The Changing Face of the Kawarthas

Land Use and Environment in Nineteenth Century Ontario

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Abstract

This dissertation examines how changes in material culture and patterns of land use recreated the landscape of Fenelon and Verulam Townships, Ontario, between 1820 and 1900. Immigrants brought new visions of the landscape, productive techniques and forms of recreation. Though they had a clear understanding of the landscape they wanted to fashion, it was largely based on experience in Britain. As settlers and Ojibwas transformed the Kawarthas, they had to adapt this foreign culture to the conditions they found. This study explores processes of planning, surveying and distributing land; the establishment and operation of farms; manufacture of timber, lumber and other forest produce; the construction of canals and railways; hunting, trapping, fishing, recreation and tourism. A generation or two after resettlement began, the nascent communities finally created an agricultural landscape, prosperous villages, large-scale forest production, improved transportation networks and infrastructure for leisure. The emerging economies, cultures, societies and ecological relationships represented ways of life that had evolved to suit the Kawartha Lakes region.

Résumé

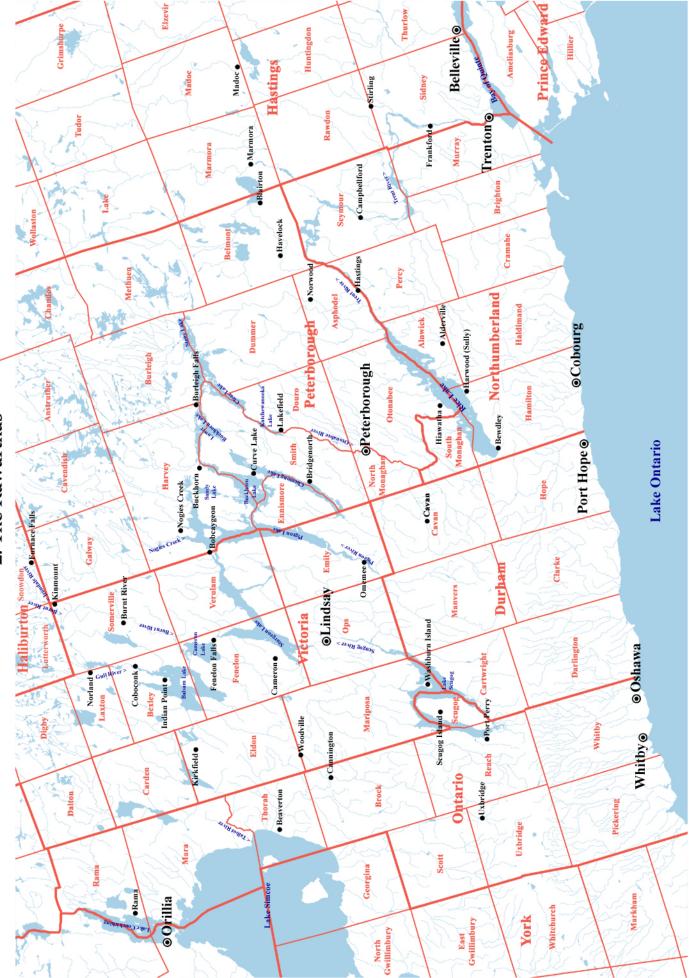
Comment les changements de la culture matérielle et des modèles d'utilisation des sols ont restructuré le paysage des cantons de Fenelon et de Verulam en Ontario, entre 1820 et 1900. C'est le sujet de la présente thèse. Les immigrants ont insufflé leur vision de l'aménagement des terres, des techniques de production et des types d'activités récréatives. Certes avaient-ils une idée claire du type d'aménagement qu'ils souhaitaient implanter mais leur expérience reposait essentiellement sur le contexte britannique. Ainsi, à mesure que les colons et les Ojibwas transformaient les Kawarthas, ils ont dû adapter cette culture étrangère aux conditions locales. Cette thèse examine les processus de planification, d'arpentage et de distribution des terres; l'établissement et l'exploitation de fermes; l'exploitation forestière et l'industrie connexe; la construction de canaux et de chemins de fer; la chasse, la trappe, la pêche, les loisirs et le tourisme. Une ou deux générations après le début du remembrement territorial, les collectivités naissantes ont réussi à mettre en place un aménagement des terres agricoles, des villages prospères, une production forestière à grande échelle, des réseaux de transport améliorés et une infrastructure du loisir. Les économies, cultures, sociétés et relations écologiques émergentes représentaient des modes de vie qui ont évolué en fonction du contexte de la région de Kawartha Lakes.

Acknowledgements

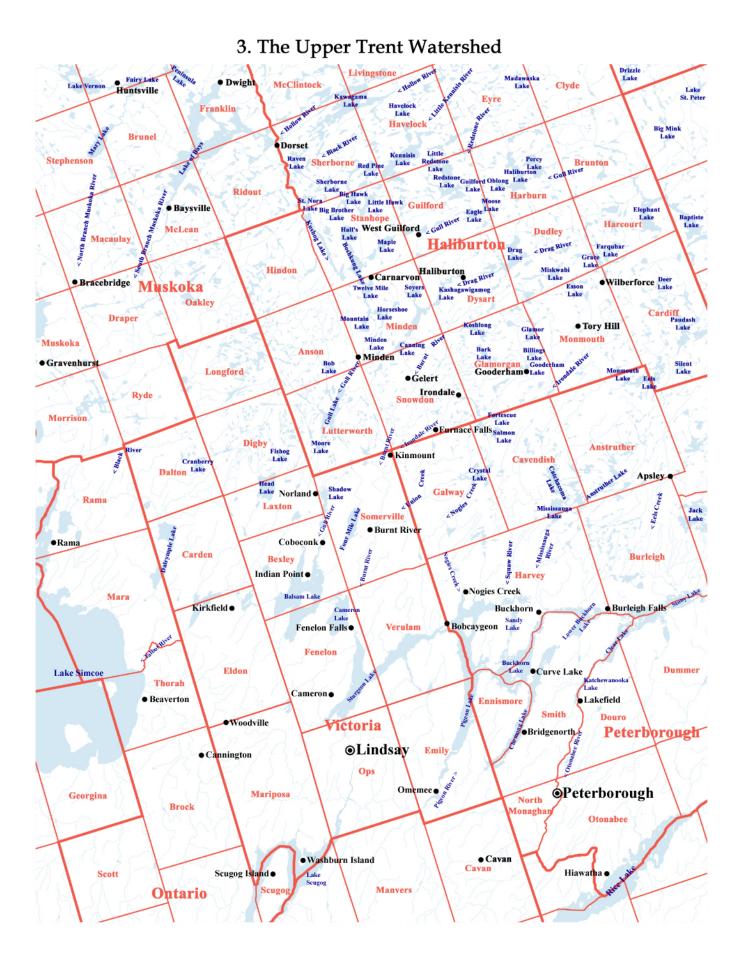
I would like to thank Elsbeth Heaman and Colin Duncan for supervising this project and contributing their expert guidance on countless occasions. Sherry Olson, Donald B. Smith and Marvin McInnis also provided valuable insight. Funding from the Social Sciences and Humanities Research Council gave me the opportunity to complete this project. I am grateful to Ali Scott and the Fenelon Museum for helping time and again with the research. Harry Van Oudenaren taught me much about the history of Bobcaygeon and shared his remarkable photographic collection. Grace Barker provided her insight into the Boyd Family. Randall Speller brought a deep understanding of businesses in Fenelon Falls. I would like to thank John Bick, Al Ingram, Byron Edney, Earl Murray and Kawartha Settlers' Village; Barb McFadzen and the Boyd Museum; Anne Barbour and the Kawartha Field Naturalists; Paul Zaborowski and the Shedden Historical Society; Mary Charles and the Peterborough Museum and Archives; Dennis Carter-Edwards and the Trent-Severn Waterway; Deb Scott and the Ministry of Natural Resources; Debbie Spivey, Georgia Robinson, Nancy Byer and the City of Kawartha Lakes Public Library; Julie Hurst of the City of Kawartha Lakes Records Centre; as well as the staff of the Archives of Ontario and Library and Archives Canada. I am also grateful to the many others who shared their time, information and resources to help with my research including: Cliff Whetung, Marg Allen, Freda Kelly, John & Marjorie Hoskins, Jim Martin, Rae Fleming, Barbara Williams, Bruce Stinson, Murray Whetung, Barney Dundas, Diane Austin, Inez Knott, Malcolm Junkin, Mary Ruth Peltz-Smith, Pat Davis, Mae Whetung-Derrick, Grant & Pat Hoy, Ken Gillis, Robert Dick, George Jackett, Marina McLennan, Anne Gray, Charlie Gray, Herb Orgill, Jimmy Taggart, Mike Whetung, Bob & Betty Ellery, Bob Spittel, Connie Dunlap, John Carew, Doreen Graham, Gail Corbett, Helen Speller, Roberta Perdue, Rick Jokinen, Amy Chen, Matt Trudgen, Brent Norris, Dave Vant Erve, Mike Huynh, Joaquin Kuhn, Oliver Jull, Hugh Armstrong, Joe Whetung, Joyce Jones, Larry Skitch, Lianne Kennedy, Maureen McKellar, Ian Mitchell and Ron Junkin. Catherine Junkin was always interested to share her memories of the family farm. Most of all I would like to thank my parents and family for their continued support. This thesis is dedicated to my father, for whom the history of Bury's Green was as vivid as living experience.



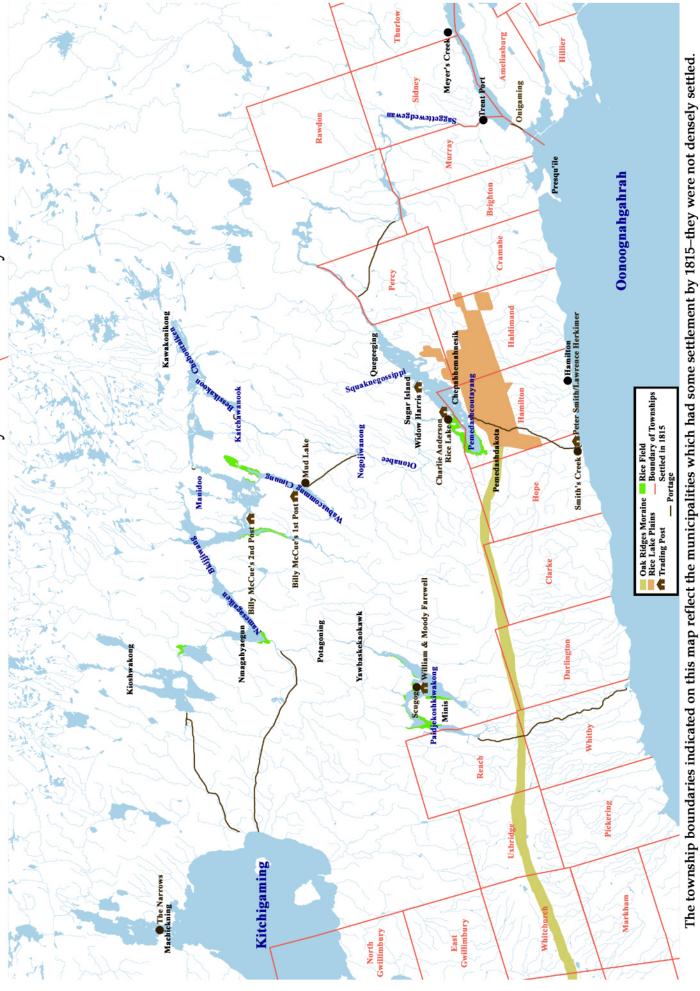
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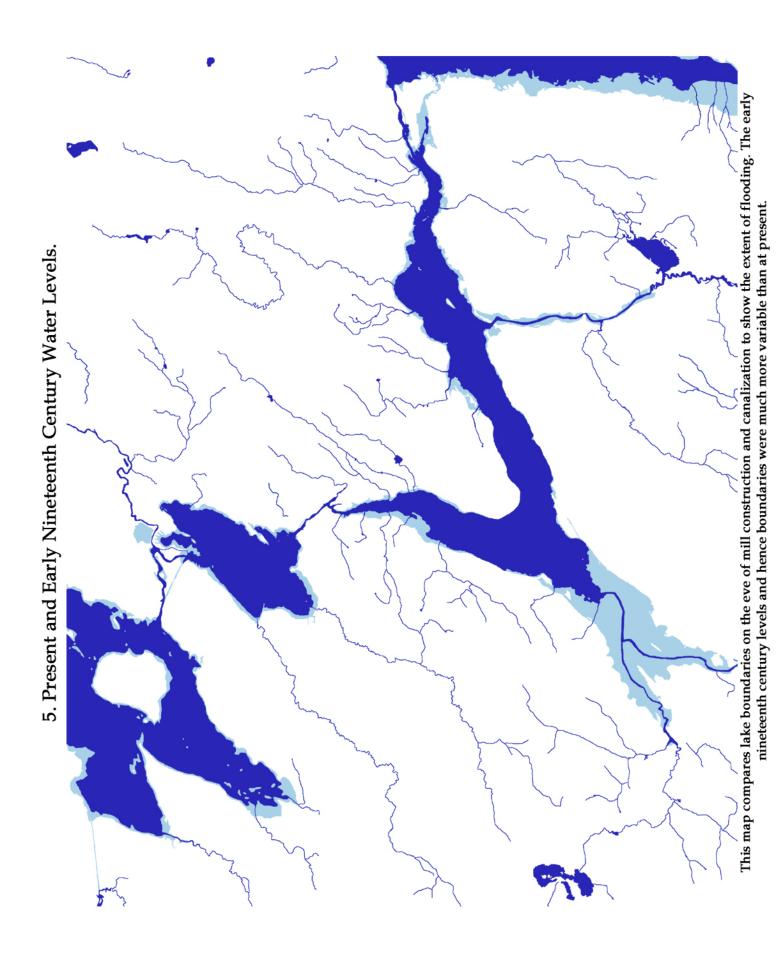


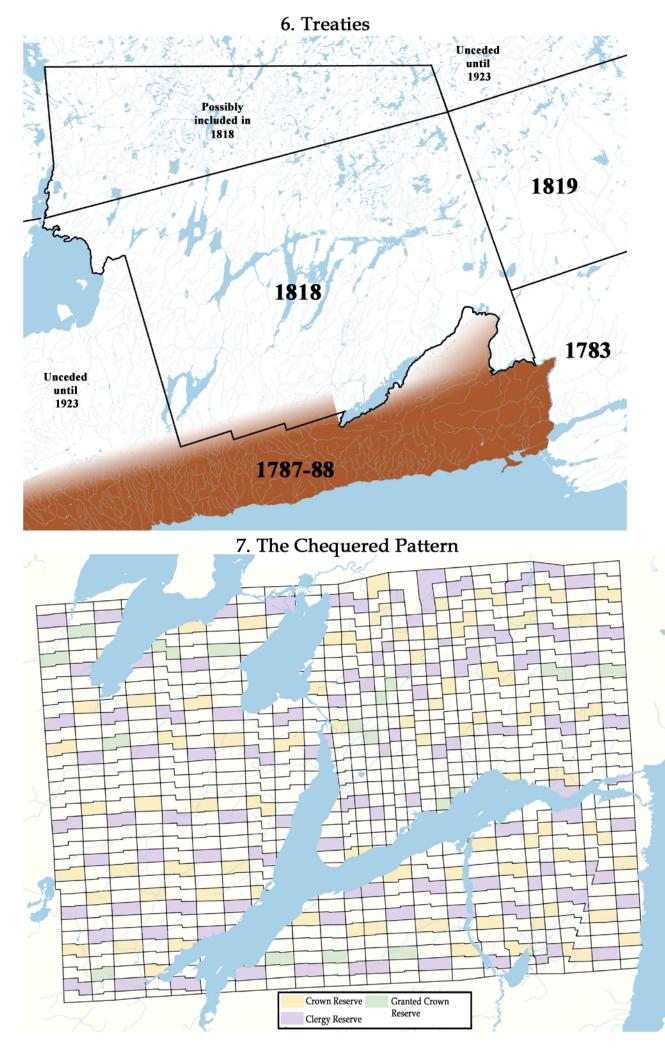
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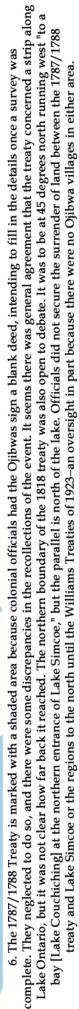


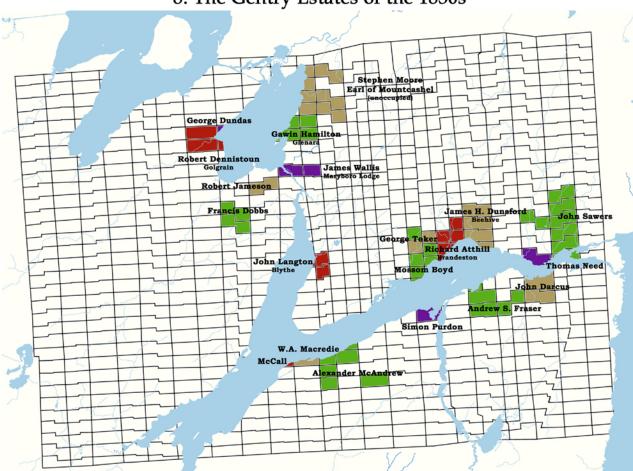






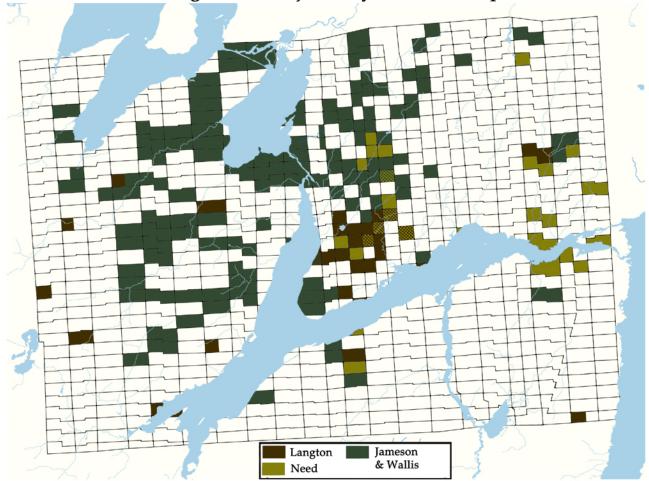


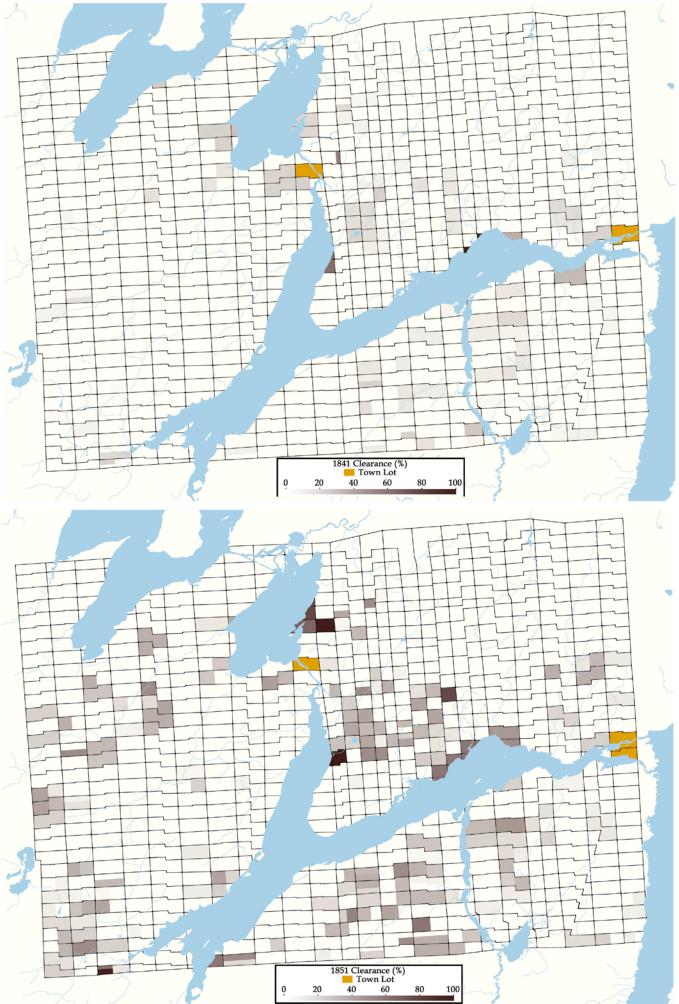




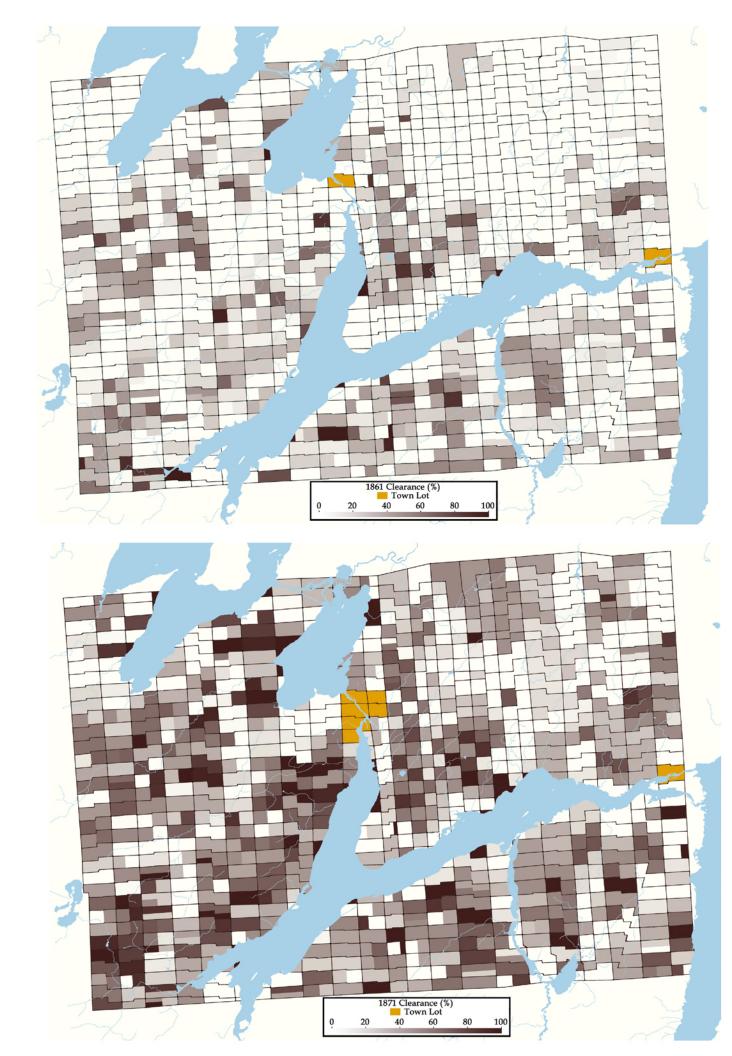
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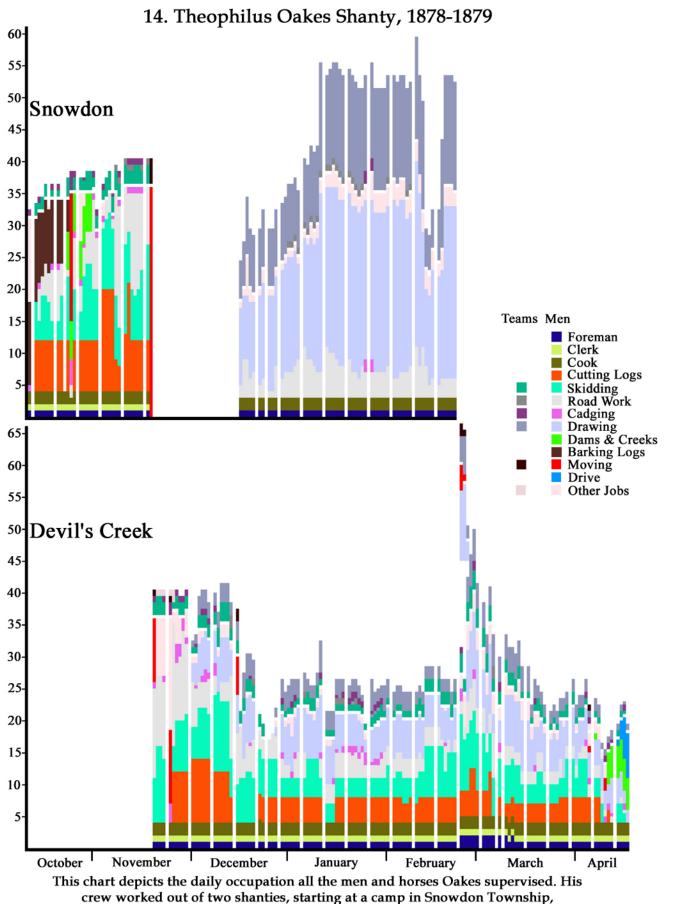
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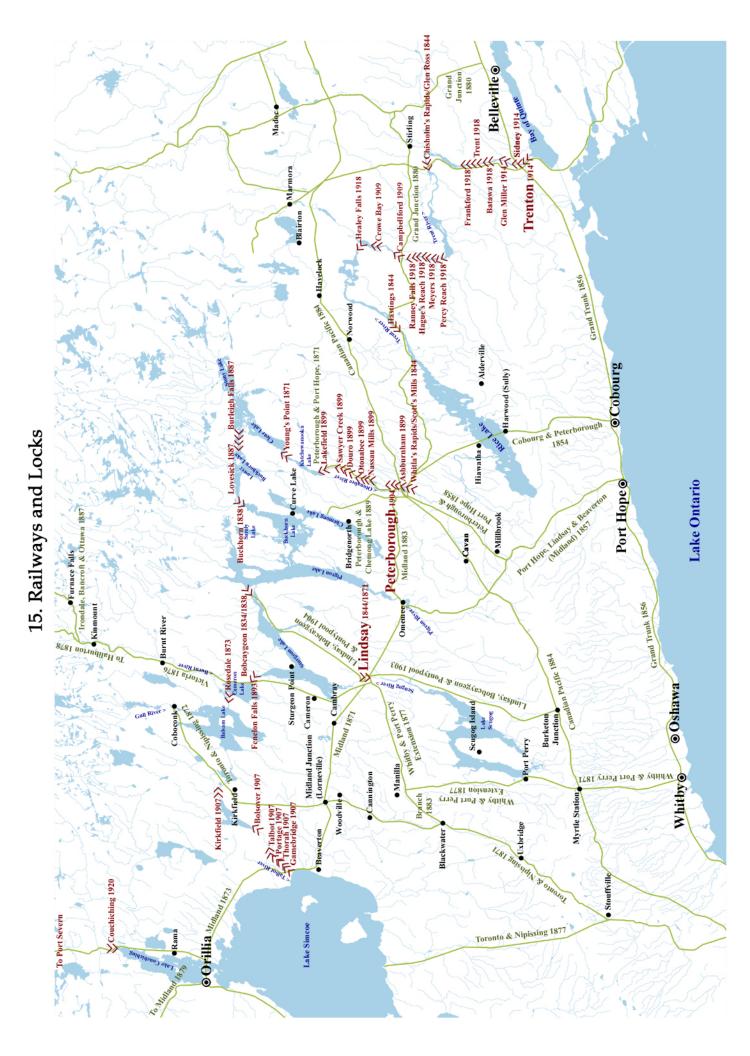


10-13. Agricultural Clearance in Fenelon and Verulam.





before moving to one upstream on Devil's Creek (now the Irondale River).



Sources of Map Data

NTS serves as the base for all maps.

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- 5. To study the extent of flooding caused by mill-dams and canalization a survey was made of drowned lands in Fenelon and Verulam Townships. In many undeveloped waters in this area fields of submerged stumps remain. The location and depth of these stumps were mapped, and were often found to have comparable upper bounds on their depths. The former elevation of these lakes was assumed to be lower than these stumps, but higher than the sills at their outlets. These results were also cross-referenced with N.H. Baird's survey of the waterway prior to canalization: N.H. Baird, *Report on the Most Eligible Route for a Canal between Lake Simcoe and the Rice Lake: And Lake Simcoe and Georgian Bay, to the Bay of Quinte by the Back Waters of the New Castle District* (Belleville, 1855).
- 6. John Butler to Sir John Johnson, August 27, 1788, MNR, Williams Treaty Files. Chief Shawacupaway Statement, August 28, 1788, LAC, Military Records, C Series, vol. 250, 291-292. John Butler to Sir

John Johnson, August 26, 1788, LAC, Military Records, C Series, vol. 250, 290. John Butler to Sir John Johnson, August 26, 1788, LAC, RG 10, vol. 9, 8944. Surtees, *Treaty Research Report*, 3, 6-7. From Alexander McKee, June 10, 1795, LAC, RG 10, vol. 9, 894-897. From McKee, June 10, 1795, LAC, Military Records, C Series, vol. 250, 287-288. *Indian Treaties and Surrenders from 1680 to 1890* (Ottawa: B. Chamberlin, 1891).

8-13. Complied from the database of properties described in Methods.

14. Oakes shanty memo book, 1878-1879, BF, vol. 1101.

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Place, Manual Labour and Environmental History

The Changing Face of the Kawarthas is a history of land use and environment in Fenelon and Verulam Townships between 1820 and 1900—the era of resettlement in this part of south-central Ontario. These municipalities occupy about 200 square miles on the upper reaches of the Trent River, situated in limestone country near the southern boundary of the Canadian Shield. This is an exploration of what people did to this place, more than of their motives, inspirations, culture or society. Its objective is twofold: to examine the Kawartha Lakes region and its recreation. This study's scale allowed the use of a variety methods, while gathering comprehensive information on every lot and all major sectors of economic activity. This method produced an account that answers many questions that are often overlooked, and a significantly more qualified understanding of many themes routinely studied at higher levels of generality in the historiography of Canadian resettlement. The close focus on people's actions and their ecological consequences produced more than an environmental history-this is also a study of the labour process and economy. A close focus allows resettlement to be seen as a whole, recognizing that it was a full-time occupation for at least two generations. It entailed more than simply a revolution, as almost every step had to be performed time and again. Great accomplishments needed reworking as people learned how to create new ways of life suited to the region and compatible with evolving opportunities.

The Changing Face of the Kawarthas is organized around three major sectors of economic activity: agriculture; forest production; as well as transportation, hunting, fishing, gathering and tourism. In each case the broad outlines of development were largely established between the 1820s and 1840s, a period when the government of Upper Canada or Canada West had little knowledge of the region. During these formative years the Crown was overseeing settlement, while simultaneously learning the characteristics of the colony. Then, tacit assumptions underpinning the transformation left a clear and lasting impression. Government officials had a simplified or misleading understanding of the lands they were trying to manage. Their concerns were detached from what was happening on the ground—legislative debates were tangential to farmers' experiences. The primary focus of the Crown's efforts in this region was in directing agricultural settlement, and their reconstruction of the landscape focused on dividing the forests of the

Kawarthas into farm lots. They then, at least in theory, tried to ensure that these lots passed to 'actual settlers' rather than land speculators. But government officials and their friends tended to be the most prominent hoarders. While the Crown carefully regulated the acquisition, definition and allocation of land, there was little practical oversight of either farms or forest industries.

While farms were developed largely through neighbourhood collaboration, forest resources were exploited by settlers, many small ventures that usually sold locally, and a few firms that marketed internationally. The proprietors of the large firms were among the most powerful gentlemen in the district, in some ways were a law unto themselves and at times openly defied government—though they were at the same time close associates of many high-level officials. They were able to ensure that official oversight scarcely if at all interfered with their operations, and employed regulations to defend their interests against others who wished to use the forests. The timber barons' influence, however, only lasted as long as their ventures. With the transportation facilities available in the nineteenth century, only the largest, clearest trees, especially pine, would justify the cost of long distance travel, and only if they could be acquired at minimal expense. In the Kawarthas first-rate pine was becoming scarce and valuable by the end of the century, so the timber baron's business model was no longer practical. Their ventures were a passing phase, tearing through the region hauling out the best trees, while at the same time the farmers made much more lasting changes as they systematically removed forests to create agricultural land.

The waterway and railways were either undertaken directly by the government or by private companies relying largely on subsidies. While the politics of developing transportation infrastructure centred on capturing commerce, especially shipping farm produce, such improvements allowed the region to become a major tourist destination, bringing development that would have surprised the gentlemen who oversaw resettlement. The campaign to brand and market the Kawarthas was led by transportation companies, eager to attract additional traffic. By 1900 officials were managing affairs with a thoroughness that would have been unthinkable as resettlement began. To take the waterway, for example, as the first settlers arrived government concerned itself with the fanciful project of turning the Trent and Severn Rivers into a through commercial

waterway—an ambition they lacked the resources to undertake and one for which the local hydrology was hardly suited. But by the end of the century, the Crown had obliged itself to limit water level fluctuations of the most traveled lakes to a couple of inches.

In one sense, the region's re-creation came full circle by the end of the nineteenth century. Early on, the economy focused on the waterway, Ojibwas lived at water's edge, or *gamiing* as they might say. A largely land-based society migrated to the region and brought novel material cultures that were in many ways potentially complementary to Ojibwas' lives. Agriculture and forestry became pivotal to the region's economy but by the end of the century, settlers and Ojibwas came to identify it with the waterway. Tourists often visited to live like the natives, hunting, fishing, canoeing and gathering berries. Through recreation many people could experience a piece of the Ojibwas' happy hunting ground.

Even as the state expanded its reach, politics centred on abstracted or simplified concepts of reality, and for a society that was busy recreating the world it lived in, few had much time to play this game. There was little serious debate of the broad outlines of development in all three economic sectors. Instead political wrangling often focused on the details of implementation. It was taken for granted that the countryside would become farm lots, that the Crown would facilitate large firms exporting millions of feet of timber and lumber, and that it would lead the development of roads, railways and canals. The political controversies relating to transportation infrastructure pitted one region against another as they fought over who should receive the public investments. For the forests, policies often focussed on ensuring that production did not slacken.

This study is organized around these three economic sectors—agriculture, forest production, as well as transportation, the waterway and leisure. Chapter One examines the material culture and landscape of the region on the eve of resettlement and its environmental reconstruction. Though there is little reason to doubt that Ojibwas' lives were evolving before the first migrants reached the region, many details of these changes cannot be chronicled because sources, whether written or ethnographic are scarce prior to 1820 and for most purposes non-existent before 1780. Ojibwas were also relative newcomers to the region, having migrated around the start of the eighteenth century. Two Chapters, each with three subsections detail agrarian developments. Chapter Two charts

how the Crown acquired and redistributed land, then the process by which it passed to owner-occupants. Chapter Three examines the creation, structure and evolution of family farms to the end of the nineteenth century. Chapter Four looks at the use of trees, the first subsection examines the firms, the second work in forest production, and the final outlines the rebirth of the forest industries at the turn of the century as the international rough lumber trade declined. Chapter Five details the campaign to build the Trent Canal in the earliest days of settlement in the hope that it might attract enough traffic to justify itself, the subsequent creation of practical transportation networks, then the growth of tourism and leisure. The postscript discusses relationships between some conclusions of this study and related scholarly literatures.

This account focuses on Fenelon and Verulam Townships and much of it centres on the life in the farm neighbourhoods, villages, logging camps and along the lakes and rivers. But many aspects of this study transcend the limits of these townships, so it was often necessary to expand the study bounds. To name a few, the district towns, waterway and timber cutting in other parts of the watershed were too important to be omitted. No Ojibwa villages were in these townships, but three were nearby and these communities made frequent use of the region, so they are included in this survey. But because it is a local, experiential account, many details about the distant origins of laws, technologies, plants and animals are beyond its scope.

