clearing along the waterway. His report revealed huge increases in cleared farmland along the estuary, lower tributaries, and above Grand Falls. Dibblee recorded 700 people, 631 cattle, 101 horses, as well as swine and sheep in a “considerable number” between Northampton and Woodstock. Northward to River de Chute, 214 colonists had hewn riverside homes and farms from the forest.

French settlers cleared large tracts of forests along the Madawaska and other northern tributaries. In the twelve-by-thirty-mile parish of St. Mary’s across the river from Fredericton, 903 settlers and thirty-one black slaves had cleared 2,302 acres. There was more cleared farmland in this single parish than in the whole watershed in 1762. While 17th-century censuses measured Eurasian crops on the St. John in minots (barrels), farmers now grew tonnes of food on its bank. Furrowed fields, fences, stumps, and apple orchards had replaced hundreds of miles of shady mixed-species forests along the riverbanks. Many of the trees that colonists allowed to remain or germinate grew on linear hedges along property and field divisions that ran parallel and perpendicular to the waterway in a rationalized and geometric landscape.36

Peter Fisher described the trappings of thick settlement on the upper estuary, Grand Lake, the Nashwaak River, and Salmon River in 1836. He recorded that above Fredericton “for nearly two hundred miles along its banks it is covered with improved farms, and almost a continuous chain of settlements.” Over 3,000 French settlers reshaped the riverbank above Grand Falls. The empty shores that Campbell paddled by between Presque Isle and Tobique had changed in twelve years: “wilderness has been converted into fruitful fields governed with habitations.” Cutting on less arable lands, such as those along the Tobique, left additional riverbanks bereft of its largest plants. Geographer Graeme Wynn estimates that Queens, Kings, York and Carleton

County had roughly 205,000 acres of clearings by 1840. Including another several thousand acres bordering the river near Reversing Falls and along the shores of Lake Témiscouata, as well as the clearings along the Allagash River and other tributaries in present day northern Maine, brings this tally to above 210,000 acres. Most of these deforested tracts bordered the St. John or one of its tributary rivers, streams, and lakes.37

The shoreline of the lower St. John smelled different in 1804 than it did in 1704 and 1604. Lady Hunter’s nose detected an abundance of white clover growing on islands and intervales below Fredericton. She noted that clover was now “the first plant that rises after the wood is cleared away, before the soil is turned up. It was in full bloom . . . and that and the bean blossom, quite perfumed the air.” Campbell observed extensive “natural grass” growing on those lands in 1791 and he claimed that “foggage” (second crop) was mostly, “rich clover.” These keen observations of this introduced Eurasian plant’s new role in the forest cycle reveal the pervasive, but invasive, nature of colonial alterations to the banks and islands of the St. John. White clover fixed nitrogen to soil and was a popular food for the thousands of Eurasian cattle, horses, and sheep that colonists imported and bred along the river.38

Before 1783 humans had only cleared a few dozen small patches of forest and burned several larger areas of land along the watershed. Most of this activity was on

38“Diary of Lady Hunter,” 213; Campbell, Travels, 28.
the lower river. By 1836, settlers had turned the banks of over half the mainstream and several of its large tributaries into a colonized landscape to support farms and supply timber products. Although Baillie wrote that the fertile shores of the St. John still gave immigrants the “best opportunity,” most of its banks looked and smelled different. The altered landscape along the river’s banks did not retain as much water or cast as much shade as the earlier ecology, and it included new species of fodder for domesticated animals.39

British colonization depended on turning riparian forests and meadows into pasture and fodder to feed large herds of livestock. Nova Scotia officials initially worried that it would be hard to import such creatures to the river, as most of the soldiers they planned to settle there in the 1760s did not own animals. Residents of the community that became Maugerville, however, had already brought large herds to the river. Charles Morris and Henry Newton used the presence of “considerable stock” in the Planter settlement to convince Nova Scotia’s London representative, John Mauger, to lobby the Crown to sanction the presence of the settlement after colonial officials stated that the planters had settled without their knowledge or authority, and thus lacked a valid title to the lands they occupied. Maliseets named river features after wild animals important to their diet and culture and settlers often did the same with domesticated animals. It is no accident that more wild animal nomenclature endures on the upper reaches of the watershed, whereas the more densely and earlier colonized lower mainstream hosts more names of foreign and domestic animals. The

39 Baillie, An Account, 131.
Eagle Lakes of northern Maine and Ox Island on the estuary are obvious examples visible on modern maps.⁴⁰

The wild grasses growing near the river and the fodder species Acadians had introduced were the biomass energy supply that made British settlement possible. Cows turned grasses that human stomachs could not process into digestible milk and meat. Oxen and horses converted fodder into the muscle power settlers needed to haul wood, lime, and people. Hay was the diesel fuel of the colonial economy, a valuable and relatively scarce commodity required for doing the heavy work that characterized colonial livelihoods. Glasier “brought a Large Bull up the River” and suggested the Society quickly establish a cattle herd. He boasted that on St. John Interval Land you have a Long kind of Grass which the Cattle in that country fatten themselves upon . . . the heifers of the same breed that had a calf in Boston at 3 years old came in at 2 years at St. johns, so much they Improved in Growth and Wantonness . . . nor do they Put up their Horses in the Winters, Except those that work, tho’ you may cut any Quantity of Grass.⁴¹

Lush river islands and meadows were the most valuable sources of summer pasture and winter hay in the region. Morse observed in 1784 that Maugerville farmers had only worked intervale lands as they were “easily cleared, and the soil inexhaustible.” Glasier noted that these farmers followed the pattern of island pasturing the French had introduced to the St. John. “Their Hoggs and Sheep they keep on the Islands . . . overflowing Leaves these Islands so Rich that the Hoggs Grow fatt by eating Ground nuts,” a reference that may signify the presence of former Maliseet gardens of ground

nuts and Jerusalem artichokes. He then boasted that the Society’s grants contained several such islands. Fisher wrote a half century later that upland fields produced “one and a half tons per acre, and the intervale from two to three tons.” Moreover, colonists easily travelled to and from intervales and islands by barge and ice sled. Glasier’s description of the river celebrated the extent and nutritional value of intervale grasses, but the colonists he helped attract emphasized their scarcity.42

Fodder shortages imperiled British colonists on the river. Settlers had to pasture three cows “on every fifty acres of land granted” to secure their tenure. Each cow needed a ton of hay every winter. While imported grasses such as white clover and native species like Foul Meadow and Blue Joint grew along the river, they were unevenly distributed. Maugerville farmers lived near St. Ann’s hay fields and natural meadows, but the earliest British colonists at Reversing Falls did not have enough hay for their herds. Simonds wrote of these problems to his partners in New England.

Disappointment for want of provisions . . . for our men, and hay for our cattle, will not be trifling, . . . the latter sent up the River to be wintered, which will entirely overthrow our plans . . . to sled Wood and Limestone for next summer – a much easier way than carting . . . I have not heard from Passamquada [Passamaquoddy] . . . but fear they have little or no provisions, and am sure they have no hay for a Cow there. She being exceedingly good shall endeavour to save her life till you can send hay for her.43

That Simonds had transported his oxen upstream on the frozen river and strived to save a cow from starving until his partners could send her bulky hay from

Massachusetts confirms the seriousness of fodder supply. After the hard winter of

43 See “James Simonds and James White to Blodget & Hazen,” 16 Dec 1764, Raymond, “Letters Written” 165; and Campbell, Travels, 30. See also Virginia Anderson,” Creatures of Empire, 154; Donahue, Great Meadow, 85 and 166-8.
1770, he and his partner, James White, complained of further shortages, “what has been the most difficult and distressing was the want of provisions and hay.” One of the first acts of rebellion Nova Scotians committed against Great Britain at the onset of the Revolutionary War was the burning of a load of hay commissioned for the government at Halifax, further evidence of its local importance. Hay scarcity threatened settlers’ health, the profit margins of entrepreneurs, and survival of livestock, as well as influenced the nature of local social protest against the British Empire.44

The distribution and seasonality of riverside hay on the St. John influenced the colonial livestock market. Hay grew differently each year. Too much summer rain decreased yield. During warm winters like 1770-1771 when the river did not freeze solid settlers could not sled this heavy commodity from marsh to stable. Simonds and Hazen complained that the 1768 “hay season was the wettest that was ever known.” Hazen and White wrote to their upriver business associate, Samuel Peabody, in 1781 noting, “As a great loss of Hay is at Maugerville . . . See that Mr. McKeen doth not disappoint us of the ten Tons Hay.” While worried about their own hay supply, these capitalists realized that it was an opportune time to buy beef cattle and oxen, as poorer farmers could not afford to provision their animals. A decade later, Campbell observed that farmers living near towns and garrisons, such as Stair Agnew at the

mouth of the Nashwaak, had a market for “several hundred tons” of hay. Isolated settlers such as Squire Peters, in contrast, did not think their hay was worth the work of cutting as it only fetched “about twenty-one shillings” a ton. By 1799, the exchange of hay had grown so important to the New Brunswick economy that the assembly passed a law that empowered county officials to establish machines (scales) to weigh hay and developed regulations to govern its exchange. Farmers usually transported hay from fields to market in winter using sleds. John Campbell’s painting, “New Brunswick Fashionables!!!” illustrates a sled of hay parked beside the hay scale at the Fredericton Tank House and City Hall in 1834.45

Eurasian grasses that intermixed with and sometimes replaced natural grasses spread along the shores of the waterway in tandem with colonial settlement. Morris described European grasses at St. Ann’s in 1768 and distinguished the marshes between Belle Isle and Jemseg-Grimross as sporting a “high coarse . . . natural Grass of the Country.” His labelling of “good meadow land” and “very good grass” at Grimross Head and nearby islands also implied natural species rather than “English” imports. Winslow recorded that natural blue joint and foul meadow grasses remained on unsettled upper Nashwaak Islands in 1783. In 1825, Fisher wrote that “the principal grasses produced in the country, are white and red clover, timothy, lucerne, browntop

45 “Simonds and White to Hazen and Jarvis,” 18 Feb 1771, and 21 Dec 1768 in Raymond, “Letters Written,” 180 and 175; “Hazen & White to Peabody” 14 Nov 1781, in Raymond, “James White Papers Cont’d,” 36; Campbell, Travels, 41-2, and 30; and “An Act to authorise the Justices of the Sessions in several Counties of this Province, to make Regulations for the Weighing of Hay, within such Counties where it may be found necessary to erect Machines for that Purpose, Passed the 8th February, 1799.” New Brunswick Acts, 1799 (Saint John, NB: John Ryan, 1799), 39 George Ill, 404-5. See also John Campbell “New Brunswick Fashionables!!,” Jan 1834. http://www.familyheritage.ca/fredericton1.html (Accessed March 24 2015).
There are several species of wild grass, such as blue-joint, &c. found in meadows, in the woods, and along streams.” In contrast to earlier accounts, Eurasian species were now the main fodder on the St. John, but native grasses still dominated in meadows, forests, and along small tributaries. Some of these species such as Blue Joint help stabilize wet soils from erosion and continue to compete well with introduced Eurasian species along the St. John.46

British timber harvesting increased steadily after Fort Frederick’s erection. Soldiers at the fort cut and rafted firewood and building materials near Reversing Falls. Several years later, James Simonds boasted that colonists could pay for the clearing of their riverside farms in a year by using the waterway to ship timber, potash, grain, hemp, and flax to market via present day Saint John. In 1764, Glasier described the banks of the St. John as open parkland.

The Trees are all Extreamly Large and in General very tall and chiefly hard wood, Pine, firr &c. Neither is there underwood of Brush, you may Drive a Cart and Oxen thro’ the Trees . . . it looks like a Park as far as ever your eye can carry you. The pine Trees fit for Large masts are farther Back and Bordering on the small Rivers as I am told by the Indians.47

Glasier’s description resembles a mature mixed-forest assembly more than the second-growth aftermath of axe and inferno. The timing of his visit, however, affected how the riverbank looked, as well as what grew, chirped, buzzed, and browsed along its edges. Glasier described the riparian forest in mid-December after deciduous trees

dropped their leaves and annual plants and mosquitoes died. The woods he saw were more open than a summer forest.

The first British commercial timber operations on the St. John sought big pine masts within hauling distance of the waterway during the American Revolution. Glasier relied on Maliseets to tell him where to find such trees, and they protected British felling from revolutionary dissidents. Early mast cutters, like William Davidson, James Simonds, and Samuel Peabody, worked on the same tributaries that French woodcutters had operated on nearly a century earlier, the Nashwaak and Oromocto. As Graeme Wynn details in his study *Timber Colony*, commercial harvesting escalated on the watershed between the founding of New Brunswick and the mid-19th century. The Crown instructed Governor Carleton to reserve high quality stands of trees with the potential for large pine masts for the Royal navy. Carleton, for instance, reserved a large stand of “Timber for Masts for King’s ships” that Winslow had noted behind St. Ann’s in 1783. The mast cutters who deforested the stand that became known as Kingsclear were so wasteful that colonists petitioned to build a sawmill to process many felled logs that did not meet royal standards and were left to rot on the ground.48

The trees that British settlers and timber crews removed from the riverbank affected the retention and flow of water in unprecedented ways. Trees kept soil moist

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and slowed the flow of rain into and within streams. As well, forest shade reduced evaporation and kept temperatures cooler for fish. Three Fredericton mill owners petitioned Lieutenant Governor Carleton in 1787 to help them keep their mill running. They claimed that

when they built their Mills upon Mill Creek there [was] . . . sufficiency of water to answer their purpose. That clearing the lands around the Mills has tended to lessen the stream and thereby rendered them of little use to themselves consequently to the public . . . they can at a very considerable expense be supplied with water, by overflowing a tract of land . . . apparently unfit for other purpose and by such overflowing they shall not interfered with the Glebe or Common of Fredericton or the settlement of any persons.49

These men realized that their timber harvesting decreased the stream flow that their enterprise relied on within only a few years. They proposed responding to their environmental impacts on hydrology with more damming to increase their water supply in order to cut more trees. While mill owners such as Glazier and Simonds had tried to respond to water shortages by damming large waterways, Bailey and his partners wanted to create more storage ponds to increase their mills’ water supply on a small creek. Bailey’s proposed solution could generate short-term profits and water flow, but it risked further degrading the stream as a habitat and power source. Writing at the dawn of the 20th century, Raymond claimed the St. John used to have longer

49 “The Memorial of Lemuel Wilmot, William Fowler and William Bailey” 14 Dec 1787 in LC, Mills & Manufacturers, General Correspondence & Papers, 1785-1827. For Wilmot mills, See Robert Campbell, “Map of the Great River St. John & Waters,” 1788 BNA, CO 700/New Brunswick16; Winslow “Sketch of the River,” 154-60. Raymond, Winslow’s editor, claimed Old Mill Creek was at Salamanca (College Creek) where there was a grist mill at its mouth and a sawmill further upstream. For cutting and hydrology, see Outwater, Water; Cronon, Changes in the Land, 125.
summer shipping seasons; “before the country was cleared of forest, the river did not fall so rapidly after the spring freshets as it does now.”50

By 1840, English colonists had harvested huge tracts of forest along the mainstream and tributaries as far north as the Tobique. Similarly, francophone settlers and lumbermen from New Brunswick, Maine, and Quebec cleared or decimated large stretches of the riverbank forests between Grand Falls and the Madawaska, as well as along the Allagash, Lake Témiscouata, and other northern waterways that drained into the St. John. Although changes in hydrology were most observable on small streams such as Mill Creek, the entire river downstream of cutting likely behaved differently than it had fifty years earlier, exhibiting subtle signs of raised water temperatures and decreased water volume and flow. These changes degraded the St. John for cold-water-loving fish like salmon, millers who depended on it as a kinetic energy source, and colonists who used it to transport goods and people.