Detailed surveys and agricultural resettlement began in what might be termed a fantastic era—many prominent gentlemen sincerely believed that almost anything was achievable. An aspiring class of gentry dominated the first attempts to create an agricultural landscape, contemporary with church- and state-sponsored programs to convert Ojibwas to Christianity and farming. The gentry and the Ojibwas' teachers had limited knowledge of the region, knew little more about farming, but expected that prosperity would quickly and easily follow. These related undertakings failed quickly, and often farcically. The local elite also spearheaded the fanciful campaign to build a through waterway, speculating on the emergence of long-distance shipping.

In the decades that followed families laboriously cleared themselves farms and in time reduced the forests to scattered woodlots. The growing communities built practical transportation networks, villages and basic productive infrastructure. Families created

their first permanent homes, as they learned how farming in the Kawarthas would differ from their prior experience. Forest production focused on local use and trees were often employed with a minimum of processing. While the Indian Department continued to stress agriculture and Ojibwas did husband plants and animals, they continued their complementary productive activities.

Starting in the 1850s, rapid long-distance transportation connected the Kawarthas to the cities and towns on Lake Ontario, and ultimately to the rest of the province and international exchange. This allowed timber and lumber exports to increase dramatically, creating a few large firms. It also gave farm families and villagers better access to manufactured goods and improved crops or animals. Farms began to employ better and more machinery. It became possible to clear fields, work larger acreages and more easily process produce.

By the last decades of the century, many families were noticeably more prosperous. Large frame houses, cathedral barns, professionally-made furniture and labour-saving inventions became commonplace. While domestic forestry was important throughout the century, the forest industries then shifted from rough-cut exports to more varied consumer goods. Once railways connected with steamers, the Kawarthas became a tourist destination, as locals and visitors alike found more time for leisure.

During this era of resettlement, native and immigrating societies created a new way of life suited to the transforming landscape. This account examines how economy, ecology, society and material culture coalesced, how locals came to know the work they had to do, and how they might reduce the toil it required. Most shared a culture bent on change, determined to continue progressing. Many parts of the emergent way of life proved stable, but others soon altered. The Kawarthas were a region that was not preordained to one order—one of the most important lessons of the resettlement period had been the landscape's diversity. As the revolution unfolded, its direction continued to evolve.

Capturing the evolution of environment and ways of life entailed a very broad scope of study, though limited in its geographical extent. In addition to documentary evidence, this account employs a host of artifacts from the nineteenth century: the landscape, maps, art, tools, buildings, submerged tree stumps and furniture to name a few.

Many themes are drawn from folk history to complement those commonly debated in the academic literature, and it relies extensively on the traditions passed down by local residents. It is an attempt to bridge some aspects of the divide between academic and popular history.

As far as practicable, this was intended to be a comprehensive study of the tangible interactions between the populace of the Kawartha Lakes and its environment. Many academic readers will be surprised to find that the region is not primarily used to explore general or abstract phenomena. All results are not immediately referred to larger literatures and the identities of the people studied are not necessarily taken to be those of a larger collective-this is not the history of Canadians and their environment. To those accustomed to reading more abstracted history, this might seem like an ant's-eye-view. I believe this is a large part of what makes this work original. When historians look at northeastern North America, Canada or Ontario they are really studying what can be generalized to that scale. The fact that the Kawarthas cannot necessarily be equated with North America, Canada or Ontario is integral to this account. As we shall see, the colonial administration assumed that its domain was relatively homogeneous, that all land was farmland. But regional diversity did matter, and it then took immigrants generations to sort out how to make a living as they learned about their new homes. By taking the time to also consider the history of this region in its own context—rather than simply using it as a stage to exhibit Canadian or global history—a very different understanding of the period emerges.

Environmental histories vary greatly in their scale and approach. Many abstract a component of the ecology, such as Stephen Pyne on fire or Theodore Steinberg on industries and water. Oliver Rackham and John Stilgoe look closely at elements of landscape, one at a time. Alfred Crosby's work considers global trends while Gordon Graham Whitney examined eastern North America. Both Graeme Wynn and Cole Harris have written overviews of Canadian environmental history. A few have focused on smaller regions, especially New England and the Harvard Forest—in the work of William Cronon, Carolyn Merchant, Brian Donahue, David Foster and John Aber. Perhaps the closest antecedent to this study is Herbert Guthrie-Smith's 1921 examination of a New Zealand sheep station—which has recently been rediscovered thanks to the efforts of

Richard White and William Cronon. But the Kawarthas have a much more complicated history than Tutira, which was comparable in size to the present study, but just a single a sheep station. In attempting to provide a comprehensive environmental history of a small area of about two hundred square miles, I believe that this study is original in the Canadian literature.

I have found that the scale of this study had several advantages. First it is small enough to make a real effort to be comprehensive and capture the breadth of the economic and environmental developments. In conducting the research, I compiled a database with information on every lot in the townships. This scale allowed me to incorporate the great variety of landscape found locally, and to provide some information on how the Kawarthas came to be identified as a region.

Place is vital to environmental history, especially for a work such as this, concerned with a society determined to recreate the world it lived in. While conducting this research, it soon became apparent that the processes and outcomes would have been very different if the locus had been even another part of southern Ontario—Oxford, Quinte, Haliburton or the Holland Marsh. For Kawartha Lakes residents, small-scale environmental changes were critical to their endeavors—what proportion of a farm was swamp or how long a creek remained navigable in the spring. Resettlement was as much a process of transforming the countryside as it was an occupation, and despite every effort to overcome physical challenges, the region's characteristics shaped what they could achieve.

The Changing Face of the Kawarthas strives to show how regional variation can be a better-developed dimension in the historiography. Today, the geographical diversity of Canada is well appreciated—the endless array of prairie farms, northern Ontario softwood forests, the rocky bays of Newfoundland and the arctic tundra. But modern understandings often do not translate well to the past. The Great Plains have not always been cropland and ranches to the horizon and beyond. Even assumptions about what regions have the potential to be farms do not always hold true for previous ages. In central Ontario, farmland approaching the Canadian Shield is usually seen as marginal. But in the nineteenth century there were some successful farms, even in the Muskokas. Areas that we now recognize as excellent land were not necessarily as suited to nineteenth

century farming. This is in part because the agricultural economy was then vastly different, but also because farming has substantially altered soil properties. The rich soils of Holland Marsh, for instance, now the centre of vegetable production in Ontario, were difficult to cultivate before the advent of tile drainage, an era when vegetables were also difficult to market. The opposite is true in the Kawarthas—the patchwork nature of its fields makes them less suited to mechanized agriculture.

This study endeavors to convey the breadth and complexity of the Kawarthas' transformation over the course of the nineteenth century. It shows the often experimental logic of the productive and material cultures, explains the varied ways that natives and settlers used the countryside, and details the environmental changes that resulted. It is a combination of a narrative and a depiction, and takes an experiential approach—its focus is on what people were doing and how that recreated their landscape rather than on a more abstract model.

A local focus helps to convey the centrality of neighbourhoods and small settlements to the countryside's recreation. Though immigration to this region was part of a global phenomenon—many of the species, customs, concepts and ideals were imported from other continents—the experience of settlement was often intensely local. Especially before the advent of railways and the waterway, transportation relied overwhelmingly on muscle power—governed by the speed of paddling a canoe or walking pace on the rough roads of the era. Farmers and villagers alike often lived isolated lives—while they employed plants, animals and materials from afar, most people rarely traveled. Much of the work of creating homes, farms, roads, and marketable goods was performed by families, friends and neighbours. Most eagerly took advantage as opportunities to overcome this seclusion arose, but circumscribed lives were the order of the day. Regional characteristics and customs shaped the unique landscape and ways of life in the Kawarthas.

Environmental historians often focused on ideas, conservation or preservation, wildlife, or themes, such as pollution, linked to the environmental movement. Studies often work in the abstract, trying to deduce the ecological significance of topics observed in the mainstream historiography—be it sheep in Mexico or American automobiles. Environmental historians often readily appreciate the links between land or water use,

material culture and ecology. Related themes such as resettlement loom large in the historiography generally, as does forest production in Canadian economic history. Many topics integral to environmental history—deforestation, hunting of predatory animals—involve the actions of millions of individuals. Many historians have emphasized the importance of historical actors' lives and experience. Michael Bliss is remembered for demonstrating that "the most important part of history remains human beings who, justice demands, should be represented as fully as possible." But despite some recent interest—such as Donald Fyson's work on the material reality of violence between men—much of the experience of nineteenth century life, especially its material detail is overlooked.¹

I have tried to faithfully convey everyday experiences of my nineteenth century subjects—and I think it is fair to say that most people in modern society would not want to repeat them. One of the most difficult aspects of this type of study, is to move beyond modern social, political and cultural expectations. Economic development, well into the twentieth century, centred on manual labour—it is said that Canadians became "hewers of wood and drawers of water"—a biblical punishment of slavery.² Now many people see this as a starting point for a progressive society and take pride in not working with their hands. Even modern farming, hunting and forest production are becoming further removed from nineteenth century realities.

When Harold Innis was describing the Canadian economy in the 1920s, he could assume that most people understood what it meant to work on a farm, perhaps even on public works. J.K. Galbraith explained his own notoriously strict work ethic, "A long day following a plodding, increasingly reluctant team behind a harrow endlessly back and forth over the uninspiring Ontario terrain persuaded one that all other work was easy"—a sentiment that would resonate with his contemporaries. For that generation, studying the international dimensions of the Canadian economy or the significance of speculation to capitalism might seem much more instructive. But today, when many people work in cyberspace, it is often easier to comprehend transcendent ideas than to see the relevance of butter churns or rossing irons. As modern historians write from air-conditioned offices or tastefully designed archives, choose from a host of ethnic cuisines, and are isolated from the production of their food, clothing and shelter, it can become hard to relate to societies labouring to meet their barest essentials. Plagues of mosquitoes, black flies and

deer flies are much more tangible to a society that cannot escape because its houses do not keep the bugs out. Tedium, drudgery, physical danger, back-breaking labour, frostnumbed hands and the real prospect of dearth had pressing daily resonance to those accustomed to these realities. As nineteenth century families lived in homes that were not snow- or water-tight, cooked through the summer above the infernal heat of a wood stove, were bit by lice, cared for children and the elderly without doctors or hospitals, 'getting by' entailed much endurance. Nineteenth century Canadians could not escape such physical realties—they impacted all facets of life.³

Having lived through all these hardships, they appreciated achieving the beginnings of affluence. While many other North American communities abided through generations of unremitting labour as they slowly achieved easier ways of living, in the Kawarthas the product of this toil was a region branded as a place of leisure. While formal recreation and travel gave some locals employment besides the family farms, hunting, gathering, fishing and forests, this emerging regional identity helped obscure continuing manual labour—for contemporary visitors and present-day historians alike. In modern society, based on a culture of plenty and comfort, understanding these experiences is an essential component of history.

As current society has become urban and specialized, it is harder to comprehend the range of skills that these communities employed to provide for themselves in an age of manual labour and muscle power. Nineteenth century work was governed by expedience, 'common sense,' local affairs, and experience—trying to profitably use what was at hand, for general want of an alternative. Modern regulations make it practically impossible to legally build a house without using engineered plans, stamped materials shipped thousands of miles and certain professionals with their trade certifications. In the era of resettlement almost every building was a collaborative project of the neighbourhood, predominately employing materials they manufactured themselves. In farming communities, every family had to be able to perform a plethora of jobs to meet their material requirements. They had to be able to make soap, timber frames, roads and furniture almost entirely from materials produced nearby. Practically everyone was a jack-of-all-trades in their own way.

This manuscript strives to introduce more procedural knowledge into the historiography. It focuses on how people worked, customs, common rationales for their productive decisions, the occasions they had for leisure, and how this material history related to their environment. These ways of life were often detached from the political debates of that era, and to a greater degree from those of the present. Then, as now, public minds passionately debated issues surrounding treaty councils, but rarely duck dinners. Yet all of this detail on making candles, stitching moccasins and improving harrows was integral to the nineteenth century's tremendous social, cultural and environmental transformations.

I expect that many readers will be struck by the trials that our nineteenth century subjects endured. Many outsiders will approach this study with the belief that resettlement was a failure. I recently contributed to *The Land Between*, a documentary aired on TVO. The producers' editorial stance was reflected in the title of the section narrating the period of this study, "Country of our Defeat." From a modern, affluent, urban perspective the experience of nineteenth century life might seem awful. To understand these existences—ones that are contrary to many modern notions of progress—it is necessary to recreate their context, to endeavour to engage these people on their own terms. Then it is not so easy to dismiss their lifetimes of labour.

This work examines in detail how the Kawarthas evolved to become a prosperous region, one that could even produce to excess, as is now so often taken for granted. It tries to convey a sense of the astounding amount of requisite physical labour, and how these societies created the productive infrastructure so that they did not have to continue to weave their own fabrics, process so much farm produce by hand, and make almost everything from scratch. It also looks at some of the cultural assumptions that underlay this transformation, the legislative context and environmental challenges. The evolution was certainly not straightforward, most steps along the way had to be performed time and again until families finally achieved the homes, farms, transportation networks and countryside that made new comforts possible. As they laboured, they recreated the Kawarthas and established new ways of life.

Abbreviations

AO = Archives of Ontario CKLRC = City of Kawartha Lakes Records Centre KOHPT = Kawartha Oral History Project Transcripts, Fenelon Museum LAC = Library and Archives Canada MNR = Ministry of Natural Resources PMA = Peterborough Museum and Archives TUA = Trent University Archives

BI = Bobcaygeon Independent CP = Canadian Post FFG = Fenelon Falls Gazette VW = Victoria Warder WA = Watchman WW = Watchman Warder

BF = Boyd Fonds, Library and Archives Canada, MG 28-III-1.

CLS = Crown Land Surveys, Diaries, Field Notes and Reports, Archives of Ontario, RG 1-59.

- *FTP* = Ministry of Natural Resources Township Papers, Fenelon, Archives of Ontario, RG 1 C-IV.
- LR = Land Registry Records

NF = Need Fonds, Archives of Ontario, MU 2186.

PF = Pammett Fonds, Peterborough Museum and Archives.

SD = Surveyor Diaries, Ministry of Natural Resources.

VTP = Ministry of Natural Resources Township Papers, Verulam, Archives of Ontario, RG 1 C-IV.

WBD = Diary of W.T.C. Boyd, TUA 01-019.

AJHA = Appendix to the Journal of the House of Assembly of Upper Canada.

- BC = Bagot, Sir Charles. "Report on the Affairs of the Indians in Canada, March 20, 1845," in Appendix to the Sixth Volume E.B. O'Callaghan, ed. The of the Journals of the Legislative Assembly of the Province of Canada. Montreal: G. Desbarats & T. Cary, 1847.
- DHNY = Documentary History of the State of New York. Albany: Weed, Parsons & Co., 1850-1851.
- JR = Thwaites, Reuben, ed. The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit Missionaries in New France, 1610-1791. Cleveland: Burrows, 1896-1901.
- NYCD = O'Callaghan, E.B., ed. Documents Relative to the Colonial History of the State of New York; Procured in Holland, England and France. Albany: Weed, Parsons & Co., 1853-1887.
- *RP* = Cruikshank, E.A., and A.F. Hunter, eds. *The Correspondence of the Honourable Peter Russell with Allied Documents*. Toronto: Ontario Historical Society, 1932-1936.
- WHD = Thwaites, Reuben, ed. Collections of the State Historical Society of Wisconsin. Madison: Wisconsin State Historical Society, 1854-1931.
- WJP = Sullivan, James, et al., ed. The Papers of Sir William Johnson. Albany: University of the State of New York, 1921-1965.
- 1 Elsbeth Heaman, "Michael Bliss and the Delicate Balance of Individual and Society," in Elsbeth Heaman, Alison Li, and Shelley McKellar, eds., *Essays in Honour of Michael Bliss: Figuring the Social* (Toronto: University of Toronto Press, 2008), 32. Donald Fyson, "Blows and Scratches, Swords and Guns: Violence between Men as Material Reality and Lived Experience in Early Nineteenth-Century Lower Canada," Paper Presented at *Canadian Historical Association* (Sherbrooke, QC: 2008). Available: www.profs.hst.ulaval.ca/dfyson/Violence.htm

² Joshua 9:23, NIV.

³ John Robert Colombo, Canadian Literary Landmarks (Willowdale: Hounslow Press, 1984).

An Introduction to the Land of Shining Waters

The identity of the Kawarthas unites around the waterway—draining from the north country through the Burnt and Gull Rivers; from the south through the Scugog; meeting in Balsam, Cameron and Sturgeon Lakes before flowing east via Rice Lake and the Trent River to its outlet at the Bay of Quinte on Lake Ontario. Pleasure craft sailing these waters also descend through Lake Simcoe and the Severn River to Port Severn on Georgian Bay. The Trent-Severn caters to leisure—water-skiers, cruising powerboats, yachts, seadoos, canoes, kayaks, and tour boats. The waters are renowned for bass and musky. While the winter lull contrasts the summer boom, the lakes remain alive as giant backyard rinks.

The countryside rises above the lakes—fields crisscrossed with fencerows, and interminable stone piles—many fields in the Kawarthas are still littered with stone. One does not travel far without encountering a business mining the region's wealth of sand, gravel, paving and landscape stones. Most farms, particularly in the north, raise fodder crops (or whatever happens to grow as forage) and livestock. It is cattle country and has been for generations. To the south there are more cash crops. Throughout the region farming is a way of life, less commonly a way to make a living. Farmers have to be clever to pay their way in their fields, and an assured market like dairy quota certainly helps. Family farm livelihoods have seemed to be less certain since muscle power ceased to drive operations.

Many of the region's farms reflect the trials of their masters' ventures. Where grazers and their hoofs, haybines and Bush Hogs have not fought them back, junipers, hawthorns, apples, and buckthorns give the land a scruffy appearance. In rougher fields this brush is the opening foray of the forest's ongoing reclamation of grassland. Most farms have woodlots. A few are original, having persevered through the generations of farmers carving themselves arable land. Some cover rough or wet terrain—often reflecting the cedar, maple, basswood, hemlock and pine that once characterized the region. They vary through multigenerational to relatively young woodlots, which have a much higher proportion of poplar. Sawmills catering largely to local clients are scattered across the townships, though almost none of the major retailers' lumber is local.

Outdoor life in its various guises endears the Kawarthas to residents and visitors alike. A love of the region—expressed through trips on ATV or Skidoo, country drives through rolling hills, hunting, fishing, an evening on the porch or overlooking the lake—unites sensibilities as varied as the region itself. Cottages and mansions ring the waterway, while retirees and country estates surround family farms. If there is an identity that coalesces for this region, it is of a genteel, cultivated place, in contrast to the rugged Muskokas.

As much as the pattern of land uses in the Kawarthas resembles a patchwork quilt, so does the soil itself. Within a few acres one might encounter fertile sandy or clayey loam of considerable depth, gravel, muck, and exposed bedrock. Even after generations, locals might not know what to expect until shovel meets soil. Though characterized by limestone as the region was under lakes or seas at several points in its history, it is close to the fringe of the Canadian Shield and permeated by outlying gneiss as at Red Rock. This diversity reflects its place at the end of the last glaciation.

The Kawarthas were a focal point as the Laurentide glacier retreated from southern Ontario. The two main lobes (Lake Simcoe and Lake Ontario) met, forming the Oak Ridges Moraine—16 kilometres wide, 160 long and 1400 feet high, running roughly parallel with the north shore of Lake Ontario about 15 to 20 kilometres back. As the material deposited there drains freely, many tree species do not grow well, inclining the area towards grassland, or oak, pine or cedar savannah. Ice flow and deposition profiled the hills of the Peterborough Drumlin Field. They tend to be an agglomeration of silt, sand and small stone, similar to soils in some flatter regions, like southern Verulam township. Meltwater pooled in Lake Algonquin, the Schomberg Ponds and Lakes Otonabee and Peterborough, whose sediments formed plains of stratified sand, silt, and clay. About 12,000 or 12,500 years ago, it seems a block of dead ice was left behind, which decayed, dropping the gravel, sand and boulders of the Dummer Moraine-a series of hummocky hills often fifty and sometimes a hundred feet high interspersed with swampy lowlands. The twenty kilometre wide moraine runs east of Coboconk and Fenelon Falls about 180 kilometres as far as Sydenham, covering the transition to the Canadian Shield. While this moraine and the drumlins have a concentration of silt and clay, meltwater in the ice concentrated pockets of sand and gravel that are mined for

aggregates. Shield country to the north is ancient mountains, eroded to become rolling hills, interspersed with ridges, gullies, lakes and rivers.

Around 11,500 to 12,000 years ago, the ice retreated, opening an outlet for Glacial Lake Algonquin—which covered the basins of Lakes Superior, Michigan, Huron and Simcoe—through a narrows at Kirkfield, controlled by the sill at Fenelon Falls, on its way to Lake Iroquois (in the basin that now contains Lake Ontario). At Fenelon Falls, it cut channels 20 feet deep and 30 feet across through the limestone, and uncovered rock over a larger area. This outlet closed 11,200 years ago, probably due to isostatic rebound.¹ The mosaic created by the lakes and glaciers endured as a basis for human activity. In many places it was a deciding factor in the vegetation, forests, topsoil and surficial stones.

The waters of the Kawarthas Lakes drain through the Trent River. Most of Haliburton County is tributary to the Burnt and Gull Rivers, which flow south to Cameron and Balsam Lakes. Balsam Lake descends east through Cameron Lake into Sturgeon Lake, where it meets the Scugog River, flowing north through Lindsay. Sturgeon is the first of a series of finger lakes—Pigeon, Buckhorn, Chemong, Clear and Katchewanooka—that originally drained to the southwest, before the formation of Oak Ridges Interlobate Moraine forced water to the east instead. Following the Otonabee River through Peterborough to Rice Lake, the Trent River then follows a circuitous route to Trenton on the Bay of Quinte, which winds its way around Prince Edward County to Lake Ontario.

Towards the upper end of the Kawarthas are Fenelon and Verulam Townships. These two townships surround Sturgeon Lake and the villages at either end, Fenelon Falls and Bobcaygeon. Fenelon Falls is a 20 foot waterfall, with the settlement on either side. Bobcaygeon is situated on both shores and islands in the rapids separating Sturgeon and Pigeon Lakes. Just to the south of these townships is the town of Lindsay, above another ingress of Sturgeon Lake. While the western end of Fenelon Township tends to be more level, much of this area is rolling hills. In North Verulam, a series of hills and valleys runs north to south. Emily Lake flows north through Emily Creek and its fen vegetation—a rare biota for southern Ontario—to Sturgeon Lake.

The Kawarthas that we take for granted today—leisure on the waterway, an agricultural countryside with grasslands covering the rolling hills, patchy woodlots

creeping back over the fields—would be foreign to its Ojibwa inhabitants of two centuries ago. While the contrast between pioneer and present is deeply embedded in the popular psyche, the scope of the reconstruction—at once environmental, economic, social and cultural—wrought over the course of the nineteenth century is not so well understood.

This revolution was deliberate and emerged from a host of ideas that shaped new ways of life. As a collective project, it was embraced by almost everyone in the incoming society—imperial and colonial officials, their gentrified peers, yeomen farmers, tenants and labourers. In its early stages, it brought together an assortment of single men and families, generally young and to varying degrees adventuresome. Beyond any yearning for the pioneer experience, they strove to secure a better place in a world not too different from the one they had left behind. One of the strongest ideals they carried was a sense of Britishness, and for many elites, a particular Englishness. Resettlement in the Kawarthas began in the generation after the War of 1812, within a political culture often looking to differentiate itself from the United States.

Their society sought more or less to re-create the British agricultural landscape which, coupled with the practices that created it, was valorized above almost everything else. The early settlement of the Kawarthas was unusual in having a conspicuously large number of single young men who crossed the ocean that they might raise themselves to the status of gentry. Most of them had some ancestral claim, but were poor for their pretensions—in certain circles the combination of polished manners and destitution was a sure sign of family status. They envisaged living off the profits of landed estates—a peaceful, contented life directing the affairs of a beautiful manor and their community. Their dreams failed quickly and often farcically.

Neighbours of these young men who did not share their pretensions still sought similar ends—one of the most powerful idylls of modern times. They wanted to be masters of their own soil. Their estates would share much with the gentry's—the prominent, tasteful house, orchards, neat fencerows, and functional barns. They likewise hoped for an independent, peaceful country life. Their homes came from a vernacular tradition imitating the fashions of their more affluent neighbours—though executed without such precision to abstract ideals and with much more reference to their own

building traditions and exigencies of materials at hand. Their farms derived more from the sweat of their brows, though their self-sufficiency in produce relied on continual mutual aid through community bees. The family farm was an economic foundation, carrying a sense of domesticity and requiring a staid way of life.

They saw themselves as going, literally, from wilderness to a land of milk and honey. In so doing they would be following common agricultural practice. As ploughing rid fields of weeds preparatory to cropping, they produced a *tabula rasa*—there was very little in the pre-existing world they wanted to keep. Plants were in the way of crops, birds were often thought of as prey or potential pests raiding crops or seeds, and this society wanted to rid their new world of predators as their ancestors had done in Britain. This reasoning left little place for Ojibwas, whom many assumed would dwindle away. In this sense the landscape was empty—empty of an essential characteristic that immigrant society collectively sought. So strong was this conception of starting fresh that in the longer run 'the environment' and 'natural' came to mean 'what was there before' or would exist without agricultural settlement. Ojibwas were seen as either natural or very closely associated with their environment, the basis of another modern idyll.

To the end of the century and beyond people tried to make the countryside 'English' or 'British,' even on the minutest scale. They stocked the waters with fish resembling those back home, raised familiar trees, plants and flowers, introduced European birds and hosts of other species. Idealizing their old world society, they projected a feeling of superiority towards their new neighbours, which, when reciprocated, entrenched divisions. But this separation obscured the degree to which the Kawarthas grew together and how all its residents produced the emerging landscape jointly. Bent on revolution, these Europeans often struggled to see how far the world they found was from its 'natural' state, how much Ojibwas were growing along with them, and how influential natives were in the emerging world.

As much as settlers often wanted to remould their new homeland in the image of their old, there was also a sense that this was an unprecedented opportunity to make a better life. Rationality was an ideal shared by the gentry and government who set about planning colonial society. It was associated with extending the influence of state apparatus. 'Peaceful subordination' was expected for an increasing range of everyday

activities, even though official assertions of sovereignty were far from reality for much of this period. This meant formal organization, premised on fixing people's location. 'Rational' was abstract, external and was detached from lived experience in the Kawarthas. As government officials moved away from patriarchy, their concept of 'impartiality' was in many ways similar, sharing a blindness to local circumstance.

Rationality often implied standardization. As problems in everyday life were abstracted, it was but a small leap to see their solutions as being universal, or at least nearly so. Everything from kitchen utensils, toys, paints, farm layouts, ditching patterns, interior finish, to sawmills became standardized. Balloon frames standardized home building; sewing machines for clothing manufacture; rod and reel for the fisher; and MacAdam showed the way for road building. Towards the end of the century came more litigious regulation of everyday life. Produce was likewise abstracted into commodities. Crops like wheat, barley and oats, pine lumber and ship timber were classified, and the output of thousands of hands made interchangeable. In livestock, not only were animals marketable based on breed, but even on line or degree of relation to a particular individual. All of these commodities then became subject to improvement based on a finite number of factors—whether Red Fife wheat or Polled Hereford cattle.

The general thrust was towards market-oriented production, trade and specialization. For an age that prided itself on industrial accomplishments this implied turning the landscape and economy into a sort of machine. Mechanization was a sign of progress throughout the economy, notably in farming, forestry and transportation. This required more expensive and specialized inputs and a greater reliance on markets for ever larger outputs to meet production expenses.

While industrial concepts in many respects grew from British agrarian ideals after all, little was seen as more praiseworthy than rational, scientific agricultural improvement—these ideals had tensions between them. Rational and industrial concepts, often associated with urban life, ultimately portended the agricultural idyll's decline. While family farms required very diverse production, improvement encouraged specialization, and, with mechanization, perhaps even monocultures. It promoted impersonal and distant structures of production and consumption, as well as the decline of

both informal exchange of labour and a lifestyle that required proficiency in producing most necessities.

By nature, these abstract models considered limited numbers of factors, and were implemented in the form of universal schemata. This generally meant a standardization of the landscape—land was put into categories, used in common ways, laid out in predictable patterns, and produced ecologies with similar traits. Though the rational programme assumed homogeneity, the Kawarthas were a place where local conditions were extremely important. Because the region was so variable, the idealized agricultural landscape met real environmental challenges. Immigrants could not assume that all land was farmland.

Many of the improvers' schemes did not prove as beneficial in practice as in theory. Improving agriculture rarely paid, and where profits were realized it was often through the willingness of farmers to pay a premium for claims that a certain innovation would bring far reaching benefits to their operations. In livestock, for instance, great prices were initially paid for purebreds-often far higher than the stock could ever realize except through breeding more stock to be marketed at comparable prices. While farmers were sold on potential profits from raising stock at inflated prices, purebreds came to occupy much the same place in the market as scrubs formerly had. Early purebreeding also had its downsides, as it often became synonymous with (sometimes severe) inbreeding. In the Kawarthas, as elsewhere, 'improving' animals involved birth defects, miscarriages and sterility-mirroring the famous example of the Duchess Line of Shorthorns, so purely bred that they were thought by many to be the finest in the world until they were no longer able to reproduce, and went extinct. Genetic diversity was under attack on several fronts-not only were lines of pure blood produced, but by the end of the century, many species were thought to have a few superior breeds, though many farmers continued to raise scrubs. Their efforts, however, did produce great physiological developments and gave farmers the confidence of knowing what to expect with each breed.

'Rational' agriculture required systematic farm layouts, difficult as they were to implement in the nineteenth century. Almost all theorists would agree that each part of the farm ought to be devoted to a particular type of produce—albeit often only for one

season before rotation. While monocultures were orthodox farming practices in the twentieth century, they were difficult to create in the nineteenth. As stumping machines did not come into common use until the 1880s or 1890s, clear fields were almost unheard of, and the task of keeping down weeds without herbicides, while ploughing around stumps, was all but impossible on even a moderate sized farm. Industrious nineteenth century farmers waged continual war on pests, weeds and birds suspected of interfering with their crops—battles that were seldom winnable without mechanical and chemical weapons. Farms, out of necessity, were much more 'natural' in habitat than is often presumed, and as generations passed a better appreciation of which species were actually detrimental to productivity was gleaned. Especially among birds, many former foes turned friend.

Visionaries prophesying tremendous benefits for humanity through careful planning and diligent work underlay the optimism of the era of progress. Seeing the benefits of the agricultural and industrial revolutions, and anticipating the passing of the era of wood in favour of iron and steam, the Kawarthas grew amidst tremendous expectations. Foremost was the continual hope that the Trent-Severn Waterway would be rapidly developed and capture the eastbound commerce from the upper Great Lakes. 'Growthism' was often not far from the thoughts of local promoters, and their expectations could be fantastic— Lindsay was going to be the "Canadian Chicago." The hamlet of Cambray, situated nearby would become the next Minneapolis "in the near future."²

Rational management and the drive for progress combined to push tremendous increases in efficiency. This entailed intensified land use—eliminating 'waste,' 'empty' or unsettled lots, striving to produce from as much of each lot as possible, and increasing per acre yields. Workdays were lengthened with artificial light. Industrially there were plenty of improvements, as sawmills went from muley to circular to band saws, often combined into gangs, ripping through more boards with less kerf, using less water or steam.

Though environmentalists often like to imagine that economies in bygone days were sustainable, this was far from reality. It can be taken for granted that many of the hot-button environmental issues of today were inconsequential then. Yet at no point in the nineteenth century was the economy such that people could carry on living without a change in their relationship to their environment and expect similar results, or even be

sure to survive. Every major sector of economic activity—the fur trade, agriculture, domestic life, forestry, hunting and fishing—had its strains. Growth and evolution was the basis of this economy—the nineteenth century boom was premised on migrants sailing the Atlantic in search of new homes. As progress underlay settler society, the drive would continue.

Nineteenth century progress was largely measured through materialism, and by that gauge there was an enormous improvement in standards of living. So many products that were dear or unknown in the upper Kawarthas in 1840 were commonplace fifty years later. Sawn lumber, lead paint, shingles, stoves for heating and cooking, mattresses and cupboards, once signs of pretension, became standards in housing. On the farm, cultivators, mowers, horse rakes, seeders, reapers and threshing machines cut into the amount of manual labour. In the woods the crosscut saw played a similar role, as did treadmills, washing machines, spinning wheels and cookstoves in the house.

One of the greatest changes came in diet, as farms produced on such a scale that surpluses strained the system more than dearth. Subsistence difficulties were overcome by a massive increase in productivity, coupled with the interconnection of distant economies. Overall the variety of foods consumed diminished. In summer and fall, traditionally the time of plenty, not as many types of food were consumed as wild gathering declined. But in times of want, for Ojibwas and settlers, a much greater quantity, quality and variety was available as better traditions of food preservation were worked out. By the end of the century, ever more people were living in an era of plenty or even excess.

Nineteenth century progress also brought better long-distance transport. While steamboats were fast and economical in shipping heavy goods, the railway was close to an ideal in removing friction from the equation. The contrast to human power and oxcarts binding in muck and stumps was apparent. In part initiated by the timber industry, the waterway also pushed towards an ideal of zero water fluctuation, and hence consistent ice-out to freeze-up navigation. By the end of the century the local economy was linked to international markets for a host of commodities and consumer goods, which slowly but surely restructured local production and purchasing practices.

Even as the systems of long-distance transportation were connecting the Kawarthas to the cities of the front, and ultimately global networks, life in the Kawarthas

often remained quite circumscribed, especially in the farm communities. While steamships and railways could rapidly span great distances, most travelled on foot or with their horses. While some businessmen constantly traveled to other centres, many villagers seldom had reason to travel further than Lindsay. Farmers, on the other hand, frequently went weeks at a time without leaving their neighbourhoods. For those in North Verulam, for instance, a trip to Lindsay would be a special occasion indeed. In farming communities life centred on these neighbourhoods.

But at the same time, the nineteenth century Kawarthas were part of a globalizing world. The great timber firms shipped to the United States and Great Britain. Farmers husbanded plants and animals from around the world. They employed machines manufactured from the patents of distant inventors, while increasing quantities of brand name consumer goods were shipped to the region by the turn of the century. Distant governments implemented policies to regulate settlement, agriculture, forestry, Ojibwa's affairs, development of transportation facilities, hunting and fishing. These communities were also part of expansive cultures that shaped almost every aspect of their daily lives. So even as migrants came to the isolated neighbourhoods of the backwoods, they were making steps towards creating a more global world. From postal service and better stores to the iron horse and gravel roads, many gladly accepted new opportunities. Greater integration into long distance, even international networks was a major part of the local course of development.

Of all the tasks that the government undertook in the nineteenth century, implementing abstract, rational, progressive concepts of land use ranked among the most important. As landscapes may form a lasting monument to the societies that created them, the grid of southern Ontario is a manifestation of its mindset. Yet, perhaps fittingly, in the Upper Kawarthas, the grid is rarely as rectilinear as intended, and in places the execution was bad—representative of the difficulties of translating the abstract ideals to the backwoods. Nevertheless the grid shaped the broad outlines of settlers' labour as they hacked out an agricultural landscape.

Redistributing lands was initially the largest sector of the settler economy and came to focus on promoting 'actual settlement.' The antithesis of good, honest, hardworking settlers in public rhetoric was the land speculator. Even with a stated policy

of keeping property out of the hands of private dealers, there were few who knew better how to manipulate the system for their (perceived) financial advantage than colonial officials and their genteel peers. While township after township was distributed with the stated intent of populating the countryside with hardworking yeomen, many districts remained sparsely populated. In the Kawarthas, the transition from first treaty to relatively dense settlement of the upper end of the waterway was about eighty to one hundred years, and about fifty to seventy from the second major treaty—much longer than its promoters had anticipated.