Turning the St. John’s forested shores into fields and stumps affected many animals. By 1836, once abundant creatures such as moose, wolverines, caribou, and beavers were scarce. Like colonists in Australia and elsewhere in North America, New Brunswick settlers relied on domesticated herbivores and placed bounties on the wild carnivores and omnivores that preyed on them. They also used the river to capture animals, particularly vulnerable swimming bears. Conservation and predator bounty laws, as well as travel accounts reveal threats to animals from over-hunting and habitat

changes to the river’s banks. Caribou, for instance, were vulnerable to the replacement of lichen-rich mature forests with grassy fields or maple and poplar shoots that provisioned cattle and white-tailed deer, as well as the warming temperatures that characterized the region in the 19th century. Although caribou remained relatively abundant in the watershed in 1786, they had seriously declined by the time Peter Fisher wrote his history in the 1820s. The farm, stump, and townscapes produced by colonial clearing typically sported fewer species than the original forest. However, it also attracted new wild species. While Colonel John Allen claimed there were no deer east of Maine in 1777, four years later Hazen and White exported the skins of eleven deer along with those of 571 moose, eleven caribou and 3,621 muskrat, on the ship Recovery.51

The rapid settlement of a large colonial population with a mandate to develop farms to increase the human population, and generate wealth from the extraction and sale of natural resources, altered local ecology to unprecedented degrees across the world during the early modern era. On the St. John during the late 18th and early 19th century, British settlers and Acadians developed large tracts of land bordering the St. John, creating what Alfred Crosby labelled a “neo Europe.” However, New Brunswick legislators and settlers quickly realized that they needed to moderate their impacts on

the river’s shores and that the physical environment sometimes limited the effectiveness of their private property regime.52

British colonists tried to protect the river’s shore from its current, as well as from the activities of humans and their livestock. St. John River erosion controversies reflected local land use patterns. A rural resident of Queensbury Parish, Joseph Merceraule, tried to stop the colonial government from developing public ferry landings and roads on his property. Nineteen neighbours in St. Mary’s Parish used their knowledge of the freshet to point out that rerouting the road from Fredericton to Saint John through their seasonally flooded lands would result in destroyed bridges and an impassable road for a month each year. Colonists’ opposition to state development projects stemmed from fears that increased human and animal traffic would trample and erode valuable intervale lands.53

The St. John’s erratic flood cycle made it hard for New Brunswick legislators to impose private property law on riparian lands. In his study of the natural limits of property law, legal historian Theodore Steinberg noted that “every once in a while there comes a piece of earth that will not fit neatly into the square hole of property.” The incompatibility of floods and fences caused many problems along the St. John, especially where multiple people owned a flooded tract. However, while Steinberg’s study of 20th-century property focuses on injustices, inconsistencies, and irreverence of

law, examination of colonial New Brunswick reveals that landowners and legislators made innovative and successful efforts to adapt property laws to better contend with the St. John’s dynamic and destructive nature.54

St. John farmers valued using lush river islands and narrow “‘necks’” of shoreline for pastures, but the waters that fertilized and insulated these lands also made them a wellspring of conflict. Like other North American settlers, New Brunswick colonists preferred to pasture livestock in places where they could not damage property, did not require time-consuming fencing, or would not fall easy prey to wolves and bears. While the St. John sported many such tracts, regulating private property on a large river with dramatic seasonal fluctuations in volume proved problematic for British settlers and lawmakers.55

Freshets stripped away the legal as well as physical protection of shoreline property owners. Without fences to hold them back, livestock could browse and trample neighbouring lands, foiling plans to grow crops and souring relations between neighbours. Keeping cattle in place within an undivided landscape was a problem from the earliest days of Loyalist settlement. Cattle are social creatures. The Ingrahams, for instance, bought a lonely cow from Maugerville that ran away and joined the government herd on her first night in Fredericton. The earliest trespass laws of the colony of New Brunswick only protected fields enclosed with fences. There were no provisions for damages livestock committed to unfenced lands. Floods that destroyed

55 Anderson, Creatures of Empire, 160.
divisions between properties and enclosures also hindered proprietors’ ability to seek compensation for injuries done by wandering livestock.\footnote{56}{“Narrative of Hannah Ingraham;” “An act for Preventing Trespasses,” 26 Geo., Ch. 29. For amendment making negligent fence builders liable for damages to property incurred by their livestock, see “An Act to alter and amend an Act, passed in the twenty sixth Year of His Majesty’s reign, intituled, “An Act for Preventing Trespasses,” Acts of the General Assembly of His Majesty’s Province of New-Brunswick passed in the year 1797 (Fredericton, NB: Christopher Sower, 1797), 37 Geo. III, Ch. 2. See 377. See also “An Act to prevent the malicious killing or maiming of Cattle,” 82.}

Riparian residents knew the St. John River was constantly eroding and building up its banks. Fisher claimed

The rapidity of the rivers, swoln by the melting of the snow in the spring, tears away the soil in some parts, and deposits it in others . . . courses are gradually altered—new islands are formed, and alluvial deposits accumulated in some parts of the rivers, while they are swept away in others; so that a person may have a growing estate, or he may see his land diminishing from year to year, without the power to prevent it.\footnote{57}{Fisher, Notitia, 12.}

Lowlanders complained to sessional courts that freshets swept away their fences or forced them to spend valuable time dismantling and re-erecting them each fall and spring lest their lands become vulnerable to wandering livestock. Farmers even learned to predict the risk different sized freshets posed to fences and fields. Samuel Bridges, for instance, reasoned that it was hard to secure lowland fences in moderate freshets and “Impossible to keep fences standing in a large one which makes it absolutely necessary . . . to secure his Improved lands with as little fence as possible.”

Petitioners also lamented it was especially difficult to replace fences directly after a freshet as they needed to pasture livestock and start planting crops as soon as the flood abated to take full advantage of the region’s short growing season. Colonists asked legislators to let them erect water fences along the shore so they did not have to
keep replacing their rail fences. Where applicable, they also requested that the colonial government authorize the placement of gates on highways to keep animals away from fields that freshets stripped of wooden fences.58

While deforestation dominated New Brunswickers’ relationships to riverbank forests, settlers also planted stretches of the St. John’s shore to prevent erosion. In 1794, the assembly passed a law “for preserving the bank of the river Saint John, in front of the Parishes of Magerville, Sheffield and Waterborough.” The law’s preamble asserted a cause-and-effect relationship between spring floods, soil erosion, and livestock.

Annual overflow of the river Saint John washes away large portions of very valuable land on it’s banks . . . and frequently obliges the inhabitants to remove their houses, fences, and other improvements to their great damages and inconvenience . . . the pasturing of cattle on the said banks contributes greatly to this alarming waste of land, and prevents grass and bushes when planted from growing, binding and preserving the ground.59

Tearing teeth made short work of riparian grasses and shrubs. Hard hooves loosened riverbank soil, increasing its susceptibility to erosion. These activities degraded arable farmland as well as fish and plant habitat. In addition to pasturing animals on the shore, farmers often drove livestock along the margins of waterways locally and

58 “Petition of William Turner,” 11 Jan 1812, LC, New Brunswick Court of General Quarter Sessions of the Peace (York County) Minutes: 1784-1841, vol. 1 Jan 1789-June 1817. See also 17 Jan 1795, and 13 June 1829. For freshets, fences, and livestock, see “Petition of W. Wilmot, John Hazen, and Lemeul Wilmont,” 26 June 1811; “Petition of Samuel Bridges,” 22 Jan 1806; and “Petition of Samuel Bridges,” 2 Jan 1800 in LC, Sunbury County Quarterly Sessions of the Peace: Papers, FCLPR.N4C6S4S8P3. For planting and floods, see “Petition of the proprietors of a peninsula of interval land,” 16 Oct 1789, PANB, RS24, S4-P1.
59 “An Act for preserving the bank of the river Saint John in front of the parishes of Magerville, Sheffield and Waterborough,” Acts of the General Assembly of His Majesty’s province of New Brunswick passed in the year 1794 (Brookville, NB: Christopher Sower, 1794), 34 Geo. III, Ch. 9, See 311-2; “An Act for preserving the Bank of the river Saint John, in front of the Parish of Lincoln in the County of Sunbury,” Acts of the General Assembly of His Majesty’s Province of New-Brunswick passed in the year 1795 (Fredericton, NB: Christopher Sower, 1795), 35 Geo. III, Ch. 4, 340-1. For erosion, see Outwater, Water, 80-1; Anderson, Creatures of Empire, 116.
between regions. The law exempted supervised droves, but mandated that no livestock “be suffered to go at large in the highway, or graze on the bank of the river Saint John” from mid-March to mid-November (the growing season). Legislators and farmers sought to keep animals’ destructive appetites and environmental hoofprints in check with fences, water fences, and highway gates to prevent them from straying or wading onto neighbouring properties.60

The 1794 conservation law threatened to fine farmers who owned animals that broke it. It empowered hog reeves and settlers to round up stray livestock. Owners of pastured animals that tasted the green grass on the other side of fences could reclaim their mobile property by paying a fine and rent to the county pound. *The Royal Gazette* advertised descriptions of impounded livestock. If owners did not emerge with the appropriate fees within a set time, county officials auctioned off the wayward animals to pay expenses. The assembly renewed this act in 1796 and again in 1801, the same year it amended colonial trespass laws to make them more suited to addressing riparian property issues.61

The assembly reinforced riverbank preservation with a new law in 1805. It enabled commissioners of highways in three flood-prone parishes to use statute labour

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60 “An Act to authorize the Erection of Fences and Gates across Certain Roads in the several Counties in this Province,” in 37 Geo. III, Ch. 2, 378. For droving along Lake Témiscouata, see “Questions to Thomas Costin” (circa 1795), *LC, Winslow Papers*.

to secure vulnerable stretches of the shore with trees and shrubs. It stipulated that parish surveyors of roads shall, after the first day of April in every year, when required by the said Commissioners to do so, summon every male Inhabitant in their districts, with their Teams and such Implements as may be necessary, who are liable to work on the Highways, giving them at least Six days notice, to labor thereon by planting the said Bank with Willows or Alders, or otherwise bushing the same, as the said Commissioners may deem most effectual for the preservation thereof.\(^{62}\)

Riverbank preservation became a public works priority that adult males between sixteen and sixty had to carry out as part of their labour obligation to the colony. Parish officials oversaw the work and men who failed to show up to plant willows and alders when directed risked a fine. Although the numbers of people and trees involved are unknown, men had to work for six days at a time (four days if they owned vehicles). An 1816 law to prevent malicious damage to flood prevention infrastructure included these trees and bushes. Christopher W. Atkinson’s 1842 emigrant’s guide to New Brunswick revealed that the laws were at least partially successful. “The shore of the River is planted with low trees and bushes, to prevent its being washed away by the floods of spring.”\(^{63}\)


\(^{63}\) “An Act for laying out, repairing and amending Highways, Roads and Streets, and for appointing Commissioners and Surveyors of Highways within the several towns or parishes in this province,” Acts of New Brunswick, 26 Geo. III, Ch. 32, 73–80; “An Act to prevent the cutting or breaking down the Bank of
St. John River colonists had to govern seasonally flooded islands differently from other lands. Charles Morris noted in 1768 that the St. John Society left Grimross Head, 280-acre Middle Island, and 400-acre Oromocto Island undivided to provide proprietors with a common pasture until they had time to build mainland fences and enclose their private holdings. Although proprietors later divided the islands into seven and one-half acre lots, the St. John’s powerful annual spring floods forced landowners to manage them in common. A generation later, New Brunswick legislators noted that while islands were composed of individual “shares . . . division fences are liable to be carried away by the current, and pressure of the water passing in times of freshes.” Without the security of fences, farmers could not use these fertile properties for pasture and cropland at the same time. Left unhindered, livestock crushed and devoured neighbouring crops, causing rampant trespass violations. Although New Brunswick officials founded their colony on private land ownership, the plight of these island landowners forced them to recognize that the St. John’s ever-changing nature thwarted efforts to settle its banks with a private land management system dependent on static boundaries and fixed fences.64

The colonial assembly created a local regulation process that empowered island property owners to conduct ecologically sensitive collective land management in 1787.

A new law mandated that Bear Island, Middle Island, and Oromocto Island landowners meet annually during the winter session of their county court to decide “by a major vote to make and pass orders, rules and regulations for the managing, improving, and better husbandry of the said islands.” Landowners had to work together to regulate their islands democratically. Their annual resolutions reflected a detailed understanding of floods, ice break up, rainfall, and vegetation growth. They also accounted for the environmental impacts and relationships between neat cattle, oxen, pigs, sheep, and hogs of different ages and genders. In response to petitioners’ requests, the 1787 law made the waters that flowed around the islands a lawful fence. This clause allowed island owners to seek compensation for damages from livestock that waded around their fences or swam to the islands from the mainland. Farmers continue this remarkable system of land management on several islands today.⁶⁵

A trend toward increasing sensitivity and adaptation to the dynamic nature of rivers is evident within the development of early New Brunswick property laws. With petitioners’ local ecological knowledge and needs in mind, legislators tailored colonial laws to be more compatible with the St. John’s fluctuating flow. Whereas New Brunswick trespass laws initially only recognized land fences, the revised laws included provisions to address lowlands and islands that considered water fences as legal barriers.

⁶⁵ See “Act to Authorize Proprietors,” 27 Geo. III, Ch. 2, 136-7. For sample of regulations, see Sunbury County Quarterly Sessions, 21 Jan 1812, 16 Jan 1811, 16 Jan 1810, and 17 Jan 1814. For York County islands, see LC, Sessions of the Peace (York County) Minutes, vol. 1 Jan 1789-June 1817, 11 June 1799, 14 June 1799, 13 June 1806, and 12 June 1800. For complaints against waters as fences, see 17 Jan 1800. For Bear Island, see 15 Jun 1807. For Sugar Island, Keswick Island, and Coach Island, see 15 Jan 1823. For New England, see Donahue, Great Meadow, 117-24. Conversations with the farmers and barge pilots who conducted the 2013 fall round up on Oromocto Island inform this discussion.
Municipalities also passed laws to thwart riverbank erosion. The same day that the parish of Fredericton hired a shepherd to guard the town flock on the Common, it passed a law to protect this valuable riparian pastureland: “no person whatsoever shall dig away or otherwise injure the Bank of the River Between the Governor’s lower fence & the stone Quarry below the Town or Dig the surface of the said Common for . . . obtaining sods, Land, or earth or for any other purpose under the penalty of five shillings.” Similarly, when shipbuilders James Gibson and Alexander Nevers obtained licence to construct a vessel on the Common, Fredericton obliged them to clean up their “chips and rubbish” and leave the land “uninjured by digging or otherwise.” The city of Saint John also passed laws to preserve portions of the St. John’s mouth from eroding and rewarded citizens and officials for reporting violations. A 1792 law, for instance, banned citizens from removing “gravel, sand, stones, and shingles from certain parts” of the shore.

The end of two centuries of imperial conflicts between Britain and France and the sudden influx of over 15,000 colonists to the watershed led to massive deforestation along large stretches of the waterways’ bank. The settlers who moved to the river soon realized that they also had to adapt to the seasonality of the St. John’s flow in order to avoid the destruction of their lives and property. The adaptive practices they developed within their communities and through municipal and colonial

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66 LC, Sessions of the Peace (York County) Minutes, vol. 1, 14 June 1809.
regulations helped them protect their homes, and crops that were becoming increasingly important food supplies as populations of wild animals of the forest and fish in the river declined.

New Brunswick’s tree planting, protection of shorelines, and adaptations to property law to contend with flooding were strategies within a larger process of understanding the St. John River and living with it. While the timber crew that deforested Kingsclear for the British Navy did not have to worry about their wasteful harvesting causing them future problems, the people who settled the riverbanks committed their lives and that of their descendants to place. Farmers and lawmakers addressed immediate needs, but they also planned for the future and sought to conserve and preserve the landscapes on which they depended. Even mill owners realized that their timber harvesting dried up the watercourses that powered their mills, and they tried to create waterscapes that could sustain both stream flow and their profit margins. Colonists’ growing intimacy with the St. John River Valley included preserving aspects of the river’s natural processes as well as protecting the landscapes they created upon its shore from degradation caused by humans and flooding.68

Environmental Pressures: Fish and the shifting ecology of the St. John Watershed

From the mid 17th century, abundant fresh and saltwater fish populations lured English merchants to the St. John. In the 1650s Nova Scotia governor Thomas Templeton reported to his English financers that the colony offered valuable staples, “the chief fishing. Furs . . . mines, timber, excellent coal, and oil fishing in great abundance.” Temple, however, only kept a few soldiers and traders on the St. John for several years and they left no notable impact on the river’s fish populations. Fish sustained the hundreds of British settlers, soldiers, and entrepreneurs who arrived on the St. John a century later. A 1758 painting of the mouth of the river depicts soldiers fishing with line and pole from small boats and on the shores near the newly erected Fort Frederick. This image provides a rare glimpse of soldiers’ lives and diets at the St. John’s mouth and their fishing technology. Spring garrison duty at Fort Frederick included hauling in fish from a nearby weir to provision the garrison.¹

The thousands of hungry Loyalist refugees who moved to the St. John in 1783 and 1784 also depended on the river’s fish. Edward Winslow’s 1783 survey of the St. John prioritized access to fish and highlighted their general abundance in the lower watershed. He also specified that the mouth of the Nerepis River, Grand Lake and the

Figure 3.6 -- Thomas Davies, “A North View of Fort Frederick Built by Order of the Honourable Colonel Robert Monckton, on the Entrance of the St. John's River in the Bay of Fundy, Nova Scotia, 1758,” National Gallery of Canada, no. 6269.  

waters that fed it, as well as the Nashwaak River, teemed with salmon, bass, and trout. Faced with insufficient rations as well as dwindling moose and caribou populations, many Loyalists, especially those too poor to own livestock, turned to fishing and plant gathering to survive during their first years on the watershed. Sarah Frost wrote that her first meal in Saint John on 28 June was a “fine Salmon.” Mary Fisher recounted that Fredericton Loyalists caught fish when they could and that the town’s first store sold them for a penny. Fitzgerald noted that in New Brunswick “the first eighteen months is the only hard time, and that in most places is avoided, particularly near the
rivers, for in every one of them a man will catch in a day enough to feed him for a year.” Salt and barrel technology enabled settlers to preserve large numbers of fish far quicker than solar or smoke curing techniques. Many poor settlers along the waterway continued to rely on fresh and preserved fish throughout the 19th century. In the 1830s, Thomas Baillie claimed that the river fishery encouraged “poor settlers to prefer a water frontage.”

Fresh fish were so important to New Brunswickers (and perishable) that they were the only item the city of Saint John allowed merchants to sell on Sunday at the market. Sizar Elliot apprenticed to a Saint John merchant in the 1820s before becoming an Australian entrepreneur. He recalled in his memoirs that fishermen would bring their night’s catch to the City market in the morning and his employer would buy “a fifteen or twenty pound salmon, caught during the night, for . . . about a dollar; or a cod fish nearly alive for half.” New Brunswick judge, Ward Chipman, even cautioned executive council president, Edward Winslow, that three quarters of Saint John men were so dependent on the fishery that they would rather go to gaol or pay fines than attend militia muster during fishing season.

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Upstream settlers also valued fish and shorefront property that afforded access to catching them. They used the St. John’s geography to catch fish, erecting nets and weirs where it bottlenecked into narrow passages or formed pools below falls and tributaries. Edward Winslow called himself a fisherman and farmer at his riparian home in Kingsclear adjacent to an excellent fishing hole. While spawning fish were drawing workers to the weirs in Saint John harbour, Winslow attended “Mr. Bell’s memorable salmon party” on 16 May 1800 to celebrate the return of Atlantic salmon to the river. In a 24 May diary entry, Winslow noted “plenty of fish” in the river before setting a net three days later. His fishery was a selling point in a newspaper advertisement for a neighbouring farm. It boasted that, “A Salmon Nett of only 14 fathoms set a little above the mouth of the creek, has caught in one season upwards of four barrels of fish.” Dibblee lived on the River below Woodstock where it forked around Bull’s Island and afforded good fishing. His seasonal round of labour included knitting nets in early May and then setting them after the freshet receded to catch spawning salmon, shad, and trout.4

Fish populations that did not need to use the river as a migration corridor remained more insulated from British nets and dams than anadromous species. Landlocked fish fed French settlers, Maliseets, and British travellers above Grand Falls. In 1791, Scottish traveller Patrick Campbell visited a wigwam on the banks of the Madawaska River where women had “several fine large Trouts drying, which they had

speared the preceding night.” While paddling upstream to Lake Témiscouata,

Campbell “saw large shoals of fine Trouts . . . they would pass up and down, quite close to the canoes, without being in the least disturbed, and if we had had spears, or hooks and lines . . . we might have killed as many as we pleased.” Campbell’s belief that their abundance could sustain unlimited harvesting suggests that even conservation-minded Europeans had trouble linking their own overfishing with decline in North America.5

British commercial fishing added to the ecological impacts of subsistence fishing. Fish were central to the calculations of the entrepreneurs and colonists who spearheaded settlement, commerce, and industry on the estuary in the 1760s.