In the meantime the landscape was in large part a product of speculators' dreams or fantasies. Aspiring gentlemen who thought that they could live in luxury off the profits of flipping land were ubiquitous, and they became some of the most effective local promoters. An important part of their business was developing local infrastructure that might attract emigrants. But in the Kawarthas, those who did not couple their investments with more reliable ventures were unsuccessful. Yet they went a long way towards shaping early communities, while the pace and pattern of resettlement was intimately tied to their businesses—it could not have been otherwise when they collectively controlled most of the land, often holding lots for decades. Since these speculators were constantly trying to get a price that few were willing to pay, much of the early settlement occurred on what land remained in the hands of government—ironically that portion maligned as impeding settlement in the political debates of the day, often by politicians who were also land speculators—and to a lesser extent through squatting.

Progress was undoubtedly slow for many of those who had to labour. The first couple of decades produced little more than scattered clearings throughout the bush, but as they toiled they slowly came to know their new environments and learned a way of life suited to their new homes. By and large it would be the next generation that enjoyed fruits of their parents' laborious lives. Chopping was often the way of life, whether the ultimate produce was (hopefully) arable land or timber, reflecting the close link between agriculture and the forest industries. It is no coincidence that the agricultural countryside came together as the Trent became a major artery in Canada's wood economy and as Mossom Boyd was clawing his way towards being one of its major players. Then growth of farm and village economies noticeably accelerated. While family farms were the bulk of the new society, mills were the only big business. They provided markets for produce, drove the development of villages, employed farmers (especially those with a team of horses) over the winter; and brought many workers to the region.

In the first generation, farming in the Kawarthas had little in common with prevailing ideals, and it became the norm for writers, particularly travelling Britons, to denigrate Upper Canadians' lack of conformity to fashions back home. But most of those customs were unworkable in new farm communities. It was one thing in England to preach subtle systems of nutrient and crop cycling or criticize inadequacies in manure handling, but in the backwoods to pasture stock in the small enclosures that represented the totality of a farm's arable acreage was unthinkable as long as the crops were on. Turning forest into farmland using only muscular power was a Herculean task that was inevitably rough around the edges, reflecting the farms of the day. Bush farming had a logic of its own, whose underlying mantra was to tame the forests.

The nineteenth century farm economy rapidly evolved. An agricultural landscape was just beginning to take shape around one hundred acre lots that were plenty large for farmers who were not conspicuously ambitious—limited by the speed at which crops could be taken off by hand, before the mechanization of agriculture began. As horse or even steam power replaced manual labour, it changed the calculus of family farm economies. Though the initial labour savings were not so large as might be supposed, it was not long before the hundred acre farm did not seem so grand anymore, and the expenses of better living that the new materialism proffered pushed some farms towards a more market-oriented outlook. While a commercial outlook was fashionable in public discourse, a solid core of farmers remained lukewarm in its embrace. Nevertheless, many believed in the tremendous possibilities of revolution, particularly those who had money to play with.

The forest economy was not nearly as fashionable, though it could be extremely lucrative. The potential for great rewards was matched by the extreme inherent risks. Life as a timber baron was almost tantamount to gambling, and the sharpest were shrewd enough to manage the odds in their favour. The money, and much of the work was at first concentrated largely in timber for export via Quebec to Great Britain—an extremely uncertain business that entailed overcoming the enormous distances from Bobcaygeon to

Liverpool or Glasgow. Here profit margins were smaller than market fluctuations. Lumber was initially a sideline, consuming some of the better trees that were not good enough for timber. In the second half of the century, the American lumber market opened in response to new building techniques. As balloon frame houses became orthodox, lumber was exported to areas lacking necessary materials. Settlers poured into the prairies just as cheap, rapid, long-distance transport made it possible to ship millions of board feet. Square timber output declined as lumber boomed, lasting as long as the right trees for the business model did. As there were millions to be made ripping pine, there were also millions to be paid acquiring pine. Lumbermen lived to see standing timber transformed from a worthless nuisance in the eyes of farmers to a product more valuable than some land it covered—especially in Shield country.

Forestry compelled waterway development. Much improvement of the Trent was undertaken to get timber cribs to Lake Ontario. Large firms oversaw early efforts to control water flow, coordinated to their drives. Lumbermen, particularly the Boyds, also developed systems to control water levels to assist navigation. Much of the traffic on the waterway was wood. Yet, a grander vision of a waterway transcended these practicalities, dating back to the earliest days of Upper Canada and lasting until the waterway was completed: Lake Ontario and Lake Huron should be connected via the Trent and Severn watersheds, essentially following the native transport route. It did not take long for boosters to conclude that the waterway would capture western shipping and bring great prosperity to the region. This dream was accepted gospel in the Kawarthas—exactly what local progressive minds wanted to hear. It was much easier for residents elsewhere, particularly with interests in other potential canal routes, to be sceptical. In local politics this issue could move mountains—from the first (conservative) estimates that were easily enough to bankrupt the Upper Canadian administration until the years when the final links were made only because they were the meat of pork-barrel politics.

The profitable waterway of cross-continent carriage was always far from the realities of the Kawarthas. Throughout the century the waters played a critical role in the subsistence economies of Ojibwas, and to a lesser degree settlers. But with regular steamboat service in the 1870s came cottagers, many more tourists, and an expectation that the waterway would be associated with leisure. The predominantly genteel

proponents of recreation argued that subsistence hunters and fishers were depleting stocks—all the while showing off their own astounding catches. Their claims that different killing seasons had unequal effects on population had some merit, but this became the standard argument against hunting and fishing for food in general. Their case carried the day in the public debate, triggering generations of crackdowns. This contradicted the understandings that had been reached at the treaty councils, producing continual political challenges from Ojibwas. Imposed upon to conform to a law that threatened their livelihoods and violated the entente that had underpinned their acceptance of settler society, many Ojibwas chose illegality. But they were rarely convicted amidst popular acceptance of their rights, though the issue simmered for generations. Settlers who relied on hunting and fishing for their livelihood were out of luck, unless they too were good at dodging wardens.

Though the mission to reshape the Kawarthas into a countryside of family farms dominated settlers' ideas and public discourse, society realized there were drawbacks to the process. Many wondered about the place of natives in the emerging countryside. Over-exploitation of resources became a standard charge against most important economic activities—the fur trade, forest industries, agriculture—masking contradictory events. These challenges underpinned powerful and enduring political campaigns that sought to smooth the rougher edges of colonization.

Despite concerns over the excesses of the process, great progress was made on many fronts towards securing a more comfortable material life for inhabitants of the Kawarthas. Not since glaciation had the Kawarthas seen a revolution so thorough as nineteenth century resettlement. Its pace was astounding, especially considering the work involved—largely accomplished over the sixty year period from about 1830 to 1890. In many ways it came to resemble Britain. Never a guaranteed money maker, timber brought unheard-of wealth to a few lucky and prescient firms. And at long last the waterway came together. But with so much progress towards ideals espoused since the start of the transformation, it was hard for many to see the degree to which the landscape was syncretic. The new face of the Kawarthas incorporated much of the old.

British migration and sovereignty claims are usually thought to mark the end of Ojibwas' way of life: material realities apparently followed relative political power,

settlers produced an ecology that made former native practices impossible, change for natives came early in the process of settlement through desperation and the destruction of their livelihood. But the treaties and the vanguard of settlement did not end old economic practices. Early developments probably affected native peoples' ability to harvest salmon, but this was much less important for Ojibwas after their migration to southern Ontario in the early eighteenth century. Though the progress towards a farm economy was very rapid considering the work involved, it was literally a lifetime for those who laboured. Few who could recall even the second treaty would live to see dense settlement in the neighbourhood of Curve Lake and the Upper Kawarthas. Around Hiawatha the change came more quickly, but this did not require an end to Ojibwa material culture. The patterns of land use in the farming, hunting, fishing and forest economies were distinct enough to allow co-existence. Troubles did arise when narrow official conceptions of land use neglected the breadth of economic activity in the Kawarthas and ways that different economic sectors could be mutually beneficial. Despite these persisting irritants, Ojibwas carried on with many traditional life practices to the end of the century, taught their new neighbours how to live in the Kawarthas, and took part in the ongoing evolution of material culture. Ojibwas showed the greatest evolution towards European customs in the 1820s and 1830s, before resettlement in the Kawarthas was by any means prevalent. Later, as the agricultural countryside filled in, more Ojibwas neglected the lessons from missionaries and settler society—in large part because many had not proved particularly well suited to their circumstances-seeming to be somewhat deflated after a measure of hope. They could have been farmers and could have worked in the forest, but these were usually not their best prospects. Possibility was as important as impossibility in the changing lives of Ojibwas.

During the nineteenth century two species declined that had been important in Ojibwa economies. By the beginning of the nineteenth century, the fur trade had become an integral part of their day-to-day material lives, and beavers were the most important species for putting clothes on their backs. Aside from shot, powder and traps the most common trade goods were cloth and blankets, which were worn for winter warmth. For centuries there had been a perception that a catastrophic decline in beaver populations either had occurred or was occurring. In the context of a long-standing tendency to

overstate the reduction of species—for generations trappers continued killing substantial numbers after the animals had purportedly been wiped out—it is difficult to trace actual population dynamics. While beavers became scarcer over the nineteenth century, the trade eventually ended when the market disappeared, because of regulation and changing fashions. Wild rice, Ojibwas' staple grain, all but vanished near the end of the century, from a combination of predation by invasive carp and changes in water levels from the Trent-Severn Waterway.

While these two species had particular economic importance, they were but a small part of the transformation in the biota of the Kawarthas. Many species went extinct, coincident with a tremendous influx of introduced species. Estimates vary, but it seems that somewhere around a third of all species present in the area by 1900 had come with resettlement or were deliberately introduced to create an agricultural society. Many were closely associated with European ways of life: Horses, house mice, and burdock. Some appeared before the first deeded settlers. Colonialism brought a host of species to every continent, and the Kawarthas were one step in this journey.

Europeans' success at introducing plants and animals around the globe has led some to conclude that it must be related to inherent advantages of the species. In retrospect it is easy to look at the results and assume a degree of inevitability. But the fanfare accompanying the triumphal march has often drowned out discussions of how they could possibly achieve it. Colonists throughout America and the Imperial worlds painstakingly produced the biota that underpinned turn of the century farming. Many common British farm crops and livestock that are mistakenly assumed to be the ones found in colonies failed when they were first introduced. As a result new strains, many derived from native American plants and animals, had to be created—grapes, turkeys and raspberries. As farmers created a biota reminiscent of Britain, to stock British-style farms, similarities in their produce's appearance concealed different ancestries.

As much as the species content had changed, their distribution was manipulated to an even greater degree. Most of the countryside became farmland, focused on supporting introduced species. This required massive but usually selective deforestation, shifting the relative abundance of most tree species. As the forests changed, so did habitat for most other species and the selective pressures they faced. Some productive practices like

ploughing and pasturing livestock at large were themselves strong selective pressures. By the end of the century the fire patterns were certainly not the same as a few decades before. New types of landscape like villages, farms, and slash had unique characteristics. But even the forests and woodlots were affected. Artificial drainage, manipulation of watercourses and runoff transformed the hydrology. This, combined with deforestation, helped end malaria, the most frightening epidemic of early resettlement.

Soils experienced some of the most profound changes, but among the most difficult to observe. The earths that the first farmers found were usually much thicker and richer than those of today—part of the reason why nineteenth century farmers could make a living in places that are considered barren today. In some places the issue was erosion, but the most important factor seems to have been the difference in nutrient cycles produced by deforestation. The amount of organic matter allowed to remain on the soil surface was higher before farms were chopped from the bush, and the breakdown of soil organic matter was slower, particularly before ploughing. It was not long before farmers began looking for fixes. The changes in the nutrient cycles themselves were significant, particularly that of carbon. When considered on a worldwide scale, the carbon compounds released into the atmosphere through the colonial expansion of agriculture caused significant changes in atmospheric CO_2 concentrations, and hence in climate.

Several other by-products became heavily concentrated. Sawmills were known to coat waterways with sawdust and mill slabs, particularly before the more stringent regulations in the last quarter of the century. Waterways provided a convenient place for a host of industries—such as wood alcohol distilling, tanning, and paper making—to dispose of their wastes. Many released compounds originally derived from trees, but at a much higher concentration than their natural occurrence. Private citizens were not much better, often allowing their waste (human or otherwise) to wash away. Serious illnesses from waste disposal were frequent.

Despite these imperfections, the changing face of the Kawarthas in the nineteenth century ultimately coalesced into a way of life—culture, society, ecology and economy—suited to the region. It would always have its stresses, was bent on change, and would continuously evolve. Much of it reflected ideals that the immigrants had brought with them, but by the end of the century this was coloured by hard-won experience. When they

first arrived progress was slow as there was a lot to learn on the way to making farms and a farming society. We might imagine that as they chopped their first acres, many were left asking how they would ever finish the job. Their destination was a long way off, but many had invested so much in getting there that they probably saw little choice but to persist. Persevere they had to, and many did. As rough as the course began, over the next two generations, settlers and Ojibwas alike travelled paths that revolutionized their material lives.

WA, March 3, 1893. CP, March 12, 1875.

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1. Gamiing: The Happy Hunting Ground

The Kawartha Lakes of bygone days, in the recollections of the eldest residents of Curve Lake, were the happy hunting ground. Excellent for hunting, fishing, trapping, frogging and gathering, it was a place where even the elderly could find food. Families gathered around fires cooking venison, muskellunge, wild rice, or frogs, with a great assortment of vegetables. Present day political concerns were not then an issue, and there was freedom to pursue a way of life that many still nostalgically recall. There was no shortage of people who recognized the pleasures of their occupations—whether it was Ojibwas recounting their hunting stories or Europeans observing how so many of their daily pursuits resembled genteel leisure activities. Yet life was not easy before the resettlement of the Kawarthas. They had to devote a lot of time to parching rice, harvesting beavers and doing quill work. It is important to appreciate how far a dead deer was from a pair of moccasins, a birch tree from a canoe, or the woods around Sturgeon Lake from a deer fence. Like most economies of the time, Ojibwas' productivity relied on continual manual labour.

Early nineteenth century Ojibwas' economies differed from many temperate contemporaries, dedicating a low proportion of their work to manipulating large-scale characteristics of the surrounding landscape. Scholars like Allan Greer and Robert Boyd make a point of asserting native agency in the landscape—frequently citing deliberately set fires. But it is difficult to find any evidence that Ojibwas in south-central Ontario ever torched their countryside, aside from perhaps the Rice Lake Plains. This meant that the early nineteenth century Kawarthas was close to what it might have looked like if it was uninhabited—prompting many newcomers to associate that ecology with 'nature.' In the context of what followed—the immigration of a culture determined to radically re-create the world it found—this trait contrasts sharply. The Kawarthas had little population pressure, even by Native American standards. Three to four hundred lived there at the time of the earliest censuses of the 1830s and 1840s, of a total Ojibwa population of about 4000.¹

The Kawarthas were nevertheless very much the home of the Ojibwas and bore the imprint of their society, particularly along the waterway. They spent their lives, by and large, near the water or on the margins of the lakes—a place they might call *gamiing*.

There were three villages in this region—Rice Lake (earliest population estimates between 110 and 160), Curve Lake or Mud Lake, and Washburn Island on Scugog Lake (both 80 to 110). Much of the variation in population came from people moving between villages. Their size was within Ojibwa norms of the day,² in keeping with what the summer fishery and rice fields would reliably maintain. These two factors influenced the sites chosen for settlement, all three villages being well endowed.

The early nineteenth century Ojibwa economy revolved around harvesting plants and animals—very little of it agricultural. Wood, roots and (especially birch) bark underpinned much of their material culture. Their diet contained a greater variety than today, but less than neighbouring groups to the south because the colder climate reduced the diversity of edible plants.³ The variety came largely in seasons of plenty—summer and autumn. Their choices were not so appealing in winter and early spring, lacking in diversity, quantity and reliability. The bounty of seasons of plenty and the severity of want depended on the year. Concentrating and dispersing throughout the year, their seasonal harvest cycle incorporated a large amount of travel.

By the time the waves of European migration reached the Kawarthas, Ojibwas were already incorporated into global trading networks through the fur trade. Many have suspected this exchange made native societies dependent on European empires. That the fur trade was an integral part of Ojibwa society by this time was beyond doubt, but it also brought opportunity. The goods that could be got for a pelt represented far more labour than trapping took. It can be deceptively easy to assume that Ojibwa lives followed the balance of power, and see the British Crown as a pervasive, deleterious factor. Imperial maps painted red are thought to equate with severely disturbed Ojibwa communities. But their impact was necessarily limited when the resident population of colonists was two or three fur traders married into the Ojibwa community. Into the nineteenth century, probably the most common interaction of Ojibwas with the Crown was gift exchanges.

The fur trade had introduced some uncertainty to Ojibwa material life, subjecting it to exigencies of the market, though prices (at least for legal exchanges) seem to have been less variable than those received by re-sellers. Adjusting to the comings and goings of plants and animals, the general pattern of their lives was nevertheless fairly continuous, even back to their time in northern Ontario. The most commonly cited environmental

stress, the extermination of the beaver, seems to be overstated. There was no real prospect of eliminating beaver locally, though the fur trade reduced the population. Much more than the colonial lifestyles then spreading across America, Ojibwas showed long-term continuity and had evolved to suit the environment of southern Ontario and the Kawarthas. In this sense, writers of the day understandably saw them as in some sense 'natural.'

Though many aspects of their material culture had antecedents dating back centuries, their lives were changing rapidly long before colonists began streaming to the region and this shifting day-to-day material economy did not augur well for long-term continuity. The Ojibwas were themselves relative newcomers to the Kawarthas. Their seventeenth century ancestors lived around *Boweeting* (apparently meaning at the rapids) or Sault Sainte Marie and the north shore of Lake Huron. They recalled their history as Shawnees in Ohio. At *Boweeting* Ojibwas followed a seasonal round that differed from that their descendents would employ in southern Ontario, in part because of local species availability. They supplemented wild vegetables with small amounts of corn, even though it often did not ripen before harvest. The rapids were the focal point of regional villages that congregated there from spring to autumn, netting whitefish from the churning waters by canoe.⁴

Fishing together and hunting in family groups, the people around *Boweeting* joined in villages of between 80 and 300. Movement between settlements seems to have been fluid, and identity centred in large part around *dodems, nindoodemag*, or totems. They traced patrilineal ancestry, as each person belonging to a dodem was considered the relative of other members of the same group. Beaver,⁵ fish or sturgeon,⁶ crane,⁷ whitefish,⁸ bear,⁹ otter,¹⁰ marten,¹¹ catfish,¹² rattlesnake¹³ and moose¹⁴ were common dodems around *Boweeting*.¹⁵ These people were called Pahouitingwach Irini in the *Jesuit Relations*, but the French commonly called them Saulteurs. A group on the north shore of Lake Huron in the vicinity of the Mississagi River that also fished at the rapids were known by the name Michisaguek, Oumisagi, Missisakies or Mississague. The name Mississauga seems to derive from people living at the river mouth. Originally this probably described the Mississagi River, but once they migrated to southern Ontario it was still fitting enough. In the nineteenth century Allan Salt traced the term Mississauga

to the Trent, Moira, Shannon, Napanee, Kingston, and Gananoque River mouths. Over time their English names became Chippewas or Ojibwas and Mississaugas.¹⁶

Though there seems to have been considerable fluidity between these groupings, the British and French, particularly from the eighteenth century, found it convenient in their affairs to view native communities as tribes or nations. Though reflecting longstanding political groups, these categories tended to marginalize other native identities from European discourse and political relations. Nevertheless, dodems retained much of their significance, particularly in community matters, even as the tribal names became rigid. By the nineteenth century, the British tended to call residents of southeastern Ontario Mississaugas (including those around the Credit, Scugog, Rice Lake, Curve Lake, and the Trent River) and those to the west and northwest Chippewas (including Lake Simcoe). These conventions obscured fluidity between these perceived tribes. Mississaugas considered themselves Ojibwas as well. There is some speculation that 'Ojibwa' may be a corruption of the crane dodem,¹⁷ who form a large proportion of those the British called Mississaugas. Despite being recorded in history as separate tribes, Ojibwas were closely aligned linguistically, culturally, and politically with the Odawas or Ottawas and Potawatamis, calling themselves Anishinaabe. This reflects the fact that these peoples had lived together, mingled and intermarried while they lived at Boweeting.¹⁸

In the seventeenth century, the closest group to the Kawartha Lakes was the Wendat or Hurons. Up to the previous century, their villages clustered around Cameron and Sturgeon Lakes, but by the 1600s they had settled between Lakes Simcoe and Huron. The Iroquois (*Haudenosaunee*, Five Nations, later Six Nations, or *Naadwesi* to Ojibwas, from their word for snake) attacked as the Wendat were reeling from epidemic diseases, and dispersed them in 1649 and 1650. The Five Nations were not long setting up villages north of Lake Ontario—Toniata (near Prescott), Ganneious (Napanee Bay), Quinte (on the isthmus of the peninsula), Ganaraske (Ganaraska River mouth, Port Hope), Quintio (Otonabee River mouth, Rice Lake), Ganatsekwyagon or Ganestiguiagon (Rouge River mouth, Pickering), Teyaiagon (Humber River mouth, Etobicoke) and Quinaouatoua (portage from Lake Ontario to Grand River, Mississauga). With the Iroquois in southern

Ontario, Ojibwas had an indirect trading connection with the English, who tended to offer better prices than the French, and in 1673, a party traded at Ganatsekwyagon.¹⁹

But the Iroquois' stay in southern Ontario was neither peaceful nor long-lived. Within three years of dispersing the Huron they were skirmishing with Ojibwas. This action went badly for the Iroquois, yet they persisted off and on throughout the remainder of the century. Cajoled by the French to attack an English ally, perhaps seeing an opportunity to open direct trade relations with the English, and provoked by ongoing raids, Ojibwas, Odawas, Potawatomis and scattered remnants of the Wendat put together concerted campaigns in the final years of the seventeenth century. Outnumbering the Iroquois, they drove them from southern Ontario, winning battles at the Island of Skulls on Georgian Bay, Rama, Scugog, Pigeon Lake, Curve Lake, Peterborough, Rice Lake, and the mouth of the Trent River. As the fighting reached the environs of Iroquois villages south of the lake, the defenders appealed to the English to intercede with the French to get their allies to stop attacking. Starting about 1700, a series of councils bringing together the colonial powers and residents of the Great Lakes region reestablished peace, despite Ojibwa raids that continued to at least 1711. The Iroquois had to accept Ojibwa occupation north of Lakes Ontario and Erie.²⁰

Ojibwas migrated to southern Ontario almost immediately after the conquest. By June 1700, they had already settled at Ganatskewyagon, and within two years at Toronto and near Fort Frontenac (Kingston). They soon occupied Quinte, Niagara, Head of the Lake or Mississauga, Humber River and Matchedash. Some of the Mississaugas remained at the mouth of the Mississagi River, but by 1736 their population was enumerated as only 30, not counting women or children. The early settlement on Rice Lake was at the Hiawatha Reserve, East Bank of the Otonabee River, on the hill where Charlie Anderson later had his farm and trading post.²¹

The Ojibwas settled into long established patterns. For centuries populations had centred on the waterway, often with settlements at either end of the Kawarthas—Rice Lake and the Narrows of Lake Simcoe. Since the first humans inhabited the margins of Glacial Lake Algonquin while the ice sheets melted into the distance—later venturing to Grand Island or Indian Point on Balsam Lake for chert—the population had usually remained near water's edge. A few resources justified tangling with the old growth forest,

and portage routes were well established, but almost all economic activity took place either on the waterway, at the shore, or within a short walking distance. In winter, hunting ranges were much larger, as wetlands made good snowshoe routes.²²

Ojibwa author Kahgegagahbowh or George Copway, an avid hunter, recalled that game was a major inducement that brought them to the region. Yet in locating village sites, three critical resources, usually found together, determined settlement—wild rice, fish and eels, and game, particularly fowl. The Great Rice Lake, as it was often called in the early nineteenth century, combined all three in abundance. Its rice was so thick that Kahgegagahbowh compared it to "fields of wheat" and naturalist Charles Fothergill observed that "when the Indians go in their canoes to take the grain when ripe they are obliged to back out by the same channel by which they had forced their way into it." He estimated that it might yield 10,000 bushels a year, and also attracted plenty of waterfowl. The muddy, weedy, softly flowing waters home to wild rice were also ideal fish habitat, and Mississaugas, true to their name, often placed villages near river ingress or egress. This troika of resources ensured that the harvest season would usually be a time of plenty.²³

In most seasons, the largest settlement in the Trent watershed was located on the east bank at the mouth of the Otonabee River (as the section of the Trent north of Rice Lake is called). One report states that the village was named Nanabozho, after the quasihuman hare trickster in Ojibwa religion, but there is little other evidence to substantiate this. Otonabee is usually said to come from the Ojibwa name for mouth of the river, but contemporary accounts indicated that it was the name of a whitefish. The long, slender water body is dotted with islands that were the Ojibwas' summer home as much as the mainland, particularly when out fishing. Many were afraid to go near the burial ground at *Chepahhemahnesik* or Spook Island (*jiibay* = ghost and *mnishenh* = island) prior to their conversion. A grove of sugar maples gave Sugar Island its name. Cameron's Point, recorded as *Quegeeging*, was thought to be a burial site from the war with the Iroquois and also hosts a Laurentian Archaic burial mound (*mgokmighang* = bury in a mound). Rice Lake was also unusual in having a salt spring about four and a half miles to the south—a sulphurous smelling, clay pool about two and a half feet in diameter. Ojibwas

boiled it down, and three parts of this water made one part salt. There was another salt spring further down the Trent.²⁴

Rice Lake was known as *Pemedashcoutayang*.²⁵ In Ojibwa *bmadnaag* is a verb, meaning to be a ridge running (the Ojibwa language uses verbs in many places where Europeans would use nouns) and *nkwetgweyaag* is a verb for rivers meeting, with maawnjidwaad translating as meet. So Rice Lake was where the ridge met the waterway, referring to the Oak Ridges Moraine—Pemedashdakota on early maps. Dakota, was a corruption of *mskode* or *mahskooda* meaning both prairie, plain or clearing and fire. The moraine was an unusual ecosystem, very well drained because of its sandy soil, producing prairie vegetation and wildlife. Somewhere between 96 and 111 square miles, Catherine Parr Traill described the Rice Lake Plains in 1832 as "a fine elevation of land—for many miles scantily clothed with oaks, and here and there bushy pines, with other trees and shrubs... with trees growing in groups, or singly, at considerable intervals, giving a sort of park-like appearance to this portion of the country." Red pine, cedar, various oaks, shagbark hickory, and dwarf cherries, juneberries, and willows were common, often bearing marks of fires. There the Ojibwas found blueberries, huckleberries and woodland sunflowers. With the grassland came prairie animals, including elk, prairie chickens and blue racer snakes. The future site of Peterborough (once called Scott's Plains) was also a prairie, with "a few scattered oak trees, with spreading branches."²⁶

The Ojibwa link between fire and plains was exact—the open ridge was kept a prairie through the alliance of fire and drought. Traill, writing in 1836, suggested Ojibwas:

To prevent the growth of timbers, burned them year after year... sufficient only was left to form coverts, for the deer resort hither in great herds for the sake of a peculiar tall sort of grass with which these plains abound, called deer-grass, on which they become exceedingly fat at a certain season of the year.

Yet there is little recollection in these communities of set fires, and it seems that they were much less inclined to burn the countryside than natives of some other regions. Lightning also burned the plains, and there is a dearth of evidence to suggest that the Iroquois or Hurons burned the landscape before them. Even if the Ojibwas managed to enlarge them with fire, the prairies burned regularly anyway, and arose without human assistance.²⁷

Maple	50.3
Cedar	36.2
Basswood	32.2
Pine	26.7
Hemlock	19.5
Elm	16.7
Tamarack	13.7
Birch	10.0
Ash	9.4
Alder	6.4
Soft Maple	5.9
Beech	5.8
Poplar	5.2
Oak	4.5
Butternut	3.6
Spruce	3.2
Balsam Fir	3.2
Ironwood	0.2
Willow	0.2

Wildfire, if it left their villages unscathed, could be beneficial to Ojibwas. Reducing the number of seedlings, surficial fires opened the forest, increasing browse for deer and making travel easier. Clearings facilitated the growth of strawberries, raspberries, blackberries, and blueberries. Encouraging birches and poplars, it created more forage for beavers. But the forests of the Kawarthas—composed of fire-intolerant and fire-suppressing tree species demonstrate that fire was rare and relatively light over much of the area. Left unmanipulated and setting aside the plains, the Kawarthas were among the least fire-prone areas of North America.²⁸

Ojibwas' effects on the forests were predominantly local, and largely confined to the immediate vicinity of the shores. As hirch was so important to their economies they

1.1 Prevalence Rating of Trees, Fenelon and Verulam Townships, 1823-1824²⁹ shores. As birch was so important to their economies they would almost certainly have affected its numbers in parts of

the Kawarthas. They made some clearings, and in gathering fuelwood would have cleaned much of the fallen brush out of the forests surrounding their villages. But the broad expanse of the inland forests was scarcely touched, if at all. Sugar maples dominated upland forests in the Kawarthas, often growing together with basswood, white pine and, less commonly, beech. Red pine was much rarer. Hemlock and balsam fir tended to occur in rough areas. Cedar, tamarack, black ash, with some soft maple and birch populated the wetlands. The species of elm were found across a host of different sites. Oaks usually grew on very dry soils, such as sands or scarcely concealed stones. Poplar, birch and soft maple were most common near the watercourses.

Trent River was *Saggettewedgewan, Sahgedahsegewahnoong* or *Sagetewedgewan*, meaning "Strong Water or 'river hard to travel'" (*gzhiikzhiwed* = to paddle fast; *gzhiijwang* = to flow fast). The Trent was too tortuous to be the usual route to Lake Ontario. Instead Ojibwas usually portaged across the Rice Lake Plains south to Lake Ontario. There were portages along the Trent River to shorten that route, when taken, and at its mouth was *Onigaming*, "the famous carrying-place," connecting the Bay of Quinte to Lake Ontario, a short distance south of where the Murray Canal has since been built (*niged* = portage; *gamiing* = by the water or on shore). The Carrying Place cut so much distance off the route from the Trent River to Lake Ontario that few followed the Bay of Quinte to its mouth. Lake Ontario itself was beautiful, *Oonoognahgahrah* (*oonh* = Oh!; *gnaajwang* = beautiful).³⁰

There were two routes north from Rice Lake. The Indian River was *Squaknegossippi* or the river where trout are speared (*nsaad* = catch fish; *mnegos* = trout; *ziibi* = river). The Otonabee was the larger route, beginning its ascent at Peterborough or *Nogojiwanong* (*nogi* = stopping; *bkijjiwang* = rapids, *ong* or *onk* is a locative suffix). *Katchawanook* (*maajii* = starting) was the head of the rapids, which gave its name to the lake there. These rapids were also the site of Lakefield, or *Ogidjiwanong* (gidaa = up). To avoid these rapids and the Otonabee's circuitous route, Ojibwas usually portaged six miles from Peterborough to Chemong or *Cimung* Lake (*jiimaan* = canoe, the place of canoes or because a canoe resembles the lake's shape), more or less following the route of presentday Chemong Road to Bridgenorth. This lake was also known as *Wabuscommng* (*waabgan* = clay) or Mud Lake to the British, since good, clear clay was mined for pottery there-though clay work was not very common in this region. According to Curve Lake elders, the original site of the village was on or near the end of the portage, perhaps on the hill in Bridgenorth, overlooking Chemong Lake, but it was already in its present location by the time the first settlers were passing through for the Upper Lakes. Chemong was also a prime site for wild rice, as were the adjacent Upper Chemong or Little Mud, Buckhorn and Pigeon Lakes. These waters are also some of the best fisheries in the Kawarthas.³¹

Following the Indian River north from Rice Lake, the traveller goes through Dummer Lake to Stoney Lake, often considered one of the most beautiful on the chain. To Ojibwas it was known as *Cheboutaiken* or *Chebouterquion*, long rocky water or *Kawakonikong*, the place of edible moss (*waaknag* = lichen). Clear Lake to the east was *Bessikakoon*, the lake of one island (*bezhig* = one; kadood = lookout). Passing the waterfall at Burleigh, the course ascends through Lower Buckhorn to meet Buckhorn

Lake north of Curve Lake. The tributary Mississauga River apparently derives its name either from local residents themselves, or from having a large mouth.³²

Continuing up the waterway, the canoes passed Sandy or Manidoo (= spirit) Lake on the way to Pigeon Lake. The Pigeon River drains north into the foot of the lake, through the modern village of Omemee (*miimii* = pigeon). These names are said to derive either from the former abundance of passenger pigeons in the region, or perhaps from the name of John Pigeon of Curve Lake, who hunted and trapped there. Upstream from Pigeon Lake is a set of rapids, Bobcajwin, Bobcajwinunk, Paubbookaijewenum or Bobcaygeon. (*bkijjiwang* is a verb, to flow around rocks, or as the British prefer, a rapid). A smaller channel to the south, Little Bob, it seems, was intermittent. At Sturgeon Lake or Namesagaiken³³ (seems to mean place where Sturgeon are speared: maanmeg =sturgeon; *bdakjiihang* = spear with multiprong object) two main branches of the waterway converge. The Scugog River from the south, part of which was called Yawbaskekaokawk or place where hemlock bark is cut, passes present day Lindsay, *Potagoning*, beside the rapids (*besha* = near; *godhang* = paddle upstream). Scugog Lake, *Paidjekoshkiwakong* or *Pedjogeaskiukgog*, the long muddy marsh (*ajishkiwika* = it is muddy; *mshkiigki* = swampland, *miishkooki* = marsh) was then much swampier than at present. It is now a shallow lake because the water level was raised with the construction of the Lindsay Dam. Scugog Island (somewhat of a misnomer because it is a peninsula unless waterlevels are particularly high) was the Island or *Minis (mnisenh = island; mnisni* = bare rock island). Washburn Island was among the wild rice fields by the head of the Scugog River, site of another Ojibwa village. Another common campsite was on Goose Lake, tributary to Sturgeon Lake.³⁴

Paddling north from Sturgeon Lake, one rounds Sturgeon Point or *Nmagahyaegun*, then passes a waterfall at Fenelon Falls, into Cameron Lake, which receives the tributary Burnt River system. Behind the curtain of this waterfall there was "a promenade" allowing people to walk "from one shore to the other." There was a rapids above the falls, that Ojibwas might run "to within about five yards of the brink." Ascending the rapid at Rosedale, where the Ojibwas commonly camped, they reached Balsam Lake and the tributary Gull River. Up the Gull River was the place of the gulls, *Kioshwakong* or Coboconk (*gyaashk* = gull or tern). From Balsam Lake there was a

twelve-mile portage to Lake Simcoe in the Severn Watershed. Simcoe could also be reached by a longer portage from Sturgeon Lake, near the outlet of McLaren's Creek, which made the overall journey shorter, bypassing Cameron and Balsam Lakes. Lake Simcoe, or Lake La Clie to the French, was a big lake, *Kitchigaming (gchi = big; gamii = lake, described similarly to the Great Lakes), and Lake Catchacoma. Lake Simcoe was also named Ecuniong, place of calling, recalling a man who camped on the lake and heard a voice, as if someone were calling for a dog (ecu = call). Intermittently from 4560 BP, and fairly continuously for two thousand years leading up to European settlement, a fish fence had been kept at the narrows between Lakes Simcoe and Couchiching. Known as <i>Machickning (mjigkan = fence), it was the site of one of the larger Ojibwa villages, whose population in the 1830s was about 140.*³⁵