Beamsly Glasier, the St. John River Society’s agent, claimed

This River abounds with all sorts of small Fry, Trout, Salmon, Bass, White fish & Sturgeon, the Bass is Ketcht in wiers just under the Point Below the Fort, so as Good Voyages may be made in that Branch, all the Expence is making the Wares, and as to the Sturgeon they are remarkably plenty more than any other Place upon the contin’t and if there was Persons that understood Pickling them it would be a very Profitable undertaking and fetches Ready money in London.6

Glasier’s description emphasized the abundance of fish and the potential profits that businessmen could make from catching them. The commercial firm that developed at Reversing Falls focused on St. John seine fishing as well as catching cod, trading fur, and exporting lime. It hired several men in 1764 to catch “fish in a large wire we have

5 Campbell, Travels, 110-1.
built for bass up the River at the place where we trade with ye Indians . . . Soldiers and inhabitants.” The firm also planned to catch 1,000 hogsheads (a hogshead is one quarter of a liquid tonne) of alewives (gaspereaux) over a twelve-day migration. Fish scarcity was not a problem, but river ice and storms damaged the Company’s gear, and their employees traded their catches with visiting ships for rum and they got too drunk to work if left unsupervised. Simonds initially veiled the corporate structure of the firm from Nova Scotia officials, as it was illegal in the colony to hold trading licenses in the colony with non-resident partners.7

Commercial fishing became more extensive on the St. John in the late 18th century than it had been when Maliseets and Acadians controlled the waterway. British entrepreneurs found river herrings better suited to West Indies trade than their saltwater kin because they kept better in heat. Observers initially claimed that these fish were so numerous the catch could “only be limited by the number of hands employed.” Saint John merchants, such as Hugh Johnston, built fortunes and political careers supplying British slave plantations in the Caribbean. Saint John’s municipal charter gave it jurisdiction over lands, waters, and fisheries above low tide. The City declared the harbour shore between high and low tide a common. It split the harbour

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fishery in two, and gave people on the east and west sides exclusive rights to erect weirs and nets on their shorelines. All freemen and inhabitants who worked these weirs got a share of the catch. Local merchants exported “between two and three thousand barrels of Salmon, and as many Herring or Gasparoes” annually by 1791. The weirs captured so many “Herring, Gasparoes, Bass, and Shed” that people could not eat or salt all they caught. This massive fishery produced far more waste than la Tour’s single weir.8

The city of Saint John did not retain control over the entire harbour fishery. A 1791 colonial law barred City fishermen from placing nets or weirs between high and low watermark without the consent of shoreline property owners. Simonds, Hazen, and White’s 1764 grant gave them exclusive control over the tidal zone of a large stretch of the harbour shoreline. Their private property rights clashed with the City’s municipal control over fisheries and decreased its harvesting capacity. A Saint John Grand Jury claimed in 1804 that “a very large proportion of the fish which might otherwise have been caught . . . have been consequently lost.” After a long heated dispute and the destruction of several weirs, City fishermen appealed to the Crown. The King in Council declared Saint John harbour “an arm of the sea and common to all.” This ruling disallowed the colonial law that granted riparian rights to shoreline

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property owners. Moreover, it divided the regulation of the river’s mouth from its non-tidal waters and maximized Saint John fishermen’s access to harbour fish.9

Inbound fish that avoided the harbour weirs had to swim by a gauntlet of fishermen at Reversing Falls. High freshets sometimes blocked the upstream passage of fish through this narrow bottleneck for days. In 1791, Patrick Campbell reported that one man could catch as many as twenty barrels of gaspereaux at these turbulent falls by using homemade scoop nets adapted from corn winnowing hoops. He noted that people “flock to it from a distance to make profit; and even farmers to supply their own families.” This open access fishery was an invaluable source of income and sustenance for poor settlers throughout the colony. Fishermen at the Falls preserved most of their catch in barrels with salt as soon as they landed the gaspereaux on the shore and either sold the catch to local merchants or brought the barrels home to help provision their family during winter. The City, however, owned the fishing rights to the islands near the Falls, and leased them to the highest bidder. In 1787, for instance, it rented the Split Rock fishery to Thomas Merritt for forty shillings. Fish and the St. John River habitat influenced migration and labour patterns. Just as Maliseets travelled to

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Ouigoudi during spring fish moon, British settlers from around the colony travelled to Reversing Falls to catch gaspereaux and other fish during the spawning runs.¹⁰

Commercial fisheries extended far above Reversing Falls. Superb salmon and bass fishing increased the Nashwaak’s appeal as a colonization site to British merchants in the 1760s. Loyalist John Coffin tried to buy a net soon after arriving in the colony in the fall of 1783 to profit from his ownership of one of the best fishing grounds on the St. John’s estuary, Beaubear’s Point at the mouth of the Nerepis River. Access to this fishery that once provisioned a Mi’kmaq village and a French fort enabled Coffin to become “a fisherman as well as farmer.” Lady Hunter noted on her trip up the St. John to Fredericton, that Coffin had multiple “houses erected for smoking salmon, of which he catches vast quantities.” Coffin became a major supplier for Saint John, which lay only twenty kilometres downstream of his estate, but he could not keep up with the growing city’s needs. It was probably his newspaper advertisement in May 1786 that sought “A Person of Good Character to improve the Farm and Fishing at Salmon Point on Shares.” Fishing also provided desperately needed income for poor settlers. They sold large fresh salmon whole for two shillings, a barrel of pickled alewives for a pound, a barrel of fresh ones for seven shillings and six penny, and a woven net for fifteen shillings. Saint John merchants, such as Zephanian Kingsley, received up to twelve dollars a tonne for salmon.¹¹

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Elite British colonists dominated the lucrative net fisheries in St. John harbour. They caught salmon, bass, and shad with small nets fixed to the shore at low tide. The nets floated in high tide and

the scools of fish that push up the river, strike with such amazing force, and in such numbers, as to raise a considerable part of it out of the water. So numerous are Salmon here, that three thousand, . . . were caught in a day in this way; and that the best fish, unless of an extraordinary size, will fetch in the market but a shilling; - the general run is but from ten to fifteen pounds weight, though there are some of between twenty and thirty.12

Although everyone could use scoop nets at Reversing falls and all Saint John citizens could work the weirs, the City tightly controlled access to the commercial net fishery in the harbour. It was “yearly let in lots; and freeholders only have a right to draw for one.” Winners of the spring draws often sold their rights. Some of the 100-foot-wide lots like Devil’s Hole produced up to 100 salmon per net. The freeholders clause restricted the draw to propertied “white” British subjects. Although poor City residents received fish from the local non-profit Poor Man’s Friend Fishing Society, they could not legally access the lucrative harbour salmon fishery. The City charter also barred Blacks and Maliseets from this fishery, adding racial as well as class barriers to participation in one of the most lucrative commercial activities in the colony.

Chkoudun’s descendants could no longer fish the harbour that traditionally sustained their bellies and beliefs. British settlement pushed the Maliseet fishery further

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12 Campbell, Travels, 22-3.
upstream on the St. John to Aukpaque and the Tobique River. The nets of well-off
British settlers now had first access to spring fish migrations.13

Maliseets did not welcome the British military to use their fishing grounds
as they had the French; deadly ambushes jeopardized the lives and success of
soldier-fishermen at their first fort at Reversing Falls and contributed to high rates
of desertion. The treaties of peace and friendship negotiated between Maliseets
and Great Britain guaranteed the Natives access to their traditional fishing
grounds. Nova Scotia officials and settlers, however, did not honour these treaty
provisions. The colonial grant for Sunbury township, for instance, only reserved
“500 Acres including a Church and Burying-Ground at Aughpack [Aukpaque], and 4
Acres for a Burying-Ground at St. Anne’s Point, and the Island commonly called
Indian Island.” This grant made small concessions to respect religious worship and
the deceased, but it did not secure Maliseets a means of making a living. The
other British township grants along the St. John reserved no land or waters for
Maliseets.14

The first record of fisheries decline and challenges to British colonial impacts on
the river comes from Maliseet concerns over a milldam’s impact on salmon and their

13 Charter of Saint John, 4, and 15-6. For lot regulations, see Royal Gazette, 7 April 1789. For 1792 laws,
see “Council Minutes,” 23 May 1792, in Canada’s First City, 184. For complaints against lottery and
overseers, see 195, 198, and 203-4. See also Raymond, “Fishery Quarrel.” For turning the draw into a
public auction in 1862, see 68-9. See also “Petition of the Poor Man’s Friend Fishing Society of Saint
John,” 5 Mar 1828, PANB, RS24, S36-P115.
14 Poor, “A Journal,” “Governor Hutchinson to Governor Lawrence,” 5 Jun 1760, Nova Scotia Archives,
vol. 1, 448. For treaties see, Wicken, Mi’kmaq treaties on trial. For 1761 treaty, see LC, “Indian Affairs: A
Collection of Manuscripts: 1761-1864. See also “Treaty of 1725 for Ratification at Annapolis Royal,”
NSARM, O/S no. 511 (front); “1728 Ratification of the Treaty of 1725,” NSARM, O/S no. 511, (back);
“1749 Chebucto renewal of the Treaty of 1725,” NSARM. O/S no. 512 [front]; “1749 Ratification of
Chebucto renewal of the Treaty at 1725 at St. John,” NSARM, O/S no. 512 (back). For reserves, see
fishing grounds. On the St. John, as on rivers elsewhere, the falls and rapids that fish ascent to spawn are also ideal sites for water driven mills. British entrepreneurs considered the Nashwaak rapids the best mill seat on the St. John’s estuary, as had the d’Amours nearly a century earlier. In the 1760s, this location was in Newtown Township, which had no reserves for Maliseets. Simonds and Glasier started building the Nashwaak mill and dam in 1766. They evidently did not consider that the dam would ruin both the colonial and Native fishery. Maliseets, however, recognized that the dam threatened fish and their access to fishing grounds. They were willing to destroy colonial dams to protect fish and their treaty rights to access them on their traditional fishing grounds. The geographical overlap of milling and fishing sparked conflicts at falls and rapids throughout the watershed from this protest onward.\footnote{15 “Simonds and White to Hazen and Jarvis,” 22 Jun 1768, in Raymond, “Letters Written,” 172-3.}

Officials feared violent reprisals from the Natives whose fisheries they had taken control over and were degrading. Nova Scotia’s deputy surveyor, Charles Morris Jr., was so afraid of losing the Nashwaak dam that he chose protecting it over administering justice. Glasier owed Lt. Governor Francklin money. Morris was supposed to remove him from the river, but he left Glasier at large because he feared Maliseets, who “believe our Dam will destroy their Fishery, would have burnt and destroyed all that has been done this summer at the Mills.” Morris knew that losing the dam would prevent the St. John River Society from fulfilling its obligations and could lead to the Crown escheating their lands. The same season, Glasier advocated stationing troops on the shores of islands in
Passamaquoddy Bay to protect British “Fishermen against any Insult from the Indians.” Nova Scotia had granted the same entrepreneurs backing the dam exclusive rights to the “Indian Island” fishery, a centre of Passamaquoddy fishing in Passamaquoddy Bay. Most officials on the St. John, including Justices of the Peace and a future Deputy of Indian Affairs, belonged to the commercial firm or to the cohort of influential civilian and military elites who composed the Society. They needed both the mill and the Passamaquoddy fishery to succeed and acted to protect their interests. The perversion of justice that kept Glazier on site appears to have deterred Maliseets; they left the mill and dam intact to produce modest returns. This early example of river stewardship suggests that contemporary Maliseet resistance to industrial threats to waterways and economies has deep roots.  

Maliseet concerns that British colonists would destroy the Nashwaak fisheries were valid. Wealthy and poor settlers depended on fresh and preserved fish, but by 1791, overfishing, damming, and other settlement activities had ruined salmon fishing on the Nashwaak and other waterways. Campbell thought the colony’s failure to stop settlers from pursuing unsustainable practices like catching salmon before they could

spawn contributed to this decline. The lack of reference to Nashwaak fish in an 1803 report on St. Mary’s Parish is a stark contrast to contemporary appraisals of other branches of the St. John and earlier descriptions of that large tributary. This omission indicates that fish were declining in settled and dammed tributaries of the St. John, rendering rivers such as the Nashwaak diminished waterways.17

While a recent study of the history of colonial damming and the decline of migratory fish species on rivers in Maine claimed that settlers constructed the first dam on the St. John River in 1811, the study only considered evidence from within the present day borders of the state of Maine. Considering the history of the entire St. John River reveals that damming as well as the fish declines and social conflicts that accompanied them began on the watershed fifty years earlier, and had become a familiar feature of life on the lower river by 1811.18

New Brunswick politicians tried to conserve their dwindling fish populations from overfishing, blockage of migration routes, and habitat loss. The first set of laws the assembly passed in 1786 included a fisheries act, modelled on similar legislation enacted in Nova Scotia and other British colonies. The law noted that the location and high volume of traps often prevented fish from migrating to their spawning grounds. It sought “effectual preservation and free passage of the fish” by outlawing weirs or nets that “obstruct, injure, or hurt the natural course of the fish into any river or place where they usually go.” That the St. John was the only river named in the act, suggests

17 Campbell, Travels, 45-6, 80 and 83; Winslow’s Survey returns, 8 Aug 1803, WP, 497-8.
these problems were of special concern on the colony’s largest and most densely settled waterway. The law restricted nets to a length of thirty fathoms on the mainstream and Kennebecasis, and mandated that they could only extend across one fourth of the width of small tributaries. The assembly criminalized weekend netting in 1789 and mandated that nets below Boar’s-Head must be shorter than twenty fathoms and could only protrude into the river twenty-five fathoms from the shore. The smaller nets were supposed to let more fish reach hungry upriver settlers. These and subsequent regulations made St. John River fish one of the most litigated and controversial resources in the colony.\footnote{19 “An Act to Prevent nuisances by Hedges, Wears, Seines, and other incumbrances obstructing the passage of Fish, in the Rivers, Covers and Creeks of this Province,” 26 Geo. III, Ch. 31. See 71-3. For renewal, see “An Act for Regulating the Fisheries in the different Rivers, Coves, and Creeks of this Province” \textit{Acts of the General Assembly of His Majesty’s province of New-Brunswick passed in the year 1788} (St. John: J. Ryan, 1788), 28 Geo. III, Ch. 6, 167-70. This act was not to interfere with “rights of Fishery, or the regulation thereof already granted,” 170. See also “An Act to continue and amend an Act entitled ‘An act for regulation the Fisheries in the different rivers, coves and creeks, of this province,” \textit{Acts of the General Assembly of His Majesty’s Province of New-Brunswick passed in the year 1789} (Saint John, NB: J. Ryan, 1789), 29 Geo. III Ch. 5. See 186-8. See also Parenteau, "'Very Determined Opposition to the Law.'"}

In 1812, the assembly attempted to ensure that “the privilege of catching fish in the different rivers, coves and creeks of this Province, should be equalised.” It passed a law containing colony-wide provisions for seasonal restrictions on salmon fishing and mandated that dam owners place fishways around their obstructions to enable spawning runs to bypass dams. The law also directly banned the use of drift nets for any species other than shad in Saint John harbour and confined drift netting there and in the Long Reach, to the month of May, the peak of shad migration. In 1820, an act identified the practice of drift netting as a serious factor in the fisheries decline and
banned the use of drift netting altogether in New Brunswick “harbours, creeks, coves, or navigable rivers . . . or within two miles around Partridge Island.” Several years later, “principal” Saint John fishermen protested this act, claiming that drift netting in May was the only way that they could obtain “sufficient quantity of Shad for supplying the market.” These commercial fishermen noted that nearly forty years of local fishing experience taught them that drift netting “in the memory of the Oldest Fishermen and inhabitants, had in no . . . way, proved injurious, hurtful or detrimental to the Herring, Shad, or Salmon fishery unless the fisheries, were allowed to fish with drift nets after the beginning of June, at which after the Salmon fishing usually occurred.” Hugh Johnston Jr., a Saint John assemblyman and leading merchant, tabled a bill to repeal the ban on drift netting, but the assembly did not give it assent. Evidently, in this case, the assembly valued fisheries conservation and ensuring equal access to fish more than the interests of elite harbour fishermen and merchants.20

Some New Brunswick fishermen blatantly resisted colonial and municipal conservation regulations. Experienced fishermen, James Kenney, reported to the assembly in 1836 that the city of Saint John’s restrictions on net lengths in the harbour were “broken through in every respect.” He noted that he was unaware of the colony’s ban on fishing the outer harbour, and claimed that overfishing in the Bay of

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20 “An Act to alter and amend an Act, intituled ‘An Act for the further regulation of Fisheries, and for preventing their decay.’” Passed the 7th of March, 1812.” Acts of the General Assembly of His Majesty’s Province of New-Brunswick, passed in the year 1812 (Saint John, NB: Jacob S. Mott, 1812), 52 Geo. III, Ch. 15, see 17-8; “An Act to prevent the taking of Fish in the different Harbours and Rivers of this Province, with Drift Nets. Passed the 29th of March 1820,” in Acts of the General Assembly of His Majesty’s Province of New-Brunswick passed in the year 1820 (Fredericton, NB: George K. Lugrin, 1820), 60 Geo. III, Ch. 21, See 77-8; “Petition of the principal fishermen in Saint John harbour,” “Bill to repeal an Act to prevent the taking of fish in the different harbours and rivers of the Province with drift nets,” 15 Feb. 1827 PANB, Legislative Assembly: Sessional Records (RS24), S35-P32 and S35-B21.
Fundy was decreasing the catch in Saint John harbour. Illegal netting and other forms of poaching were common throughout the entire colony. As scholars have noted in other polities and on the St. John in later decades, colonial conservation laws and the attempts of parish overseers of fisheries and other officials to enforce them, did not effectively prevent decline.21

The failure of Oromocto Mill owners to comply with colonial conservation laws led to dramatic fish declines in a second major tributary of the St. John. The Oromocto River was well known throughout the colony for the huge spring gaspereaux (alewives) migrations that poor settlers scooped from frigid waters at a waterfall on its northwest branch, as the fish followed their sense of smell upstream to their spawning grounds in spring. A bootlegging industrialist, David Phillips, and several partners erected a wooden dam to supply water to their mill near the waterfall fishery. An inquisition held by the Sunbury County Court ruled that Phillips's dam unlawfully prevented these small bony fish from spawning and deprived settlers of a valuable fishery from 21 May 1805 onward.22

The Sunbury Court initially failed to force the dam owners to create a fish passageway around their obstruction. Local settlers and the parish overseer of

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22 LC, New Brunswick. Court of General Quarter Sessions of the Peace (Sunbury County): Papers: 1782-1825, 22 Jan 1806. For alewives, see Hall, “influence of dams on diadromous fish habitat,” 95-107.
fisheries protested in 1814 that this dam kept destroying the Oromocto fishery in blatant violation of New Brunswick law. They submitted another petition in 1815 that cited colonial fisheries law and highlighted the mill owners’ failure to provide a sufficient fishway for migrating fish. This complaint prompted the Sunbury Court to send a twelve-man jury to the dam to investigate if it was violating colonial fisheries law. The Court also served Phillips notice that he would bear the full cost of legal proceedings and a charge of negligence if he did not remove the obstruction immediately. On 26 May the overseers of fisheries reported they went & Examine the fish Course up to the North Branch Mill dam where Mr. Hart has Blow the Rocks for a fish Course and Saw the Herrings strugle & try to Get up and to no purpose the Eddys Being Crossways of the rocks forces them down again. In Short their is no sufficient fish Course for the fish to go up for the Intention of Spawning & Returning again According to law.23

Evidently, Phillips’s fishway did not work during the peak of the upstream migration, however, it satisfied the jury and sheriff who observed it in late June. Their conclusion that the settlers and overseers’ complaint was “unfounded” persuaded the Court to acquit Phillips and the other mill owners. Ironically, the Court levied the £25 cost of the affair on the fishermen and officials who tried to enforce conservation laws, not the people who profited from obstructing the stream.24

Oromocto settlers petitioned the New Brunswick Assembly for the restoration of their fishery again in 1828. They claimed that on the Oromocto River, people living

23 See “Statement of Clapman Smith and Richard Webb,” 26 May 1815, and Minutes of the Court, 24 Jan 1815, LC, General Sessions, Sunbury. See also 22 Jun 1814, 11 Oct 1814, 24 Jan 1815, and “An Act, for the further regulation of Fisheries, and for preventing their decay. Passed the 14th of March, 1810,” New Brunswick, 50 Geo. III, Ch. 20, 53-5.
24 See “General Sessions, Sunbury,” 24 Jun 1815, LC. The inquiry likely took place shortly before this. The corresponding expense receipt is dated, “June Sess.m 1815.”
within “a circle embracing Sixty or Seventy miles on the River Saint John, enjoyed the privilege of catching a sufficient quantity of fish (of the Gaspereaux kinds) for their families’ consumption . . . that by the erection of One Mill dam on the stream, the said privilege had been partially interrupted; and by the late erection of a second, has been totally destroyed.” Although their earlier petitions only noted the impact of the milldam on fisheries, this appeal claimed that the obstruction also adversely affected the profits of lumbermen. Timber drivers could not get logs around the milldam in time for the freshet to float them to market in Saint John. Petitioners asked the assembly to pass a law to remove the dam or force its owners to build “sufficient fishways for . . . fish, to and from, the Oromocto Lake: (whether they go to spawn) and sufficient sluice ways, to expedite the driving of lumber.” In this case, the riverine interests of fishermen and lumbermen coincided. The assembly, however, did not draft a bill to address this matter. Eight years later, Peter Fisher wrote that “there was a good herring fishery formerly near those falls, but mills having been erected near them, it has dwindled away to nothing.”

The destruction of the Oromocto gaspereaux fishery raises interesting questions. Parish officials, residents, and the Sunbury County Court tried to uphold New Brunswick law by ensuring that gaspereaux could by-pass the dam and access their spawning grounds. A laymen jury found the fishway that the dam builders fashioned to be sufficient, while local fisheries experts said that it did not work. The

jury probably viewed a calmer channel devoid of the floundering fish and swirling eddies that the parish overseers of fisheries saw just weeks earlier. These officials criticized the fishway on 26 May, a time of high water and the peak of the gaspereaux migration. Settlers also specified migration problems in late May. Although instructed to view the fishway in migration season, the jury appraised it in mid- to late June, when most gaspereaux had finished spawning and the Oromocto’s flow was reduced compared with late-May. The seasonality of the river’s flow and that of its aquatic travellers thus appears to have frustrated the Court’s attempt to monitor and address the illegal obstruction. Phillips and his partners did eventually try to follow conservation law and quell their neighbours’ complaints. However, the artificial passage they created did not work when fish and fishermen needed it to. Later generations of New Brunswick fisheries officials reported that similar efforts to create fish tunnels and passages around dams on the watershed failed. Although these officials were correct to blame the negligence of dam owners as a factor in the annihilation of St. John fisheries, they obscured the fact that some millers tried to follow the law, but lacked the environmental knowledge and engineering skills to do so effectively.26

Fisher claimed that “most” New Brunswick rivers abounded with fish in 1825, a departure from earlier accounts of general abundance and a sign of decline. Saint John fishermen were catching fewer fish “formerly from two to three thousand barrels of Shad, twenty thousand barrels of herrings, and a vast quantity of Salmon were taken

here annually; but the fishery has fallen off very much.” This decrease is not surprising given that that even the reduced 1824 fishery exported 3,662 salmon, 9,868 barrels of pickled fish and 168 of fish oil in addition to 15,102 quintals of dry fish. Tenacious swimmers that eluded harbour weirs and nets could no longer reach all their spawning grounds. By 1830, the Oromocto and Nashwaak, two of the St. John’s most important branches for migratory fish, were severely degraded habitats with obstructed passageways for salmon, alewives, and other anadromous fish to migrate.27

Higher undammed tributaries and species British colonists did not often catch, like Atlantic sturgeon, remained in better shape. Migrating fish could still reach the clear cool gravel beds they needed for spawning on St. John tributaries such as the Monquart and Tobique, but they had to swim past hundreds of woven nets, winding weirs, and sharp spears to do so. Moreover, tree clearing degraded these and other tributaries as a habitat for fish by raising local water temperatures and increasing siltation. In 1840, New Brunswick Indian agent and fisheries expert, Moses Perley, even advocated damming the mouth of the Tobique and installing a fishway to encourage Maliseets to abandon fishing and take up farming. Conflicts over fish at the river’s mouth privileged wealthy white colonists. Upstream British settlers and Maliseets had the last access to migrating fish, and Great Britain had resettled most Acadians on the St. John above Grand Falls, outside the range of anadromous species.

27 For 1824-1825 decline, see Fisher, History, 66.
By 1840, dams had decimated migratory fish runs and unique genetic stock on most settled St. John tributaries.28

Fishermen in the 1800s worried about empty nets and stomachs. This was a stark contrast from their colonial predecessors, who complained of catching more fish than they could use. Although the colony mandated that dam owners install fishways on their obstructions as early as 1786, and an inventor from Bathurst, Richard McFarlan, patented a fishway designed to help fish migrate around sawmill dams in 1837, Canadian officials of the new dominion government reported in 1867 that there was only a single fish ladder on the entire watershed, and it did not work. Their report claimed that the commercial interests that dominated New Brunswick politics were unconcerned with the welfare of fish. When it came to fish versus power supply on the St. John, fish and the people who relied on them lost.29

Fewer fish swam in the St. John River after three generations of British settlement. The river’s fish sustained Maliseets for centuries, and Acadians had no noticeable impact on them. British colonization, however, seriously degraded the St. John’s once bountiful fisheries and this decline created unique geographies of social conflict. Upstream fishers opposed downstream net owners and merchant; white Saint John freemen’s harbour monopoly disempowered the poor, Blacks, and rural settlers; millers opposed other millers, poor fishermen, and lumbermen; conservation-minded politicians were pitted against hungry settlers and greedy entrepreneurs, and Maliseets

28 See “Extracts from Mr. Perley's First Report; Fisher, History, 17.
against a colonial state that had grown irresponsible to their treaty rights and subsistence needs. Without exception, fish lost in all of these struggles. In the early 19th century, public and private initiatives to remove navigational obstacles and create new channels between the St. John and other waterways also created a complex array of social conflicts on the watershed and altered fish habit and the flow of water itself.30

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Chapter 7

A Dynamic River and the limits of hydrological engineering, ca. 1760 to 1850

Since the arrival of Europeans on the river, the possibility of controlling the St. John had always captivated segments of the settler societies that lived on its banks and assessed its flow. The combination of demography and technology allowed different British interests in the river to imagine grandiose plans for modifying it. In the early 19th century, professional engineers began to acquire the tools that made them think controlling the river was possible, but the challenges for them and historians who try to understand them, is to know whether these projects were grandiose hubris or reasonable public works projects. By the early 19th century, sufficient flows of capital were available to industrialists that promoters could imagine tapping into imperial finances and persuading a colony like New Brunswick to approve and partially fund their river improvement plans.

Unlike earlier periods when the primary contestation over the river had been with outsiders, late 18th- and early 19th-century struggles over river use pitted different groups within colonial society against each other. Mill owners built dams without adequate provisions for fish migrations or for navigation and came into conflict with fishermen and timber drivers. Timber barons were in conflict with intervale landowners. Industrialists pressured the colony to support their mills and canals. The colonial state sought to support the best interests of the public. The stakes became higher as many advocates of one plan or another recognized that some of these uses of
the river were incompatible with each other. British relationships to the watershed became a question of which economic and political interests could control various stretches of the river and its resources.

Any locus of contestation was subject to diverse factors. As Saint John harbour developed into a major port, it became a unique zone of conflict between fishermen, mill owners, and mariners. The river’s 140 kilometre-long estuary and navigable waters above the head of the tide became a busy highway for ships, and the interests of navigators and farmers sometimes ran against those of timber operators, who wished to deepen the passageway through Reversing Falls to improve rafting conditions. Colonial officials and private commercial interests also advocated connecting the principal tributaries of the St. John’s lower and middle reaches to neighbouring watersheds with canals. The adoption of large sailing and steamship technology on the river effectively made Grand Falls a separate hydrological system, and Maine lumbermen on the northeastern upper reaches of the watershed diverted tributaries of the St. John into the Penobscot River basin to send their timber to Bangor mills.¹

The inability of the British to chart the St. John for navigation frustrated their attempts to understand and possess it in the early 18th century. The waterway’s strategic value as a transportation corridor between the St. Lawrence River and Bay of Fundy fueled Great Britain’s interest in controlling it. Maliseet and Acadians, however, had prevented Nova Scotia surveyors from appraising the waterway thoroughly during

the early 18th century. A 1750 report claimed the British military did not know enough about the river to remove Acadians from it. This ignorance resurfaced five years later when British sailing directions repeated Champlain’s 1604 mistake that ships could only safely pass Reversing Falls at high tide. Massachusetts Governor William Shirley knew the location of St. John Acadian settlements and the extent of navigable waters when he formed his 1756 invasion plans, but he also endorsed a high tide passage through the Falls. Despite soundings taken by Captain Willock on October 8 1758 that correctly noted that “the time for Passing is not half an hour in a Tide—And that, at Slack Water,” Monckton’s fleet lost a war sloop when it entered the river to dispossess Acadians. The *Ulysses* was one of the first of many British ships to fall victim to an Achilles Keel in the Falls, when its hull breached on a large rock at a narrow spot in the rough passage.2

British sailors initially had a hard time ascending the St. John above Reversing Falls. Shirley knew that his troops were unfamiliar with the river and in need of experienced pilots to guide them through its many islands and passageways. The 1758 expedition relied on the environmental knowledge of French prisoners to guide them upstream. These pilots, perhaps in an attempt to protect the Acadians living along the river’s interior, stressed the dangers that numerous sand bars and rocks above Grimross posed to the fleet. Shallow water and fears of an early freeze up forced the invasion fleet to turn back before it could raze St. Ann’s. The St. John’s narrow tidal

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mouth, other navigation hazards, and seasonal changes thus stalled British attempts to control it.³

British subjects became experienced navigating the St. John’s mouth and long tidal estuary over the next generation. The settlement of over 15,000 colonists in the 1780s fueled a regular movement of goods, people, and news from the Bay of Fundy to the settlements along and above the estuary. At least one Loyalist ship relied on French pilots to navigate Saint John harbour in foul weather, but British crews plied most of the sailing ships that ascended the river past the Falls. In 1786, New Brunswick’s first newspapers advertised weekly passage between Fredericton and Saint John on the schooner Four Sisters. Ten years later, several ferries conveyed passengers and livestock across the river at Fredericton, Grimross Creek, Jemseg, and other locales. New Brunswick county courts regulated fares and operating times of these vessels, and were responsible for administering other forms of low justice, as French seigneurs had under the seigneurial regime. In 1816, steamships accompanied wind and muscle-powered vessels on the estuary. White British elites dominated the manufacture and ownership of large sailing and steam vessels. Maliseet had to ride in separate quarters from settlers on at least one Fredericton ferry.⁴

³ “Governor Shirley to Governor Lawrence,” 19 Mar 1756, in Akins, Public Documents, 437-8; Knox, “Historical Journal,” 207. See chapter three for more on navigation conditions impairing British ships.
⁴ See “Narrative of Hannah Ingraham”; Royal Gazette and New Brunswick Advertiser, 2 May 1786; “An ACT to empower the Justices of the Sessions in Several Counties in this Province, to make such regulations respecting Markets and Ferries within such Counties as may be found Necessary,” New Brunswick, 28 Geo. III, Ch. 8, 170-1; “Petition from Doctor John Agnew and captain Stair Agnew” 10 Feb 1791, PANB, Legislative Assembly: Sessional Records (RS24), S5-B16; and LC, New Brunswick Court of General Quarter Sessions of the Peace (York County) Minutes: 1789-1841, vol. 1, June 1791 and 17 June 1796, For the separate Maliseet cabin, see Squires, History of Fredericton, 61. For sessional court system, see Paul Craven, Low law and the sessions system in Charlotte County, New Brunswick, 1785-1867 (Toronto: University of Toronto Press, 2014).
Canoes were the principal private watercraft of British settlers on the St. John. These small vessels were necessary for business and pleasure. When John Hazen reached Maugerville in 1785, he asked his uncle “to have my Birch canoe & paddles sent up to me . . . for I find it very difficult to go the shortest distance here without a Boat.” Three years later an Irish aristocrat, Lord Edward Fitzgerald, remarked that canoes were the only local “method of travel.” Fitzgerald sought to shorten the distance between Fredericton and Quebec by travelling directly overland, but found the journey extremely arduous. Few people followed in his footsteps. The river and its portages remained the key transportation route in New Brunswick until the mid 19th century. As early as 1790, colonists penned instructive guides to paddling the river that included detailed instructions on how to store baggage, fashion portage backpacks, where to camp along the waterway, and even when to eat breakfast. When Reverend Dibblee married Ann Wright and Thomas Field in 1810, he noted, “they came in a canoe and never better poling.” Settlers who did not own canoes, such as Dibblee’s son, Jack, had to procure passage in another person’s boat to travel outside their community.5

Jack Dibblee’s trip to “Meductic to hire a canoe” speaks to the prominence of Maliseet river guides and canoe-makers. They made the best canoes and sold them to British settlers and soldiers. Even the colony’s most illustrious villain, the “Lunar Rogue,” eluded authorities by securing canoe passage with Maliseets until they

realized his ill nature and refused to ferry him into American territory. When the law finally caught the Rogue, they returned him to jail in “an Indian bark canoe.” The Italian ferryman who carried Patrick Campbell from the Nashwaak to Fredericton, the enslaved black man who helped ply the naturalist John James Audubon’s boat to Woodstock, and the fictional Black-Maliseet boatman Billy Paddle, also indicate that cultural minorities piloted the helm of small craft and pulled on the reins of tow horses to help transport settlers and visitors up, down, and across the river.6

Above Grand Falls, English travellers often hired small boats from French settlers to traverse the river’s upper reaches and travel overland to Quebec. The unknown author who wrote a description of travelling the river by canoe in 1790 included the names of two French settlers above the falls, Joseph Daigle and Simon Aubeare, who could provide lodging and canoes for travellers. In June 1790, Edward Winslow carried official documents from Fredericton to Quebec by travelling up the St. John and Madawaska by canoe, and may have written report on his return. After reaching Grand Falls, Winslow paid a local settler, John Mesurial, £4 and 10s., in addition to providing the guide with supplies of food and liquor, to transport him the daylong journey up the Madawaska to Lake Témiscouata and across the forty-five kilometre long lake to the entrance of the portage trail that led to the St. Lawrence. On his return journey from Quebec, Winslow rented a birch bark canoe from another colonist above Grand Falls and travelled in it to Tobique. In his memoirs, William T.