The villages' silhouette was set by their wigwams and sheltering trees. With a seven to twelve foot oval at their base, wigwams were enclosed with twelve to fourteen foot poles covered with birch bark, hides and evergreen boughs. For any structure expected to last, sheets of birch bark, often 20 feet long and 3 feet wide, were sewn together with spruce or tamarack roots. The door was a gap in the bark covered with an animal skin. They lived closely huddled together—three families might share a twelve-foot residence. Their floor was made of hemlock or fir branches, with deer or other animal skins spread over them. On this Ojibwas slept, wrapped in blankets, their feet towards a fire constantly crackling in the centre, where they smoked venison. Living inside wigwams, Ojibwas were accustomed to the haze. Since an opening at the peak let the smoke out, these homes were not snow or watertight. They were usually positioned under trees—especially spruce—to shield them from the weather. But these structures were well suited to their seasonal rounds, as one person—usually the mother—could carry the covering as the family travelled. They were also rapid to construct—the resident females could generally put one together in a day.³⁶

In summer, when draughtiness in a dwelling might be advantageous, Ojibwas constructed dwellings of similar materials, but rectangular in plan. Their walls were vertical poles, were usually open on one side. Another pole was lashed to these, supporting the rafters, which formed a sort of gable, often supported by poles at the peak. The roof was covered with birch bark, and the whole structure had to be sheltered from

storms. These huts or *nbaggamig* served as relatively cool cooking shelters in hot weather.³⁷

Despite economy in house building, Ojibwas needed a lot of wood, on the order of twenty cords annually per family. The women of an encampment gathered the wood and chopped it to length. Traditional axes were sharpened stones tied to wooden handles that could cut only softwood of small diameter. They were useful for barking trees, but long before the nineteenth century, European metal axes had replaced them. Ojibwas did not have a culture of cutting down large trees and splitting them up into cordwood, but instead used pieces up to a few inches diameter. They gathered wood as they needed it, and made no effort to season it. In centuries past, fires would have been started with flint or by rotating a stick of light wood into a wooden divot filled with easily flammable material. But by the nineteenth century, European manufactured strike-a-lights had taken over. In the dead of winter, a three family wigwam might burn through four to six cords in a month, though much of it might be relatively small pieces. In summer, consumption was a little lower, and probably included more softwood, but it would not have been much less. The greatest consumption of wood, however, would come with seasonal processing, sugaring off and, to a lesser degree, parching wild rice.³⁸

From the forests came much of their everyday material economy. They stored their food in sewn birch bark containers called *mococks*. Women also made birch bark baskets, or wove together black ash, which was easily split with mallets into rings of convenient thickness—a common trade item. When they did not have European cutlery, they ate with pointed wood sticks or bone, or carved wooden spoons imitating European models. They wove the inner bark of basswood, stinging nettles and spreading dogbane into ropes. They bent wood into snowshoes, joining in a point at the rear, usually with two cross bars and laced with deer hide. Fathers cobbled together a cradle board or *ndiknaagan*, so their wives could carry infants on their backs, tightly bound with "flexible hoops" and often dressed with "much finery." The materials that went into their canoes were much like their houses. Women stitched the hulls together from birch bark and gummed them—sometimes birch trees could be found large enough to make a canoe from a single piece of bark. The men provided wooden ribs, gunnels and thwarts. Well constructed, a canoe might last five or six years.³⁹

The Ojibwas' material culture, where most goods, including many dwellings were light and relatively easily transported, reflected their mobile seasonal round. Their society congregated in the spring, then dispersed again in the fall following a calendar of moons or *giizis*, most named after major subsistence activities from that period. Traditions of the *giizis* varied across Ojibwas home ranges, in part reflecting local species availability, but a few of the moons had a wide geographic following, although they might occur at different times of the year in different places. The calendar started the first new moon after December 27 with *Djibiongizis*, the winter moon.⁴⁰

As far as the Ojibwa economy went, the annual cycle of production began with *Sizubakud kegizis* or *Ziisbaakdoke-giizis*, the sugar making moon in the first new moon after February 26. By March, the most difficult part of the Ojibwa year was over as winter's hold abated. Once the snows receded, the tubers that had been buried in snow once again could be found. Bugleweed or crow potatoes might be boiled, jack-in-the-pulpit dried into a flour (the roots are dangerous when fresh), cattail baked and wild leek enjoyed either fresh or cooked.⁴¹

As they had much of the winter, the men hunted and trapped. Ice fishing continued, as the lakes were fairly safe to travel until early April. Fishers in their ancestral ranges covered themselves in blankets held on willow hoops and used a wooden decoy to attract fish, then struck with their spear. The Kawarthas were one of the most productive parts of Ontario for fish, yielding largemouth and smallmouth bass, muskellunge, some northern pike, perch, pumpkinseeds, crappies and various other panfish. Walleye later migrated into the region. Yet, waiting on ice for fish was a cold business, and it was also one of the least remunerative of the Ojibwas' fishing techniques.⁴²

Once daytime temperatures rose above freezing, the women set up camp in their family's sugar bush—for the Rice Lake community the principal bush was Sugar Island, though they also made sugar at lot 5 concession IV Monaghan (henceforth 5 IV), while Curve Lake had camp at 18 III & IV Smith. Birch and trembling aspen could also be tapped, producing sap year round and in early summer respectively. Taking with them clay, or by the nineteenth century usually copper, brass or iron, kettles, they started collecting wood, with perhaps a little help from their husbands. Using a hatchet they gouged each tree, inserted a wooden spile, and collected sap in birch bark vessels or

wooden troughs. While the sap could be left in the sun on a piece of birch bark to make a sort of taffee, it was generally boiled. Younger women carried the sap, while their elders tended the fire, stirred the sap, and cooled it. They stored large quantities of *aninatik sisipakwat* or maple sugar in *mococks* (birch containers). If the season was hard, families might subsist largely on maple sugar for a while, and in any case they had plenty of maple candy. It was also an important trade good. The Rice Lake post brought in 1826 lbs in 1810.⁴³

Once the sugar season was over, it was soon time to congregate on the rivers for *dimebingizis* or sucker moon. It was fortunate for Ojibwas that the best season for fishing came after sugaring season, as fish was one of the many dishes improved with maple sugar. Susanna Moodie observed a common method of cooking fish:

They take a fish, just fresh out of the water, cut out the entrails, and without removing the scales, wash it clean, dry it in a cloth, or in the grass, and cover it all over with clear hot ashes. When the flesh will part from the bone, they draw it out of the ashes, strip off the skin, and it is fit for the table of the most fastidious epicure.

Year-round fishers, the challenges of some seasons contrasted with the almost limitless quantities that could be obtained during the spawning runs. In the Kawarthas there were three runs of principal importance—suckers in early May, soon after ice-out, then lake trout and herring in early November. Many other local fish were easy prey during their spawning season, including perch, muskellunge and bass. Around Lake Ontario, Atlantic salmon were killed in great numbers during their spawning runs. The waterfalls and turbulence of the Trent River limited their range to its lower section, but they were abundant on Smith's Creek (Port Hope). With such dense schools of fish, one man might spear a canoe load in half an hour. They also used nets, which were traditionally made of false nettles, or created a sort of weir by putting stones across a creek. For the Ojibwas this was a windfall, but in southern Ontario, unlike *Boweeting*, such plenty only lasted for a few weeks.⁴⁴

Sucker moon was also known as *wabigwanigizis*, the moon of blossoms. With the spring's first signs of life Ojibwas' diets diversified with the addition of numerous greens. Chickweed leaves were boiled, bracken fern sprouts were used in soup, the fiddleheads and stems eaten fresh (they contain carcinogenic compounds); blue bead lily, false

Solomon seal, lady fern and wild lettuce leaves eaten fresh. Marsh marigold was apparently cooked, and this was reputed to remove toxins that render it poisonous raw. Wild ginger roots were used as seasoning. As leaves emerged in the spring, more beverages also became available. Many types of leaves were boiled as tea, including wintergreen, raspberry, blackberry, goldenrod, Labrador tea and creeping snowberry. Basswood bark, leaves and twigs were used, as were juniper berries later in the season. False Solomon seal roots might be boiled to produce a beverage, as might spruce and hemlock boughs. There are reports that chokecherry and black cherry leaves were used, even though they contain hydrocyanic acid. Tea leaves might be used fresh, or dried for future use. More medicinal plants became available at this season as well. The Ojibwas are thought to have used alder, white cedar, arrowwood, large-leaved aster, baneberries, bloodroot, calamus, cinquefoil, dogbane, alternate leaved and round leaved dogwood, balsam fir, fireweed, hepatica, ground pine, honeysuckle, ladyslipper, pitcher plant, sarsaparilla, spikenard, yarrow and willow.⁴⁵

With the first new moon after April 24 came *Kitigegizis*, planting or gardening moon. The abundance of wild rice in the Kawarthas meant that it was not nearly as imperative as in other parts of Ontario—a dietary supplement at most. There remains little evidence to suggest that planting was even as common as it had been when the Ojibwas lived north of Lake Huron. To the extent that they grew crops, the three sisters—corn, squash and beans—were probably important. Sunflower and Jerusalem artichoke have also been associated with their agriculture. This season also brought the insect scourge, as swarming black flies, mosquitoes, and deer flies pursued Ojibwas wherever they went.⁴⁶

With the end of the spawning runs, fishing assumed its summer pattern. Setting out at night, a pair to a canoe, fishers attracted their catch with a torch—birch bark wrapped on a stick of resinous pine. One steered from the rear, while the other stood at the front and speared the fish. It took some experience to strike accurately despite the water's refraction, especially without upsetting the canoe. It might yield a few fish—often good-sized muskellunge, per night. They might wait in unlit canoes near watering places for deer, firing through the dark towards the sound of them stepping into water.⁴⁷

As summer began, Ojibwas would say that the season became a time of plenty, or *niibing* (from the root for much or many). For many it was the happiest time of year—the

bugs had started to recede, the villages were reunited, and their diet was anything but wanting, especially as the berries ripened. For *Kitigegizis* or *minigizis*, strawberry or berry moon, and *tatigogominigizis*, blackberry moon, that followed, Ojibwas spent much of their time gathering the bounties of the forest and clearings. In June the first berries ripened, and they gathered serviceberries, juneberries and strawberries. Other plants were also maturing at this time, including milkweed, with its edible shoots, and cow parsnip greens. They also consumed puffballs. Blackberry moon saw the blackberries, raspberries, blueberries, gooseberries, huckleberries, snowberries, currants, staghorn sumac fruits and bulrush tubers mature. Many berries were dried for winter use.⁴⁸

Sigakinigezis, harvest moon, brought the Ojibwas into the wild rice or *mnoomin* fields. As the grains matured they might be bound together, preventing their shattering and to save them from birds. The rice would ripen over a period of about two weeks, near the first of September. Pairs paddled their canoe into the stands until the stalks stopped it:

With their paddles, or with sticks suited to the purpose, they pull the heads down into the canoe, and strike them so that the ripe grain falls to the bottom. Returning to the shore, they stick into the ground pine or cedar branches, so as to form a square enclosure. Within this they drive in forked sticks, upon which cross-pieces are laid, and upon these latter mats of bass-wood or cedar-bark are placed. Under this framework a fire is then lit, and the hedge of green branches serves to keep in the heat. The rice is spread upon the mats, and kept turned about with the paddle until dried. It is then shaken in large open baskets and the husks are removed. When it is desired to parch it, the rice is placed in pots over a slow fire until the grain bursts and shows the white, mealy centre. Without further preparation it is often used by hunters and fishermen when out on expeditions. But more frequently it is made into soups or stews. Another method of preparing the raw rice was this: After it was gathered, a hole was dug in the ground, in which a deerskin was placed, and upon this the rice was poured. Boys were then set to trample it with their feet, after which it was winnowed and stored up for future use.

A family might harvest around 100 pounds per day, and one estimate of the per capita quantity saved was 10 bushels. It could be boiled to the consistency of a paste, mixed with fowl, fish or venison to make a soup, or served with maple sugar and berries. Compared to staple grains from other regions, it was high in protein, niacin, pantothenic acid, vitamin B6, folate, magnesium, phosphorus, potassium, zinc and copper; low in fat, thiamine, riboflavin, and iron. Enough grains were left unharvested or dropped while

being beaten to ensure a crop for the following year. Rice crops were vulnerable to water level fluctuations, especially if it rose suddenly in June, or fell too low over the summer. If the rice crop was poor, the community knew a famine the following winter was likely.⁴⁹

Rice season was also the best time for hunting waterfowl. Large flocks of ducks and geese "often appear like clouds," in "such numbers in spring & fall, but especially the latter that... they make a noise in rising like a clap of thunder and the air is literally darkened by their numbers." Fothergill recorded that they sometimes "get so fat by feeding upon the rice that they are unable to fly and are actually speared by the Indians in the same manner as fish are speared by them. These ducks are frequently more than an inch of fat all over." They were hunted from canoes, filled "with green boughs, so that it resembles a sort of floating islands." Waterfowl season ended shortly before the peak of deer hunting in the fall. Fowl usually combined with rice for soup, as it was not considered very palatable on its own, though it might be seasoned with maple sugar. During this moon many other foods matured, including black cherries, chokecherries, plums, cranberries, bearberries, snow berries, squash berries, grapes, hazel nuts, and marsh vetchling seeds.⁵⁰

With the rice harvest over, the season would be fading or *dgwaagig*. *Bindkwegizis*, the leaves falling moon, began with the first new moon after September 15. Ojibwas' diets began incorporating more of the tubers that helped sustain them in early spring, and still had an abundance of wild rice. Beech nuts, acorns, elderberries, wintergreen and hawthorn berries came into season, then apples, walnuts, butternuts, hickory nuts, and arrowhead roots in October. This time might also be called *Nimegusigizis*, the trout fishing moon, beginning the second round of spawning runs. Some of the fish might be dried for winter use. Around the first of November the herring ran, and almost immediately Ojibwas set off for the hunting season during *Gshkadin-giizis*, the freeze-up moon, which signalled that winter or *bibon* was beginning.⁵¹

The Rice, Mud and Scugog Lake Ojibwas' hunting grounds seem to have stretched from the edge of the watershed on Balsam Lake, east to the Crowe Lake area, south to Lake Ontario, and incorporating a fair portion of the Burnt and Gull River drainages. This range would have been within one to perhaps three days journey of their home villages.

The waterway remained the best transportation route, and hunting was largely concentrated on the shores, and in connecting wetlands. Families passed hunting territories down through the generations. For instance, the Whetungs of Curve Lake seem to have held Pigeon and Emily Creeks from at least the mid-nineteenth century on. Kahgegagahbowh recalled:

No one was allowed to hunt on another's land, without invitation or permission. If any person was found trespassing on the ground of another, all his things were taken from him, except a hand full of shot, powder sufficient to serve him in going *straight* home, a gun, a tomahawk, and a knife; all the fur and other things were taken from him. If he were found a second time trespassing, all his things were taken away from him, except food sufficient to subsist on while going home. And should he still come a third time to trespass on the same, or another man's hunting grounds, his nation, or tribe are then informed of it, who will take up his case. If still he disobeys, he is banished from his tribe.

Communities jealously guarded their ranges against the incursions of neighbouring groups, in later years often trying to enlist the help of the Indian Department.⁵²

Hunting season began as a time of relative plenty. About the same time as the herring ran, deer congregated, making easy hunting. Men felled trees and piled up brush for seven miles from Goose Lake to the northwest shore of Sturgeon Lake to act as a deer fence. As one group and their dogs pursued the deer, the fence funnelled them to a few narrow gaps where others sat, guns poised, in ambush. This strategy allowed the Goose Lake camp to carry in on their shoulders an astounding kill in a fairly short time. Dogs might also be used to drive deer into water, where they were easily slaughtered. Young boys still learned the bow with shell, bone or metal arrows, but by the nineteenth century, hunting was almost universally by gun. In other seasons, hunters carefully observed deer tracks, and waited in ambush for them to return.⁵³

Deer fed and clothed Ojibwas year-round. Charles Fothergill estimated that the Rice Lake community killed about three thousand annually. Women tanned the hides and sewed them with sinew and bone awls—a very difficult task—or increasingly with steel needles and thread. They made moccasins, mittens, breech clouts (usually decorated with porcupine quills), and coats that reached nearly to the knees. For winter they might wear another hide overtop, with the hair attached, and perhaps a fur trade blanket as well. To allow them to walk more easily, men wore a quill-lined belt over their outer coat, lifting

its bottom edge above the knees. This belt would carry a hatchet, powder horn and shot pouch. Women wore wider belts—the fashion was to be made entirely of beads. They might also wear another piece of leather attached to the top of their moccasins. Robes did double service as bed coverings. Hides were laid on the floor of wigwams, and hung as a door. In summer, children often went naked, men traditionally sported only their breech clouts and women wore leather skirts.⁵⁴

Bear were shot and trapped with deadfalls, or increasingly iron or steel traps. In addition to the food they provided, bear grease had many applications. It was thought to repel insects and ensure a full head of hair. Their hides were tanned, particularly for winter use. Ojibwas similarly found a use for most other animals, including hares, porcupines, woodchucks, lynx, and various birds—snipe, woodpecker, snowbird, hawk, ruffed grouse, raven, blue jay, eagle, woodcock, owl, and passenger pigeon. Squirrels and chipmunks could be killed by barking—shooting just below the animal when it was in a tree to kill it with wood splinters and leave its flesh unharmed.⁵⁵

By the last season of the year, *Shkibibongizis* or young winter moon, they were off to their winter camps, where they would remain until Sugar Making Moon. The intervening moons *Makwagizis* (bear moon, because the bear comes out of hibernation) or *Onabinigizis* (moon of crusted snow) and *Manidogizisons* (*Manidoo* or spirit moon) were invariably the most difficult time of the year. Hopefully they had preserved enough food to get them through this season of scarcity, when game was difficult to find, and the condition of deer was often worse than that of their predators—and once the chills began to lift might be spared because of their feeble condition. When they found game, the freezing weather preserved it, but many cold desolate days could pass between catches.⁵⁶

During the *Manidoo* moon, Ojibwas might exist at the mercy of the Windigo. This giant, gaunt, ice cannibal had an insatiable appetite for human flesh. Men or women could become Windigos by resorting to cannibalism, and then had to be killed. The spirit represented the community's fear of this season. Always a difficult time, if one of their critical food resources failed they would suffer famine and might starve—they might go hungry for similar reasons in other seasons, but that was rare. Kahgegagahbowh remembered, early one winter north of Belmont Lake:

Our provisions were exhausted, and we had no means to procure any more. Here we were. The snow about five feet deep; our wigwam buried, the branches of the trees falling around us, and cracking from the weight of the snow. ... Our mother boiled birch bark for my sister and myself, that we might not starve. On the seventh day some of them were so weak that they could not raise themselves, and others could not stand alone. They could only crawl in and out of the wigwam. We parched beaver skins and old moccasons for food. On the ninth day none of the men were able to go abroad, except my father and uncle. On the tenth day, still being without food, only those who were able to walk about the wigwam, were my father, my grand-mother, my sister and myself. ...My father at times, would draw near the fire, and rehearse some prayer to the gods. It appeared to him that there was no way of escape; the men, women and children dying; some of them were speechless.

Kahgegagahbowh 's family was saved by the fortuitous capture of a pair of beavers. In addition to eating hemlock, fir, basswood, aspen, ash, birch or woodbine cambium, tree moss, and their leather clothing, their last resort was rock tripe at Stoney Lake—gelatinous, tasting like dirt, and providing scarcely any calories.⁵⁷

In hard times, friends helped stave off hunger. Ojibwas helped out members of their own community, and as settlement neared, they might also call on the more kindlydisposed of their new neighbours. With two subsistence economies in the area, the famines of one might be balanced by the other, though both found late winter the hardest season. Of all the community members, the fur trader was perhaps the best situated to help in this season. They were always expected to have pork and flour and to see their neighbours through the winter—as natives often provisioned traders in better times. With this check on the seasonal variations, by the nineteenth century famines were becoming rare.⁵⁸

In earlier days, fur traders might come and go, but by the early nineteenth century, they had long since been adopted into Ojibwa communities. They had been in the upper country since the latter half of the seventeenth century. In 1762, Lucas van Vachten, Evert J. Wendell and John Stevenson were trading at Toronto. By 1770, Ferrall Wade and Peter Keiuser, associates of Sir William Johnson, the Northern Superintendent of Indian Affairs, were there, and traded with Rice Lake Ojibwas.⁵⁹ Peter Smith operated the trading posts at *Pemiscutinak* or Smith's Creek (as Port Hope was called in his honour) and Rice Lake—apparently on the south side of the lake, presumably near the end of the portage—from 1778 until 1790. He then sold out to Lawrence Herkimer, son of John Jost Herkimer, a fur trader who had settled at Cataraqui as a Loyalist in 1784 or 1785. In the

United States, John had a reputation for selling excessive quantities of rum. Lawrence's brother, Jacob, was a Toronto merchant, who it seems had some involvement with the Lake Scugog trade. By 1804 William and Moody Farewell were trading on Washburn Island for the North West Company. Early settlers understood that Duncan Cameron had once operated a trading post at Fenelon Falls.⁶⁰

On the eve of resettlement there were two traders on Rice Lake. Widow Harris lived in a "wild & solitary" cabin, nestled behind a low point of willows on the northeast side near Sugar Island. Charlie Anderson, nephew of the Herkimer brothers and Thomas Gummersall Anderson, the future Superintendent of Indian Affairs, lived at the village. He arrived there as a fifteen-year-old in 1801, was adopted into the community, and they allowed him to have a farm adjacent to their village, which by special consideration of the Crown was granted to him as a 1200 acre block in 1818. He had at least three wives, including a relative of Chief Cheneebeesh or George Paudash. His daughter Elizabeth married the Methodist missionary Pahtahsega or Peter Jacobs. One of his granddaughters married Chief Dan Whetung of Curve Lake. At the behest of the community, he became Indian agent in 1838, serving until he died on January 12, 1844.⁶¹

Scots-Irishman Billy McCue arrived near Curve Lake about 1809. He traded out of a log house on 8 X Ennismore, on the shore of Chemong Lake across from the Ojibwa village. Trading at Gannon's Narrows after the Mud Lake settlement moved to its present site, he was said to have some business relations with the Smiths of Port Hope, who seem to have preceded him at Mud Lake. While he lived with a pet beaver that reputedly spent much of its time using Bill's clothes to dam up the door, he also married into the community. His son James became a guide and interpreter. Sons John and Bill Jr., later the postmaster, remained in the community, and his daughter, Jane, is said to have married missionary Allan Salt. Bill Sr. is believed to have returned to Ireland later in life.⁶²

Though some were shot, snared, or killed with deadfalls, fur-bearers were increasingly caught with iron or steel leg-traps, placed in anticipation of the prey's movements. It was preferable to have the animal drown, rather than leave it caught in the trap until the hunter returned. A common trick for trapping beaver was to break a hole in their dam and place the trap where it would have to stand to repair the breach. The trap

might have a chain with a ring on the end, attached to a stake driven into the bottom of the river, with a weight attached. Their dams and lodges made beaver easy to locate, and they were also very commonly killed after chopping apart their lodges—much easier to accomplish with the advent of metal axes. Because families often lived for generations on the same streams, and did not reproduce in large numbers, they were somewhat susceptible to overharvesting. As trappers preyed on their lodges, riverbank populations probably helped sustain their numbers. They however, did not reproduce in , By trapping in winter, the Ojibwas ensured that the furs were in prime condition.⁶³

Ojibwas wore some furs, though they traded most of their harvest by the early nineteenth century. Numerically, the most common early nineteenth century fur trade species were muskrat, marten, and beaver, accounting for 36%, 24% and 22% respectively of Hudson Bay Company returns from 1800-1819. Fox, wolf, otter, lynx, mink, raccoon, bear and fisher were traded in smaller quantities. The Rice Lake post account book for 1808 listed: 894 deer, 38 bears, 1989 muskrats, 72 lb beaver, 547 martens, 102 minks, 44 racoons, 98 fishers, 41 otters, 7 foxes, 22 hawks, 1 wolverine, and 1 wild cat. Four years later the trade consisted of 6735 muskrats, 800 muskrat kittens, 137 martens, 63 minks, 59 fishers, 28 racoons, 2 lynxes or wild cats, 1 fox, 154 deer, 28 otters, 11 bears, 2 cubs, and 93 lbs beaver. At Curve Lake the trade included 200 lbs beaver and nearly 4000 mink.⁶⁴

In good seasons, Ojibwas might not need the flesh of the furbearers and leave the carcases for scavengers. The fur trade has often been associated with excessive harvests. Living monogamous, sedentary and local lives, beavers are considered vulnerable to hunting and it is often presumed that the fur trade caused their extermination. Scholars have extrapolated from this assumption to conclude that this must have reduced the number of beaver meadows bounding creeks.⁶⁵ Reports that beavers were exterminated from southern Ontario were not infrequent from at least 1635.⁶⁶ But most originated from those interested in the trade, and the exchange of beavers carried on. Local observers noted that they were still fairly abundant, though their numbers had been reduced. Populations were presumably less affected in areas like the upper reaches of the Trent Watershed, several days journey from the nearest village.⁶⁷

Into the nineteenth century, beaver continued to dominate the fur trade in terms of the value of pelts and its place in the thoughts of hunters. In the 1830s, Ojibwas recalled pelts fetching \$7 or even \$10 each. For the colonial economy this was a handsome sum—ten pelts might equal two hundred acres in value. Pahtahsega recalled an extraordinary catch of one hundred beaver in a season—that would produce enough income to rival professional gentlemen. It did not take many beaver to provide all the trade goods that a hunter might desire. To some scholars, this was the peak of Ojibwa prosperity, as they might wear beads, ribbon, vermilion as face paint, wampum, silver brooches, gorgets, rings, buttons, earrings, silk handkerchiefs, and beautiful scarlet cloth mantles.⁶⁸

Without doubt, the fur trade was making hunters' material lives wealthier, and trade goods found their way into most aspects of Ojibwas day-to-day lives. Many goods, once adopted, became necessities, as their superiority over old technologies was apparent—axes, hatchets, kettles, knives, files, glass, candles, firesteels, fish-hooks, fish line, net thread, iron spears, scissors, razors, nails, needles, thimbles, pewter cutlery, and twine. They acquired Jew's Harps, china, mirrors and pipes. They got their tobacco from their traders, though they might mix it with bearberry leaves or red-osier dogwood bark, and might have stone pipes. The tools of the trade were likewise acquired from the exchange: guns, powder, shot, ball, gun flints, ice chisels and traps. Such use of metal goods made access to a blacksmith at British posts a necessity. They adopted woollen clothing, tailored coats, linen or ruffled shirts, colemanco gowns, brightly coloured calico, serge, strouds and stockings, and trade blankets. Trade cloth was lighter, warmer and dried faster than the pelts they were exchanging, representing a tremendous saving in labour for the women. Yet they made up their own minds about what was fashionable—breeches, for instance, were not in the wardrobe.⁶⁹

Among the most prevalent, and certainly the most controversial, trade goods were rum and whiskey or *shkodewaboo* (firewater). From Champlain in 1633, through Sir William Johnson, to Upper Canada, colonial officials could generally agree that alcohol was "the last thing they should have" and that traders should be held responsible for furnishing it. There were also growing movements in native societies against drinking, accentuated by plenty of stories of the privation that drinking caused. Kahkewaquonaby or Peter Jones, one of the strongest crusaders in the middle-decades of the century,

recalled as a child being temporarily lame from cold exposure when all the adults were in a "long drunken frolic." Kahgegagahbowh observed:

When the Ojebwas intended to take a general whiskey "spree," several young men were appointed by the head chief to collect all the fire arms, knives, warclubs and other weapons, and keep them in a secret place, till the Indians had completed their frolic. This was done to prevent them from murdering each other when intoxicated. By this means many lives have been saved; although many have been killed during their drunken fights.

There were too many stories of children drinking, violence and drunken brawls escalating to murder.⁷⁰

Yet the firewater continued to flow. British officials quietly acknowledged that the trade could not be carried on without giving customers what they wanted. Sir William Johnson furnished traders with alcohol—as plenty of natives ignored preachings and continued to frolic. The Crown might, and did at times, refuse to sell alcohol, they might even call a trader to account, but their customers would then just trade with someone who would sell it. Traders knew their clients-Keiuser and Wade's stock was almost entirely rum, at times brought in by the batteau load. In the face of the prevailing understanding that trading was a dirty business—Charles Fothergill called the Rice Lake whiskey traders "the most unprincipled miscreants it is possible to conceive"—high-minded colonists felt a duty to protect natives from the miseries that came from drinking, especially when exacerbated by debt. Too many spent much of their exchange incomes on booze, were in debt to traders, and might borrow even more or trade in their clothing when they were intoxicated to the point where they would not remember. A Rice Lake chief recalled, "we used to get crazy (intoxicated). [Trader] Smith would tell us next morning that we had got a great deal of things the night before, we did not know it for we had been crazy." The traders might then show up at their debtors' hunting grounds to collect. Looking back from the 1830s, Native reformers saw the wealth of the fur trade sloshing away, Pahtahsega observed that his peers "would have had good farms and good houses, and they would have been sitting in their parlours this day, like the Lord of England; but all is gone for whiskey."⁷¹

Bringing a taste of material prosperity with a sinister side, the fur trade was a principal force behind the evolution of Ojibwa lives in the nineteenth century. Scholars often emphasize political dimensions and assert that the fur trade was making their

society dependent on the colonies, but politics were peripheral in the day-to-day exchanges. The fur trade was a well-established part of Ojibwa society while they were still living in Northern Ontario and travelling to Montreal to exchange. By the nineteenth century, generations had grown up harvesting pelts to supply many of their material wants—they had been using a variety of trade commodities since the seventeenth century, and the natives were an important part of this of this transatlantic economy.⁷²

By the early nineteenth century they had also been watching resettlement advance for generations. Up to the 1770s, it had not been on their shores, but the changes that were coming had been building for a long time. It began as a gradual transformation of the dayto-day material economy. Iron replaced stone for axes; traps instead of deadfalls; blankets instead of hides. Until the early nineteenth century their subsistence pattern remained relatively constant. But with new components every year, the mechanism could not help but change. When immigrants began streaming to the region, the re-creation of this material culture accelerated tremendously. The revolutions of Ojibwa material economies were to be an integral part of reshaping ways of life in the Kawarthas.

¹ Return of Indian Department to F.B. Head's Queries on Aggregate of Indians Population of Rice Lake, Mud Lake, Alnwick, LAC, RG 10, vol. 116, 168749. Present State of the Northern Indians, November 18, 1763, DHNY 1:25. J.H. Lefroy, On the Probable Number of the Native Indian Population of British America: From the Proceedings of the Canadian Institute (Toronto: 1853), 11. Aboriginal Tribes (North America, New South Wales, Van Diemen's Land and British Guiana): Return to Several Addresses to His Majesty, Dated 19 March 1834 (London: HMSO, 1834), 27, 135. BC, T:2.

² Return of Indian Department to F.B. Head's Queries on Aggregate of Indians Population of Rice Lake, Mud Lake, Alnwick, LAC, RG 10, vol. 116, 168749. Present State of the Northern Indians, November 18, 1763, DHNY 1:25. Lefroy, On the Probable Number, 11. Aboriginal Tribes, 27, 135. BC, T:2. E.S. Rogers, "Southeastern Ojibwa," in William C. Stutevant, ed., Handbook of the North American Indians (Washington: Smithsonian Institution, 1978), 15:763. Charles Edward Cleland, Rites of Conquest: The History and Culture of Michigan's Native Americans (Ann Arbor: University of Michigan Press, 1992), 45. Harold Hickerson, The Chippewa and Their Neighbors: A Study in Ethnohistory (New York: Holt, Rinehart and Winston, 1970), 13. Charles A. Bishop, The Northern Ojibwa and the Fur Trade: An Historical and Ecological Study (Toronto: Holt, Rinehart and Winston, 1974), 7. Christopher Vecsey, Traditional Ojibwa Religion and Its Historical Changes (Philadelphia: American Philosophical Society, 1983), 10. Ruth Landes, Ojibwa Sociology (New York: AMS Press, 1969), 3-4.

³ R.A. Yarnell, *Aboriginal Relationships between Culture and Plant Life in the Upper Great Lakes Region* (Ann Arbor: University of Michigan, 1964), 48.

⁴ George I. Quimby, *Indian Life in the Upper Great Lakes: 11,000 B.C. to A.D. 1800* (Chicago: University of Chicago Press, 1960), 122. Rogers, "Southeastern Ojibwa," 15:760, 762, 764. W.V. Kinietz, *Indians of the Western Great Lakes, 1615-1760* (Ann Arbor: University of Michigan Press, 1965), 323. Robert Paudash, "The Coming of the Mississaugas," *Ontario Historical Society Papers and Records* 6 (1905), 7-8. *JR* 54:129-131, 59:69. Nicholas Perrot, "Memoir on the Manners, Customs, and Religion of the Savages of North America," in Emma Helen Blair, ed., *The Indian Tribes of the Upper Mississippi Valley and Region of the Great Lakes* (Cleveland: Arthur H. Clark, 1911-1912), 1:109-110, 179. Mae Whetung-Derrick, *History of the Ojibwa of the Curve Lake Reserve and Surrounding Area* (Curve Lake: 1976), 1:6, 21. Michael Ripmeester, "Vision Quests into Sight Lines: Negotiating the

Place of the Mississaugas of South-Eastern Ontario, 1700-1876" (PhD, Queens University, 1995), 75-76.

- ⁵ Amikoua, amikouek, amicoures, amikwa, or amikouai.
- ⁶ Ouasouarini, ouasanik, or ouasarini.
- ⁷ Outchougai, atachogue, outchibou or outchibous.
- ⁸ Achiligouaine, atchirigouans or atchiligouan.
- ⁹ Noquet or noquai.
- ¹⁰ Nikikouet or nikikouek.
- ¹¹ Mantou, or Mundua.
- ¹² Malameg or marameg.
- ¹³ Chichigouek.
- ¹⁴ Monsoni.

¹⁵ Ojibwa traditions in the nineteenth century indicate that there were five original totems, catfish, crane, loon, bear and marten. These eventually gave way to about twenty clans, including many of those listed above.

¹⁶ Donald B. Smith, "Who Are the Mississauga?," Ontario History 67, no. 4 (1975), 211-212, 216. Donald B. Smith, Sacred Feathers: The Reverend Peter Jones (Kahkewaquonaby) & the Mississauga Indians (Toronto: University of Toronto Press, 1987), 19-20. George Copway, The Life, History, and Travels, of Kah-Ge-Ga-Gah-Bowh (Albany: Weed and Parsons, 1847), 11. A.F. Chamberlain, "Notes on the History, Customs, and Beliefs of the Mississagua Indians," The Journal of American Folklore 1, no. 2 (1888), 150. Paudash, "The Coming of the Mississaugas," 7. Janet E. Chute, The Legacy of Shingwaukonse: A Century of Native Leadership (Toronto: University of Toronto Press, 1998), 4. Heidi Bohaker, "Nindoodemag: The Significance of Algonquian Kinship Networks in the Eastern Great Lakes Region, 1600-1701," William and Mary Quarterly 63, no. 1 (2006), 31, 35. Charles A. Bishop, "The Question of Ojibwa Clans," Papers of the Algonquian Conference 21 (1989), 50. Cleland, Rites of Conquest, 41-42, 49-51, 102. Whetung-Derrick, History of the Ojibwa of the Curve Lake Reserve, 1:6. JR 18:229-231, 54:131-135, 59:217. Theresa Schenk, "Identifying the Ojibwa," Papers of the Algonquian Conference 25 (1994), 306. Claude Charles Le Roy, Sieur de Bacqueville de la Potherie, "History of the Savage People who are Allies of New France," in Blair, ed., The Indian Tribes, 1:275, 276, 280, 282. Joseph Whetung, "History of Curve Lake." Mark Walters, "How to Read Aboriginal Legal Texts from Upper Canada," Journal of the Canadian Historical Association 14 (2003), 95. A. Irving Hallowell, The Ojibwa of Berens River, Manitoba: Ethnography into History (Fort Worth: Harcourt Brace Jovanovich College Publishers, 1992), 5. Hickerson, The Chippewa and Their Neighbors, 42-44. Landes, Ojibwa Sociology, 31-33, 39. Rogers, "Southeastern Ojibwa," 15:760, 769. Selwyn Dewdney, The Sacred Scrolls of the Southern Ojibway (Toronto: University of Toronto Press, 1975), 30. Peter Cook, "Vivres Comme Freres: Native-French Alliances in the St. Lawrence Valley, 1535-1667" (PhD, McGill University, 2008), 151.

¹⁷ Other theories include "to roast till puckered up," as in reference to captives from Dakotas or Sioux or puckered moccasin seams.

¹⁸ From an-ish-aw (without cause) and in-au-a-we-se (human body), usually translated as Spontaneous Man. Whetung, "History of Curve Lake." Whetung-Derrick, *History of the Ojibwa of the Curve Lake Reserve*, 1:1. Smith, *Sacred Feathers*, 19-20. Schenk, "Identifying the Ojibwa, 397, 400. Cleland, *Rites of Conquest*, 54. Hallowell, *The Ojibwa of Berens River*, 6. William W. Warren, *History of the Ojibway Nation* (Minneapolis: Ross & Haines, 1957), 36.

¹⁹ Also phoneticized as Kanatiochtiage. Cook, "Vivres Comme Freres," 460. Peter S. Schmalz, "The Role of the Ojibwa in the Conquest of Southern Ontario, 1650-1701," *Ontario History* 76, no. 4 (1984), 332, 340. Victor Konrad, "An Iroquois Frontier: The North Shore of Lake Ontario During the Late Seventeenth Century," *Journal of Historical Geography* 7, no. 2 (1981), 133. Nick Adams, "Iroquois Settlement at Fort Frontenac in the Seventeenth and Early Eighteenth Centuries," *Ontario Archaeology* 46 (1986), 6-8. Smith, "Who Are the Mississauga?," 215. Samuel de Champlain, *The Voyages and Explorations of Samuel De Champlain*, trans. Annie Nettleton Bourne (Toronto: Courier Press, 1911), 2:74. Carol Naismith Ramsden, *The Kirche Site: A 16th Century Huron Village in the Upper Trent Valley* (Dundas: Copetown Press, 1989). Peter G. Ramsden, "Trent Valley Iroquoian Research," *Arch Notes* 77, no. 7 (1977), 19-31.

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- ²³ Copway, *The Life, History, and Travels,* 11, 65. Peter Jacobs, *Journal of the Reverend Peter Jacobs Indian Wesleyan Missionary from Rice Lake to the Hudson's Bay Territory and Returning* (New York: 1857), 7. *Christian Guardian,* June 11, 1834, in Ojibhawk and Associates, Bill C-31 Impact Study for the Ojibways of Hiawatha First Nation, 1992, PMA. Charles Fothergill, "A Few Notes Written on a Journey through the Province of Upper Canada in February 1817," Thomas Fisher Rare Book Library, MS 140, vol. 21, 75, 84-85. Gardner P. Stickney, "Indian Use of Wild Rice," *American Anthropologist* 9 (1896), 115.
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2. A New Focus on Land

The Southern Ontario countryside is farmland. While each region has its own character, south of the Canadian Shield the province unites as an agricultural landscape. Most people see this as fairly natural—we might assume that in the age of resettlement, the countryside progressed without much planning. But, more than is commonly supposed, there was a great deal of direction in the economy of Upper Canada and Ontario, and cultural ideals were shaping its development—often in ways that we take for granted.

To the Ojibwas who then lived in the Kawarthas, parts of the new paradigm must have seemed strange. They lived at water's edge, harvesting the wild rice, fish, game and plants that were native to the region. There were many parts of the uplands that they would have no reason to visit. But the immigrating agricultural society was fixated with land. They drafted treaties giving them rights to land, but largely overlooking the waters. It then soon became apparent that their farming cultures would revolutionize the region.

The settlers' ideals of this countryside were abstract, based on a concept of how the land might be used, not from the needs that had arisen from actual use, nor from local advantages and disadvantages, nor even an understanding of what the locale looked like. There was a degree of madness in the official vision: assume all land is agricultural; draw straight lines across this curved and undulating space to make 100 acre farms; sell the land to honest, hardworking 'actual settlers'; then watch as they prosper. Few questioned this dream or concerned themselves with parcelling off wetlands, bare rock or scruffy timber as farms. Before long, a countryside of 100 acre lots seemed natural.

It was a cheap and easy way to redefine the space, presumed to be rational, and intended to better the lives of those concerned. Since few questioned that there would be a revolution in the landscape, it allowed the government of Upper Canada to make an unknowably large province knowable. The population might also be measurable, and hence governable, as the grid fixed people in a particular location. It allowed them to direct the development of an agricultural economy to imitate Britain, reidentifying places around farming, while trumpeting the imperial objectives they would achieve. Inevitably

the abstract landscape would meet the lived landscape of the Kawarthas, and would expose the plethora of considerations overlooked by that neat and tidy grid.

As the immigrants set about re-creating the countryside, they were a very, very long way from realizing this vision. The government was not even certain about the quality of much of the land it had purchased. It soon learned that the Kawarthas contained a great variety of different soil types—some townships like Harvey and Burleigh were so rocky that English-style agriculture could be practiced only in limited pockets.¹ The adjacent townships of Fenelon and Verulam, on the other hand, though far from the colony's best for wheat production, were fertile enough to farm profitably.

Gentry—critical to underpinning a British society consciously distinguishing itself from its American cousins—were not yet in place, and immigrants to till the soil still had to be found. In their stead was an Ojibwa population uninclined to dedicate itself to such agrarian ideals. The landscape was anything but rectilinear and rationally geared to agricultural production. The infrastructure of a farm landscape was almost entirely absent—forests, swamps and meadows stood in the place of wheat fields; local wheat markets did not yet exist; rivers tumbled over rapids without turning a waterwheel or rendering navigation possible; and the residents of the region were not neatly or uniformly distributed onto plots of soil for each to work.

One of the most important tools that the Crown had in directing this revolution was its seeming ability to create capital, or at least induce others to invest their wealth in the colony. With the stroke of a pen, it turned the Kawarthas into a valuable asset. At the 1818 treaty the Crown received 1,951,000 acres for an annuity of £740. In bulk as farmlots it might be worth 5 shillings an acre, or just shy of £500,000. On the private land market, 10 shillings or even a pound an acre might be asked, meaning that the distribution of the Kawarthas might create somewhere above £1,000,000 in wealth—however deceiving this prospect might be. As farms, the land might be worth many times more.

The government distributed land through sales and preferential grants or rewards for military service. As such an enormous amount of potential wealth was being created, investors scrambled to buy papers that they hoped to flip at a profit. Selling these lots was easier said than done. To do so, they had to find settlers to undertake the Herculean task of transforming it. Without occupants these land rights were just paper, worthless even to

the economy that had created them, aside from perhaps the value of strippable timber. Settlement was predicated on the investment of this capital that was attracted by the prospect of profitable resale or making a livelihood from a farm. Contemporary observers understood that the economic value of land (in the system ascribing it monetary value) came from its transformation to an agricultural landscape, not from any inherent value, or the ways that Ojibwas were using it. The land business was briefly the emerging economy's largest sector of activity, in monetary terms at least. To a large extent it underwrote the state, and allowed the creation of a gentry, however fleeting, that might oversee development. Coupled with a culture that idealized improvement, this set the transformation of the Kawarthas in motion.

Progress was work towards the creation of an agricultural landscape. Many of the immigrants saw farming as their destiny and took pride in their labours. This valorization of agrarian life tended to distort economic development. Organized for family farms, the survey system did not take timber resources into account. Hunting, fishing and trapping did not really have much place either. This oversight was very significant, because the economy of the Kawarthas was not the economy of England, and economic development would depend on marshalling local resources to advantage.

In the 1830s gentry estates financed by land speculation or in hopes that they might profit off managing hired labour drove a spurt of growth in Fenelon and Verulam townships. Speculators were gambling that Upper Canada would complete the Trent-Severn Waterway, opening a transportation route from Lake Ontario to Lake Huron. They expected this would prompt an influx of settlers, and increase property values. By the early 1840s these business models were bankrupt, prompting a lull in settlement. From the 1850s to 1870s, tied to the expansion of the lumber industry, settlers poured into the region and began realizing the capital imported through the land system. There was a tremendous boom in the economy, lasting until the depression of the 1870s, and retaining some of its momentum to the end of the century. The land system attracted capital that primed settlement, whether legitimate or squatting. Of all the products of nineteenth century Ontario, the farms were the most valuable. Few people at the time realized that the booming economy depended on the impetus to realize these farms. Believing that hard work ensured growth and prosperity, farms were created on many unsuitable tracts of

land. Then, as the momentum of settlement was petering out, so was the supply of virgin white pine and the prospects of many large transportation businesses.

Along the way, the benefits and material improvements of the economic boom reached almost everyone, including, to some extent, Ojibwas. This was tempered by the fact that the natives were outside the driving conception, scarcely took part in the impetus to create an agricultural landscape, and were often reluctant participants in the process though they did receive a share of the capital creation through their annuities. These payments were perhaps a tenth of what a farmer might realize in capital by creating a farm, though in theory not dependent on such labour, and subject to the administration of the Indian Department. While its lines were not so regular, its countryside not quite so agricultural, the end product embodied the pride and comfort of generations that followed. Settlers got their farm, their white house with green shutters, and were masters of their own estates.

As the Crown redistributed the Kawarthas, the focus was on land, with an assumption that the waterway would be public, open to all. However, at the treaty councils, Ojibwas had been assured that their hunting, fishing and trapping privileges would be maintained, though the officials concerned neglected these pledges in the written terms of the treaty. The Ojibwas, however, did not forget, and these contradictory ideals started a long-simmering debate over the governance of the waterway. Should Ojibwas be allowed to continue harvesting game as they had? Later on, did they bear equal responsibility to conserve game? Did their privileges trump the principle of equality? These debates were tied to questions about whether they should be integrated, maintain a special place, or even, briefly, if they should remain or remove beyond the frontier of settlement.

The treaties were instruments to legitimize waves of immigration—they were not designed to provide an ongoing place for Ojibwas. The landscape that so many settlers envisaged reflected Britain and scarcely considered the place for natives. There was often an assumption that they would disappear or melt away in the face of settlement. After the 1818 treaty, the townships were rapidly being given away, and there was initially no legalized place for the Ojibwas to reside. The formalization of Indian Reserves addressed this issue. While they have often been thought of as instruments of marginalization,

within an administrative structure determined to resettle the region, they were a necessary legal step for the natives' continued occupation of their homes. The sites that were eventually chosen bore a fair resemblance to the former Ojibwa village sites—Hiawatha was the same; Curve Lake was just across the lake, apparently at the behest of the community; and Scugog ended up across the lake on Scugog Island, though they had to purchase the land themselves. In the longer term, the reserves and their separate government administration served to maintain divisions in the community.

The idea that a British society was replacing the natives prevailed at the time. Many colonists proudly viewed maps painted red as a sign of the advance of their civilization—it is often assumed that small reserves implied that natives were pushed from their homes. These representations were deceiving, as the pace of settlement was so slow that generations passed between when the map was painted red and when the countryside really had become farmland.

Resettlement did not necessarily mean the end of the Ojibwas' livelihoods either. Because their economies were so closely tied to the waterway and wetlands, agricultural settlement of the bulk of the forested uplands was not really conflicting. Competition was more significant in hunting, fishing and trapping, but the economies had the potential to be mutually beneficial. To a small degree this was achieved, but it fell short of its promise, primarily due to prevailing assumptions about the proper, agricultural, ways to use land. This external vision of land use—while it drove the development of the agricultural landscape—became detrimental to all concerned when taken to its logical limits: farming lands that perhaps could not be farmed, pushing people into farming who were not inclined to be farmers, cracking down on other sectors of economic activity well suited to the region.

As the abstracted landscape met the lived landscape it required many adjustments. The emerging agricultural economy became interdependent with Ojibwas, and new material culture owed much to time-tested ways of living in the region. Ojibwa traditions tempered the ideals of land use. The surveyors' lines were appreciably off the intended grid—meaning that generations of work would have to be done to sort out the irregularities. The economy would not be nearly so agricultural as its rhetoric might

suggest. But the immigrants' vision of the landscape became so universally accepted, that the present-day countryside clearly reflects that parentage.

¹ Andrew Miller to Thomas Ridout, July 18, 1823, AO, RG 1-2-1, vol. 8, 144.

2a. Ojibwas and the Crown

That the Crown, gentry and colonists could lead a reorganization of the Kawarthas was in some sense remarkable. At the time when much of the groundwork was laid, the settler population of the region was almost zero and it would have been difficult to enumerate how the Crown influenced the day-to-day lives of Ojibwas. In 1760, as the Seven Years War was coming to an end, Ojibwas lived largely outside of the affairs of the British colonies. Twenty-four years later, they were finding themselves near a centre of English colonization in the Americas. By 1830 British influence, especially through the Methodist and Baptist Churches, was pervasive in many aspects of their lives.

That the colonial vision of the countryside succeeded at all, was due in large part to the momentum it carried. As colonization, agricultural settlement and rationalization of the landscape had radiated from the Thirteen Colonies, it expanded to the centre of the continent. It had come to assume a degree of inevitability—colonists expected settlement to continue, and despite the ideals embodied in the Royal Proclamation, there never really was any question in the minds of most migrants that it was the destiny of the continent. Ojibwas could not fail to notice that the waves of immigrants would re-create their homes, as they had over much of eastern North America.

Ojibwas adjusted their lives to fit within the new political order. In recent history, there had been many conquests of the region, but this one was very different. Whereas the Ojibwas had driven the Iroquois from southern Ontario, and taken over many of their former villages, this was a conquest of political authority, carrying a new vision of the countryside, but not exactly a displacement of the Ojibwa population. As early immigrants came to the Kawarthas, Ojibwas continued to hunt, fish, trap and gather. Often they materially assisted the project, recognizing that their best option was to have good relations with their new neighbours.

The impositions of resettlement were coupled with tangible benefits and a transcendent vision promising a better life. Though there were advantages to be had, more often than not they led towards the expansion of state power, the creation of an agricultural landscape, and the rationalization of the Kawarthas into a grid of lots and concessions. But the state was not entirely in control, though it found many ways to benefit from the process. Since settler society accepted that the region was destined to

become farmland, resettlement had a life of its own. To offset the expansion of government, it brought an idyllic vision of the countryside, promising to improve material conditions, which helped justify the process.

The state grew upon a notion of impartiality, buttressed by the power of patronage. Its administration spread into ever larger aspects of the lives of colonists. Impartiality was in many ways a form of blindness. But this gave it some of its power, as it set a direction, rising above particular or local interests. It could be very inefficient, and could back insane schemes of improvement, but it did promise better lives for those concerned. The patronage that flowed to medalled chiefs enhanced their prestige within their societies. Annual presents ensured that all Ojibwas saw the benefits. With giftexchange, the Crown expected goodwill, as it was understood that presents were conditional on loyalty. Chiefs and the Crown became mutually reliant: the chiefs' positions depended upon their ability to advance the interests of their community with the Crown; and officials and colonists needed chiefs to facilitate the reconstruction of livelihoods across the Kawarthas. By the 1830s, as colonists flooded into the region, Ojibwas needed the Crown more and more in their daily lives. Land became critical to establishing the Crown's place in the colony.¹

Economic change reshaped how Ojibwas viewed the world around them. Nativesettler relations might be seen as demoralizing, including the supposed effects of European notions of superiority on native self-image. But as much as the Ojibwa culture was stressed, it was also presented with promising prospects—that everyone might realize some portion of the benefits that would accrue with resettlement. Initially many Ojibwas were drawn to the progressive vision. The ideals of an agricultural, rationally organized landscape, and especially of material improvement, might transcend cultural boundaries.

Resettlement was also carefully legitimized, especially through the idea of sovereignty and the treaty process. Sovereignty was somewhat of a fiction, as Sir William Johnson wrote to General Thomas Gage on October 31, 1764. Johnson observed that while "it has been verry customary for many People to Insinuate that the Indians call themselves Subjects," they would not "approve of it," though they might agree if tired of war or wishing to make an alliance. He continued:

The verry Idea of Subjection would fill them with horror....it is necessary to observe that no Nation of Indians have any word to express, or convey

the Idea of Subjection, they often say, 'we acknowledge the great King to be our Father, we hold him fast by the hand, and we shall do [what] he desires' many such like words of course, for which our People too readily adopt & insert a Word verry different in signification, and never intended by the Indians without explaining to them what is meant by Subjection.— Imagine to yourself Sir, how impossible it is to reduce a People to Subjection, who consider themselves independent thereof both by nature & Scituation, who can be governed by no Laws, and have no other Tyes amongst themselves but inclination, and suppose that it's explained to them that they shall be governed by the Laws Liable to the punishments for high Treason, Murder, Robbery, and the pains and penaltys on Actions for property of Debt, then see how it will be relished, and whether they will agree to it, for without the Explanation, the Indians must be Strangers to the Word, & ignorant of the breach of it.²

The Ojibwas probably understood the practical meaning of sovereignty very well. People might "say, 'we acknowledge the great King to be our Father, we hold him fast by the hand, and we shall do [what] he desires" and "many such like words," and the colony's influence would grow, but there was not a chance that the British would really be sovereign, expect perhaps with reference to other states.

Treaties were an attempt to legitimize the land transfer, but formal written contracts had limited legitimacy to bind a society that did not understand British legal practices. The treaties are evidence that there was an understanding, but their written terms represented what the British officials wanted. The minutes of the proceedings provide some indication of what the deal really was, reinforced by events as they played out.

Resettlement, though it reshaped the cultures, material lives, economies and environment of the Kawarthas, did not efface cultural differences. The legitimzation did not hold together, spawning a powerful political cause to make right what had been done—though its terms continued to frame the debate. The treaties were about land, as opposed to water, and the history of native-newcomer relations is so often taken to centre on land, even though Ojibwas lived along the waterway. The treaties were a justification, and as such they were bound to contain inconsistencies, and to raise as many questions of justice and morality as they purported to settle. But, this would not hold up migration, because agricultural resettlement was the defining ideal of the era—states and individuals might benefit from it, but both had limited abilities to control it. From the time that the Ojibwas arrived in the Kawarthas, they had been somewhat in between empires. Nominally French allies, they often travelled to Albany or Oswego to trade. The English took an interest in trying to get them to "come off from the French Interest," and seem to have had some success. In 1746 Ojibwas joined the French in King George's War against the English, who had been currying favour through generous distributions of presents. Others took up the hatchet against the French.³

Until the time of the American Revolutionary War, relations between the Ojibwas and other native groups were as important as those with the imperial powers. Tribal wars were commonplace, especially pitting them against the Sioux or Fox. Ojibwas had been at peace with the Six Nations since the conquest of Southern Ontario. On several instances they affirmed their friendship and in 1746, the Iroquois declared the Mississaugas the Seventh Nation. However, relations were often uneasy, especially with Senecas.⁴

Despite British efforts to win them over, from the start of the Seven Years' War, Ojibwas sided with the French. The Iroquois were British allies, yet they and the Ojibwas tried not to go to war with each other. Yet Ojibwas complained from 1757 of Onondaga killings, and they took Iroquois hunting parties prisoner. Groups of Ojibwas from southern Ontario had numerous peace councils with the English every year from 1758 to the end of the war. The Ojibwas did not oppose the British landing to sack Fort Frontenac, but they assembled with their French allies for the Battle of Niagara in 1759. With the Iroquois backing the British, they called aside the Ojibwas before the battle, hoping that both could stand aside. According to one account the Ojibwas agreed. By another, 350 of France's 1000 native allies went to battle. The British captured Niagara, and tried to secure former French allies' support to complete the destruction of the French Empire. Some of them agreed.⁵

As the French were surrendering their Canadian possessions to the British, they transferred a claim of sovereignty—albeit with the reservation that the natives "shall be maintained in the Lands they inhabit." The French had previously performed ceremonies where they had claimed possession of the territory, but these certainly did not mean that they could actually control the region or its inhabitants. Many British officials like Sir William Johnson were well aware of the fiction, and continued efforts to make peace in

the region. Natives were often asked to confirm that they subjected themselves to the Crown, even though they were not burdened with the responsibilities that came with being a *subject*, nor entrusted with many of the rights. The government recognized that they often did not want to be part of this rubric. Implicitly, both empires acknowledged a degree of native sovereignty, even as they claimed sovereignty themselves. Nevertheless, a very large number of the inhabitants of the Great Lakes region did not want the British in their vicinity, yet the empire occupied posts, and built Fort Presqu'Isle on Lake Erie, without permission. Many natives had come to believe, after the Delaware Prophet Neolin, that God had made their lands for them.⁶

At the same time, the British found several ways to offend their native neighbours. Commander of the British Forces Jeffrey Amherst was contemptuous and determined to take a tougher stance. As they were taking over posts from the French, they also attempted to regulate the fur trade, and prohibit transactions in liquor, while limiting distribution of firearms and powder. Amherst thought it best to cut off the distribution of annual presents as they "only Serve to render the Indians Slothfull & Indolent, and burthen the Crown with a Needless Expence." This breached the natives' sense of courtesy, and seemed a sign that there was no place in the British world for them. There was some support among natives of the Great Lakes region for a ban on alcohol, but even officials themselves continued to distribute it and large quantities were stocked at trading posts. Sir William Johnson hoped ending the trade in liquor might improve relations by ensuring that traders would not get their customers drunk to swindle them, yet the ban remained a major irritant. Limiting the distribution of firearms and powder was outrageous, given their importance to native economies of the region. To groups living south of the Great Lakes, land was also becoming an issue as colonization pushed further west.⁷

Ottawas, Ojibwas, Potawatomis and Senecas attacked in May 1763, capturing Forts Sandusky, Miami, St. Joseph, Ouiatenon, Michilimackinac, Venango, Le Boeuf, and Presqu'Isle. Detroit, Pitt, Ligonier, and Bedford withstood sieges. Deadly traps were sprung around the post at Niagara and British troops were ambushed at Point Pelee. Ojibwas from southern Ontario took part in many of the attacks, yet the British seemed to believe, probably with reason, that others were not as hostile. Withstanding the attacks of

Pontiac's War, the British began the slow task of creating peace in the region, bringing the natives to accept their presence. Distributing presents and holding peace councils—including one with Shawacupaway from near Rice Lake—colonial officials implored them to ignore the "bad birds" and their mischievous suggestions, as war belts circulated.⁸

At these councils some attempts were made to set the framework for subsequent relations between Ojibwas and the British Crown. Negotiating for the British in 1764, Colonel John Bradstreet asserted that since the Ojibwas were "Subjects and Children," the British had "Sovereignty Over all and every part of this Coun<try > as full and as > Dominions whatever." They were to deliver anyone ample as in any part of his < who kills or plunders "any Subject" for trial under Colonial laws, and to make war on any party that breaks the peace. After Bradstreet insisted at another meeting, Ojibwa chief Wabbicommicot reportedly agreed "that it was proper and they now throw aside the Name of Brother and should ever Acknowledge themselves Subjects and Children of the King of England which they should always for the future call themselves." Though the British from that time on usually referred to them as 'Children' and recorded them replying to their 'Father,' the Ojibwas were not inclined to accept this and complained to Sir William Johnson. He readily admitted that the notion of subjection was a fiction, and had not been properly explained to them. Well aware of how far sovereignty claims were from reality, war scares were still fresh in the minds of colonial officials as the first shots of the American Revolution were fired at Lexington in 1775.⁹

As the Crown was working to pacify the Great Lakes region, trader David Ramsay murdered eight Ojibwas at Long Point on the north shore of Lake Erie in 1772. Sir William Johnson thought he was "of a disagreable temper, and probably endeavouring to over-reach them they warned him to remove otherwise they would maltreat him, of which however he took no notice but seemed to set them at defiance." Ramsay alleged that a man and two women, all intoxicated, demanded rum at his post and were refused. They smashed through a door with an axe, and he killed them. He was bound, threatened, and escaped, killing five more—three men, a woman and an infant. Having scalped them—a declaration of war by Ojibwa custom—he showed up at Niagara, scalps in hand, claiming that he thought war had already started. Arrested, he was sent to the Lower Province for trial. Claiming self-defence, he managed to secure his acquittal, even though the Earl of Dartmouth, Johnson and Gage had called for his execution. He walked in part because it was difficult to secure a conviction for anyone accused of a crime against natives, but also because of a lack of evidence. The Ojibwas did not testify. Sir William Johnson had remarked, "I don't think he will Suffer, had he killed a Hundred."¹⁰

Ramsay made his peace with the same community and returned to live among the relatives of those he had killed, becoming somewhat of a folk hero to subsequent settlers. Kahkewaquonaby or Peter Jones recalled him as "an eccentric white man," recounted the story of him refusing them liquor, being bound, the murders, and both Ramsay and British officers covering the dead by giving presents to the relatives of the deceased. Apparently, "when the Indians got drunk, but only when drunk... they still threatened to kill him."¹¹

In 1763, as Pontiac's War was petering out, King George III issued a Royal Proclamation which became a foundation for British relations with the Ojibwas. It implicitly acknowledged a degree of native independence, forbidding colonization and squatting west of the Appalachians and upholding their legal customs in their own territory. It clearly distinguished them from subjects, but foreshadowed the conflicts that would come between their interests and those of settlers, especially since it barely concealed British designs on the entire continent. The Proclamation established that the Crown alone could purchase lands and would regulate trade. The Imperial Plan of the Future Management of Indian Affairs of 1775 ensured that purchases would be conducted at councils. With a monopoly on purchasing land, the Crown could set prices and profit from the value created as land was converted to farm lots. The officials were preventing natives from being tricked into even worse deals, when many of them were not familiar with European commerce. Given British assumptions of the day that land would ultimately be resettled for agriculture, the Crown was trying to prevent the disputes that would accompany unregulated transactions-ensuring that colonization would almost always be peaceful. As arbiters of justice in land transactions and trade-in essence, of most aspects of native-European relations-colonial officials solidified power over America¹²

In the immediate term, the regulation of trade was the most significant aspect of the Proclamation for Ojibwas of Southern Ontario. In the settlement after Pontiac's War, the resumption of trade had been of primary importance, with looser regulations than under Amherst, particularly with respect to alcohol. Seeing no real way to stop liquor, his successor Major General Thomas Gage believed "we must at length yield to the immoderate Thirst which the Indians have for Rum, and let them have it" under some

1 lb vermilion2 medium beaversSteel trapLarge beaverKettleLarge beaverGilt trunkLarge beaverBed gownLarge beaverGood knifeRacoon1 gallon rumBeaverSilver arm bands2 or 3 beaversPair of wrist bands2 medium beaversPair of ear bobsBeaver lap2 large silver crossesLarge beaverSilver hair plate3 large beaversSilver gorgets for men2 large beavers & a lapStroud blanket2 beaversLarge French blanket2 medium beaversSmallMedium beaverRoll of garteringMedium beaver	2.1 British Trade	Equivalents, 1764 ¹³
KettleLarge beaverGilt trunkLarge beaverBed gownLarge beaverGood knifeRacoon1 gallon rumBeaverSilver arm bands2 or 3 beaversPair of wrist bands2 medium beaversPair of ear bobsBeaver lap2 large silver crossesLarge beaverSilver hair plate3 large beaversSilver gorgets for men2 large beavers & a lapStroud blanket2 beaversLarge French blanket2 medium beaversSmallMedium beaver		
Gilt trunkLarge beaverBed gownLarge beaverGood knifeRacoon1 gallon rumBeaverSilver arm bands2 or 3 beaversPair of wrist bands2 medium beaversPair of ear bobsBeaver lap2 large silver crossesLarge beaverSilver hair plate3 large beaversSmaller silver hair plate2 large beavers & a lapStroud blanket2 beaversLarge French blanket2 medium beaversSmallMedium beaver	Steel trap	Large beaver
Bed gownLarge beaverGood knifeRacoon1 gallon rumBeaverSilver arm bands2 or 3 beaversPair of wrist bands2 medium beaversPair of ear bobsBeaver lap2 large silver crossesLarge beaverSilver hair plate3 large beaversSmaller silver hair plate2 large beavers & a lapStroud blanket2 beaversLarge French blanket2 medium beaversSmallMedium beaver	Kettle	Large beaver
Good knifeRacoon1 gallon rumBeaverSilver arm bands2 or 3 beaversPair of wrist bands2 medium beaversPair of ear bobsBeaver lap2 large silver crossesLarge beaverSilver hair plate3 large beaversSmaller silver hair plate2 large beavers & a lapStroud blanket2 beaversLarge French blanket2 medium beaversSmallMedium beaver	Gilt trunk	Large beaver
1 gallon rumBeaverSilver arm bands2 or 3 beaversPair of wrist bands2 medium beaversPair of ear bobsBeaver lap2 large silver crossesLarge beaverSilver hair plate3 large beaversSmaller silver hair plate2 large beavers & a lapStroud blanket2 beaversLarge French blanket2 medium beaversSmallMedium beaver	Bed gown	Large beaver
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Pair of wrist bands2 medium beaversPair of ear bobsBeaver lap2 large silver crossesLarge beaverSilver hair plate3 large beaversSmaller silver hair plate2 large beaversSilver gorgets for men2 large beavers & a lapStroud blanket2 beaversLarge French blanket2 medium beaversSecond sizeLarge beaverSmallMedium beaver	1 gallon rum	Beaver
Pair of ear bobsBeaver lap2 large silver crossesLarge beaverSilver hair plate3 large beaversSmaller silver hair plate2 large beaversSilver gorgets for men2 large beavers & a lapStroud blanket2 beaversLarge French blanket2 medium beaversSecond sizeLarge beaverSmallMedium beaver	Silver arm bands	2 or 3 beavers
2 large silver crossesLarge beaverSilver hair plate3 large beaversSmaller silver hair plate2 large beaversSilver gorgets for men2 large beavers & a lapStroud blanket2 beaversLarge French blanket2 medium beaversSecond sizeLarge beaverSmallMedium beaver	Pair of wrist bands	2 medium beavers
Silver hair plate3 large beaversSmaller silver hair plate2 large beaversSilver gorgets for men2 large beavers & a lapStroud blanket2 beaversLarge French blanket2 medium beaversSecond sizeLarge beaverSmallMedium beaver	Pair of ear bobs	Beaver lap
Smaller silver hair plate2 large beaversSilver gorgets for men2 large beavers & a lapStroud blanket2 beaversLarge French blanket2 medium beaversSecond sizeLarge beaverSmallMedium beaver	2 large silver crosses	Large beaver
Silver gorgets for men2 large beavers & a lapStroud blanket2 beaversLarge French blanket2 medium beaversSecond sizeLarge beaverSmallMedium beaver	Silver hair plate	3 large beavers
Stroud blanket2 beaversLarge French blanket2 medium beaversSecond sizeLarge beaverSmallMedium beaver	Smaller silver hair plate	2 large beavers
Large French blanket2 medium beaversSecond sizeLarge beaverSmallMedium beaver	Silver gorgets for men	2 large beavers & a lap
Second sizeLarge beaverSmallMedium beaver	Stroud blanket	2 beavers
Small Medium beaver	Large French blanket	2 medium beavers
	Second size	Large beaver
Roll of gartering Medium heaver	Small	Medium beaver
Neurum beaver	Roll of gartering	Medium beaver
Man's ruffled shirt Medium beaver	Man's ruffled shirt	Medium beaver
300 wampumLarge beaver	300 wampum	Large beaver

restrictions. Alcohol remained an illegal and controversial trade item, but it continued to flow.¹⁴ Sir William Johnson set trade equivalences and required the use of proper measures, hoping to prevent natives from being swindled. The prices he set ensured that the trade goods received represented a substantial improvement on the labour of trapping. Debts were also not legally

recoverable, which many hoped would save trappers from exploitation. But to assume that natives would bring in their furs at the time they acquired guns, winter clothing and ammunition was unrealistic, because the supplies were needed before the game was harvested. As traders were generally adopted into the community, they were expected to advance goods as part of day-to-day give and take. The colony found it very difficult to enforce any regulations. Traders, in theory, were to be licensed annually, but many slipped by. The Crown also attempted to limit trade to official posts. This was unpopular with traders, and the least scrupulous carried on unsupervised. Though officials relented, they continued to provide a way to settle grievances with traders, and their regulation of the trade remained important long after the establishment of Upper Canada.¹⁵

Though Ojibwas were again somewhat divided in their involvement—many fought for the Crown, while others stood aside—the American Revolutionary War was as much a turning point for Southern Ontario Ojibwas as it was for the British Empire. Up to this point, colonialism and the British Crown had been distant. Other than traders and post garrisons, there were almost no colonists north of the Great Lakes before 1784. When the defeated Loyalists began streaming to Quinte, settlement was on their doorstep. Concentrated in Prince Edward County, Loyalist habitations spread west towards the Kawarthas from the outlet of the Trent. In these early years, the refugees needed a fair bit of help to get established. It was clear from the start, however, that negotiating the Loyalist migration meant negotiating land use in southern Ontario.¹⁶

While the framework of fictions that the British Crown had been creating had been somewhat distant from Ojibwas' lives before the American Revolutionary Wars, as the Loyalists set out to settle southern Ontario it became far more significant. The story of sovereignty, buttressed by the Proclamation, ensured that the immigrants would leave many of the arrangements with the Ojibwas to their government. Since the Crown claimed that Ojibwas were loyal to their 'Great Father' the King, it felt justified in arbitrating matters between Ojibwas and settlers. There was also the other side of the fiction—the "extravagant" ideas of the King inculcated in Ojibwas:

They imagine his power to be absolute, and his authority unlimited; that his word is law, to which all his subjects bow with implicit obedience; that his wigwam is the largest in the world, and decorated with the most gorgeous trappings; that he sits upon his throne, clothed in robes of many colours, surrounded by his officers of state.

The expanding claims of government facilitated and justified the expansion of the British Empire on the ground. As they set up legal structures significant within the British system, but not in the native, they were preparing to legitimize what was happening. Many observers noticed the inconsistencies between rhetoric and reality, but it mattered little, because few questioned that settlement was inevitable. Once enough people were committed, it would happen. The British Crown pacified resettlement, smoothing its questionable legitimacy with a complex justification. Colonial elites often contributed to overcoming troubled consciences, including Thomas Need, who put together a lengthy moralizing essay. They made the case for land redistribution by portraying Upper Canada as a land of great potential standing unused or empty—hoping that others might see that relative to their vision, it was empty. As state powers expanded, the tale became much more convincing. The closer sovereignty came to becoming reality, the more credible were their early claims to sovereignty. Once enough people accepted these claims—which simplified settlers' lives by giving them undisputable fee simple tenure—they became effectively true.¹⁷

The British legal structures obliged the Crown to treat with the Ojibwas for their land—ownership was confirmed in the Royal Proclamation and the Instructions to Governor James Murray in 1763.¹⁸ So the Crown concluded a series of treaties with the Ojibwas, which purported to surrender all rights to the land. In 1783, a treaty ceded land from the Bay of Quinte east. The following year it was confirmed that this cession ran thirty six miles back from the head of the Bay of Quinte.¹⁹

Unfortunately for the Crown, it botched its justification. Sir John Johnson met 626 Ojibwas of south-central Ontario at the Bay of Quinte in September 1787, while another 391 met at Toronto. Having assembled nearly all of the residents of the region, he distributed rum on the 18th and in the words of traveller John Long:

They danced and sung all night, their war songs; one of them I particularly noticed, which was to the following effect:— 'At last our good father is arrived, he has broken the small branches and cleared his way to meet us. He has given us presents in abundance, and only demands this large bed (meaning a considerable tract of land which was described on a map).'