6 Jennings and Adney, Bark Canoes, 70-86; Walter Bates, Companion for Caraboo: a narrative of the conduct and adventures of Henry Frederic Moon (London: Allman and Co., 1817), 16-7 and 21; Campbell, Travels, 37; Cheney, Child of the Tide, 10; and Maria R. Audubon, ed. Audubon and his Journals, vol. 2 (New York: Charles Scribner’s Sons, 1897), 389.
Baird recalled hiring a French settler above Grand Falls to ferry him in a pirogue (small boat) upstream so that he could visit two friends who were learning the French language in the Madawaska settlements in the late 1830s. His friends had access to a canoe, but the young men appear to have encountered difficulties navigating the river by themselves. One night when the group was returning from a merry party, Baird recalled that they flipped their canoe in the middle of the river and nearly drowned.7

The numerous water transportation regulations tabled in the New Brunswick House of Assembly, Saint John City Council meetings, and sessional courts indicate the importance of St. John navigation. Saint John’s first mayor, Gabriel Ludlow and his successors, also held the office of water bailiff or “conservator of the waters and the river, harbour, and bay.” This position was rooted in Anglo-Norman traditions of “Guardian and Keeper.” London mayors were conservators of the Thames since the late-15th century.8 Water bailiffs regulated rivers, fisheries, and navigation within their city’s jurisdiction. These 18th-century river keepers primarily conserved waters for human use rather than environmental interests. Many Saint John laws prioritized improving the river and its harbour for navigation over preserving the waterway in its natural state. Ludlow authorized the construction of piers, wharves, landings, steps, buoys, and a lighthouse during the City’s first decade. Saint John’s charter also afforded municipal control over ferries and granted the City salvage rights to “the

7 Anonymous, “Instructions to travel by canoe up,” 1790, LC, Winslow Papers; “Account of expenses incurred by Edward Winslow in carrying dispatches in His Majesty’s service,” 11 Jun 1790 in Winslow Papers, vol. 7, UNB, Archives and Special Collections; and Baird, New Brunswick Life, 90 and 93.
wreck of the sea” along the coast and rivers within its bounds. New England social
reformer Ednah D. Cheney’s historical novel, The Child of the Tide, detailed how poorer
residents of Saint John regularly “skimmed the pot” for derelict items in the same tidal
pools that housed the Maliseet Manitou.9

The mindset and activities of a hydraulic society intent on improving the human
condition through the increased control of freshwater, permeated colonial New
Brunswick, and shaped how people thought about local water systems. Residents
learned to view waterway improvements favourably at a young age and to perceive
swamps and other stagnant waters as undesirable. In his 1825 “An Address to the
Patrons of Sunday Schools in New-Brunswick,” Irish-immigrant poet James Hogg wrote

Thus when some wand’ring stream forbid to flow,
    Chok’d by the slimy dross that lies below,
        Swell’d to a gloomy pool, inactive lies,
    Too dark to shew one glory of the skies:
        When lo! Some active hand the channel clears,
    The water’s flow, the cover’d ground appears;
        The watchful hind prepares the winding drain,
    And guides the streamlets o’er the thirsty plains.10

Hogg thought that dredging streams and draining sunken lands made “Chok’d” and
“inactive” water useful. His watery metaphors linked altering aquatic systems to the
moral and educational improvement of youth. Like water, children needed a firm
guiding hand to become productive. Five years later, an essay entitled “Cultivation of
Drained Lands” encouraged adult readers of a New Brunswick almanac to drain, dam,

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9 Charter Saint John, 12-4; Council Minutes, in Canada’s First City, 60, 85-6, 95, 97, 120, 124, 128-9, 142,
147, 168, 178, and 181-3; and Ednah D. Cheney, The Child of the Tide (Boston: Lee and Shepard, 1890):
15-9. For Manitou, see chapter one.
10 James Hogg, “An Address, to the Patrons of Sunday Schools in New-Brunswick,” in Poems, Religious,
and canalize low-lying wetlands that spring floods and runoffs supplied with fertile soils. The essay reasoned that farmers could use naturally fertilized wetlands to raise hemp, fowl meadow grass, and other crops without having to apply manure to revitalize the soil with nutrients. Neither the poem nor the almanac acknowledged that the draining of sunken lands diminished the animal habitat as well as the lively perennial soundscape created by spring peepers, wood frogs, and other amphibians each spring following the melting of snow and ice throughout the ponds, lakes, marshes, and other wetlands in the watershed.11

Promoting the channelling, dyking, and draining of the brooks, swamps, and pools that bordered and fed the St. John was part of late 18th- and 19th-century New Brunswick colonial leaders’ efforts to increase agricultural production, commerce, and the human population, using scientific practices that imprinted elite cultural values of efficiency and order onto human livelihoods and landscapes. The success of scientific agriculture came at the expense of natural hydrology and landscape; the “improved” landscape had fewer bogs and rills, but more artificial ditches with flowing water, plowed cropland, livestock, and people. The human experience on the St. John thus resembles what happened to waterscapes in southern China, Germany, and New England in the 18th and 19th centuries, as increased populations and agricultural

production influenced elites to modify waterways, surrounding landscapes, and human societies.¹²

British colonists improved St. John navigation by re-engineering its course and flow. Many of the earliest transportation improvements took place at the river’s mouth. The Commanding Royal Engineer in North America, Robert Morse, reported on the colony of Nova Scotia in 1783 and 1784. Echoing Acadian Governor, Brouillon, he claimed that turbulent currents made the Saint John harbour unsafe for mooring vessels. A merchant familiar with the harbour quickly countered Morse’s claims that it was perilous, stressing that it had safe mooring and the advantage of being open to ships all year round. Numerous deaths of sailors and damage to wharves in the late 18th century, however, justified Morse’s concerns. Ships’ logs confirmed that the complex mix of strong fresh water currents and tides made the harbour “very dangerous.” In response, Saint John erected a lighthouse on Partridge Island, placed navigational buoys throughout the harbour, and built a protective breakwater.¹³

The city of Saint John constructed a 300-foot gravel barrier at Battery Point from the shore to the low water mark to moderate the influence of ocean tides on the mouth of the river. The assembly appropriated money for this project in 1813 and


1816, and in the latter year also passed a law that made damaging “Sea-walls,” like the Saint John breakwater, illegal. When a fierce gale and spring tide tore the protective bar asunder in 1822, the City petitioned the colonial government, which had already given £500 towards its construction, for funding to help reinforce the barrier against future storm surges with logs and large stones. The municipality emphasized that greater protection of the colony’s principal port would benefit all of New Brunswick. Fisher wrote that the breakwater was insulating ships again in 1825.14

 The breakwater and docking structures that colonists erected around Saint John affected the flow of the St. John River into the ocean by changing the circulation of sediment and water within the harbour. Comparison of 1785 and 1844 harbour plans contextualize the sea wall as one of dozens of manmade structures that altered the littoral waterscape from gentle curves and rocky crags to angular lines of piers, wharves, and docks that protruded dozens of metres out into the current and tides. In 1832, City residents complained that the breakwater, piers, and timber booms accumulated increasing amounts of sediment and woodchips. This “great and increasing evil” degraded the usefulness of the harbour by narrowing its breadth, filling in the shipping channel, and creating dangerous reefs that threatened the lives of

14 “Petition from Saint John,” 18 Jan 1813, PANB, RS24, S22-P1; “An Act to appropriate the Public Money. Passed the 3rd of March, 1813” in Acts of the General Assembly of His Majesty’s Province of New-Brunswick passed in the year 1813 (Saint John, NB: Jacob Mott, 1813), 53, Geo. III, Ch. 7, See 27; “An Act to appropriate a part of the public Revenue for the services therein mentioned. Passed the 16th of March, 1816,” in Acts of the General Assembly of His Majesty’s Province of New-Brunswick passed in the year 1816 (Fredericton, NB: George K. Lugrin, 1816), 56 Geo. III, Ch. 30. See 53; “An Act to prevent the cutting or breaking down the Bank of any River, Sea-bank or Dyke, and for the preservation of the same. Passed the 7th of March, 1816,” New Brunswick, 56 Geo. III Ch. 9. See 58. See also “Petition of the mayor Aldermen and Community of Saint John,” 18 Mar 1823,” LC, New Brunswick Executive Council, Papers: 1784-1877, Improvements, General Correspondence and Papers 1785-1839, FC LPR.N4E9P3; Fisher, History, 42.
mariners and safety of cargos. Soil buildup was especially problematic on the upper harbour where the river and tides deposited soil and sawmill waste around numerous marine infrastructures. After the assembly ignored their request, the City submitted its grievances again in 1835.  

The breakwater was a favoured dumping ground for the 10,000 to 15,000 tonnes of ballast that ships from the West Indies, Great Britain, and other international ports of call annually deposited at the bustling port of Saint John. Within a few years, the tide swept several feet of this loose aggregate into the narrow shipping lane that afforded safe passage between the inner harbour and the open Atlantic. This jettisoned material introduced many exotic plants to the St. John River Valley like *Trifolium resupinatum* (Persian clover) and *Lotus corniculatus* (Bird’s foot trefoil), whose yellow flowers now brighten lawns throughout the watershed. The ballast problem reveals that polluting aggregate at the harbour was a mix of local and imported material.  

Harbour pollution was hard to mitigate and prevent. When the assembly tried to curtail breakwater erosion by granting a merchant, George Thomson, a monopoly to unload ballast with his newly designed lighters, the legislative council struck down the

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bill. Colonial regulation of ballast and most other sources of pollution did not apply to
waters governed by the City, and Saint John’s conservator powers did not encompass
the entire harbour and the waters that fed into it. Private interests owned part of the
harbour shoreline, including an adjoining sawmill seat and millpond, but they were not
accountable to the City. These parties dumped many cartloads of “earth, rubbish and
slate” into the harbour beyond municipal limits, one quarter of which floated into the
shipping channel within a week. Moreover, City efforts to police harbour pollution
beyond its initial municipal limits through an 1824 colonial law failed because the act
only extended Saint John’s jurisdiction to “Bay of Fundy” waters and not the interior
harbour or river.17 Equipped with recommendations from a 16 December 1831 county
court ruling on harbour regulation, the City asked the assembly in 1832 to give it
jurisdiction over all waters connected to the harbour, including the river above
Reversing Falls. It also requested that the colony limit the length of docks, fund
another breakwater extension, restrict timber dressing to confined areas, and ban the
dumping of wood slabs.18

17 “Bill to grant to George Thomson,” Journal of Legislative Council, vol. 2, 838. For exempting the City,
see “An Act to Prevent the Encumbering or Filling up of Harbours,” Acts of the General Assembly of His
Majesty’s Province of New-Brunswick passed in the year 1793 (Fredericton, NB: J. Ryan, 1793), 33 Geo.
III, Ch. 2. See 269; “An Act more effectually to prevent the encumbering or filling up of Harbours, and to
authorise the appointment of Harbour Masters. Passed the 7th of March, 1812,” in New Brunswick, 52
Geo. III, Ch. 12. See 14-5; and “An Act to repeal all the Laws made for preventing the encumbering or
filling up of Harbours, and to authorize the appointment of Harbour-Masters, and to make more
effectual provisions for the same, Passed the 21st March, 1822,” in Acts of the General Assembly of His
Majesty’s Province of New-Brunswick, Passed in the Year 1822 (Fredericton, NB: Geo. R. Lugrin, 1822), 3
George IV, Ch. 28. See 77-81.
18 “Petition of the Corporation of Saint John,” 15 Feb 1832, PANB, S41-P82. For jurisdiction extension,
see “An act to extend the powers of the Mayor, Aldermen, and Commonality, of the City of Saint John,
for preventing the incumbering and filling up of the Harbours of the said City, to the Waters and Places
of Anchorage in the Vicinity thereof, Passed 11th March, 1824,” in New Brunswick, 5 Geo. IV, Ch. 29, see
59-60.
In 1832 when Saint John residents’ petitioned the assembly, they had developed a nuanced environmental knowledge of human and natural influences on currents and sedimentation in the harbour and immediate estuary. Locals knew that from the perspective of pollution and erosion, the river was inseparable from its harbour. Harbour men watched and felt upstream waste enter the harbour from the five mills above Reversing Falls and the five positioned on the shore below it. A Saint John weir fisherman, John Sandall, noted that “Sawdust is to be seen in large quantities by any person that will take the trouble to view it . . . whenever I lift one of my fishing anchors . . . there is a large quantity of Sawdust with the mud on it, evidently shewing that the Sawdust falls to the bottom of the River.” Fisherman, Samuel Strange, grew concerned about wood waste killing the fish that sustained his livelihood after he gutted shad that were full of indigestible sawdust. Citizens also noted that piers and wharfs created eddies that sucked sediment and woodchips into berths. Their increasingly confident grasp of the interconnectedness of oceanic and fresh waterways as well as the geography of point source water pollution found voice in petitions to the assembly. Their knowledge, however, also clashed with increasingly powerful commercial interests that wanted to use the river as a waste sink.19

City officials used citizen’s knowledge of local currents and tides to engineer solutions to sedimentation problems. They made the breakwater extension L-shaped to divert the river’s current and Fundy tides away from loose ballast. The new shape of

the improved barrier encouraged the ballast to erode into the space between the breakwater and the shore, and reclaimed valuable land from the sea for City building, rather than percolating into the shipping lane and impeding navigation as the original structure had done. The assembly allotted £500 to support the breakwater extension in 1837 and set restrictions on pier length in 1840 to help reduce the sedimentation issue. The 1840 act mandated that piers must be constructed “of squared Timber and close built, so as to prevent stone, rubbish or gravel from falling into the Harbour, and no ballast shall be allowed to be used in the building thereof but stone, and the tops of such Wharves to be planked.” The colony also passed laws to reduce Saint John sawmill water pollution in 1844, 1849, and 1851.20

Appraisals of Reversing Falls on the eve of Loyalist settlement discussed their complex influence on the St. John River. Morse claimed that Reversing Falls was a barrier “which at first sight appears an evil . . . is an advantage, for by checking the impetuosity of the Bay of Fundy tide, that which flows over the bar becomes so moderate as to render the river at all times navigable either up or down. This is not the case with any of the other rivers falling into the Bay of Fundy.” The mighty tides of the Bay of Fundy influenced its largest river for 140 kilometres above Reversing Falls, but the narrow passageway muted the tidal impact on the estuary. Settlers, navigators, and merchants benefited from the ample water and moderated tide that

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20 Journal of the House of Assembly of the province of New Brunswick from the Twentieth Day of December to the first day of March (Fredericton, NB: J. Simpson, 1837), 342. Most piers were limited by “An Act to limit the extent and regulate the building of Wharves on the eastern side of the Harbour of Saint John, Passed 31st March 1840,” in Acts of The General Assembly of Her Majesty’s Province of New Brunswick, passed in the year 1840 (Fredericton, NB: John Simpson, 1840), 3 Victoria, Ch. 81. See 137-8. For pollution laws in the 1840s and 1850s, see Wynn, Timber Colony, 68, 93-4, and 161.
characterized the St. John above the Falls. While pilots on neighbouring rivers dealt with metres of rapid tidal changes and gooey mudflats that left boats high and dry, St. John skippers were less bound to the lunar tidal cycles, although they still sometimes timed their voyages on the estuary to coincide with a favourable tide. Pilots noted that the narrow mouth and large volume of the river extended the duration of ebb tide by slowing the discharge rate of water from the basin above Reversing Falls into the retreating sea. Moreover, the river ruled its harbour during freshet season when its engorged flow pushed back the mighty Fundy tides. One ship captain observed that, “The flood tide does not run into the harbour from April til June,” while another claimed that the river’s current “runs out of the Harbour during the flood above two knots an hour.” The natural factors influencing the falls were so great that an 1831 almanac claimed that only a rough estimate of the four times the Falls could be passed each day was possible, “as much depends on the floods in the river Saint John, and the time of high water or full sea, which is often hastened by high winds, and in proportion to the height of them.”

The earliest British proposal to alter the river considered widening its mouth at the exact same place Cadillac had proposed cutting in 1692 - the eastern wall of Reversing Falls. Charles Morris echoed Cadillac’s suggestion that Nova Scotia could reclaim “a vast quantity of Land now overflowed for the greatest part of the year” by reengineering the entry of the St. John into the Bay of Fundy. Morris, however,

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21 Morse, “General Description,” xxxii, and xxxi; “Fitzgerald to Mother,” 18 July 1788, in Fitzgerald, vol. 1, 81; and hydrographic remarks for the, Rifleman, 10 Oct 1814 to 21 Aug 1815; Wye, (Wiles) 1 Apr 1812; Saseur, 14 Jun 1822, in LC, Hydrographic Surveys; S.N. the New Brunswick Almanack for the Year of our Lord 1831 (Saint John, NB: Henry Chubb, 1830).
thought the cliffs cradling the Falls were too high to widen the mouth. Instead of improving the natural channel, he suggested digging a new river mouth around the Falls along the route French engineers had previously surveyed between South Bay and Duck Cove, once the colony became more densely populated.22

Later river improvers sought to modify Reversing Falls’ passageway itself by removing Split Rock, the craggy island on the East side of the gorge that had probably doomed the Ulysses in 1758. Although British newspapers included Split Rock amongst their elitist criticism of colonial nomenclature, its name was descriptively appropriate. The flux of powerful ocean tides and vigorous discharge of the St. John regulated navigation through the Reversing Falls. Split Rock cleaved these waters and helped divide transit between the ocean and interior St. John into twenty-minute slack tide intervales. This tight schedule sometimes prompted many ships to rush through the 225-foot channel at the same time. Boats occasionally collided and sailors and passengers frequently drowned. Vessels and timber rafts often heaved to nearby to await slack tide and ply the gorge in relative safety. A bustling commercial hub, Indian Town, grew above the passageway to house raftmen, pilots, and ships. Many British travellers disembarked in Saint John harbour and portaged around the Falls rather than risk its currents or sail during untimely slack tides. Some rejoined their ship, others procured a different one. After a pleasant portage, Lady Hunter reporting that she “found the barge, which had crossed the Falls early, when the tide answered.” More intrepid travellers such as Anglican bishop, Charles Inglis had a sublime experience.

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22 For Morris, see Raymond “Monckton’s Expedition,” 159. See also Ganong, “Cadillac Memoir,” 92.
when they passed the Falls: “they were awfully pleasing—the violent boiling up of the water & strong whirlpools which repeatedly succeeded each other & tossed the boat rapidly about . . . I felt no alarm, & got safe through, thank God.” Inglis, like travellers for centuries, was grateful to a higher power for his safe passage through the channel.23

New Brunswick lumbermen and merchants petitioned the assembly to remove Split Rock to widen the gorge’s navigable channel in 1807. Three years later the timber baron and shipbuilder, James Taylor, presented a report on the Rock to his fellow assemblymen. The ship owner who authored the report, Alpheus Pine, claimed that labourers could reduce the island in low tide to ensure that there would always be “twelve feet water on it at slack water.” As Split Rock was “blue slate full of seams” proponents of its removal were confident that labourers could pound it into oblivion with axes and iron wedges one blow at a time. Alpheus Pine opined that “if any gentlemen is afraid of their lands being overflowed by Taking the rock away . . . I will venture to say it wont ad one Inch more to the rise & fall of the tide at Fredericton.” An 1810 petition claimed that removing Split Rock could give ships and rafts an additional forty feet of safe passage. Petitioners included influential merchants like John Wilmot, who operated both above and below the Falls. The assembly agreed to assess the impact of removing the island on navigation and “the low lands bordering on the River St. John.” Perhaps mindful of the single vote majority directing this

23 For elite criticism, see Lancaster Gazette 15 July 1815. For drowning, see “Diary of Henry Nase,” Dec 1786; Saint John Gazette, 18 June 1804; City Gazette, 24 Sept 1828; and New Brunswick Courier, 2 Oct 1846. For collision, see 26 Nov 1853. For raftmen, see Fisher, Notitia, 116; Cheney, Child of the Tide. See also “Diary of Lady Hunter,” 8 Aug 1804; “Diary of Charles Inglis,” July 16, 1792, LC. Inglis, Charles, 1734-1816 Journals and Letter Books: 1755-1849, MIC-Loyalist, FC LFR.I5C4J6.
motion, the elected representatives quickly advanced £200 for the project. The
president and legislative council voiced their consent to the assembly’s motion and
appointed Pine, W. Robert Smith, and a Royal engineer to conduct a study of the
proposed project.24

Split Rock remained in place. Not all shipbuilders and owners agreed that
removing it would aid their businesses. An 1811 newspaper article addressing the
debate over modifying Split Rock premised its arguments with news of a ship launch
above Reversing Falls. It noted that the decision of a local firm, Gilbert & Son, to sail
their new ship through the passage without buying insurance was an expression of the
confidence they had in the safety of the passage in its present state, with the
rock in its place: This certainty is one convincing proof that not much danger is
to be apprehended in bringing ships through; and we are led to believe an
appeal might be made in favour of the Rock, to the contour of all who have had
a hand in conducting through very great quantities of Timber . . . this season.
Would the passage be equally safe if the Rock was removed is the question?
And a very important one it is. This ship draws 10 to 11 feet water, and . . .
many much larger will find their way down.25

Although the Falls were dangerous, colonists understood the risk they posed and had
adapted to them. The first New Brunswick almanac published the times of safe

25 Royal Gazette, 16 Dec 1811. MacNutt and Wynn briefly noted that people considered removing Split Rock. See MacNutt, New Brunswick, 152; Wynn, Timber Colony, 63.
passage and pilots grew experienced navigating them and recognizing the natural factors that affected safe passageway.\(^\text{26}\)

Removing Split Rock would deal the colony a wild card of uncertainty. Nobody could predict how the tidal and river currents would interact if they amputated its protective barrier. Even proponents of the scheme realized that widening the St. John’s entry into the sea would expose more of its bank to tidal flooding. Pine claimed the project would only raise the St. John an inch at Fredericton, but farmers further downstream stood to lose substantial amounts of invaluable intervale land. Moreover, there was no guarantee that removing the Rock would improve navigation. Destroying it might reduce seasonal freshets, but this would be poor compensation for increasing daily flooding on the interior and potentially degrading mooring conditions in the harbour. Public officials chose to sail with the devil they knew rather than risk engineering a worse situation.\(^\text{27}\)

Although New Brunswick lumbermen wielded considerable political power and were responsible for huge changes to rivers in the colony, they did not gain sufficient state support to reshape Reversing Falls. Evidently, fears of increased tidal flooding and degrading the shipping passage were more important to colonial legislators than improving timber-rafting conditions or catering to the interests of the commercial elite. When proposals to modify Split Rock resurfaced in 1823, they highlighted the value of leaving it intact to support bridge piers and provide a wharf to aid highway

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\(^\text{26}\) For Almanac, see *The Royal Gazette*, 4 Apr 1786. For pilots’ knowledge, see anonymous, “Remarks and Directions for St. John River,” 14 Oct 1792, *LC*, Hydrographic Surveys.

transportation and upriver shipping. In the 1840s, British newspapers remarked that the St. John resembled the Rhine in size and that dramatic flooding still resulted from its “prodigious” discharge having to squeeze through Reversing Falls against powerful tides. The debates over removing Split Rock testify to the recognition by residents of New Brunswick that the St. John River was a powerful animate force in their lives and they should not pretend they could change it with impunity.28

Dozens of upriver plans and projects to reshape the river’s course and flow accompanied the engineering works in Saint John harbour and discussion of improving the Reversing Falls passageway. Most modifications targeted rapids and cataracts such as those at Grand Falls, Meductic, and Oromocto. These and other steep gradients on the river were dangerous impediments to the safe and efficient movement of goods and people. Boats dashed against rocks and capsized; rafts of timber jammed and tossed log drivers to their death. Several improvement plans also sought to cut canals through lowlands to circumvent troublesome waters or connect the St. John to other watersheds.29

Colonial politicians and entrepreneurs believed that New Brunswick’s growth and prosperity required improved river communication along and at times between its

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28 “Report of the Committee appointed to examine building a bridge at Saint John,” 14 Feb 1823, PANB, RS24, S31-R5; “An Act to incorporate sundry Persons by the name of the Saint John Bridge Company passed 17th March 1835,” in Acts of the General Assembly of His majesty’s Province of New Brunswick Passed in the Year 1835 (Fredericton, NB: John Simpson, 1835), 5 William, IV, Ch. 48 (Session 1), See 59. For wharf, see Journal of the House of Assembly, from the twenty eighth day of December to the Ninth Day of March Being the First Session of the Twelfth General Assembly (Fredericton, NB: John Simpson, 1838), 58, 174, and 222. For loose timber in the Falls, see “Petition of ship owners and others,” 19 Feb 1825 PANB, RS24, S33-P37. For Rhine, see The Irish Penny Journal vol. 1, no. 37 (13 Mar 1841): 291. For a rocky obstruction leading to the death of a log driver on the Miramichi, see The Gleaner and Northumberland Schediasma, 29 May 1858.
principal rivers. The St. John was the major focus of their improvement plans because it was the central artery of travel, commerce, settlement, and politics in the colony. The assembly quickly set up the necessary legal and labour frameworks to clear navigational impediments from the waterway. The seminal laws of the colony of New Brunswick included a river navigation act. It made road surveyors “surveyors of rivers” responsible for ensuring

all rivers, and the banks and shores . . . be cleared of all such incumbrances and obstructions to the navigation thereof, that they may be safe and convenient for . . . passing up and down the same, with small vessels, boats and rafts of lumber . . . surveyors are hereby empowered to cut down, dig up and remove all sorts of trees, bushes, or other thing or things, that may any way straighten, hurt, hinder, incommode, impede, or obstruct the navigation of said rivers. 30

This law enabled surveyors to use statue labour of local residents to make the river a more efficient and safe conveyor of timber, farm produce, manufactured items, and people. It also contained provisions for fining people who cut trees and left them lying in waterways or on riverbanks where they could obstruct waterways or towpaths.

Surveyors of rivers often cleared the forests and debris surrounding rapids and waterfalls as these conditions impaired river traffic in their respective counties. Passenger and freight vessels carried roped horses that regularly disembarked to walk towpaths along the shorn shore and pull ships up roiling rapids at Meductic and other steep and dangerous passages. The renowned naturalist James John Audubon called the banks of the St. John beautiful and “highly cultivated” in between expressions of disdain for this towing system. He sailed from Fredericton to Woodstock in the bark,

30 “An Act for Regulating and Facilitating the Navigation of the River Saint John, and other Rivers in this Province,” New Brunswick, 26 Geo, Ch. 33, see 180-1.
*Favorite*, in 1832. The captain had “Two sorry nags . . . fastened to the end of a long tow-line, on . . . which rode a negro youth . . . with a long switch in one hand, and the joined bridles in the other, striving with all his might to urge them on at the rate of something more than two miles an hour.” Audubon was unimpressed with having to wade into the water and help pull the ship upstream.\(^{31}\)

The impending launch of the first steamship on the waterway in 1816 prompted the New Brunswick government to make St. John River improvements a central priority. Steamship technology was only several years old and it offered New Brunswickers the ability to move against the St. John’s current and transport larger numbers of people and commodities far faster than had been possible before. Most steam vessels were large crafts propelled by relatively delicate paddle wheel technology that required deeper channels for safe navigation than smaller oar or wind propelled vessels. Lieutenant Governor George Stracey-Smyth told the assembly that to prosper the colony needed to modify the waterway’s interior flow and bed to better accommodate ships and commodities. The assembly formed a committee to report on the state of river navigation in response to the lieutenant governor’s address and noted that as the St. John was “Chief River of the Province . . . the Navigation of that River... [Had] the first claim to their attention.” The report flagged the Oromocto shoals as a central concern on the estuary and claimed that the waterway was “capable of great improvement” above Fredericton. The committee also recommended

\(^{31}\) “Act for Navigation of the River,” 80-1. For Meductic rapids, see Fisher, *Notitia*, 37. See also Audubon, *Audubon Journals*, vol. 2, 387-9. Audubon plied the St. John a year before Britain abolished slavery. This is one of the last descriptions of a New Brunswick slave. His use of “Sambo” for the black youth and his comparison to an “Indian chief” may be a sign of mixed heritage.
improving flat bottom boats and timber raft navigation by removing rocks from several principal rapids to create more navigable channels.\textsuperscript{32}

The assembly used the 1816 report to implement navigation improvements on the river. It passed a new act with provisions for blowing up rocks below Grand Falls, clearing “Nashwalksis Creek,” removing rocks from Meductic and the Nashwaak “Great Rapid,” cutting channels through Chapel Bar and Bear Island Bar, as well as bridging small tributaries. The colony used its 1786 navigation law to improve the St. John’s natural bed through statutory labour at the parish level. Local surveyors forced men to work in the frigid flow for days on end chiseling channels through rapids and removing rocks at locations such as Beardsely’s Rock on Belleisle Bay. Some rocky obstructions required more than human muscle and hand tools to remove. Aaron Estey recorded that the work crew he supervised used six pounds of gunpowder and four and one-half gallons of liquor to blow a channel on the Nashwaaksis. Improving the St. John was dangerous work and some labourers, such as James McAllister, were injured “blasting rocks at the Grand Falls” and reduced to “destitute circumstances,” but were refused compensation by the colony and forced to rely on the parish overseers of the poor for assistance.\textsuperscript{33}

\textsuperscript{32} For Beardsely’s Rock, see \textit{Journals of the House of Assembly}, 1812, 35; “An Act to encourage the erection of a Passage Boat to be worked by Steam for facilitating the communication between the City of Saint John and Fredericton,” in \textit{Acts of the General Assembly of His Majesty’s province of New Brunswick passed in the year 1812} (Saint John, NB: J. Ryan, 1812), 52 Geo. III, Ch. 24. See 37-8; \textit{Journal of the House of Assembly of the Province of New-Brunswick: From Thursday the 11th Day of January, to Saturday the 16th Day of March} (Fredericton, NB: George K. Lugin, 1816), 3-4. See also \textit{Journal of the House of Assembly}, 1816, 25.

\textsuperscript{33} See “An Act to provide for opening and repairing Roads and erecting Bridges throughout the Province, and improving the Navigation of the River Saint John and its branches. Passed the 16th of March, 1816,” in \textit{New Brunswick}, 56 Geo. III, Ch. 31, See 61-7, and 56. Smyth’s replacement, Harris William Hailes continued this work, See \textit{Journal of the House of Assembly of the Province of New-Brunswick}. From
The New Brunswick government kept improving navigation with alterations to the bed of the mainstream of the waterway and its tributaries in later decades. In 1820, when Stracey-Smyth asked legislators to further aid the increasing volume of river traffic by supporting “the removal of obstructions, the forming of towing paths, and the deepening of the rivers,” the assembly appropriated nearly £1,000 toward these goals. This money funded the removal of more rocks and other navigational impediments at the Meductic rapids, along the Nashwaak and Kennebeckasis rivers, and along Simonds Creek, as well as supported the creation of passages through obstructions and towpaths between the Aroostook and Grand Falls. The committee that drafted this legislation suggested deepening the shoals that menaced ships near the mouths of the Oromocto River and Jemseg River, but the assembly did not endorse these recommendations. As a result, these sandbars kept grounding steamships and delaying passengers, such as the American surveyor George Coffin, who travelled up the St. John to survey its upper reaches in 1825.34

The transportation improvements of the 1820s and later decades dramatically reshaped the flow and bed of the St. John below Grand Falls. Work crews made the

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34 *Tuesday the 4th day of February, to Saturday the 22nd Day of March, 1817* (Fredericton, NB: George K. Lurin, 1817), 5. See also “Account of Aaron Estey,” PANB, RS24, S25-R7.5; “Act for Navigation of the River,” 1786. For no compensation, see *Journal of the House of Assembly of the Province of New Brunswick from the Twenty Eight Day of January to the Fourteenth Day of April, Being the First Session of the Fourteenth General Assembly* (Fredericton, NB: John Simpson, 1847), 241.

river’s current more uniform by removing and reducing many of the rapids and sand bars that slowed down the current, trapped floating logs and sediment, and created swirling eddies. In 1825, Meductic Falls were still “nearly choked up with rocks,” although the expert pilots and towpaths that helped guide ships through them reduced transportation accidents. Forty years later, a survey undertaken by the Dominion of Canada claimed that expensive alterations had reduced these and numerous other obstacles in the bed of the mainstream. At Meductic, “the navigation of what was once a most dangerous rapid has been rendered comparatively safe.” The navigational improvements colonists made to the river and its tributaries, however, degraded numerous microenvironments for aquatic life forms, such as shady eddy habitats that many species of fish and plants favoured.35

In the 1820s, professional engineers equipped with new technologies applied science to rationalize and control the St. John to foster economic growth, and realize the earlier dreams of colonial boosters, such as Beamsely Glasier and Edward Winslow. Civil engineer and inventor of the steam fog horn, Robert Foulis, represented the St. John River in a new way to help humans control and alter it more efficiently. In 1825, New Brunswick’s lieutenant governor, Howard Douglas, commissioned Foulis to inspect the waterway between Fredericton and Grand Falls to evaluate “the practicability of applying Steam Navigation to the purposes of the trade connected with the River.”
The civil engineer produced a report and tabular map of his summer survey that

rendered the St. John as a series of engineering statistics such as flow velocity, channel depth, and geomorphology at major rapids and waterfalls. It reduced the river to a narrow set of data intended to justify improvements to make it more suitable for steamships and timber drives.\(^{36}\)

From an engineer’s perspective, the St. John was naturally flawed. Its rocks, rapids, falls, and islands were handicaps to contemporary human needs. The report claimed that ships had trouble below the Aroostook River and at Bear Island and Chapel Bar because the river flowed “over too great a surface, and by passing round several Islands.” Foulis advocatedremedying these problems by dredging and rerouting the main channel, building locks and jutties, and using ballast lighters. In some cases, these alterations would redirect the current to deepen existing artificial channels. Although Foulis thought the changes would make steam navigation more possible and profitable during early summer and fall, he also claimed the mid-summer St. John was too shallow for steamships above Fredericton.\(^{37}\)

Foulis shared the popular belief that improving the waterway would foster economic and social prosperity in New Brunswick. His report eloquently spoke to the breadth and power of the ethos of river improvement in the colony. It stated the St. John was capable


of receiving the greatest improvement from art; the effects of which... by opening an incredible distance of internal navigation from the numerous tributary navigable streams that intersect the country, present a wide field for the exertions of the agriculturalist, infuse into the mercantile body the spirit of enterprise, and by increasing the present population through the medium of industry, render us at once a contented and happy people, enjoying the blessings of freedom, together with every other advantage so bountifully conferred upon us by the benificent Creator of the universe.³⁸

River improvements would aid farmers, merchants, and industrialists as well as bring harmony to the masses by developing the colony’s God-given advantages. The talented inventor even suggested using steam winches and converting paddle wheels into pooling machines to propel ships over trying passages. The similarity of Foulis’ proposals to the state rhetoric that New Brunswick used to popularize 20th-century river modifications such as the Mactaquac Dam reveal the long roots of high modernism on the St. John.³⁹

New Brunswickers also celebrated conquering their largest river by steam when British North America’s first compound engine steamed up the improved St. John to Grand Falls two decades after Foulis penned his report. New Brunswick inventor Benjamin Tibbets designed this engine in 1845 to increase the efficiency of steam boilers and the amount of power they supplied to the paddlewheel propulsion system of steamships. William T. Baird sailed on this trip and recalled that everyone on board raised their voices in song to lyrics composed on the momentous voyage.

Hurrah! For the Restook River, Oh!  
The Tobique stream that is not slow;

³⁸ Foulis, “Report on a Survey.”  
But the Saint John River is the stream,  
That we have now traversed with steam.  
Then dance the boatman dance

The fanfare and boot-stomping revelry that accompanied this voyage is further testament to the popular obsession New Brunswickers had with improving and conquering their rivers. This new technology and the state-funded alterations to the St. John’s hydrology that accompanied it, gave humans more control over the St. John’s bed and current than ever before.

Steam power distanced travellers and navigators from the vagaries of currents and winds that influenced canoe and sailboat transportation on the St. John. The muscles of humans and animals helped propel canoes and towboats, and sailboats harnessed the wind, but steam engines derived energy from burning wood and coal. As Richard White noted in his study of the Columbia River, *The Organic Machine*, humans still performed work to propel steamships, but their labour no longer involved dipping paddles or hoisting sails directly into the water and wind. Thus, steamships effected a greater psychological separation from the St. John than previous transportation technologies, and enabled people to transcend the limitations of muscle power, wind power, and the currents of the river.