When Sir John called a council the next day at noon, the sources differ on which parcel he requested. One account says that it was the transportation route from Toronto to Lake Huron. But it seems that it was actually the north shore of Lake Ontario.²⁰

In any event, the Crown had a difficult time producing a legal conveyance, because they did not know the area well enough to accurately describe it, nor could they expect the Ojibwas to allow a survey in advance of a treaty—John Collins completed the exploratory survey in 1790-1792. Sir John Johnson said that he did not produce any documents from the meeting, but it seems that he had chiefs Wabikane, Neace and Paqua (Pakquan) place their marks on a blank treaty. Four years earlier a similar document had been produced for the tract to the east. In 1795, Nathaniel Lines, the interpreter, explained that Sir John was intending to fill it in at a later date, once he could produce the description. Because he never did, it was legally worthless. It was, however, a testament to the fact that there was an agreement, and it seems that the Ojibwas were willing to allow settlement on the north shore of Lake Ontario and received £2000 in goods. The party from Rice Lake left with a barrel and a half of powder, half a case of shot, a keg of ball, eleven guns and four carrots of tobacco. The total distributed to 1017 people was thirteen barrels of powder, nine cases of shot, twenty-six kegs of ball, 171 guns and 45 carrots of tobacco. It is not clear whether the presents were for the land cession or for services rendered in the American Revolutionary Wars.²¹

In August 1788, John Butler called together Mississauga Chiefs Paqua and Wabikanyne, and he claimed that they ceded land from the Etobicoke River to the Bay of Quinte, back as far as Rice Lake and Lake Simcoe. They demanded twenty-five guineas for allowing the boundary to be run as a straight line "from the Places of Beginning" Above Toronto 15 or 16 Miles Back." Later that month, Joseph Chew met Chief Shawacupaway at the landing on the south shore of Rice Lake and recorded him saying that they "have not forgot what was told them at Toronto...[and] they have considered amongst themselves and have agreed to let their Great Father have the Lands." He apparently specified that it ran from the previous cession in the east to the land purchased at Toronto, back no more than ten miles. As he agreed to the Crown's requests, he asked to receive presents of kettles, tomahawks, spears and rum.²² Nathaniel Lines in 1795 recalled the tract commenced "at the Head or Carrying Place of the Bay of Quinte to a Creek called Tobeka from seven to fourteen miles above Toronto with a Reservation of the Rice Lake," another reservation he did not recall, and ran "in Depth 10 or 12 miles nearly so far as the Rice Lake and above the Rice Lake a Common days journey back as far as Toronto."²³ Discrepancies between recollections of the treaty boundaries were soon causing trouble. Chief Wabikanyne stopped the survey around Toronto, claiming they had not surrendered land past the Humber River. Lines convinced Wabikanyne to allow the survey to begin at the Etobicoke River, but the chief then warned the surveyor not to

cross a creek 2 $\frac{3}{4}$ miles inland. In other parts of southern Ontario similar problems arose.²⁴

In 1794 Governor Lord Dorchester declared the 1787/1788 treaty invalid because its terms did not describe any territory. Until the Williams Treaties in 1923 there was no legal conveyance for the surrender of the region. By the time of John Graves Simcoe's administration, Sir John Johnson was absenting himself from the colony, annoyed that he had not been appointed Lieutenant-Governor. When called upon to explain the earlier transaction, he insisted that there had been an agreement, all parties concerned were satisfied, and that if required the Ojibwas should sign a proper treaty. He may have been right, because they seemed to accept the outlines of the agreement, and later ensured that certain boundaries would not be exceeded. The next colonial administrator, Peter Russell, suggested that the Crown might ask for a cession of adjacent land, and include a term that recapitulated past agreements so they would be legally binding. The Governor rejected this option because the Ojibwas might be outraged when they learned of the trick, and decided to keep the matter quiet. They felt that the problem "if more generally known, would probably shake the Tranquility of many respectable Persons," as "The Kings right to any Part of the Land between the Rivers Etobicoak & Don, may become very doubtful." Their "tenure of the intermediate Space (involving a great many well cultivated farms, as well as the Seat of Government) might consequently be at the Mercy of the Messissagues, who, if they are apprized of the Circumstance, might be induced to give trouble with a view of making their own advantages from it."²⁵

Nevertheless, Peter Russell called a council with the Ojibwas of Lake Simcoe on May 22, 1798, where he sought some assurance that the transaction stood. He explained:

I am informed that you have long ceded the whole of the Country to the Southward and Eastward of the Waters of the Lake to your Great Father through his servants Sir John Johnson and Col. Butler; and having given 3 or 4 miles on each side of the path leading through this tract to Lake Simcoe, there cannot be but a small portion of the Land which I ask which is not already the King's. But as the expression of Miles makes no boundary which may not be ignorantly trespassed upon, it is my desire that you would give the West and East Branches of the Holland River as the Boundaries, lest the King's subjects should by mistake at any time encroach upon the Indian Territory and give offence—For the West branch of that river then becoming the limit of the English possessions on that side, we should take care not to trespass beyond it. They recorded Chief Yellowhead's reply:

If you white people forget your transactions with us, we do not. The lands you have just now shew to us belongs to you; We have nothing to do with it; We have sold it to our Great Father the King, and was well paid for it. Therefore make your mind easy. There may be some of our young people who do not think so; They may tell your people that the Land is ours, but you must not open your ears to them, but take them by the arm and put them out of your houses.

Reassured about the validity of British possession, the Ojibwas around the Credit were also called upon to reaffirm the transaction at the 1805 treaty, thereby implementing parts of the scheme Dorchester had rejected.²⁶

The agreement was not reflected in a text that only the Crown understood, but was borne out by what happened. The Ojibwas seem to have understood that they were allowing settlement as far north as Rice Lake, but not including any islands in the lake itself or in Lake Scugog. They would continue living much as they had before, though they would have to adjust to the changes that came with settlement. The ceded area had been and for the time being continued to be used primarily for hunting, fishing, trapping and gathering, and contained the Rice Lake Plains.

The first waves of settlement brought a significant change with the damming of the streams and rivers tributary to Lake Ontario. Lacking fishways these early dams interfered with the spawning runs that were important to Ojibwas' seasonal rounds. They continued to hunt and fish where they could find game in this area, but their prospects for success were reduced. Issues also arose as many immigrants did not believe that natives should hunt, fish and trap on or near their property. Some might brandish their guns to emphasize the point. It was fortunate that Ojibwas did much of their hunting and trapping north of the treaty line. They expected continued access to wild rice, as with most of their other resources. In essence, Ojibwas were allowing the Loyalists to move into their homeland, making the best of the situation, even though some thought of the settlers as "intruders whom they cannot expel." The economies would, and largely did, coexist.²⁷ They were interdependent from the beginning, despite the several ways in which their interests might differ with regard to particular resources. But the Ojibwas were certainly

not giving the Crown the right to exclude them from the region, though Crown officials framed the documents to read that way.²⁸

With the Loyalist migration, the Crown became much more important in the everyday lives of Ojibwas, mediating their relations with settlers. Aside from treaty councils and present distributions, the Crown usually required all business to be transacted through chiefs, recognized with medals. It was long established practice that only chiefs who presented their medals would be admitted to British posts. The British insisted on their right to choose the chiefs, though in practice it was difficult to deny the Ojibwas' wishes. In 1828, James Givins briefly attempted to block Kahkewaquonaby's nomination as chief, but this case was certainly exceptional. Often they simply recognized the Ojibwas' *ogimas* or civil chiefs—often hereditary leaders who worked through building consensus. As the British took over French claims to the region, they often gave their medals in place of the French. It was difficult at times for the Crown to parse through the internal politics of Ojibwas communities and determine who should be formalized a chief. Yet the road to prominence within native villages involved an increasing degree of official manipulation. As the nineteenth century progressed, formal, European-style public meetings became the vehicle for band business.²⁹

The Crown had made clear early on that chiefs must remain faithful to their 'Great Father.' Sir William Johnson accompanied a chief's medal with the following testimonial:

Whereas I have received repeated proofs of your Attachment to his Britanic Majesty's Interests, and Led for his Service upon Sundry occasions most particularly ______. I do theretofore give you this Public Testimonial as a Proof of his Majesty's Esteem of Approbation Desiring you the said _______ to be a ______ of Your ______ and recommending it to all his Majesty's Subjects and Faithfull Indian Allies to Treat and Confer you upon all occasions agreeable to your Character, Station and Services.

Chiefs were well aware that their position, and hence their ability to confer advantages to their community, was in part derived from the Crown. With colonial officials taking for granted a revolution to an agricultural way of life, chiefs often had some interest in encouraging the project. They were among the strongest proponents of cultural adaptation. The Crown, on the other hand, relied on the assistance of the chiefs to legitimize and facilitate settlement, and served as an avenue for redress. That they were able to find some common ground did much to ensure domestic peace in Upper Canada, which served to further resettlement.³⁰

In practice, the Crown afforded Ojibwas autonomy in internal affairs, as was apparent with the justice system. Aside from cases of inter-societal murders, in the early years of Upper Canada the legal system was loath to get involved with Ojibwa affairs. It had a great deal of difficulty dealing with cases, because they fit awkwardly into legal conventions. Under the 1764 Plan for the Future Management of Indian Affairs, reaffirmed eleven years later, natives' testimony became admissible in court, and subject to the same penalties that settlers faced for perjury. On occasion it actually was admitted, but this was unusual.³¹

Two murder cases had significant ramifications for the Kawartha Lakes region. In August 1796, Charles McEwan of the Queen's Rangers murdered Grand Chief Wabikanyne and his wife at York. The Ojibwas had been drinking, and accounts differ as to whether McEwan was soliciting the chief's sister as a prostitute or attempting to abduct her. When Wabikanyne and his wife went to her aid, both were beaten and died from their injuries. McEwan was charged and tried, but acquitted when the court could not establish that Wabikanyne was dead—the colonial officials were not as concerned with his wife's demise. There were Ojibwas at the trial, but they were not called to provide any evidence. Major Shanks, who received the complaint from the Ojibwas, covered the dead following their custom—their notion of justice centred on consoling the family and village with presents for their loss.³²

The decision caused an outrage, and could not have come at a worse time. The United States had just finished blasting the natives out of the Old Northwest around the Ohio River, including Shawnees, who were considered the Ojibwas' kin. Many believed that they should stand alongside their brethren in arms, and called for a rising north of the Great Lakes. Chiefs from Lake Simcoe and Georgian Bay called for revenge and travelled to York demanding that the Administrator of Upper Canada, Peter Russell, provide restitution. The following February, Chief Nimquasim from Georgian Bay reportedly said while intoxicated "that upon the whole it was his wish to open a war against the English to get satisfaction for what had been done." In 1798, Chief Paqua sought the support of southern Ojibwa for an attack, anticipating American, Spanish and French aid. Chiefs

asked Mohawk Chief Joseph Brant for assistance, but he refused, knowing the empire's

strength first hand from his years working with British officials. The government began preparing for a rising, Governor Robert Prescott sent arms for the militia, and Russell was lobbying for new blockhouses to defend the capital. But by 1799 the crisis blew over, although justice was still not done, and it seems to have been the last time the Ojibwas of south-Central Ontario considered an armed rising.³³

In the spring of 1804, the situation was reversed. Ogetonicut, from Lake Scugog, murdered John Sharp, the servant of fur traders Aikens and Moody Farewell, who operated the post on Washburn Island. He was apparently retaliating against Samuel Cozens—a Loyalist and employee of Provincial Registrar and Secretary William Jarvis—who murdered his brother, Whistling Duck. Though the first crime apparently went unpunished, the Crown negotiated Ogetonicut's surrender. His trial was to occur in the district where the offence occurred, but

2.2 Presents distributed at Rice Lake 1796-1799³⁴

Blankets (per capita) Men 0.31 Women 0.26 Children 0.54 Total 0.34 Material (per capita) 0.34 Material (per capita) 2.22 Gartering (yd) 1.24 Ribbon (yd) 0.09 Thread (oz) 0.15 Needles 1.11 Other presents (per family) 3.18 Ball & shot (lb) 2.79 Ivory combs 0.18 Guns 0.14 Gun powder (lb) 0.89 Fish hooks 0.64 Gun flints 0.59	Rice Lake 1796-17	7 99 ³
Women 0.26 Children 0.54 Total 0.34 Material (per capita)	Blankets (per capita)	
Children0.54Total0.34Material (per capita)Assorted Cloth (yd)2.22Gartering (yd)1.24Ribbon (yd)0.09Thread (oz)0.15Needles1.11Other presents (per family)Ball & shot (lb)2.79Ivory combs0.18Guns0.14Gun powder (lb)0.89Fish hooks0.64Gun flints0.59	Men	0.31
Total0.34Material (per capita)Assorted Cloth (yd)2.22Gartering (yd)1.24Ribbon (yd)0.09Thread (oz)0.15Needles1.11Other presents (per family)Ball & shot (lb)2.79Ivory combs0.18Guns0.14Gun powder (lb)0.89Fish hooks0.64Gun flints0.59	Women	0.26
Material (per capita)Assorted Cloth (yd)2.22Gartering (yd)1.24Ribbon (yd)0.09Thread (oz)0.15Needles1.11Other presents (per family)Ball & shot (lb)2.79Ivory combs0.18Guns0.14Gun powder (lb)0.89Fish hooks0.64Gun flints0.59	Children	0.54
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Thread (oz)0.15Needles1.11Other presents (per family)Ball & shot (lb)2.79Ivory combs0.18Guns0.14Gun powder (lb)0.89Fish hooks0.64Gun flints0.59	Gartering (yd)	1.24
Needles1.11Other presents (per family)Ball & shot (lb)2.79Ivory combs0.18Guns0.14Gun powder (lb)0.89Fish hooks0.64Gun flints0.59	Ribbon (yd)	0.09
Other presents (per Family)Ball & shot (lb)2.79Ivory combs0.18Guns0.14Gun powder (lb)0.89Fish hooks0.64Gun flints0.59	Thread (oz)	0.15
Ball & shot (lb)2.79Ivory combs0.18Guns0.14Gun powder (lb)0.89Fish hooks0.64Gun flints0.59	Needles	1.11
Ivory combs0.18Guns0.14Gun powder (lb)0.89Fish hooks0.64Gun flints0.59	Other presents (per f	family)
Guns0.14Gun powder (lb)0.89Fish hooks0.64Gun flints0.59	Ball & shot (lb)	2.79
Gun powder (lb)0.89Fish hooks0.64Gun flints0.59	Ivory combs	0.18
Fish hooks0.64Gun flints0.59	Guns	0.14
Gun flints 0.59	Gun powder (lb)	0.89
	Fish hooks	0.64
Putcher knives 0.51	Gun flints	0.59
Dutchel Knives 0.31	Butcher knives	0.51
Looking glasses 0.17	Looking glasses	0.17
Fish lines 0.54	Fish lines	0.54
Tobacco (lb) 0.89	Tobacco (lb)	0.89
Vermilion (oz) 1.71	Vermilion (oz)	1.71

officials were not sure whether that was the Home or Newcastle District. Samuel Wilmot was hired to survey the boundary and determined that the murder had happened in the Newcastle District. Therefore Ogetonecut was sent on the schooner *Speedy* at Oshawa to Presqu'Isle for his trial. While they were sailing on October 7, a storm blew over the lake, and the *Speedy* disappeared, taking with it Ogetonicut; Jacob Herkimer, a fur trader of Toronto who also traded at Rice Lake; the Solicitor General; another member of the house of assembly; judge; and high constable. The Farewells survived because they had gone on their own in a canoe, having business to transact at the Quinte Carrying Place.³⁵

The loss of the *Speedy* ended what certainly would have been an awkward trial politically, but it did not end the problem of inter-societal justice, nor the perception that most crimes would go unpunished—correct, it seems, even though there were occasional

	4	2.3 I lai	n of Annu	al l'Iesei	113, C. I	010			
	Chief	Man	Woman	Boy	Boy	Boy	Girl	Girl	Girl
				10-15	5-9	1-4	10-14	5-9	1-4
Blanket (points)	3	3	2.5	2	1.5	1	2	1.5	1
Cloth (yd)	0.75	-	-	-	-	I	-	-	-
Caddies (yd)	-	-	-	-	0.75	-	0.75	0.5	-
Molton (yd)	-	1.5	-	-	-	-	-	-	-
Rateen (yd)	-		0.75	0.5	-	-	-	-	0.25
Stroud (yd)	0.33	0.33	1.75	0.33	0.25	-	1.25	0.75	0.5
Irish linen (yd)	3	-	-	-	-	-	-	-	-
Calico (yd)	-	-	2.5	-	-	-	2	1.5	1
Cotton (yd)	-	2.5	-	2	1.5	1	-	-	-
Thread (lb)	0.33	0.33	0.5	-	-	-	-	-	-
Gartering (yd)	6	6	12	-	-	-	-	-	-
Vermilion (lb)	1	0.5	-	-	-	-	-	-	-
Combs	1	1	1	-	-	-	-	-	-
Awls	1	1	1	-	-	-	-	-	-
Firesteels	1	1	-	-	-	I	-	-	-
Butcher knives	1	1	1	-	-	I	-	-	-
Sewing needles	2	2	2	-	-	I	-	-	-
Tobacco (lb)	3	2	-	-	-	I	-	-	-
Pipes	2	2	-	-	-	I	-	-	-
Ball (lb)	3	2	-	-	-	-	-	-	-
Shot (lb)	9	7	-	-	-	-	-	-	-
Gunpowder (lb)	4	3	-	-	-	-	-	-	-
Flints	6	4	-	-	-	-	-	-	-
Gunworms	1	1	-	-	-	-	-	-	-

2.3 Plan of Annual Presents, c. 1816³⁶

convictions. Numerous other trials took place around Upper Canada during the period when colonial officials were facilitating settlement. In each case, resolution came through a negotiated political settlement and it was clear that natives were not considered subjects under the law. But many natives did not want British justice—their customs of covering the dead persisted alongside these trials. Ojibwas and the British did not produce a means of resolving murder cases that both found acceptable.³⁷

Colonial officials had little legal influence on the day-to-day lives of Ojibwas prior to the missions of the mid 1820s. For most, their only regular meetings with the Crown were at present distributions. In the early days of Upper Canada, presents were still a reciprocal exchange. Ojibwas brought venison, fish, and especially maple sugar, which seemed to have been greatly appreciated, to British posts. Usually in the fall, before they set off for their hunting camps, they received a plethora of goods from the Crown, who also provisioned them while they were assembled. Similar in type to what they might receive from traders, though with less alcohol, they were often eager in this season to receive ball, powder, shot and winter clothing. Presents had become significant to their daily material lives, and if the Crown neglected their presents for a year or two, as sometimes happened through carelessness, it would be a hardship.³⁸

At the end of the eighteenth century the Crown gave each adult a blanket roughly every four years and each child one every two years. It also gave each person more than two yards of cloth. A man would receive a gun every seven to ten years, as well as a fishhook and line every couple of years. The government wanted to distinguish chiefs so it gave them separate presents in addition to the annual distribution. By the 1770s, chiefs were rewarded with woollen hats, special guns and silver jewellery. In wartime, the government used generosity as a way of cultivating loyalty. These communities also received six or twelve hats a year, perhaps a dozen shoes, one or two dozen hoes and eighty to one hundred pounds of kettles. Around 1816, Ojibwas were to receive a blanket each and several yards of cloth annually among their presents.³⁹

From the outset of settlement in Upper Canada, the Crown tried to prevent the spread of epidemic diseases. As early as 1783, it was inoculating natives, particularly against smallpox. As vaccines came into use, the catastrophic population declines of the early colonial period seem to have ceased. By the 1830s, medical assistance was becoming far more comprehensive—agents often helped bring in local doctors, the department recruited practitioners to serve on reserves, and provided medical chests in the 1840s.⁴⁰

While Ojibwas were bound ever tighter with colonial societies, resettlement itself was not nearly as significant in their lives, nor so deleterious as is often assumed. Many contemporary writers took great pride in the expansion of the British Empire, viewing every treaty as an expansion of resettlement. Imperial maps can seem to indicate that Ojibwas were excluded. But it was not nearly so simple. With Ojibwas' generally—though not universally—acknowledged right to continue hunting, fishing and trapping

along the waterway much as had they always done, it was the pace of actual settlement, rather than the treaties, that directly impacted their lives.

Though the Crown disposed of the land very quickly, the bulk of it went to land speculators, and then took decades to attract settlers. The rate at which Upper Canada disposed of grantable land far exceeded the rate of settlement. By and large, the Crown started with townships fronting the Great Lakes, then worked inland. By the time officials came calling on the Kawartha Lakes Ojibwas to cede the second tier of their land, settlement was still not particularly dense in the front townships, hence many aspects of the Ojibwas' ecosystems were relatively intact. By and large, mutual use of the front townships continued, though areas that Ojibwas could use were shrinking. The Crown was, however, spurred towards securing more land, because squatters were beginning to infiltrate unceded areas, prompting complaints from Ojibwas.⁴¹

By 1818, the political situation had changed. Whereas at the first treaty, the Ojibwas were dealing with recent refugees, with the passing of a generation the assumption was firmly entrenched that (almost) all land was to become farmland. In this round, the Crown asked for what they took to be all of the Ojibwas' remaining land. The boundaries of their territory were by no means clear. The Crown set the northern boundary at 45 degrees north running west "to a bay at the northern entrance of Lake Simcoe." Setting aside the fact that the parallel is north of this bay, this would encompass all land which they regularly used. But the question later arose whether they should have been compensated for all land south of the next communities to the north.

In 1818 squatters were already arriving north of Rice Lake. At least some Rice Lakers also believed what the Crown took too much of their territory along the northern boundary in 1787/1788, so they moved and defaced survey posts on Monaghan concession XV in 1818.⁴² The Crown saw no way of stopping squatters, nor did they particularly wish to, and assumed that the boundary was correct, despite the irregularities of the last treaty. It was clear on both sides that settlement was going to occur in any case. The Crown would not stop it, and ultimately the best Ojibwas could do was to accept the compensation offered.

Deputy Superintendent General of Indian Affairs William Claus called a council with the Ojibwas of south-central Ontario on November 5, 1818. He asked for the land,

and that they stop interfering with survey posts. Before deliberating, chief Buckquaquet asked for provisions and rum, and it is not clear whether his wish was granted. Upon their return, he explained that "If I was to refuse what our Father has requested, our women & children would be more to be pitied. From our land we receive hardly anything & if your words are true we will get more by parting with them than by keeping them." He then asked "that we shall not be prevented from the right of Fishing, the use of the waters & hunting where we can find game" and for the reservation of the islands. He promised to ensure that his people would not harm the immigrants. Claus said he would ask their 'Great Father' about the islands, assuring them, "I have no doubt but that he will accede to your wish." He explained "rivers are open to all & you have an equal right to fish and hunt on them." The five chiefs present then put their marks on the treaty. The treaty was a land transfer document, memorializing the agreement that the Crown came asking for, not what the Ojibwas wanted.⁴³

Instead of goods, His Majesty offered an annuity this time, intended to help make good the loss from the alienation of their land, and financed the purchase for the Crown. The 1818 treaty granted £740 annually to the Rice, Mud and Scugog Lake villages. It was to last "as long as any of you remain on the Earth... besides the presents he now gives you." The Crown would "give you clothing in payment every year." The Crown later mused about reinterpreting this as \$10 per head, which was a rough equivalence. It also attempted to claim that the annuity would only be granted based on the number of survivors from the treaty. Nevertheless, the department continued to grant £740, even after the signatories were all deceased. On top of their annuity they continued to receive cloth, blankets, shawls, thread, needles, combs, awls, butcher knives, tobacco, ball, shot, powder, flints, percussion caps, guns, brass and tin kettles as presents. ⁴⁴

Three years after the treaty was signed, there was a "violent explosion" among the Ojibwas of the Kawarthas, because they had seen nothing of the presents that the government promised for their lands. Surveyor Charles Hayes was concerned about his safety in completing the plan of Marmora. The Crown presumably resumed paying the annuities in the short term, but in 1829 decided to henceforth deposit the funds to an account for the community's benefit. No cash was to be advanced without a signed

requisition from the chief stating the purpose. Under this system the benefits of the annuity were often less immediate.⁴⁵

Colonial officials managed this money, so their priorities influenced what the Ojibwas got. Since the Indian Department vetted each expense, annuities would be devoted overwhelmingly to the project of turning Ojibwas into farmers, and providing them with a British education. Common expenditures were houses, schools, churches, oxen, farm implements and seeds. The fund might also pay missionaries or school teachers. In effect, it funded departmental spending. Unable to read English, and not being versed in the conventions of public accounting, Ojibwas were largely at the mercy of the Indian Department. To their further misfortune, Samuel Peter Jarvis—Chief Superintendent from June 1837—was not above helping himself from the till. Ojibwa chiefs soon learned, probably through Kahkewaquonaby, that they could not trust him. Kahkewaquonaby was not allowed to see financial statements to ensure that his band's annuity could be properly accounted for. Other chiefs asked and were routinely denied. The secrecy was concealing thefts.⁴⁶

In May 1841, without consulting any member of the band, Jarvis requested £500 (their annuity was only £740) citing 'tribal expenses,' and his warrant was approved pending the signature of Cheneebeesh (George Paudash). In the meantime, the band had arranged with settlers to make several purchases, including cattle and a yoke of oxen. Cheneebeesh wrote to Jarvis in mid-May asking for money to pay these bills. In mid-June Cheneebeesh went to Toronto to get the money from Jarvis, who was away, so the chief returned home to repeat the written request. In early July, Jarvis explained that he would have to return personally, but suggested, "if it is not convenient for you to come up you must sign the enclosed powers of attorney and send them to me at Toronto & then I will forward the amount to you addressed to the Otanabee Post Office." On July 5, Cheneebeesh signed documents allowing Jarvis to receive "all sums of money due to him for or on account of any warrant or warrants that may have been issued by the Governor General in his name on account of the annuity due to his tribe."⁴⁷

Jarvis used this to take the £500, which he put in his bank account, and disregarded Cheneebeesh's request for funds. In September, Cheneebeesh went to the Indian Department Office in Kingston to inquire of Jarvis. Through an interpreter, he

noticed the £500 that had been drawn from the account, which the Superintendent claimed he had authorized. The chief knew that he had been deceived and hired Mr. Maddock as his attorney to complain to the Governor General about the theft and refusal to provide an account statement. Cheneebeesh resubmitted the request for funds. Jarvis drew another £300 on the account and finally sent it to the band in October.⁴⁸

The Bagot Commission investigated the matter and found that this incident was only the tip of the iceberg. Jarvis had drawn warrants for between £200 and £500 from various bands, with the explanation, "for the use of the tribe." His department routinely showed discrepancies between the amount paid to the natives and the amount drawn on the accounts. He was dismissed on May 10, 1845, but not before he misplaced, according to the final accountant's examination, £6375 6s. 11d. It seems that Jarvis was never forced to repay the money.⁴⁹

This was not the only case where Ojibwas' funds were misappropriated. In 1840, William Cottingham, a contractor for houses on Balsam Lake reserve, complained to Sir George Arthur that he had not received £150 in payment for construction. The money had been taken from the band's annuity and given to Alexander McDonell, but he did not pay Cottingham. He then took another £150 from the account, prompting the Bagot Commission to demand that McDonell account for the money.⁵⁰

While they were not always straightforward in their dealings with Ojibwas, the Indian Department was always looking for ways to reduce expenditures—in the 1820s some thought was given to eliminating the office entirely. As the empire emphasized parsimony, presents were difficult to justify. The Ojibwas had been told at their treaty council that they would receive presents and their annuity. The importance of the annual distribution to them justified the lengths they went to ensure receipt. Nevertheless, in 1845 the Department announced that children born after January 1, 1846 would not receive presents, prompting protests that lasted until 1854. All presents were cut off in 1858.⁵¹

Indian Department administration cut both ways—it provided some help for Ojibwas to become farmers, bringing a host of skills to contribute to their livelihoods, which had genuine appeal in the early to mid nineteenth century. But the treaty posed a fundamental challenge to Ojibwa society. Like the first treaty, there was a written

document, which made no mention of where or how they were to live, yet purported to memorialize an agreement where they had clearly understood they would contine to live in the area. Despite Claus' qualification in the council minutes, it seemed to be understood in the aftermath of the treaty that Ojibwas could continue to hunt and fish as they wished, and did reserve the islands for themselves. For many years following the treaty, this entente was, by and large, honoured. As the documents said nothing of the Ojibwas side of the bargain, and while Ojibwas' rights were acknowledged in the short term, that absence provided grounds to speculate whether the Crown had assumed (as proved more or less to be the case) that the written word would triumph.⁵²

The following generation of Ojibwas, most raised with some degree of British education, realized what had happened. Knowing the importance that the empire placed on formal documents, claims began at once. They observed the discrepancy between what the Crown gave them and what the land was soon worth on the private market. The \pounds 740 annuity prompted Kahgegagahbowh or George Copway to sarcastically remark, "What a *great sum* for British generosity!"⁵³

They also realized that although land had been set aside for them to live upon, they had no legal documents attesting to their rights. So Kahkewaquonaby agitated for title. Securing an Ojibwa form of ownership within the British legal system was complicated. Granting conventional title was generally agreed—by native and colonial leaders alike—to be out of the question. If that had been done they would have been subject to taxation and seizure for debt. If individuals held fee simple tenure, there was no guarantee that they would understand what it meant in the context of the British legal system when someone came asking to purchase their land, and many might be swindled. It was therefore generally agreed that land must be held in common, and that all members of a community must agree to its alienation—formalized in the Royal Proclamation. Kahkewaquonaby demanded that the communities have legal titles, and pressed the matter until he received an audience with Colonial Secretary Lord Glenelg and Queen Victoria.⁵⁴

One key tenet of rational land organization was taken for granted: Ojibwas' homes, like everyone else's, would be fixed at a particular point. While in the short term this had little practical effect on their economies, as the generations passed, the

expectation that they would live largely on the reserve became entrenched. For the community at Rice Lake, the location of their reserve, given the Iroquois name Hiawatha after the Longfellow poem, had been the site of their village for generations. The Anglican Society for the Propagation of the Gospel, who oversaw mission work there, and resident Baptist missionary Richard Scott petitioned the government for a grant of 1,200 acres. In April 1834, they received 1,120 acres and subsequently purchased 430 more from their own funds, held in trust by the New England Company, who provided their local missionaries. The company made similar arrangements at Curve Lake, receiving 1,600 acres in trust in April 1837. Just prior to the granting of reserves, it is said that the Mud Lake community became tired of the incessant traffic on the portage, and relocated across the lake to the present site of the Curve Lake Reserve. Instead of a reserve on Lake Scugog, the Ojibwas were given 1,206 acres on Indian Point, Balsam Lake.⁵⁵

But this did not settle the question of whether or not there was a place for Ojibwas in the farming countryside. For many years philanthropists debated what was the best or most humane way to deal with vanishing native communities. It was often taken for granted that native societies as they then existed would disappear with resettlement. A powerful subset of colonial society—led by Lieutenant-Governor Sir Francis Bond Head—thought it best to remove them beyond the pale of settlement. It was seen as a way to save them from extinction. Settlers were portrayed as corrupting influences and the only way of insulating Ojibwas from vice was to end their contact. Public men had their eyes on Andrew Jackson's campaign in the United States, which started in 1830. It forced the Cherokees from Georgia in 1838, and started a war to push the Seminoles out of Florida. By 1836, Head thought a similar initiative should be undertaken in Upper Canada, having concluded after touring the colony that integration and civilization was a dead end. He supported removal to Manutoulin Island. But since the debate coincided with an uproar over a treaty with the Saugeen Ojibwas regarding the last unalienated tract in southern Ontario, it came to centre on establishing a community there.⁵⁶

Removal was controversial from the beginning, drawing fire from philanthropic societies who raised donations allowing them to assist with the civilization process. After the rebellions, Bond Head lost his job, and though Glenelg dismissed the idea, it lingered.

The General Council of January 1840 discussed it, but the records of the meeting do not show a decision. At the June 1845 General Council, Kahkewaquonaby proposed that the nation should "devise some plan by which we can live together, and become a happy people, so that our dying fires may not go out, but may be kindled in one place, which will prove a blessing to our children." Kahkewaquonaby thought they should unite in the last significant tract of unceded arable land, lying north-east of Owen Sound (now the Bruce Peninsula), where they would have a unified voice.⁵⁷

Kahkewaquonaby by this point was selling the idea of a distinct Ojibwa nation. Heralding a future of "friendship," he suggested that once living together, they would be united, cohesive and far better positioned relative to the Crown. The question was whether or not these were the prevailing concerns in the minds of his peers. He convinced forty-eight chiefs to sign a petition asking that:

The Reserve (now still known as the Indian Territory), be a perpetual reserve, as a future refuge for the general colonization of the Ojebwa Nation, comprising the scattered Tribes in Canada West...And that these lands may now and forever be opened to all the Tribes; that whenever a Tribe is disposed to move, that they may have nothing to fear, but have access to any of the good lands to settle upon.

This petition did not directly request removal, rather the option of relocating to such a territory "whenever a Tribe is disposed to move."⁵⁸

Removal dominated the general council meeting on July 30, 1846. Supported by Kahkewaquonaby, Superintendent T. G. Anderson argued that concentrating the population would help with their 'civilization'—a program which by that point certainly faced challenges, but had not yet been entirely discredited. True to the promise of assimilative agricultural improvement, they were to give up their "roving habits," and have manual labour schools to open new economic opportunities for their children. The government pushed the issue fairly hard, Anderson's assistant, George Vardon, then informed the chiefs "that if the opportunity is lost, it may never again occur."⁵⁹

The chiefs considered the matter, and their opinions diverged considerably. Vardon and Anderson maintained that some of the chiefs had already assented to their plan, but many chiefs were alarmed and upset that such approval had been given. Alderville Chief Shawundais (John Sunday), a strong advocate, claimed "it is for our good—for our own prosperity," and said that he and Rice Lake chief Cheneebeesh agreed. Cheneebeesh did not confirm that he consented and his statements during the proceedings suggested that, although he did not directly oppose the idea, he was not enthusiastic. He observed, "we received something to enable us to hold the land permanently: that is a Deed. But I know nothing about it." He deferred answering until he determined whether or not they had a deed guaranteeing their land and noted, "My land is cleared. The stumps are rotted out of it. I have good fences made. But still, notwithstanding all this, I am ready to remove, if our Great Father wishes it. I would not interpose any obstacle on the wishes of our Great Father."⁶⁰

Peter Nogee of Curve Lake was also not inclined to seize the opportunity. He noted that his settlement was under the management of the New England Company and that he could not answer the question without consulting them. He said, "I shall do whatever that Company may wish me to do," and observed "there is nothing that would hinder me from leaving this present location." But this comment seemingly reflected deference to the wishes of the Governor-General rather than a desire for removal. Chief Jacob Crane of Lake Scugog was not eager to leave. He explained:

The land that I now occupy, I purchased. It is very good. We have commenced farming, have built houses, and my young men have said, 'this is a place where we will become farmers.' There are only three of us here, and we cannot decide with regard to removing from our present location. We looked out for land and selected this tract, and we have found it very good.