New Brunswickers began using steam power to dig up riverbeds in the 1830s. In 1838, the assembly commissioned Thomas Barlow and Moses Perley to purchase a ten-horse-power dredging machine to cut and widen channels through shoals and

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narrow passages along the river’s navigable reaches. It cost nearly £1,000 and required a fifty-foot-boat to operate, as well as two scows to receive the tonnes of soggy aggregate that it removed from the riverbed. The assembly appointed Robert Lenumar, an experienced St. John River navigator, to take charge of the steam dredger. Its first projects were canaling through the Oromocto Shoals and deepening the shallow and sandy passageway between Jemseg and Grand Lake. The work the dredger performed was a part of a colonial initiative to strengthen colonial resource extraction and improve internal communication. The assembly bought the dredger the same year they called for a scientific appraisal of the St. John above Fredericton and commissioned a Nova Scotia scientist, Abraham Gesner, to conduct a geological survey to help New Brunswick identify its natural resources.42

On the heels of lieutenant governor Howard Douglas’s 1825 speech to improve inter-colonial trade and strengthen river communication between Fredericton and Saint John, the assembly allotted £100 toward cutting a small canal across a rocky isthmus above Reversing Falls to link Mosquito Cove and South Bay. Sources do not reveal how much work the company completed with the 1825 funding, but in 1836-1837 the Saint John Mill and Canal Company cut a water intake channel along this route to obtain a steady flow of water to power their sawmills. Fisher noted that in 1836 the company had already built a 183-metre dam between Mosquito Falls and Reversing Falls, and was planning to erect multiple mills with many saws around this

large structure. The 1844 harbour plan of Saint John depicted the completed passageway and dam as well as two small bridges that crossed the canal to the new island that the Company had created in the St. John’s estuary.43

The upstream entrance to this canal was normally five feet below the river’s low water mark, but when the water volume decreased during dry seasons, a mud flat separated it from the river, and the Company was not able to obtain sufficient water to power their mills. In 1838, Company officials asked the assembly to loan them the new dredging machine the colony had purchased so they could use it to deepen their channel through the muddy flat, but the New Brunswick government refused, claiming that the machine was only for public use. Four years later, the assembly appropriated “seventeen pounds five shillings” toward widening the canal with manual labour to help prevent sedimentation and low water levels from impairing milling operations. An 1875 business directory of Saint John noted that Boston capitalists were the primary proponents behind the project and that it became locally known as the “Tide Mills.” The directory claimed that the entire complex cost nearly $500,000 dollars to build and was an almost complete failure. After the Company folded, the assembly placed the canal under the jurisdiction of the commissioners of highways of the parish of Lancaster. The commissioners were to “remove timber and other obstructions,” to

improve the canal’s availability for public use, which included moving boats as well as timber rafts. Evidently, the colony was wary of lending expensive machinery to effect improvements to serve the interests of private corporations, but it was willing to provide the Company with limited financial support for their engineering works and to maintain the canal they constructed for public use.44

In 1823, entrepreneur Moses Shaw petitioned the assembly to help him cut a ten-foot sluceway around the Grand Falls. The sluceway would enable lumbermen to ship timber from above the cataract to downstream mills without having to send them plummeting 70 feet over the raging falls, a trip that often resulted in enormous logjams and damage to valuable logs. Peter Fisher commented in 1825 that the cataract totally obstructed navigation between the upper and lower St. John River and prevented New Brunswick from accessing its bountiful northern resources. He predicted that the colony would soon remedy this situation with a canal. That fall, George Coffin called the Falls a “Serious evil” to lumberman. He noted that Fredericton merchants spent over “$3000 in making a machine to draw the boards over the carrying place but it did not succeed.” He claimed that “if the same amount had been expended in blowing away some of the rocks at the head of the falls and filling up the pool below . . . it would have answered a more valuable purpose.” The next year, Robert Foulis

advocated cutting an 836-yard tunnel through Grand Falls and the turbulent gorge below it. An 1870 navigation report on the St. John noted this tunnel never materialized. The Maliseets’ Destroying Giant kept roaring in its natural state, and upstream lumbermen had to risk damaging their timber in floating it over the cataract to get it to processing facilities and markets.45

Queens County residents petitioned the assembly to dig a canal between the St. John and Gage Town Creek near the King’s Head Tavern in 1835 that would turn Grimross Neck, a several kilometre long peninsula, into the triangular Gage Town Island. The assembly’s water transportation committee claimed that this artificial channel

would greatly improve the navigation of that part of the River called 'no man's friend' for all description of sailing Vessels and Steam Boats, and . . . Timber Rafts . . . a circuitous route of near four miles would be saved, and the danger that invariably attends Rafts at that place during the Freshet of being carried by the force of the current into the Dug Way would be avoided.46

Colonial officials justified public spending on the canal with the logic that reducing the shipping costs of lumbermen aided the entire colony. They also claimed the channel would help local farmers market their produce and benefit Gage Town, a village that Loyalists planners had flagged as a potential communications hub due to its central location on the St. John’s estuary. In 1839, New Brunswick passed a law to govern and


46 Journal of the House of Assembly of the Province of New Brunswick, from the Twentieth Day of January to the Seventeenth Day of March (Fredericton, NB: John Simpson, 1835), 368 and 398.
support a public canal that was to be “free from any toll or charge.” The Gage Town canal was the largest hydraulic engineering project carried out on the St. John at this time. Canal commissioners advertised to tender contract for a 319 metre-long channel that was 8 metres wide at the bottom, tapered on the sides, and 2.4 metres deep. They required contractors to build twenty-four piers at each corner of the cut to protect it from the tonnes of ice, logs, and other debris that the river’s current carried downstream during spring freshets. The advertisement for the contract estimated that the project would displace 24,466 cubic metres of soil.47

Canal commissioners surveyed the geography of a spring freshet to help them locate the most direct and feasible lowland route for the proposed channel across the isthmus that connected Grimross neck to the mainland. John Ward and D. Donaldson wrote to the lieutenant governor, Sir John Harvey, that the “line adopted is the shortest one possible, consistent with a due regard to the form of waters flowing in during the spring.” Moreover, after observing the river’s summer low water mark, they mandated that the canal had to extend sixty-six feet beyond it to ensure adequate water for shipping. Although studies of 19th-century river improvement projects often detail how engineers and planners resisted and conquered natural processes rather than worked with them, the planners of the Gage Town Canal used the St. John freshet and low water mark as mapping tools to locate the most effective route for their project. They realized that it was in their best interests to harmonize their engineering

47 See Winslow’s Survey, WP, 494; Ward, Account of the River, 30; and “An Act to provide for making and maintaining a Canal across Grimross Neck, in Queen’s County. Passed 23 Mar 1839,” in Acts of the General Assembly of Her Majesty’s Province of New Brunswick, passed in the year 1839 (Fredericton, NB: John Simpson, 1839), 2 Victoria, Ch. 34. See 78-80; “Gagetown Canal,” 29 May 1840, LC, Mills & Manufacturers.
works with the river’s natural flow and seasonal processes, such as ice formation, flooding, and low water. Rather than considering their work above and removed from nature, planners of the largest St. John improvement project muddied their boots walking the landscape and strived to understand and work with the environment as much as possible. Although the canal was successful, Clark Wright claimed that periods of low water sometimes prevented large steamships from using it.48

British entrepreneurs sought to connect the St. John to the Richibucto and St. Croix rivers by digging canals “with all the necessary embankments, locks, gates, dam, piers, booms, wharves, sluices.” One project aimed to link the St. John and St. Croix via the Chiputnecticook Lakes. This route would mirror the Maliseet portage trail that John Gyles described in his memoirs and allow travellers and freight to move between the upper watershed and the Atlantic without risking passage through the perilous Reversing Falls. Unlike the Gage Town canal, this project was a corporate user-fee endeavour. Its backers, however, failed to mobilize sufficient capital within the five-year period the assembly allotted them and the project never broke ground. The experience of this project, as well as the Mosquito Cove industrial complex and canal at Reversing Falls, suggests that canal operations were both costly and risky for private firms operating in the colony, and that the colonial assembly moderated the financial support it provided for grandiose schemes championed by industrial interests.49

48 “Gagetown Canal,” 29 May 1840; “John Ward and D. Donaldson to Sir John Harvey,” 5 Feb 1841, LC, Mills & Manufacturers; and Clark Wright, St. John River, 102. See also Blackbourne, Conquest of Nature.
A leading New Brunswick official, Thomas Baillie, proposed a similar canal project to strengthen regional trade by linking the St. John to the Gulf of St. Lawrence through the Salmon and Richibucto rivers. This canal would follow the portage route that Natives and French seigneurs had used to conduct trade in the 17th century. Baillie championed it as an affordable alternative to rival plans to construct a canal to link the Upper Bay of Fundy to Baie Verte on the Gulf of St. Lawrence to strengthen inter-regional trade and communications. After exploring the tributaries of the lower St. John, Baillie noted that the portage trail that linked the Grand Lake system to the Richibucto River was suitable to canalization as it was “all low land, through which an excavation could be effected with little expense, being only two miles and three-quarters, possessing the further advantage of a small . . . lake, near it, discharging into Salmon River, and a brook flowing in a hollow, from near the lake to the Richibucto River.” Baillie proposed enticing entrepreneurs to build locks to raise the water level of the Salmon River and Richibucto River to better accommodate ships with local milling privileges. The surveyor who explored the proposed route, however, claimed that although a canal was possible, a road or railway might be more practical, noting that the Jemseg River and Grand Lake, the waterways that connected the St. John to the entrance to the proposed canal, were too shallow for big boats. Baillie failed to find support for his plan from industrialists and provincial politicians. When engineers did try (unsuccessfully) to forge a shipping link from the Bay of Fundy to the Gulf of St. Lawrence in the 1880s, it was a ship-railway to Baie Verte, not a canal to the St. John.50

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50 See Baillie, An Account, 39-40; W.J. Layton, “Report from Commissioner to Explore Road from Salmon
The only successful project to connect the St. John to other watersheds occurred in the upper reaches of the river in Northern Maine, far above Grand Falls. In 1841, as New Brunswick and Maine were forming an agreement to transfer control over part of the northern mainstream and several upper tributaries of the St. John to Maine, American lumbermen dammed the natural outflow of Webster Lake, Chamberlain Lake, and Telos Lake into the St. John system, and diverted their waters into the upper Penobscot watershed through the privately owned 152-metre Telos Canal. Their rearrangement of the river system’s hydrology enabled the timber barons to transport their lumber to American ports and mills on the Penobscot River, rather than send them down the St. John, over Grand Falls, and finally on to Saint John mills and dock yards. The Telos diversion decreased the flow of the St. John and harmed rather than improved New Brunswick transportation and economic development, as it worsened log-driving conditions on the river system. In response, groups of angry New Brunswick lumbermen attempted unsuccessfully to blow up the Telos Dam with dynamite and restore the river’s natural hydrology on at least two occasions. Helen Hamlin recounted an undated account of a sabotage attempt made by “‘One Eye’ Joe Michaud,” who approached the dam “with a forty-five hanging on his hip . . . lighted a stick of dynamite in his hands, when a steady-eyed and itchy-fingered guard halted him with a thirty-thirty rifle. One Eye retreated unhit but somewhat abashed. The

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dynamite only caused minor damage.” When the owner of the Telos Canal, Rufus Dwinel, raised the canal’s toll fees, rival Maine lumbermen threatened to violently take control of the canal. Dwinel responded by raising the canal fee again and hiring a small private army to protect his property and profit margin. In response to the petitions of Dwinel’s competitors, the state of Maine passed legislation that forced him to either reduce the toll or turn over control of the canal to another company that would open it for free public access. Faced with these options, Dwinel chose to comply and operate the canal with a twenty cent toll.\textsuperscript{51}

Damming wrought the largest human rearrangement of water in the history of the St. John River system. British colonists needed to harness the flow of the waterway to survive and prosper. Early British surveys of the river appraised it as a potential power source and noted that a shortage of good mill seats had forced Maugerville settlers to import expensive building materials to their detriment. Sensing opportunity, Glasier wrote to his employers in August 1765.

Mills must be our first object we shall . . . furnish our Neighbours with Lumber as well as ourselves . . . there is but one good stream on all the River fit to Erect Mills upon which I have got for us & amongst ourselves have been oblig’d to pop them between two Grants . . . These Mills properly managed will pay for

\textsuperscript{51} See Helen Hamlin, \textit{Pine, Potatoes and People: The Story of Aroostook} (New York: W.W. Norton & Company, 1948), 49; Judd, \textit{Aroostook}, 66-7, and 86-8; Lucius Lee Hubbard, \textit{Hubbard’s Guide to Moosehead Lake and northern Maine} (Cambridge, MA: s.n. 1893), 134-5; “The Telos Canal A Big Issue,” Lewiston Evening Journal 22 Feb 1910; and http://www.maine.gov/dacf/parks/discover_history_explore_nature/history/allagash/history.shtml (accessed 2 May 2015). As the present study is almost exclusively concerned with the river before 1842, it does not deeply investigate the settlement of the Maine-New Brunswick border and subsequent division of the river between those polities. Readers are encouraged to consult the extensive literature on that topic. See, for example, Francis M. Carroll, \textit{A Good and Wise Measure: The Search for the Canadian-American Boundary, 1783-1842} (Toronto: University of Toronto Press, 2001); Alec C. McEwen, \textit{In search of the Highlands: mapping the Canada-Maine boundary, 1839: the journals of Featherstonhaugh and Mudge, August to November, 1839} (Fredericton, NB: Acadiensis Press, 1988). See also Judd \textit{Aroostook}; Craig and Dagenais \textit{Land in Between}.
themselves at least four times a year, besides we can’t carry on our settlement without them.\textsuperscript{52}

They chose to dam the large rapids on the Nashwaak, the same location the d’Amours developed in the 1690s. Samuel Peabody built the second British mill to harness the waterway on the Oromocto River.\textsuperscript{53}

Loyalist planners also appraised the St. John for sites. In 1783, Edward Winslow, for instance, described a small stream above the head of the tide; the “Goowac is a small creek with falls, not capable of navigation of any, but will answer for mills.” Winslow wanted to dam the Pokiok, a fast-flowing stream above the estuary, in 1785 to supply lumber to build Fredericton. His friend Ward Chipman passed on advice from Major Coffin, the co-owner of a mill on the Nerepis, who cautioned that a mill cost about £200 above damming costs to set up. However, he claimed that it would annually produce £100 profit once in operation. In 1784, the blacksmith Edward Forster outfitted twenty-two sawmills in New Brunswick and Nova Scotia; many of these were on the St. John. The next year, William Donaldson reported to a London merchant that “the number of Saw Mills are very great” in New Brunswick. Like migrating beavers, the British colonists dammed numerous streams and small


rivers soon after arriving on a largely undammed watershed in order to create the habitat they needed to thrive.\textsuperscript{54}

A steady expansion of mills changed the nomenclature, as well as the flow of water. Robert Campbell mapped the location of mills on the lower St. John in 1788. He placed “Peabody’s Mills” on the Rusagonis River; “Wilmot & C. Mills” on a stream below St. Ann’s Point; “Whitlock & Co. Mills” on Swan Creek; “Eastles Mill” on the next creek south; “Wallbridge Mill” on a small Lake that emptied into the Washademoak; “Britons Mills” on The Mistake; “Lyons Mills” at the head of Belleisle Bay; and “McCall and Codner’s Mills” on a creek that emptied into the East bank of the St. John a short distance above the mouth of the Nerepis, where Major Coffin operated a mill.

Winslow’s 1803 survey revealed a rapid expansion of saw, grist, and fulling mills, which colonists used to process lumber, grain, and cloth, respectively. Queens County alone had “seven Grist mills, four saw mills and one Fulling mill.” The tally also framed unaltered waters, such as Killarney Lake near Fredericton, as potential millponds and mill seats. By 1832, colonists had also modified numerous upstream tributaries with dams and mills. Some large tributaries such as the Meduxnekeag River powered machinery on both sides of the international border with the United States before emptying into the St. John at Woodstock.\textsuperscript{55}


A series of lithographs of the settlement of the town of Stanley, on the upper reaches of the Nashwaak River, illustrate how colonial mills changed rivers. "Erecting the Mill dam at Stanley" depicts a tree-lined and debris-free Nashwaak. Male labourers are obstructing its flowing waters with a partially built 150-foot-dam. These workers made the dam from large pine and elm cradles filled with rock and they lined its back with planks caulked with “hay and gravel . . . to prevent the escape of the water.” A second image, "The Mill at Stanley," reveals that this dam turned the once vibrant stream into a sluggish millpond. While still reflective, a huge pile of wooden deals and numerous floating logs litter its surface waters. Although the lithograph does not depict sawdust, each rough-cut deal carried trace particles of wood into the waterway in addition to the larger sawdust pile that watermill owners typically dumped into the rivers that powered their mills. The images reveal that the Stanley mill builders turned part of the Nashwaak’s curvy and fecund bank into a linear sluice made from dead trees. They also depict the stones and log piers that workers erected to protect the mill frame and machinery from the annual icy freshets. These hallmarks of the impact of the colonial lumber industry on waterways accompanied mill construction throughout the St. John watershed.56

The Stanley images are only a snapshot of the tonnes of wood products and waste that mill operations deposited into the waterway. Baillie noted that sawing a rectangular deal and boards from a round log created “four slabs four inches thick . . .

thrown away to float down the stream, obstructing navigation, and of no use to man whatever, causing a waste of one-fourth of the raw material.” Baillie was primarily concerned with the loss of profits resulting from wood waste rather than its impacts on fisheries or navigation. Aside from the tidal projects near the river’s mouth, most mills within the watershed harnessed small streams and tributaries. It took several decades before New Brunswickers had the technology, engineering skill, and environmental knowledge to dam the mainstream of the St. John. Thus, the impacts of damming on
the region’s largest waterway moved from its backwaters to the mainstream in the opposite direction of British settlement and white clover.57

River improvers had to address human environmental impacts, as well as the natural characteristics of the St. John. The 1816 committee that framed the river’s physical features as problems, also lobbied to address water pollution created by the lumber industry. Between Fredericton and Saint John, they claimed, the river was “much injured in its navigation by sunken Logs and Trees, which . . . obstruct the Channel in many parts.” The New Brunswick assembly mobilized statute labour to remove “sunken Logs and other impediments” so steamships and other vessels could ply the St. John safely and efficiently. In 1812, a group of Sheffield Parish residents claimed that “Simond’s Creek communicating between the River Saint John, and the back Lakes, is so filled up with Logs, &c. as to prevent entirely the passing of Rafts, Boats or Canoes, and praying assistance toward opening the same.” Although unwilling to pass the assembly’s bill to declare the creek a common highway that citizens would have to keep free of obstructions, the legislative council approved the appropriation of £25 to clear it of debris.58

Although most petitions against log drives and mill waste came from residents with transportation or fisheries problems, slab dumping also caused conflict between upstream and downstream mill owners on the north branch of the Oromocto. In 1840,

57 See Baillie, An Account, 34. For sawmill debris, see Wynn, Timber Colony, 94-5. For controlling New England small waterways before large rivers, see Donahue, The Great Meadow, 179.
58 See Journal of the House of Assembly, 1816, 25; “Act for Navigation of the River Saint John,” 1816. For the Creek, see Journals of the House of Assembly of the Province of New-Brunswick: From Tuesday the 4th Day of February, to Saturday the 7th day of March, 1812 (Saint John, NB: Jacob S. Mott, 1812), 38 and 51; Journal of the Legislative Council, vol. 1, 398; and “An Act to provide for opening and improving Roads, and erecting Bridges throughout the Province, passed 7 March 1812,” in 52 Geo. III, Ch. 23. See 35.
twenty-eight millers asked the assembly to ban slab dumping “into the Stream at the Upper Mills” on the Oromocto. Over 140 upstream inhabitants and mill owners counter-petitioned, “that no Act may pass to prevent Mill Owners from throwing Slabs into the Stream.” The assembly was apparently sympathetic to the larger group as they did not table a bill to address Oromocto slab pollution with colonial regulations. Although scholars such as Gilbert Allardyce have depicted New Brunswick mill owners as defiant and barely responsive to state restrictions on water pollution, the Oromocto situation appears more complex. Here a group of millers spearheaded a call for colonial restrictions on mill waste that interfered with their profits, but rival millers and the public (who may have been beholden to local millers) helped convince politicians to refrain from intervening. As Graeme Wynn noted, the number of sawmills blocking and polluting the St. John and other New Brunswick rivers increased into the mid 19th century. Citizens and colonial legislators had to wait for the imposition of federal laws in the decades following Confederation before they could hold the colony’s powerful lumber industry accountable for its impact on rivers.59

As long as British colonists depended on Native transportation technology, the waterway functioned as an entire river system. But New Brunswickers’ adoption of

59 See Journal of the House of Assembly of the Province of New Brunswick, from the Twenty Eight Day of January to the Thirty First day of March (Fredericton, NB: John Simpson, 1840), 92. For petition and ban on mill waste in Newcastle Stream, see “Petition of Peter Yeamans and others,” Journal of the House of Assembly of the Province of New Brunswick, from the Twenty Eight Day of December to the Ninth Day of March (Fredericton, NB: John Simpson, 1838), 175; “An Act for the better and more effectual securing the navigation of the Newcastle River in Queen’s County. Passed 9th March 1838,” in Acts of the General Assembly of Her Majesty’s Province of New Brunswick, Passed in the Year, 1838 (Fredericton, NB: John Simpson), 1 Victoria, Ch. 27. See 74. For failure to pass a colony-wide law and requests for exemptions, see Journal of the House of Assembly New Brunswick, 1839, 283-4, 293, 329 and 409. See also Wynn, Timber Colony; Judd, Aroostook; and Gilbert Allardyce, “‘The Vexed Question of Sawdust’: River Pollution in Nineteenth-Century New Brunswick,” Dalhousie Review vol. 52 (1972): 177-90.
larger ship technologies effectively separated the river into different hydrographic zones: Saint John harbour, the estuary above Reversing Falls, the navigable reaches of large tributaries, and the waters above Grand Falls. While the French had expressed considerable interest in improving the river for transportation, they did not have the population or technology to alter the waterscape. Steam technology and population growth stimulated New Brunswickers to alter the bed and courses of the St. John system to an unprecedented degree in the 19th century. In turn, initiatives to re-engineer the waterway created social and political challenges and struggles among different human interest groups, as well as struggles between humans and the river itself. In the early 19th century it was unclear if the waterway would continue to function as a natural system that was primarily influenced by seasonal processes or if New Brunswickers could alter it to serve the emerging capitalist economy. For the most part, the St. John River continued to function naturally, despite the numerous “improvements” that colonists made to its flow and bed. Settlers could not control its seasonality or dam the mainstream, and they could not alter Reversing Falls without risking exacerbating flooding on the estuary. While the New Brunswick government undertook canal and dredging projects that benefited the public, it was less supportive of grandiose schemes championed by industrial and commercial interests that sought to reshape the waterway for their benefit. On a global scale, the St. John in 1840 remained more natural than the Rhine, Yangtze, Mississippi, Thames, and many other rivers around the world. When the New Brunswick government did partner with
commercial interests in the following decades to improve transportation, it was to engineer railways and bridges across the province, not canals and locks.
Conclusion

Humans shaped and reshaped the landscape of the St. John River Valley for millennia. In some cases, people made changes to the landscape by building upon the alterations of previous people. The river valley was not a wilderness devoid of human influence when Europeans first began making records of the area. The intensely managed Crown Lands, dammed and regulated waterways, and sculptured parks that characterize the contemporary river valley are also cultural constructions, even though many people consider them wilderness spaces where animals and plants can be found in their natural habitat. Analyzing the multiple layers of human history on the river offers insight into contemporary environmental conflicts and natural resource management. Recent debates over the removal of the Mactaquac Dam and the restoration of the St. John into a free flowing river have gained vocal opposition from a group of New Brunswickers, “The Friends of Mactaquac Lake,” who wish to preserve the Mactaquac head pond in its current state. They are a poignant reminder that this landscape is constantly changing. Many people opposing the restoration of the river point out that they have adapted to the head pond landscape and claim that they cherish the relationships they hold with it.¹

Three distinct human cultures lived on the banks of the Walastakw/rivière St Jean/St. John River between ca. 1550 and 1850. The waterway’s multiple names suggest the presence of three distinct cultural waterscapes specific to the Maliseet,

¹ Kristina Keilty, “Understanding Landscape values and baselines of acceptability on the Mactaquac Dam and Headpond, New Brunswick” (MES thesis Dalhousie University, 2015), 115-6.
French, and British. These names also indicate that at the end of the day, the European conceptions of the river were more similar than were European and Indigenous conceptions.

Investigating three centuries of the river’s history presents an invaluable opportunity to understand multiple human relationships to a physical landscape across time. Approaching history through the biography of the St. John allows us to combine and extend the timelines of the peoples living on its shores, so that Maliseet history flows into the French which flows into the British. As well, it enables us to develop new understandings of Maliseet, French, and British cultures and relationships with nature and one another. Analyzing the river through a broader temporal lens also reveals that its history, and that of the peoples living on its banks, has much in common with the histories of watersheds across the world such as the Thames, Rhine, Nile, and Amazon.

The history of the St. John River is part of larger stories of the spread of Indigenous crops, European overseas expansion, the commercialization of nature, the growth of human populations, and increased water control. The processes that impacted the St. John in the early modern era also affected waterways in Germany, China, Australia, and other parts of the world. Historians are increasingly exploring the merits of scholarship that looks beyond as well as within traditional political boundaries of province and nation.²

Placing the river at the centre of Maliseet, Acadian, and British histories in New Brunswick reveals new insights into the historical geography of the region. Ecological knowledge of the river’s seasonality was key to the success of all three cultures. The alterations of the riverbanks by one culture often benefited later residents. Maliseet and Mi’kmaq plant management was responsible for the origins of agriculture in New Brunswick. Native-French land use patterns on the St. John followed a different trajectory than other parts of Acadia. Moreover, while Acadians became renowned in Canadian history for modifying the small streams and rivers that flowed into the Bay of Fundy, they were unable to alter the powerful flow and seasonal freshets of the St. John with engineering works.

Focusing on the Walastakw brings Maliseets to the forefront of the region’s history and reveals that they played an important role in shaping the landscape of their homeland. Later European settlement often obscured the changes Maliseets made to the river valley much as they obscured the land use practices of Indigenous peoples in other parts of the world. When we consider Maliseet experiences with invasive pathogens and climatic cooling, we see that the cultures of Indigenous people were dynamic; they responded to these major challenges with innovations and resilience. Maliseet use of green corn harvesting, cold hardy maize varieties, and warm microclimates during the 1690s calls into question prevailing assumptions regarding climatic cooling and the collapse of agricultural societies, as well as the northern limits of historic maize cultivation in the Americas. Appreciating the cultural practices and microclimates that Maliseets used to confront environmental challenges is critical to
understanding human experiences with climate and agriculture in and beyond the Northeast. An examination of Maliseet quarantine and dispersal practices reveals that they quickly responded to mitigate the effects of epidemics, which indicates that Indigenous peoples were not always passive victims to the biological imperialism that accompanied the spread of Europeans to new environments.

When we place human activities on a physical landscape as an historical document, we bring fragments of the human story into conversation with the physical environment. Environmental historians now use ancient deposits of pollen, tree rings, and ice cores to understand past landscapes and human activities. Examining the environmental and cultural history of the St. John adds to those methodological approaches by showing that by positioning documentary and ecological evidence together within a river system such as the St. John, other patterns of historical change emerge. Recognizing the ecological challenges of seasonal floods that confronted Europeans on the St. John, helps us better appreciate the difficulties that the French faced in settling the river’s middle reaches, and comprehend the importance of ecological knowledge to colonial settlement. The Greek philosopher, Heraclitus, noted that we can never step into the same river twice. While that is indeed the case, the physical landscape through which water flows day-in and day-out, year after year, becomes its own record of the human experience. The St. John River and surrounding landscape teaches us how nature and humanity have marked each other in important ways.
Almost everyone who has lived next to the St. John River, for even two or three springs, is humbled by the rush of the water as it inundates the land and scours the riverbanks with huge chunks of ice. Rivers provide powerful reminders of the influence of nature’s seasons on human history. The St. John, a northern river, changes dramatically with the seasons and seasonal variations, whether freezing in the fall or thawing and flooding in the spring, constantly remind people who live along the river of the constraints of nature. Rivers such as the St. John, the Amazon, and the Yangtze, have broad floodplains and distinct flood seasons. For the French and British who settled along the St. John, its extreme seasonal fluctuations, unique narrow mouth, and broad floodplains were novel. While European settlers had previously learned about riverine flooding along the Eastern seaboard of North America, most of the waterways to which they were accustomed to, such as the Potomac River which flows into Chesapeake Bay or the Annapolis River in Nova Scotia, did not normally flood to the same extent or volume as did the St. John each spring. Analyzing how humans responded to St. John flooding helps us to appreciate that people often needed many years to garner the ecological knowledge and develop the practices that made living with a dynamic natural system like the St. John possible. Many colonists had ambitions of controlling the river as people have controlled rivers elsewhere; their failures to realize these ambitions reminds us how specialized and intimate the knowledge can be for adjusting to these environmental conditions.

The lukewarm response of New Brunswick politicians to the lobbying of commercial interests that wanted to effect dramatic rearrangements of the
waterway’s hydrology demonstrates that the St. John’s history was distinct from that of other waterways. While humans dramatically rearranged watersheds such as the Rhine River in Germany and the Grand River in Ontario during this time, the complex circumstances of St. John River flooding and drainage through Reversing Falls proved too challenging and risky for French and British colonists to reorganize. The flooding and drainage of the lower estuary remain largely unaltered to this day. As authors such as Matthew Evenden and Jennifer Bonnell have shown in British Columbia and southern Ontario respectively, investigating why humans did not succeed in further altering rivers can offer important counterpoints to declensionist perspectives that portray rivers as increasingly controlled and degraded natural systems.3

By positioning the evidence of Maliseets, French, and British quite literally “on the river” over three centuries, it becomes possible to reconnect their human histories in new ways. By understanding the ecology of the river and Maliseets’ position within the power dynamics of the Northeast, we can better appreciate why they permitted some French to live on the river, and why they designated particular spaces as appropriate settlement sites for their European allies. Remove the river from these histories and the evidentiary pieces fracture, and in some cases, they become so disparate and seemingly unrelatable as to be virtually meaningless. If we pair documentary evidence with the physical geography of the Walastakw/rivière St. Jean/St. John River over a broad expanse of time we can see important connections and continuities in resource use, settlement, and transportation among distinct human

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3 See Evenden, Fish versus Power; Bonnell, Reclaiming the Don.
cultures. British settlement ecology, for instance, was sometimes layered on the cultural waterscapes and landscapes created by Maliseet and Acadians.

When viewed from the perspective of cultural relationships with the watershed and surrounding nature over centuries, there is much in common between Indigenous peoples and Europeans. While scholars have often highlighted the difference between Indigenous and colonial ideas about nature using European dichotomies like gardens and wilderness that portray pre-transatlantic contact landscapes as pristine or virgin, Maliseets had already modified the Walastakw and surrounding landscape, and they had done so in part by establishing gardens. Maliseets, French, and British all altered nature to suit their needs and preferences, and each people facilitated human use of the river and local resources with complex regulatory practices. Europeans did not develop language to discuss most of the river’s tributaries, but when they settled along the waterway, they shared important commonalities with Maliseets in their relationship to it, such as their practice of cultivation on its banks and dependency on migratory riverine fish populations. Moreover, colonists often practiced these activities within the same microenvironments as Maliseets.

For all the peoples who lived upon it, the river was a way to connect to other societies. Even though most of the watershed was associated with one culture, the Maliseet, over most of its history, they often shared its use with other peoples. Moreover, Maliseets, French, and British used the river as a transportation corridor to move between regions of the continent to interact with different peoples and resources.
The environment along the banks and within the flow of the St. John River was the primary source of sustenance for most of the people living within the watershed. Moreover, even in 1840, people living along the river still orientated themselves to the waterway for transportation despite the vast number of roads that they had cut into the landscape. The river shaped microclimates along its banks, and its massive fluctuations in flow presented opportunities and challenges for transportation, settlement, agriculture, and warfare.

Waterways throughout the world strongly influence the rhythms and pace of human life. Yet the rhythms that humans imposed on the watershed by the mid 19th century, timber harvesting, dredging, overfishing, harnessing the river to power mills, and using it as a waste sink, at the expense of other uses, disrupted crucial aspects of the St. John’s ecological processes. The exploitation of certain aspects of the river’s character over others by particular groups of people, such as its ability to transport logs and power mills for timber barons, served to marginalize the importance of the river to other people in the 19th century, because parts of the St. John were no longer a dependable source of food, and at times carried significant forms of pollution, especially wood waste.

Over the 19th century, the increase in pollution and riverine fisheries decline were not a simplistic cause and effect story of self-interested industrialists degrading fish habitat and limiting human uses of waterways. A few New Brunswick industrialists led campaigns to reduce sawdust pollution and others attempted to install fishways, but they lacked the political and popular support as well as the technological knowhow
to reduce mill waste and build effective fish ladders. Examining the St. John River through a broad temporal scope enables us to see that some political conflicts over using and regulating the river and riverine resources have long roots. The ingenious system of community-based river island management that legislators and landowners developed to adapt New Brunswick property law to the river’s dynamism, and the river keeper/conserver provisions that Saint John’s charter bestowed upon its municipal leaders, are two of the oldest local environmental regulatory regimes in Canada; they continue to function to this day.

Technology and cultural traditions helped distinguish how peoples related to the waterway. Maliseets developed lightweight boat and snowshoe technologies that were highly adapted to the Walastakw’s natural features and for accessing the entire river system and neighbouring watersheds. As the Maliseet diet and wood use did not require mechanical processing, they had no need to harness the river’s flow. The French and British used large sailing ships to extend the ecological footprints of distant peoples to the watershed. Their economic systems enabled and encouraged them to export vast quantities of fish, timber, furs, and other resources from the St. John River Valley. Along with their agricultural land clearing and plowing, these activities impacted what lived in and along the river and increased erosion along its shore. The damming technology that Europeans brought to the St. John enabled them to harness the flow of the river to saw timber and process the cereal crops they relied upon. Colonists’ sailing and steamship technology could not function well on the St. John without modifying the river’s bed, and their navigational technology effectively
severed the river system into three separate hydrographic zones: Saint John harbour, the estuary and middle reaches, and the waters above Grand Falls.

The early history of the region now known as New Brunswick looks much different from the waters and banks of the St. John River than it does from the British colonial office in London or the French court in Versailles. The river was the central environmental feature of the peoples who lived upon its banks and an important part of their lives. For many colonial officials and settlers the waterway was also a vaguely ominous obstacle that they needed to conquer to bring prosperity and civilization to the region. It played an integral role in the economic, political, and cultural history of the region, but it also threatened property and human lives. Understanding the dialectic between the opportunities and limitations that the St. John offered and imposed on the peoples who lived along its bank offers new insight into the history of the landscape it drained as well as opportunities to forge connections between the region and the histories of distant watersheds. Moreover, by placing the St. John and human relationships to it at the centre of inquiry we can develop comparisons among the human cultures who settled its banks and better understand their relationships with nature and one another.

The patterns, events, and processes that helped shaped the St. John River Valley have relevance that transcends scholarly analysis. As our society struggles to contend with local and global environmental problems, we can benefit from a deeper knowledge of how different cultures interact with the environment. This history of the Walastakw/rivière, St. Jean/and St. John River reminds us that humans living in this
watershed have been responding to major environmental challenges, and learning from past mistakes and successes, for centuries. It also tells us that learning to live with the natural systems that surround us is not a stage in human development, but a constant in human communities. We can respond to problems with innovation, and this can involve saying “no” to development schemes that place the health of our natural systems and humans at risk. This perspective is particularly important to remember now at a time when political leaders and citizens across the province, the country, and the world are debating the merits and repercussions of pursuing hydraulic fracking, large-scale pipelines, and accelerating climatic change, as well as the removal of dams, new forms of renewable energy, state and community initiatives to preserve riverbank and island habitats, legislated reductions in pesticide use, and a growing environmental consciousness amongst our youth. Examining the cultural and environmental history of the St. John River teaches us that, at least in the Northeast, humans cannot pretend to be separate from nature. This reflects an important element of who we are, and the choices we make in our relationships with the environment and one another.
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