Crane had reason to be sceptical. As we shall see, by this point his community had already lived through one failed settlement scheme.⁶¹

Chief William Yellowhead of Rama steadfastly opposed the government's proposals and questioned the authority of Anderson and Vardon. They claimed that when they travelled to Rama after the council he approached them and confessed that he had misunderstood and gave his full consent. For support, they produced a petition during the visit, purporting to represent "a large majority" of the community, which was ratified by twenty-eight residents, at least twenty-one of whom were illiterate. The population at Rama was about 327 and the signatories did not include William Yellowhead.⁶²

Yet the initiative to abandon their settlements did not materialize. Chief Yellowhead, who had already been relocated twice, would not go along with the proposal and he was not alone in his opposition. During the council, Anderson clarified that he did not expect universal removal, but that members of the community could choose to unite in larger settlements and take their annuities with them.⁶³ Left to make up their own minds, they stayed where they were. Remaining in southern Ontario, they would take part in the re-creation of their homelands. Civilization, it seems, carried the day among officials hoping to fit natives into the resettlement scheme. Some still speculated about whether or not they would disappear in the face of settlement. Most colonists, and a large proportion of natives, assumed that native society would evolve alongside the colony. While they retained a distinct place relative to the colony's administrative structures, they were at the same time developing stronger cross-cultural links in the emerging economy. Along the way, they made fundamental contributions to the material culture, economy and ecologies that were emerging.⁶⁴

The outcome of these generations of negotiations was that the resettlement of southern Ontario would go ahead, with Ojibwas living in the region. The natives agreed to allow immigration, but they had understood that they would have a place in the emerging economy. As agricultural settlement expanded, they expected accommodation of their littoral economies. Since the Crown increasingly looked upon their legal documents as the final arbiter of affairs, a surprise was in store for the Ojibwas once they learned how the agreements were to be interpreted. So a very powerful political cause was born, which could marshal the holes in the justification to their advantage. The campaign and the observation of such inconsistencies assumed a life of its own.

That campaign, however, was fought wearing blinders. Many visionaries who promoted the re-creation of the Kawarthas did not include Ojibwas at all in their ideals, nor was there a place for their economies. It was largely a transposition of British economies to another continent. As this abstracted economy collided with the existing material life of the Kawarthas, some, particularly among the elites, were unable to see how complimentary the societies could be. Ojibwas and settlers nevertheless went a long way towards evolving together, even as legal disputes about excluding productive practices simmered.

¹ Charles Edward Cleland, *Rites of Conquest: The History and Culture of Michigan's Native Americans* (Ann Arbor: University of Michigan Press, 1992), 56. *BC*, T:6.

² Johnson to Gage, October 31, 1764, WJP 11:394-396.

³ Gregory Evans Dowd, War under Heaven: Pontiac, the Indian Nations & the British Empire (Baltimore:

John Hopkins University Press, 2002), 42. Lords of Trade to Hunter, October 26, 1710, NYCD 5:174. Mr. Durant's Memorial Relative to the French Post at Niagara, July 1, 1721, NYCD 5:588. Peter Wraxall. An Abridgement of the Indian Affairs Contained in Four-Folio Volumes. Transacted in the Colony of New York from the Year 1678 to the Year 1761 (Cambridge: Harvard University Press, 1915), 147. Journal of Indian Affairs, November 4, 1757, WJP 13:100. Correspondence summarized, Clinton, June 3, 1749, WJP 1:909. Expenses of Albert Van Slyck, WJP 1:72. Clinton to Johnson, March 25, 1747, WJP 1:83. John H. Lydius to Johnson, June 16, 1747, WJP 1:100. Johnson to Clinton, August 4, 1747, WJP 1:105. Johnson to Clinton, August 13, 1747, WJP 1:106-107. Operations in New England and New York, NYCD 10:34-35. Observances in Canada, 1747-1748, NYCD 10:161. Galissoniere to Count de Maurepas, October 23, 1747, NYCD 10:183. De Ramezay and Begon to Council of Marine, November 7, 1716, NYCD 9:874, NYCD 5:697. Proposition of Clinton to Six Nations and Mississaugas, August 19, 1746, NYCD 6:317-318. Speech of Indians to Clinton, June 17, 1747, NYCD 6:391. Clinton to Duke of Bedford, May 30, 1749, NYCD 6:484. Clinton to Lords of Trade, June 3, 1749, NYCD 6:486. Clinton to Johnson, May 19, 1749, NYCD 6:507. Return of Western Tribes who Trade at Oswego, August 20, 1749, NYCD 6:538. Abstract of Evidence books of Board of Trade relating to New York, April 2,1751, NYCD 6:693. Clinton to Lords of Trade, July 17, 1751, NYCD 6:714. Lindsay to Johnson, July 10, 1751, NYCD 6:729-730. Colden to Clinton, August 8, 1751, NYCD 6:742. Diary of Governor of New France, 1747, WHD 17:462-463. WHD 17:484-486. La Galissoniere to French Minster, October 23, 1748, WHD 17:508. La Jonquiere to French Minster Bigot, October 9, 1749, WHD 18:34. La Jonquiere to French Minister, August 18, 1750, WHD 18:63. La Jonquiere to French Minster, September 20, 1750, WHD 18:68-69. La Jonquiere to French Minster, September 16, 1751, WHD 18:78. La Jonquiere to French Minster, September 17, 1751, WHD 18:81. La Jonquiere to French Minster, April 21, 1752, WHD 18:105, WHD 18:112, M. Dumas to M. de Makarty. November 10, 1755, WHD 18:163. Memoir of Bougainville, WHD 18:183. Claus to Sir William Johnson, August 6, 1763, WHD 18:257. Memoir of La Ronde, WHD 17:305. Peter S. Schmalz, The Ojibwa of Southern Ontario (Toronto: University of Toronto Press, 1991), 35, 40, 44-46. Gilles Havard, Empire et Metissages: Indiens et Francais Dans le Pays d'en Haut, 1660-1715 (Sillery, QC: Septentrion, 2003), 15-16. Ian K. Steele, Warpaths: Invasions of North America (New York: Oxford University Press, 1994), 183. Brett Rushforth, "Slavery, the Fox Wars, and the Limits of Alliance," William and Mary Quarterly 63, no. 1 (2006), 79-80. Cleland, Rites of Conquest, 123. Richard White, The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650-1815 (Cambridge: Cambridge University Press, 1991), 198-200, 209. Michael N. McConnell, A Country Between: The Upper Ohio Valley and Its Peoples, 1724-1774 (Lincoln: University of Nebraska Press, 1992), 4.

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2b. Surveying

At the time the Crown produced the 1818 treaty purporting to cede the Kawarthas, it knew little about the region, yet it had a profound agenda of landscape re-creation. Immediately after assuming this claim to title, it formalized the land into blocks for distribution. Knowing so little, but aspiring to so much, the original land surveys simultaneously set about exploring and defining the Kawarthas. This pairing dictated that minimal insight into the region's character would shape the official definition of the space. Anticipating rapid change, learning about the region became part and parcel of its development. Much knowledge that would have been helpful simply did not exist. The Crown was distant, and settlers could only bring farming experience from other regions. Ojibwas knew their home well, but it was an entirely different matter to fit it into a foreign paradigm.

The rational vision that underlay the survey grid reflected Enlightenment ideals of visible rectilinear order. Carefully plotting farms into an array, it avoided the helterskelter product of individual operators reacting to local circumstances. It was a cheap and rapid way to bring enormous blocks of land into the empire. In so doing, it greatly simplified the countryside. Historians often highlight how the survey was effacing the cultural history of a region—turning the Ojibwas' haunts into empty space for settlement. It was as much a *tabula rasa* in material terms. Vegetation in any area was listed as, at most, five tree species. 200 acre lots were judged from their perimeter. Overwhelmingly, soil was in one of three categories—good, rough, or swamp. In both senses the new beginning obscured continuities from the *ancien regime*. Much as the emerging culture of the region bore the influence of its native inhabitants, the landscape itself defined economic opportunities.

Rectilinear surveys went a long way toward establishing official oversight of landscape development. As with Ojibwa relations, the expansion of this rule of law was continually justified with reference to tangible benefits it would deliver: every home on a road, more direct thoroughfares, consistent lot sizes, rectangular fields, and shorter perimeter fences. The schema brought impartiality, as everyone could be fitted into the grand project of re-creating landscape. Once the grid was in place, government and their surveyors were necessities, as every farmer eventually needed their help to find a place in

the array. The state was the only legal recourse for those who found the survey so confusing—often justifiably—that they could not even figure out the boundaries of their lot. The surveying, parcelling and distribution of land, was a profound step towards the expansion of state management to a level in 1900 that would have been unimaginable in 1818.

The movement driving the re-creation of the Kawarthas employed several unassailable principles. Foremost was a rationality in the landscape, based on an abstract conception of the region. 'Rational' planning often brought with it a form of capitalism. Surveying was an exercise in creating potential profit, of outlining livelihoods on family farms. That the Kawarthas were settled in 100-acre half lots became very significant later as 160-acre quarter-sections of prairie land were divvied up. By the end of the century, expansion of farm size required emigration.

The rectangles meant that fences had to be built through whatever terrain happened to bound the lot—the muckiest swamp or stoniest ridge. It also created an incentive for ploughing and cropping parallel to survey lines, though it might be hard on soil and draught animals. The course that these lines were to take exposed a blindness or insanity in the process. The troubles in fencing reflected the challenges of surveying. Where the land was really rough there was no prospect of following procedures in running the survey lines. In parts of Somerville Township, ledges and swamps were formidable obstacles and the breadth of Sturgeon Lake problematized Verulam Township. Looking back at the notes with an appreciation of the terrain, it is hard to imagine that certain lines were run at all. These same ridges and swamps were then parcelled off as farmland, with no chance of ever being farmed.

Not considering in any detail whether particular lots were suited to agriculture, and assuming 100 acres would form a viable farm lot regardless of terrain, much was overlooked in the exploration. In most townships, including Fenelon and Verulam, soil was not directly investigated, only to the degree that it was reflected in the vegetation it supported. While surveyors carefully recorded the types of trees, they were not evaluated for their timber potential. At the time, standing timber on the Upper Trent was, for all intents and purposes, worthless. But so was farmland, and it was reflective of the mission to create an agricultural economy that land was organized around farming even though

timber would prove nearly as important. Many other commodities—fish, lime, potash, furs, gravel—also were overlooked.

The grid was deceptively simple. Most people could immediately recognize the pattern, but in 1818 it was a very difficult matter to place a particular locale using the technology of the day. It still was not easy fifteen years later in Fenelon and Verulam Townships even with the blazed lines. Early nineteenth century surveys in Upper Canada were a quick and cheap scheme to sketch the landscape. Emphasizing economy at this point meant that much work had to be done later to sort out imperfections.

In Fenelon and Verulam, centred on the Trent Waterway and surveyed through consideration of a limited number of characteristics, proximity to the shore became one of the most notable features of any lot. When prospective settlers went to the Crown Land Agent's office, they might see a plan of the township, showing the lots arranged around the lakes. But even this was unreliable, as the shores of the lakes were surveyed only roughly. To make matters worse, only a handful of settlers arrived before the mill and lock dams raised water levels, significantly changing the lake boundaries.

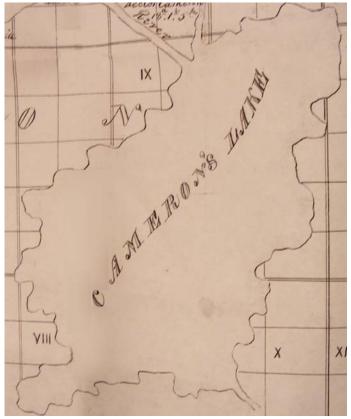
For all of its faults, and the insanity of parts of the scheme, it worked. Defining the countryside into building blocks, it allowed the construction of an agricultural landscape. This was ultimately achieved because the movement carried an understanding of what the Kawarthas could become, and how resettlement would benefit the populace as a whole. Almost everyone bought in, dedicated their lives to it and improvised ways to make it happen. Similar to how they built their homes, they started with a vision, some knowledge of trades, and worked out the details along the way.

While there was such emphasis on producing a rational landscape that would be far more efficient than a helter-skelter final product, improvisation underpinned rational progress. Because so many details were left out of the vision and the administrative structures of the emerging state were still relatively weak, new communities were largely on their own to find a way to get the job done. The visionaries and colonial officials had little idea what was to be found, what the landscape could become, or how to connect the dots. The productive output would prove a testament to the fruitfulness of individual agency within such a planned economy. If they were to look back from the year 1900, the boosters of the 1830s would probably be immensely pleased.

Fenelon and Verulam Townships, like much of central and western North America, were laid out in a grid of lots and concessions, a system that had spread through British colonies in the eighteenth century. It was a marked departure from the irregular lots or townships with nucleated agricultural villages encircled by farm plots characteristic of much of Europe and some older North American settlements. It produced lots containing a great variety of terrain—mixtures that settlers were obliged to accept. Once the state started distributing land, it received numerous requests for part of a lot from people explaining that they had no use for the rest, but the Crown required that the grid be kept intact at least to patent.

Rectilinear surveying was based on English astronomer Edmund Gunter's surveying chain (1620), which contained 100 links of 0.66 feet each, with a brass ring every tenth link. Eighty chains equalled one mile. The acre was derived from customs of medieval British husbandry, being twice the area a team of oxen ploughed daily, in medieval 'ridge and furrow farming.' Eight oxen could pull a plough across a field a furrow long (or furlong, 220 yards), ploughing a strip 11 yards wide before they needed a break. Once rested they could usually repeat the task, making an acre what an common team of oxen could work up in a day. An acre was 10 square chains, the 200 acre lots in these townships were 30 by 66.67 chains, or 3/8 by 5/6 of a mile. These lots were called 'double fronts,' having a front on two concession lines, and the basic farm unit was often taken as half a lot, facing one of the roads. In contrast, Curve Lake was surveyed into 5acre village lots and 50-acre farm lots, with each household receiving one of each. Fenelon had eleven concessions and Verulam ten, all containing thirty-two lots pointing north 16.5° west. In both townships the final concession and row of lots were narrowed to fit them between the surrounding townships. A road one chain wide was placed between each concession and every fifth lot. Fenelon and Verulam contained 67,639 and 61,239 acres respectively, of which the surveyors estimated 58,600 and 58,000 acres was land, the remainder water. 55,312.65 and 56,949 acres respectively were later patented, plus the town plot reserve of Rokeby (Bobcaygeon, 16 X Verulam). The discrepancy in acreage was caused by land lost as dams raised water levels, and many of the broken fronts were later resurveyed to correct inaccuracies other than those caused by flooding.¹

The methods of surveying were designed simply to lay out the townships into



grids of lots and concessionsinvestigating the contents of these lots was largely outside the project. In these townships, no direct comments were made on soil composition, although Andrew Miller did this for Harvey, to the east of Verulam. Nevertheless, settlers and government officials used the surveyors' plans as guides and township patent plans. However, since little effort was made to record anything that did not lie directly on the blazed lines, surveyors' plans had their flaws when applied to broader

2.4 Cameron Lake, from Kirkpatrick's Plan of Fenelon Township (1824)²

purposes. John Langton soon observed, "the shores of the lakes are surveyed in a very slovenly manner, so that no dependence can be placed in the supposed contents of the broken fronts, and the position of the creeks, etc., appears to be laid down merely by guess." He found it necessary to resurvey the frontage of his lots. Generally, the surveyors measured roughly which segments of their lines were dry, then drew the shore of the lake simply as a wavy line. Even after water levels had been raised, several settlers found dry land that the surveyors had plotted as if it was in one of the lakes. The field notes commonly listed slowly meandering creeks with the opposite direction of flow to present, so perhaps some creek bearings indicated placement only. Red Rock, a pre-Cambrian outcrop north of Sturgeon Lake of about 100 acres, was not observed at all.³

These gridlines existed only in the abstract; it took generations of labour to recreate the landscape and, in practice, the lots would not be nearly so regular. John Huston's survey of Verulam (1823) and James Kirkpatrick's of Fenelon (1824) were complete before reforms in 1829 required proof lines running on the diagonals of lots that would ensure that the survey close (form a set of parallel and perpendicular lines that enclose the designated space.) In both townships, the surveyors—assisted by a couple of chain bearers and a few axemen—began from a northern corner of one of the townships that lay in the row to the south, and chained out straight lines running around the perimeter of the new townships following magnetic bearings. They were to run the concession lines south to north through the township.⁴

Even with proof lines, chaining straight lines of the correct length and bearing was no easy task; the chain bearers had to run up and down hills, across ledges and through swamps. Almost inevitably, in rolling and swampy terrain like the Kawarthas, some liberties had to be taken with the methods. Even if faithfully implemented, the surveying system took a two-dimensional projection of the topography. It assumed parallels of longitude, and since these lines actually converge, this inevitably produced an error of approximately one mile in twenty-nine. As well, every time a chain traversed a hill, the distance measured would be longer than an arc following the earth's general curvature, the distance that must be used for the survey to close.⁵

The survey of each township had significant errors, and Huston's was badly flawed. His diaries and the observations of later surveyors suggest that he ran parts of some lines from north to south for expedience. But it seems that the largest errors occurred on lines that were drawn south to north, caused by inaccurate estimates of the width of Sturgeon Lake. Near Bury's Green, three of the four lines between III and VII either are arcs or have major jogs. The variance in bearing of the line between V & VI over the span of the final seven lots was just shy of six degrees. In both townships, lots tended to be slightly smaller than the intended size, except at the north end (or wherever the surveyor's line ended), because of the error produced by running chains over the rolling terrain. Many half-lots are between 95 and 102 acres, and a few as small as 65 acres, resulting in surpluses at the lines' end. Twenty-seven years after Huston had laid out the township, C.O. Benson returned to inspect the lands for Ferdinand McCulloch, an absentee speculator. He found that the east half of Concession V around Lot 25 was twenty-five chains further north than the west half, because of an error in the line between IV & V. The line on the other side of Concession IV was even worse—the west half of 27 is adjacent to the east half of 29. He inferred that "this Con line must have been run from

the rear of the township south intended to meet a line previously run from the front to within about 67 ch of the rear of the township." When the lines did not meet up, he made "a sudden bend" cutting perpendicular to the intended direction of the line to bring them together. Not surprisingly, the lots in this area did not end up being the correct size. At the north end of Concession IV, Huston's survey left a surplus of 71 chains 30 links, or about 0.89 miles. Benson divided this surplus between three lots, making lots thirty and thirty-one 55 chains 40.5 links each and lot thirty-two 44 chains 37 links instead of 24. But his reforms were reversed—on the east half of III and the west half of IV the 32nd lots have remained 272.46 and 305.33 acres respectively, instead of 80 each as planned, and have been subdivided into two lots each. Benson also did not correct the line between IV and $V.^6$

The government expected that people would pay for the surveyed, as opposed to the actual, acreage of lots, except for some broken fronts (part-lots adjacent to the lakes), which were acknowledged to be variable in size. Errors in the survey meant that some settlers got a much larger lot than they paid for, but those who were short-changed thought the system should allow them to pay only for the amount actually received. Thomas Ellis' 100 acre lot, 16E II Verulam, was short about 30 acres, as he had a Provincial Land Surveyor certify before having his neighbour, John Langton, petition the Commissioner of Crown Lands to permit him to pay for 70 acres.⁷

Even where the surveys were fairly regular, it was often difficult for settlers to determine the boundaries of the lots. In many cases, even with careful examination of the evidence, there was room to negotiate what the surveyors' intentions had been. Surveyors left marks on either posts or trees indicating points on the concession lines defining particular lots and sometimes blazed lines on the trees in between. Aside from the possibility that these indicators may not have been in their intended locations, they were very difficult to find, and perhaps worse to understand, especially as the years passed. In 1834 John Langton, one of the first to take up a lot in Fenelon Township found:

The blazes are now, I believe eleven years old, many of the blazed trees are fallen and in others the bark has covered up the wound; in difficult

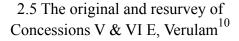
places they are generally very sparingly and irregularly scattered; add to which that many of the posts have entirely disappeared.

Langton, a prominent gentleman, preferred to have the ambiguities properly resolved and ensure that his improvements were actually on his property. He spent a considerable amount of time trying to find the correct marks, "by guess at the distance from Sturgeon Point and Cameron's Falls, and by the bearing of a creek on the opposite side of the lake, I thought that I could find my front, which is a mile in extent, and my creek I considered an infallible guide; but since I have found two where only one is marked." Though left wondering "if that really is my creek," he helped some of his friends like Alexander McAndrew with their problems, and called surveyors out to interpret the marks on several occasions. With the surveyor's help, "McAndrew [had] the pleasure of knowing that, if his house is not on his own land, it is at any rate not more than twenty or thirty yards on his neighbour's." Many people accidentally cleared land that they did not actually own. Because of difficulties in understanding survey marks, John Darcus thought he was settling on 11 VIII, when he was actually on 11 IX, and petitioned the Civil Secretary to allow him to exchange his lot, but had to keep his location. John Duggan made his clearing on 25W II in Verulam when he owned the east half. Fortunately, he discovered the error before the government deeded the west half. Robert Kittle, owner of 19W VII, finished a shanty for his family, only to find that it was five feet into Lot 20. In 1863 he built himself a new house on his own property.⁸

James McConnell, who settled in 1833 and became the tavern keeper at Bobcaygeon, was willing to take advantage of whatever ambiguity existed in the early surveys, and held property on both shores. Thomas Need, the gentleman who planned the town plot of Bobcaygeon, had intended a road to run between McConnell's and the river (present-day Front Street). But it was not entirely clear from the surveys conducted in the 1830s where the property ended. McConnell enclosed the lot down to the water, planted a garden there, and extracted a promise from Need that that portion of land would be sold to no other person. In 1869 Need was still trying to requisition the land from McConnell for this road. He was not successful and Verulam Council had to purchase it the next year.⁹

The situation was even more difficult for those who arrived later. Whereas Langton was unable to locate a few posts in the 1830s, by the 1870s or 1880s, some resurveys could only find about a quarter to a third of the original monuments. Near Bury's Green, ambiguities in the survey fuelled disagreements, centring on William Tweedy, whose neighbours thought him too eager to profit at their expense. Benson had not corrected the survey of the line between IV & V, and residents were uncertain about their lot boundaries, so James Akister petitioned the county government to resurvey the locality in 1872. They talked the Lieutenant-Governor into employing surveyor James Dickson, who was also a Reeve of Fenelon Falls, to resurvey the north end of this line, but still a strip of land remained, interpreted to be a surplus, that was not clearly part of either the 31st or 32nd lot. Tweedy (32W V) had presumed that he owned the land and began clearing at the south end. But Stephen Billett, his neighbour to the south (31W V) was not sure that Tweedy should receive all of it, especially when surplus land on the next line had been split between the final three lots. The matter was referred to the Commissioner of Crown Lands and Tweedy received the extra land-which brought his lot close to its intended size. No one there had noticed that several surveying errors had

		V	I	/I	
32	William Tweedy 99a	Lorden 45a	eter Lorden 100a	32	
31	Stephen Billett 100a	Joseph & James Flett 79a	John Green 97a	31	
30	James	James Flett 85a	Daniel Northey 99a	30	
29	100a James Billett 100a	Stephen Billett Jr. 87a	David Northey 100a	29	
		William Skuce 85.62a	Adam Potts	28	
28	William Gibson 100a	Isaac Walker 87a	98a William Lech 97a	27	
-Road Road Resurvey					

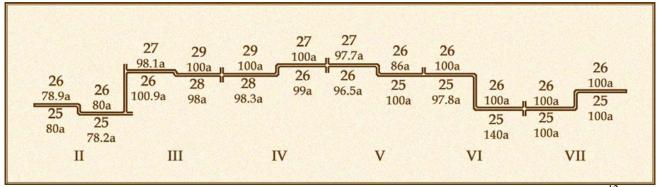


cancelled out, so that the total amount of land in the west half of lots 31 and 32 was approximately correct—there was not actually a surplus to fight over.

Tweedy, however, was not finished. Two years later he observed that the north end of Concession V was narrower than either of the adjacent ones, and began agitating for a resurvey, expecting to gain part of Peter Lorden's lots to the east. James Dickson redrew the line separating Concessions V and VI, greatly to the favour of those on the east half of V, whose lots were short about 20 acres at the north end. Joseph Flett also initially supported the realignment, standing to gain from his neighbour across the road, John Green.

However, fourteen years earlier the local residents had devoted a lot of time to build the concession road, having filled in several swamps. Worse, while Tweedy stood to gain some uncleared land from Lorden, the resurvey put much of John Green's clearing and his house on Flett's land. Joseph's brother, James Flett thought the situation a travesty, and wrote to the township council in 1875, which in turn petitioned the Lieutenant Governor. The other neighbours, except Tweedy, agreed and in 1881 joined Green in petitioning the government to leave the old survey lines. Even Joseph Flett set aside the chance for personal gain and signed. At the same time, the Commissioner of Crown Lands received a letter from a Lindsay lawyer saying Tweedy had moved a survey post to produce the discrepancy and was a known criminal. He had shot and injured the Bury's Green postmaster, but was acquitted even though he perjured himself. The judge still gave him the benefit of the doubt when he claimed that he was aiming for the postmaster's dog. It was immaterial, because Dickson did not find the post, and drew the line to end up at the midpoint of the posts marking the lines between IV & V and VI & VII, greatly shrinking the west half of VI at the north end, while leaving the east half oversized.¹¹

The errors in the road allowances between every fifth lot caused trouble for generations to come. Since the lots in adjacent concessions were misaligned, especially in North Verulam, segments of the same allowance often did not connect and the township and county governments had to make other arrangements to open these roads. In practice this meant purchasing new road allowances, frequently from lots that were already



2.6 Cedar Tree Road was intended to run straight between lots 25 & 26 in Verulam¹² occupied, and deeding away those that were not usable. This was easier when the new roads still travelled through the lot which had the original allowance, as an exchange

could be made. However, there were several cases where roads were built as many as three lots distant from their planned location.¹³

Until the final decades of the nineteenth century considerable confusion remained about where the roads were to run. Many farmers fenced parts of the road allowance into their fields—often quite innocently it seems, though there were also some willing to take advantage of any ambiguity. The township council would then order them to remove their fences from the road. It was a mercy that snake fences were fairly easily rebuilt. But it was not always simple in cases where the survey was botched. Isaac Walker, for instance, built his fence on what turned out to be the road allowance. But, as outlined above, the road allowance ran through what should have been his property if the survey had been done correctly, and to make matters worse many of the survey posts were missing. Realizing that his fence was closer to its correct location than where they were ordering him to remove it to, Verulam Council compensated him \$50. Township councils, of course, had to pay for surveyors' mistakes, but got nothing from those who benefited. In later surveys three stakes were placed between each pair of lots on a road—one on the boundary of each lot and one at the centre of the road. If the post in the centre was mistaken for the property boundary it would cause a jog in the road, as seems to have been the case near the north end of the line between VI and VII in Verulam. In the mid twentieth century, some roads still ran across land that had not been formally ceded back to the crown, forcing the occupants to get land resurveyed before they sold it.¹⁴

Straight roads could cause problems just as the crooked ones did. Plotted without regard for the terrain, they went through swamps and directly into lakes. John Hunter, who took up land near the southeast corner of Verulam Township (1W IX) in 1841, was obliged to slog ahead building a road (now Pigeon Lake Road) on the eastern boundary through the Long Swamp, when far more agreeable land was close by. Though these straight roads provided a co-ordinate geometry that was useful for navigation, their bearing was not always convenient. As settlement began, Lindsay and Peterborough were already emerging as regional centres, and none of the lines formed a reasonably direct route to either—nor would they directly connect Fenelon Falls and Bobcaygeon.

A great proportion of lines in these townships, including the one Hunter worked on, ran directly into a lake. Today this is inconvenient for traffic, but in the nineteenth

century travellers were not so bound to roads. In summer, the waterway was often the preferred method of travel, as was its iced surface in the winter—a practice that persisted into the latter half of the twentieth century, long after the introduction of automobiles. Sleighs, horses and even carriages were driven across the countryside without regard for roads. Routes that ran into lakes, then, could be advantageous by providing settlers direct access to the waterway.¹⁵

As John Huston and James Kirkpatrick were laying out the townships they were also looking for places that had particular 'natural advantages'-attributes that would allow them to emerge as a town, or figure in a transportation network. Though it was a considerable leap from observing a feature of the landscape to a population centre emerging, the features surveyors sought were fairly consistent and directly tied to the kind of economy that would emerge. It was understood that most villages in nineteenth century Ontario grew around a mill site that would cut settlers' lumber and grind their grain. In the Kawarthas, transportation was equally important, and for this the key sites were the portages. Before any government-sanctioned settlers arrived, thought was being given to building locks at these points. By both of these criteria, the focal points of these townships were the falls between Cameron and Sturgeon Lakes (later Cameron's Falls or Fenelon Falls) and the rapids between Sturgeon and Pigeon Lakes (Bobcaygeon). The Rosedale rapid had limited potential for milling as canoes could paddle up it with relative ease. Other secondary centres developed on tributary mill sites, including Cambray and Dunsford. One lot—16 X Verulam, on Big Bob at Bobcaygeon—was reserved in the survey as a town plot, and Alexander McDonell, the Crown Lands Agent at Peterborough, subsequently maintained the government's right to build a canal through 15 IX when it was deeded to John Sawers. Fenelon Falls (23 X Fenelon) was not reserved. Instead, in 1832, before any deeded settlers arrived in these townships, it was granted to Duncan Cameron, a Toronto banker and the Provincial Secretary. Such cases where members of the so-called 'Family Compact'-a network of provincial elites shaping, or with close connections to those shaping, land policy-manipulated the land system to their advantage, were a major grievance in Upper Canada.¹⁶

The surveyors also recorded vegetation and the location of wetlands, which were used as gauges of soil quality. Most dry land was recorded as "good land"—only the most

rugged parts, often bare rock, were identified as rocky or stony. Wetlands were usually identified as swamps when they had trees, or marshes when they did not. Observations of the vegetation were limited to a few of the most common tree species, except for occasional mention of shrubbier species in treeless wetlands.¹⁷

In nineteenth century Ontario, soil was not systematically surveyed for its agricultural capabilities. Yet, choosing their location was one of the most important decisions that settlers would make, especially in an area like the Kawarthas where soils varied tremendously over relatively small distances. Even though many nineteenth century farmers were able to produce crops from lands that changes in the agricultural economy have since rendered marginal, the characteristics of a site had implications that lasted for generations. Settlers often had very little information on the quality of lots and much of what they had came from observation of vegetation, as in the surveys. Almost all guides to emigration provided a system of soil classification based on tree cover, generally a hierarchy of hardwoods, softwoods, and then swamp. Thicker forest cover was often associated with better soil, and prairies for much of the nineteenth century were seen as inferior. Almost all could agree that maple was found on the best soils. There was some divergence of opinion on basswood, white or red oak, elm, birch and beech, with various authors rating these as first- or second-rate, but generally no worse, if they grew in mixed stands. Pure stands of pine or oak were frequently associated with sandy soils. Cedar, tamarack, hemlock and balsam were generally thought to cover the poorest soils, though some writers found hemlocks interspersed with hardwoods on better soils.¹⁸

That broadleaf trees are often found on better soil than conifers is due to their having less tolerance for rocky terrain and differences in the decomposition of their litter. Coniferous trees shed needles that do not rot easily. They create thick layers on the forest floor that do little to retain moisture, and form raw humus that often has leached soil immediately beneath. The needles produce duff that renders soil acidic enough to reduce the growth of certain species. The prevalence of limestone mitigated these effects, and they could be overcome with potash or lime, but few in the Kawarthas would invest in such improvements while plenty of other land was waiting to be brought under cultivation. In contrast, deciduous leaves trap more water and release their nutrients more easily. The decay of their leaves by various soil organisms, such as earthworms—

introduced species—leads to brown soil horizons. Broadleaf species vary in their decomposition rate and the thickness of the consequent brown soil horizon. Ash, elm, basswood and birch form the deepest; ironwood, maple and cherry are in an intermediate category; oak and beech tend to produce thinner brown horizons. Crops tend to grow better in soils formed by deciduous than coniferous trees.¹⁹

Soil type also selects for tree species. In wetlands, plants are selected for tolerance to waterlogged conditions. Sphagnum peats are most likely to be populated by tamarack and black spruce; woody peats often support water-tolerant hardwoods like black ash, elm, red maple (soft or swamp maple), birch and willow; cedars have advantages in coarse woody peat; and alders are often found in muck (soils containing a high proportion of organic matter with some silt or clay). Intermittently wet sandy soils favour white and red pine, aspen, birch and sometimes oak; intermittently wet loams are often covered with ash, elm, red maple, sugar maple, yellow birch, white pine, hemlock, spruce, and balsam fir. Dry sandy soils often grow pines, aspen, birch and oaks. Silt loams, frequently the best soils for many crops, are suited for sugar maple, basswood, white pine and beech. Clay loams, which do not drain as well and may have poor aeration, are associated with

	Maple	Cedar	Good	Swamp
Good	5.4	-12.5	0.5	-36.5
Good to Fair	48.7	50.3	72.1	33.5
Fair	45.0	46.6	53.9	18.7
Fair to Poor	-100.0	239.3	-100.0	180.8
Poor	14.7	-74.0	10.4	-67.4
Non agricultural	-53.6	93.0	-48.0	146.0

maples, elm, birch, and occasionally hemlock or balsam fir.²¹

Despite these relationships between tree cover and soil, vegetation was only a

2.7 Correlation of soil classes with surveyor's descriptors (% difference from townships' aggregate)²⁰

mediocre indicator of soil quality. While maples grow much better on rich brown forest soil than on rock or wetlands, they also do well on many classes of soil that are poor for grain production in today's economy—including the Dummer class of soil (a well drained stony or gravely loam till that, when uncultivated, has a dark surface of brown organic matter and is rated poor in modern soil surveys) which was very common in Verulam north of Sturgeon Lake. Selecting a lot with maples, then, increased the probability of getting Dummer soil. On the other hand, there were several classes of very good clay soils that were wet and less suited to maples, but have become good agricultural land since they were cleared. Thus, while selecting a lot with maples would increase the probability of getting land that would be rated good in the 1957 soil survey by 5.4%, it also increased the chances of getting poor soil by 14.7%. Opting for maples was really selecting strongly for dryness—soil rated fair to poor had zero association with maples since the only such class of soil in this area was a wet soil, as were most classes of non-agricultural soil. Choosing soil rated as good had the same effect, because the surveyors often used 'good land' to indicate dry land. Conversely, choosing swamp or cedars selected very strongly for wetness, and weakly for soil quality.²²

The common belief that prairies or natural clearings situate on lesser soils was less well founded. Settlers on the Great Plains soon discovered that their region contained excellent soil for many preferred crops. The deep and extensive root systems of natural prairies have high turnover rates through death and decomposition, boosting soil organic matter levels. Many grasslands soils approach 12% organic matter, while forest soils may have less than 1% below surface litter, and they generally retain greater amounts after cultivation. There were a few such prairies in the Kawarthas around Peterborough and Rice Lake. But most clearings in the Kawarthas were of different types. Around the upper lakes there was no evidence of such patches, though there was quite a bit of alvar—areas of sparse vegetation growing on little or no soil over the limestone plain—around Carden and Bexley Townships. Most of the clearings the surveyors encountered grew marsh grasses and were understood to be the work of beavers. A few occurred where the ground was too rocky or intermittently flooded to support any trees. It held in the upper Kawarthas that dry land without trees was usually inferior.²³

John Langton observed a less common strand in the literature on judging land. He founded his estate, Blythe, on the north arm of Sturgeon Lake on a hillside of maples, oaks, basswood and one of the few stands of butternut in the region. A small creek tumbled down off his ridge to the lake, which he intended to use to turn a mill, though it was dwarfed by the nearby falls at the outlet of Cameron Lake. Yet out of all the land he possessed, he saw his swamps "as the best I have," a source of cedar rails with "at least a foot of vegetable matter at the top and a good alluvial soil at the bottom." While most other immigrants dismissed swamps as land scarcely worth owning, Langton thought,

missed swamps as land scarcely worth owning,

"there cannot be any difficulty in draining it" at a "trifling expense when you have once found out the spring &c."²⁴

Swampy soils are in some ways quite suited to agricultural production. Because decomposition is so much slower under water, wetlands tend to trap organic matter—in some cases forming up to 50% of soil mass (most agricultural soils contain about 1-6%). Organic matter is a crucial component of soil fertility. Rich as they might have been soon after draining, their humus levels might plummet once exposed to aerobic decomposition. Wetland soils vary greatly in their utility for agriculture, in part based on subsequent management. Some remain relatively rich soils, but others become uneven, shallow, and stony. It was no simple task in the 1830s to drain a swamp, as tile drains would not be common for at least another generation.²⁵

In the drive to reshape the Kawarthas in the image of Britain, the land surveys allowed resettlement's rapid advance. They created capital that would prime development, define the landscape, and set the stage to realize the value of the capital, which drew settlers to the region. It was a cost-effective avenue of progress, giving a colony with limited financial means 93% or 94% of the land for sale at virtually no cost. Whether through government spending or speculators' investments, a very large proportion of the profits that were realized from its redistribution would be invested in the project. Getting the abstract landscape put together, in a form that most could buy into, was powerful leverage towards its completion. Once there were these lots, this capital, this prospect for a livelihood so defined, it was not much of a leap to it being realized. Imperfect though it was, most people initially involved in the project were too detached from this region to immediately perceive the difficulties, and once the lots were taken up, the occupants had to overcoming the challenges.

That the surveys were a quick and dirty means of outlining settlement was not entirely a disadvantage. It brought impartiality on many levels, creating a simple set of rules for all to play by—though some were much better positioned than others. The government and speculators were both interested in achieving quick profits, not necessarily in investigating the true potential of the land. As it obscured which land was good, it meant that shrewd settlers could find fertile soil on the same conditions as poor. Resettlement was in this way left to sort itself out. It was always harder for the Crown and

speculators to flip bad land—though there were always settlers who would farm almost anything.

While the information gathered on farmland was rudimentary, this was to some extent inevitable. It was no simple matter to tell what land was good to farm while passing through, especially since the nature of the soils changed substantially following deforestation. The process was a bit of an experiment and a little care in the right places might have saved a lot of trouble. But, with its momentum and a sense of inevitability, excesses would be part of the process, and one of these was parcelling off just about everything as they crusaded to turn the Kawarthas and Upper Canada into farmland. As the first migrants arrived, their destination was but a glimmer on the horizon and the journey would take generations, but they started with a sketch of what to expect at the end of the trail.

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2c. Settlement

Once the surveyors had laid out the pattern of settlement, waves of migration began. Resettlement, primed by the tremendous amount of (potential) capital represented by the new farmlots, more often than not involved a series of middlemen. Land went from Ojibwas, to the Crown, usually to a speculator (or more likely a series of speculators), and perhaps to a land agent before reaching an occupant. A minority of settlers acquired their land direct from the Crown. At every step the presumption of profits underpinned the process.

The project of landscape re-creation embodied the Crown's dreams for the emerging colony. Yet, it was expected to be self-financing, or even help to underwrite government. Surveying and redistribution, development of canals and roads, and helping improve productive infrastructure were all costly undertakings. In a colony with plentiful land and few colonists, overseen by an imperial government reluctant to open its own purse for the empire's gain, land was the obvious source of revenue. Despite continual rhetoric about the necessity of ensuring actual settlement by industrious agriculturalists, land went, in practice, to those who would pay, or to those whom the government was rewarding.

From the beginning land speculation was a perceived evil, but the government was never effective in combating it. There was no shortage of people calling for land to be redistributed to 'actual settlers,' honest, family-oriented, industrious men who would 'improve' their holdings—the antithesis in public debate of the shrewd and shifty speculator, who pocketed the rewards of others' labour. To many contemporary observers, land speculation seemed an unfair means of profiting without doing much work, taking advantage of others' productivity. It drove up land prices, and if there was one political cause that united most everyone in the colony, it was to get rid of these middlemen and let farmers acquire land direct from the Crown, to reap all the profits of their own labour.

But there never was much chance of the government doing anything effective against speculation because they were themselves interested in the process. The largest speculator of all was the colonial administration. When officials distributed land, a significant proportion of it went to themselves or their associates. All of the major local

land speculators in Fenelon and Verulam were staunch Tories, and all had connections. In the early years of settlement, most land held by non-locals—setting aside the preferential grantees, themselves recipients of official patronage—was owned by investors with prominent friends. Even as these elites were rushing to hoard land, they were also providing the service of taking Crown land and putting it in the hands of colonists who might occupy it. In so doing, they raised money for government before the land was actually settled—though revenues were diminished by their ability to manipulate systems of financing.

Though everyone could see the amount of money that might be realized through land speculation, there was no assurance that they would profit. If their ventures were intelligently run, however, the payoff could be great. Speculators faced an uphill struggle because there were always too many gambling with too much land. There was never much difficulty finding people who had a little money to play with and who thought they could make a good income by flipping a few properties. The right two legal documents might realize £80 a farm. It was always much harder to find people who were willing to dedicate the rest of their lives to creating the farm, which might be worth on the order of £1000. Early on, speculators also had to find a buyer who would not take the time to seek out a good deal, for the £80 profit was only there if someone could be convinced to pay that much above the government's or privileged grantee's price.

In practice, land speculators often had to hold out for a long time to get their price. Sitting on blocks of land for twenty, thirty, even forty years was fairly common. They were competing against every other speculator in a prospective community. Some investors spread their holdings over the whole colony, but those who specialized in a region often felt obliged to assist the growth of local infrastructure to compete with other areas. Investing heavily in the potential of a community, they often relied on the profitability of these associated ventures. Land, by itself, often did not pay, but large, successful businesses gave value to land in a region, so if the proprietor also owned land he might doubly profit. In the Kawarthas, timber was one way to profit off speculative holdings. But only one local, Mossom Boyd—the largest of the later land speculators and by far the most successful of them all—did this on any scale. By the time Boyd was in the game, not only was the standing timber valuable, but the partly cleared lot might even be represented as somewhat 'improved,' especially if he could sell an obsolete logging camp that way. For those who were less shrewd, the success of their ventures might hinge on whether they could hold on long enough to find a buyer and if the price would justify all the investments they had to make in holding the lot.

The early speculators were gambling on the completion of the Trent-Severn Waterway. When N.H. Baird surveyed a through canal route in 1835, many assumed that it might be completed in the near future. A transportation route linking Lake Huron to Lake Ontario would undoubtedly raise property values along its banks, and especially at every lock along the way. It was, however, fantasy, because even Baird's conservative estimates were more than enough to bankrupt the administration. The political campaign to get the waterway completed blinded its advocates to the fact that the colony was hardpressed to complete even local canalization and that such routes were almost never profitable.

Speculative fantasia was not limited to the waterway. All of the early local land speculators were chasing the dream of living like gentry on grand estates. They lacked the means to live that life back home and came over hoping to make fortunes through land speculation. They wanted to be spared the hard labour of building farms and expected to profit off everyone else's hard work—commonly resented as parasitism. As the chorus was raised denouncing the speculative scourge, few noticed that if anyone was being duped, surely it was the speculators who invested what means they had in buying land and developing communities, with scarcely any prospect of seeing their money again.

The redistribution of land helped establish the economic structure, which remained relatively stable throughout the nineteenth century. At the top were a few very large ventures closely associated with all levels of government. They were seen, with good reason, as the driving force behind regional development, and were often close to being a law unto themselves. Family farms comprised the second pillar. This was a very diverse group—some were one and the same with lesser elites, others lived in poverty and privation. But a large proportion of the farmers had some financial means, as the cost of migration made it difficult for the poorest of Britain to come over. However, the rudimentary farming economy meant that wealth was not always evident, especially in

early years. Family businesses also began to emerge, though for the first decade there were only a handful in a township.

The system of land redistribution shaped social relations. Aspiring gentry saw themselves as the foundation of the colony—consciously contrasting themselves with the United States—especially in the Kawarthas, which seemed to attract a disproportionate number of learned young men. Setting themselves up as arbiters of cultivated taste, these literate gentlemen and their families spearheaded efforts to improve their communities. They espoused better ways for their neighbours to farm, and ensured that children benefited from schooling and religion.

As unpopular as land speculation was, it was matched by admiration for the contributions of the aspiring gentry. Many of the same critics who howled that land speculation was detrimental to colonial development revered community builders above nearly all others. Few noticed that they were often two horns of the same beast. The profits or expected returns that were to be realized by the creation of this capital—whoever might receive them—underwrote every step of development.

The Constitutional Act (1791) forming the colony of Upper Canada required that one seventh of every township, rounded up to the nearest lot, be set aside to support the Church of England. At that time, most land was distributed through grants, yielding no income for the Crown, although the officials carrying out the various associated administrative tasks profited personally from fees. Instructions to the Governor in 1791 set aside another seventh to provide the government with revenue. Upper Canada's first Lieutenant-Governor, John Graves Simcoe, decided to scatter these reserves throughout each township, to avoid a large concentrated pocket of undeveloped land. The resulting array of lots, called the chequered pattern, was used in the survey of most townships in southern Ontario. From 1802, Crown and Clergy Reserves were leased on 21 year terms, but few settlers were interested in renting in a colony with cheap land. Some lessees took up the land only to strip its timber. In 1824, about the time that Fenelon and Verulam were surveyed, this policy was abandoned, existing reserves were sold to the Canada Company, and no land was leased in either township.¹

By the time land in Fenelon and Verulam was distributed, Upper Canada had shifted to a sales system. Formerly, grants were issued after a complicated set of

administrative requirements were met. Common grants were 200 acres, although certain privileged grantees might receive up to 1,200. In 1815 the standard grant was reduced to 100.² After 1817, when Great Britain curtailed its support of the Upper Canadian government, the colony needed new sources of revenue. This, combined with widespread dissatisfaction over the tremendous amount of granted land that remained unoccupied, prompted the government to introduce sales. After January 1, 1826, grants were only issued to children of United Empire Loyalists, militiamen from the War of 1812 and emigrating soldiers from the British Military. Starting in 1826 the Crown auctioned blocks of up to 1,000 acres with a 10% discount for cash, the option of making five annual payments, and a minimum or upset price of 5 shillings per acre in the Newcastle District, which contained the Kawarthas. Settlers could still get up to 200 acres without payment if they promised to reside on the land and improve it. However, the shift to land sales was far from complete, as the amount of land in Upper Canada distributed through preferential grants between 1826 and 1838 was more than ten times that of the sales system. Many critics charged that the auctions were as vulnerable to land jobbers as the grants.³

The reserves persevered despite the transition to a sales system. The clergy reserves remained strictly unavailable for grants, but some exceptions were made for Crown reserves. As statutory labour required settlers clear the front of their lots for a road, many critics complained that others would have to clear the fronts of the clergy reserves, assuming they would be occupied more slowly. More generally, they were often said to retard development and prevent compact settlement—a common ideal among the colonial elite. Not everybody shared that vision, as many people found that certain resources—sugar bushes, beaver meadows for fodder, fisheries, hunting grounds, wild berries, massive and easily accessible pine trees—could be better enjoyed with a lower population density. This was one reason why there were always squatters beyond the range of deeded settlement. Another dispute simmered because the proceeds from the Clergy Reserves were distributed specifically to the Church of England (and later the Presbyterian Church as well), a practice that persisted until the separation of the Church and state in 1854.⁴

The first deeded settlers in Fenelon were Arthur and John Jarvis on 4 II on August 9, 1833 and their counterpart in Verulam was John Sawers on 15N IX nineteen days later. By this time there were already some squatters in the area—the first one who left a documentary trace was Angus McLaren who settled near the creek bearing his name on 3 III Fenelon sometime before 1833. By that time, 14,584.5 acres had been patented in these two townships (13.0%), all of it to people who had no apparent intention of living there themselves. Overall, only 26.4% of these townships was patented directly to someone who would occupy it. Even on these lots a significant portion (that cannot be gauged very accurately, but is no less than a tenth) had been bought and sold prior to patent. Most people did not acquire land directly from the government, so the private land market was a crucial factor in the nature and pace of land redistribution.

Several prominent Upper Canadians observed that the government intended to distribute land to people who would use it and the Constitutional Act stated that grants were for those who showed they could improve the land. That only about a quarter of land was actually going to people who would employ it for purposes other than profitable resale represented a serious grievance in certain circles. William Powles, an early settler (Fenelon Falls, then 15 VIII Fenelon), bemoaned how much the township had "suffered" from that "national curse Land Speculation" because of the government's policies. David Britnall (29W VI Fenelon) also observed that "there is a great quantity of vacant land in this part and if a few persons can buy some scattered lots they must make roads through all these and live without schools and good roads and other conveniences."⁵

Historians have picked up on this theme and most see land speculation as a pervasive and generally negative factor, or even an "evil" in the development of American colonies.⁶ A few have tried to take a more balanced view of land speculation, observing the role of particular ventures in the development of communities.⁷ Several definitions of 'speculator' have been proposed, most of which rely heavily on the size of landholdings, with thresholds as low as 400 acres.⁸ These have then been used to calculate the proportion of land that speculators held between the dates of patent and first occupancy. In Upper Canada, the most recognized studies cite figures around 60%.⁹

But a grey area surrounds the definition of land speculation. There were some people who certainly were speculators—such as those who bought lots for resale that they

would never even visit. Some never set foot in the colony. But other cases are not so clear-cut. Jabez Thurston was a farmer (6 III, near Thurstonia, named for his family that comprised much of its population) and saw-miller in Verulam Township who accumulated 1,516 acres in the township, with over a third of the property on or very near Sturgeon Lake. But he or his family worked 740 of the acres. It was common to own extra land to be given to relatives or an extra parcel that could be resold. Before he entered the lumber business, Mossom Boyd farmed on the north shore Sturgeon Lake before. Later in life he accumulated another 5,492 acres. While he intended to resell these lots at a profit, he logged them first, so was not really an absentee owner. These two marginal cases alone account for more than 1/9 of Verulam Township.

Yet, from the beginning of land redistribution, a large proportion of land was owned by speculators who had no plans for their property other than resale at a profit. The contractors for the survey were the first to receive land in these townships, earning it as pay for their work. James Kirkpatrick bid himself for the survey of Fenelon and received 4,147 acres, or just over 7% of the township. John Huston was a subcontractor for George Strange Boulton and Charles Fothergill, the two most prominent politicians in the district, whose grant totalled 3,740 acres or 5 7/8% of Verulam. In theory, the selection of the lots transferred to surveyors was to be random, but suspicions lingered that it was not. Fate was certainly smiling on the contractors when the allocations were made, as only about 7% of their land ended up in the rougher northern third of these townships-all of which happened to be near the waterway and one lot was destined to become part of Fenelon Falls. Fothergill and Boulton did particularly well, receiving some of the most valuable lots in Verulam. Lot 16 X had been reserved as the Rokeby (Bobcaygeon) town plot, and they were fortunate enough to receive lots 15, 17 and 18 in the same concession. They also received disproportionate amounts of land that was classified as 'good' or that supported the hardwoods taken at that time as indicators of soil quality. Kirkpatrick, knowing the land from doing the survey himself, fared very well—his lots contained the highest proportion of first class agricultural land of any landholders' set for which data was compiled in this study. Boulton and Fothergill, on the other hand, became victims of their machinations—though it mattered little because they quickly flipped the land. Since the Dummer class of soil that is quite common in Verulam grows maples well though it is usually considered poor for agricultural purposes, they received a disproportionately large amount of soil that would subsequently be classed as poor—it was actually worse for agricultural purposes than a random subset. By manipulating the system for land that would grow maples well, they got just that.¹⁰

Among the first migrants to the region in the era of the land rush was a group of young men who aspired to establish themselves as gentry. John Langton remarked of Sturgeon Lake in 1833, "on that lake you will find six settlers. Certainly this is not many, but then four of them have been at an University, one at the military college at Woolwich, and the sixth, though boasting no such honours, has half a dozen silver spoons and a wife who plays the guitar." Almost all of these gentlemen were younger sons whose means paled in comparison with their peers back home. Yet they built fine country estates that proudly displayed their armorial bearings. Their servants helped them live comfortably and enjoy "domestic opulence." They saw themselves as community builders and leaders, and set up the University Club for those with degrees.¹¹

The untamed, 'natural' and yet somehow 'English' beauty of the region was one of its primary draws. The early gentlemen were enthralled by the Kawarthas' landscape, which would inspire Anne Langton's art. Thomas Need's friends shared his regret that their ventures set out to re-create Fenelon Falls:

I confess it was not without deep sorrow I learned that in a few weeks one of the loveliest scenes in the province would be destroyed. It had been a great delight, on the long evenings of the last summer, to sail up the lake in my canoe, and pass a quiet hour or two at the Falls, after the toils of the day were over.

The beautiful countryside was a large part of the agrarian ideal that these adventurers sought when they migrated. Many of these gentlemen intended to live off the proceeds of managing an agricultural estate, as the aristocracy and gentry back home had done for generations. All of these early elites chose lakeshore properties for aesthetics and transportation rather than the prosaic imperatives of agriculture—the best farmland in this area was not to be found immediately adjacent to the waterway.¹²

Thomas Need was the first of the large resident speculators to arrive. The son of a Lieutenant-Colonel, he was born in 1808 in Nottinghamshire. He was a friend of several very prominent British aristocrats, including William Gladstone, was granted a Master of

Arts at Oxford, and his family expected him to become a clergyman. However, some scruple intervened and he set off instead for a Canadian adventure. He is often remembered as a bit of a rake—and rumours persist that he even thought of himself as one. He settled in the Kawarthas in April 1833 and tried his hand at farming (15 VIII Verulam), but soon turned to other ventures and travels in the colony.¹³

In August 1833, Need bought much of the surveyor's interest of George Strange Boulton, totalling 1,805 acres, which included Lot 15 X, the southern half of Bobcaygeon, immediately south of the town plot on the narrows between Sturgeon and Pigeon Lakes. Named Rokeby by Lieutenant-Governor John Colborne in July 1834,¹⁴ it continued to be popularly known as Bobcaygeon. The Rokeby town plot was the local village that was not privately held when resettlement began. Need oversaw the surveying and development of this village while he continued to speculate in land. Over the next nineteen years, Need made several other purchases, increasing his lifetime total holdings to 2,817 acres, excluding the land he occupied on the north shore of Sturgeon Lake.

John Langton was born within a month of Need. His father ran a business importing from Russia that nearly went bankrupt in 1820. Langton attended Cambridge with the assistance of his aunt, then spent a few years experimenting in search of a profitable livelihood before becoming "for the first time in my life, a Lord of the soil" on August 20, 1833. He intended to live as a gentleman farmer at his estate on the north arm of Sturgeon Lake, named Blythe in honour of his childhood home that the family had been forced to sell. He lost no time scooping up nearby properties, which he sold to the labourers he employed clearing his farm. By having them purchase lots from him at rates of about a pound per acre that he had obtained for a few shillings, he could develop his estate inexpensively. Langton also was confident that the Trent Waterway would soon be built, and substantially increase the value of any lots he retained. In choosing the Newcastle District, he understood that the soil was often better in western Ontario, but the potential of the waterway was decisive. He predicted "before I have any crops to sell, I have no doubt the six or seven miles land carriage at Peterborough will be all that interrupts my water communication with Montreal." He initially acquired land mostly in his immediate neighbourhood, but soon snapped lands up more broadly when opportunities presented themselves. As he became one of the district's most prominent

gentlemen, Langton acquired 3,379 acres that had not had a deeded occupant, as well as 1,808 acres of land that had, plus his 173 acre Blythe estate and 526 acres of Loyalist grants that he flipped prior to patent.¹⁵

The largest local speculative venture was a partnership between Robert Jameson and James Wallis. Robert Jameson was a grandson of John Jameson, the renowned Dublin distiller. He attended Cambridge in the late 1820s, where he met John Langton. In September 1833, he bought the lot at the falls between Cameron and Sturgeon Lakes from the Hon. Duncan Cameron. Jameson spent little time in the Kawarthas. A different Robert Jameson was Attorney General of Upper Canada.¹⁶

James Wallis was born in Glasgow in 1807. His maternal grandfather had made a fortune as a Virginia tobacco planter. In 1832, Wallis entered an unsuccessful partnership with Sydney Bellingham in Montreal importing produce from the West Indies. Bellingham worked for Thomas A. Stewart of Peterborough and introduced Wallis to the region. Wallis partnered with a Peterborough merchant, who soon died. Then, in the spring of 1833 he began purchasing lots close to the falls in Fenelon Township, before entering a partnership with Jameson in 1834 that was initially kept secret. Wallis arrived in Fenelon that January and not long afterwards began the construction of a grand home, Maryboro Lodge, just upstream from the falls on Cameron Lake, officially opened with a party in October 1837. Both partners took small steps towards establishing country estates on the lake shore on either side of Fenelon Falls—Jameson on 23 IX and Wallis on 23 XI—for Wallis this meant that his home was on a different lot than his farm.¹⁷

Jameson and Wallis soon began scrambling to acquire lots in Fenelon and Verulam, with a few in neighbouring townships—"lots and concessions being the only subject of conversation." Gambling on the early improvement of the Trent-Severn Waterway and the rise in land value bordering a through transport route to the west, they soon became among the strongest advocates in the district for its completion. They expected that it would intially be linked via Scugog Lake, so they bought the harbour at Windsor (now Whitby), along with some town lots in both regional centres, Lindsay and Peterborough. Holding the Windsor outlet for the produce of the back lakes, they hoped to profit either way, and also worked to promote its development. It would turn out that Whitby was the outlet for the back lakes for the time they were in the business. They, like Langton, took advantage of the land granting policies of the government of Upper Canada to amass cheap land. After the introduction of the land sales system in 1826, several privileged classes of grantees remained—yet for each of them the state placed restrictions on the issue of patents which made the right to receive a grant less valuable than an equivalent amount of land.

The largest group of grantees were the sons and daughters of United Empire Loyalists. As grantees, the Loyalists were more numerous than just those British-American colonists that the Crown evacuated at the conclusion of the American Revolutionary War (1775-1783). A large proportion of those entitled to free land were "Late Loyalists," or those who arrived between 1783 and July 28, 1798—often said to be motivated more by the prospect of receiving free land than by political sentiment. Loyalists successfully forged a useable tradition centred on their devotion to, and suffering for, the Royal cause that became a cornerstone of Upper Canadian identity.

	Acres	% of Total	% Direct
Loyalist	30,029	26.7	0.3
Militia	17,471	15.6	8.6
Loyalist or Militia	1,687	1.5	0
Half Pay	1,839	1.6	61.1
Indigent	950	0.8	10.5
Full Fee	1,500	1.3	0
Peter Robinson	300	0.3	33.3
Donald Cameron	200	0.2	100.0
Surveyors	7,887	7.0	0.0
Total	61,863	55.1	5.1
Excluding Surveyors	53,976	48.0	5.9

They, and their political allies, translated this into free grants of much of the colony's land. The original Loyalists received 300 to 5,200 acres (depending on rank), late Loyalists 200, and in 1789, Governor-in-Chief Lord Dorchester promised 200 more

2.8 Acreage granted directly to known occupants

to each son or daughter of those deemed to have adhered to the British standard before 1783.¹⁸

There were several other classes of grantees. Starting in 1818, those who served in the War of 1812 received a bounty of at least 100 acres, again increasing with rank,

which, by the time land was redistributed in Fenelon and Verulam, was also subject to settlement duties. Servicemen from the British military who migrated to Canada were entitled to grants scaled to rank, indigent persons could apply to receive a free grant of 50 acres and certain people still received grants after paying surveying and administrative fees—most of those who did had some connection to prominent politicians. A few lots were also granted to people who claimed to have taken part in one of two assisted migrations—Peter Robinson's Irish emigration to the Peterborough area of 1825-1826 and Donald Cameron's settlement scheme in Thorah and Eldon that began in 1826. The Cameron lot was granted even though the Executive Council had evidence of him claiming lots on behalf of settlers far in excess of their actual numbers, though it seems that this particular lot went to a bona fide resident of Eldon. The total land granted under these initiatives was 48.0% of the townships; 55.1% if grants to the surveyors are included. These grants, combined with the Crown and clergy reserves accounted for 84.6% of the townships, leaving little land that could have been granted but was not.¹⁹

Granted land went overwhelmingly to people who would never reside in these townships. Of those lots where information is available, only 5.1% of granted lots (including those lots given to surveyors or 5.9% if surveyors' lots are excluded) ended up going to someone for whom there is evidence that they became an owner-occupant. The results varied between classes of grantees—only one of the Loyalist grantees is known to have personally lived on her lot, while a majority of acreage granted to half-pay officers was occupied, though this translated to only three men. 8.6% of militia grantees are known to have taken up their lots. While small numerically in proportion to the total grantees, these recipients—Nicholas Heaney, John Hunter, John Lyle, Simon Cullen, Alfred Stevens, William Playfair, James McPheeters, Alexander Hamilton, Arthur McConnell, Andrew Mortimer, Hugh Crowley, Abraham Brown and John Grey—were important in forging the early communities.

Loyalists' children were technically entitled to these grants only if "there has been no default in the due cultivation and improvement of the lands already assigned to the head of the family." Throughout most of this period, there were also regulations stating that they were only to receive patents if they had fulfilled settlement duties. In Fenelon and Verulam settlement duties usually required recipients chop 5 acres for every 100 of

the grant, build a 16x20 foot house, clear and seed half of the road to grass-all to be complete within two years of the receipt of a location ticket (certificate of permission to occupy a particular lot prior to the issue of a patent). None of this was ever effectively enforced. A few people actually performed the settlement duties, though, like elsewhere, some fraudulent evidence was likely accepted in this regard. As Samuel Strickland observed, "few persons or magistrates would be at the trouble and expense of travelling thirty or forty miles back into an uninhabited part of the country, to ascertain if the parties had sworn truly or not." Most settlement duties were performed before any deeded settlers lived in the townships. It seems that Asa Richardson and John Williams of Brock Township were kept busy fulfilling the requirements for others. But of all the lots for which the Commissioner of Crown Lands received certification that settlement duties were fulfilled, none were performed on behalf of any of the major local or absentee speculators. They apparently had the knowledge or connections to avoid the trouble and expense. On October 17, 1835, John Colborne abolished all settlement duties in a play for Conservative support in an upcoming election. Jameson and Wallis, like many other speculators, saw their chance and rushed to patent Loyalist grants. Over the next two years they received patents through Loyalist or militia grants issued on 6,727 acres of land (6.0% of Fenelon and Verulam) and would subsequently acquire another 3,900 (3.5%) this way. Other speculators did not miss out—overwhelmingly buyers who would never live in either township, they acquired 12,387 acres (11.0%) between October 17, 1835 and October 17, 1837 and 12,279.5 acres (10.9%) later.²⁰

Principally by taking advantage of the removal of settlement duties on militia and Loyalist grants, Jameson and Wallis amassed 15,820 acres in these townships (14.1%), plus a few in adjacent townships and several town lots in Lindsay and Peterborough. They had an interest short of patent in another 1,931 acres—a total of 15.8% of these townships comprising 22.7% of Fenelon and 9.3% of Verulam. Much as Need saw himself as the leader of the community at Bobcaygeon and Langton at Blythe, Jameson and Wallis invested in Fenelon Falls, so their holdings were concentrated in this area and, to a lesser extent, around Rosedale. Though all four acquired much of their land from scooping up the cheap land grants, each also bought lots ineligible for granting that they thought would assume particular significance—especially lots near villages or on the waterway—at government auction.

The major local land speculators varied considerably in how carefully they chose land. Need's were in large part surveyor's lots, which it would seem had been deliberately selected. Langton mainly picked lots in his own neighbourhood, though later on he bought some scattered lots, on which he did not profit nearly as much. Langton was sceptical about the nature of the land and settlers that Jameson selected, as he was "very active in bringing out settlers of the poorest sort to occupy his land. I spent an hour or two on the spot where he has some men clearing, but the greater part of the lands about seem very poor, the situation being the principal object." All available evidence suggests that Jameson and Wallis made no effort to examine their lots except those immediately around Fenelon Falls and Rosedale. Examination of the survey records and soil data for their lots suggests that they did no better than a random selection. They discovered after purchasing one lot that it was entirely flooded, and they also bought part of the wetland west of the southern arm of Sturgeon Lake.²¹

Langton and Need were both selective about who they allowed to acquire property. For Langton it was a matter of choosing his neighbours, while Need at times refused potential customers who were not in keeping with his vision of his settlement.

	Later Acquired Same Lot	Acquired Different Lot	Never Owned in Fenelon/ Verulam	Total	%
Owner	~	~	~	40	44.9
Squatter on crown	15	3	2	20	22.5
On crown by permission	3	0	3	6	6.7
Owned by local speculator	9	0	2	11	12.4
Owned by local	4	0	2	6	6.7
Owned by other	3	0	3	6	6.7
Total	34	3	12	89	

2.9 Land acquisition of those in 1841 agricultural census

Though there is no evidence that Jameson and Wallis were particular about who they sold to, all four major local speculators saw themselves as the architects of their communities. All strove to provide political leadership, invested their wealth in local infrastructure, and made a point of 'condescending'—a term that was not then pejorative—to understand and meet the needs of the local yeomen. By August 1833, Jameson was preparing to operate a sawmill at Fenelon Falls-his acquisition of the Rosedale lots was conditional on building a mill in the township—which was finished by the spring of 1835. Need completed his mill earlier, but it was often inoperable because the faulty dam at Bobcaygeon allowed water levels to fluctuate so much that the flume was often dry in summer, until the dam was refit in 1838.²² By 1841, both ventures operated grist mills. Both ran stores, and Langton made frequent trips to Peterborough to buy food or supplies for his neighbours while serving as a rudimentary bank. Wallis opened a tavern at Fenelon Falls by January 1, 1836. Wallis, Langton and their friend Robert Dennistoun were pivotal in establishing the Anglican Church in Fenelon-fundraising, collecting subscriptions to support a minister and petitioning the governor for grants and a clergyman. Wallis personally conducted services until Rev. Thomas Fidler took charge in 1839, and donated lots for the church and the parsonage. Anne Langton taught the first school at Blythe. All of these speculators served as Justices of the Peace, as did Darcus and McAndrew. Wallis and Langton were officers in the militia. Wallis' pervasive role in Fenelon Falls is suggested by his Ojibwa name, Ogima.²³

The speculators knew that their offices could cement their status and expected a return on their investment. The mills would pay by the fees charged for their use—generally ½ the lumber cut and 1/12 the grain ground. Need and Langton promoted and

	Percentile			
	25	50	75	100
1830s	\$100	\$200	\$200	\$400
1840s	\$167	\$200	\$400	\$600
1850s	\$250	\$400	\$600	\$2258
1860s	\$400	\$555	\$800	\$9617
1870-5	\$600	\$735	\$2000	\$12160

2.10 Land price at private sales (100 acres)

oversaw the development of the Trent Canal—both expecting to profit handsomely from the increase this would bring in property values. As well, they managed road construction. Roads were being built around Bobcaygeon within two years of the first settlers arriving. In 1832 a road was built coming from Ops,

cutting across the southwestern corner of Fenelon Township south of Goose Lake to the south boundary of Eldon, which it followed to the west. Three years later a road was started at Fenelon Falls, running to Lot 16 on the boundary with Eldon, then following the Fenelon-Eldon boundary south to meet the first road. While they served local

transportations needs, these roads also were a step towards entrenching the speculators' visions of the landscape. In December 1836, Thomas Need was laying out a road from Bobcaygeon to Fenelon Falls via Atthill's—similar to the modern day Road 8. The next year a road was added from Fenelon Falls (Wallis') to Blythe (Langton's). In 1840, Langton laid out a route from his estate to meet the Fenelon-Bobcaygeon road at Atthill's. The same year Wallis laid out the main street of Fenelon Falls to meet the road to Bobcaygeon. In 1848 Langton surveyed a road from Fenelon Falls to Lindsay for John Reid. It was natural to these men that their ventures were the foundation of local communities. There certainly was truth to this when they controlled so many institutions, and 26,454 acres or 23.6% of the townships.²⁴

There were also many absentee speculators who did not assume local roles. Just as Jameson, Wallis, Langton and Need were snapping up grants from recipients who had no real interest in the land, investors elsewhere in the colony were seizing the same opportunities. Many of these buyers were prominent figures—often members of what has been termed the 'Family Compact.' These elites were given preferences for many of the most valuable lots in the townships. For instance, lots on the shore of Cameron Lake could not be sold until Catholic Bishop the Right Reverend Alexander McDonell had chosen which lots he would like to be granted. At the July 2, 1833 Peterborough Crown Land Sale, agent Alexander McDonell, nephew of the bishop, agreed to allow one absentee to purchase 6,248 acres in Fenelon and Verulam (5.6%), but the buyer backed out after inspecting the land. By 1840, when local censuses found 108 people living in

	Percentile			
	25	50	75	100
1858-9	\$100	\$160	\$200	\$665
1860s	\$120	\$163	\$200	\$925

2.11 Price of Crown and clergy reserves, (100 acres) these townships (a slight underenumeration), 59,227.5 acres (52.8%) had been patented and about 10,046 acres (8.9%) were owned by someone who would occupy the lot—a generous figure that includes the total acreage of some

gentry estates. Overwhelmingly, land was owned by gentleman farmers, local speculators and absentee holders.²⁵

While this land granting system meant that the majority of settlers would acquire their land privately, normally at prices significantly higher than Crown land sales, people often did not acquire a patent before occupation. Up to mid century, less than half of those who have left behind some documentary record were living on land that they owned—the majority were squatting, tenants, occupying government land by permission after giving a deposit, or were in the process of buying the land from somebody else. Most people who were living on land they did not own subsequently acquired it, although a significant portion never held title to any land in the township.

By 1841 Fenelon and Verulam had become a landscape of unfinished lakefront estates and vacant speculative lots, with a smattering of small nascent farms. Though it may have seemed in the late 1830s like the Kawarthas were being constructed to fulfill the vision of a gentry-dominated landscape, that foundation was crumbling. The 1840s and 1850s were a difficult period for the gentry across Upper Canada as political and social changes began to undermine the Tory elite.²⁶ In the Kawarthas the emergent gentry was already floundering because their domestic economies, mostly built around agricultural estates on the pattern of the British aristocracy, were a shambles. None of the gentry were flourishing. Most of them were steadily losing money and hope, because not one had receipts to cover the costs of labour.

	Later Acquired Same Lot	Acquired Different Lot	Never Owned in Fenelon/ Verulam	Total	%
Owner	~	~	~	81	46.0
Squatter on crown	27	6	11	44	25.0
On crown by permission	0	1	0	1	0.6
Owned by local speculator	18	2	2	22	12.5
Owned by local	4	4	12	20	11.4
Owned by other	4	3	1	8	4.5
Total	53	16	26	176	

2.12 Land Acquisition by those in 1851 Agricultural Assessment

The local gentry were doing little better at peddling land. By the spring of 1839 Thomas Need had sold a total of 454 acres before he returned home to Nottinghamshire. He soon returned and was present much of the time until he went home early in 1842 to inherit the fortune of an aunt, visiting again in 1845, 1847 and 1884. By 1842 Jameson and Wallis had sold five lots totalling 493 acres. Wallis had spent the previous winter in

Peterborough, and that October he and Jameson agreed to a partial partition—their holdings were finally divided in 1848—and both left. Wallis built an estate, Merino, on the outskirts of Peterborough, where he devoted his time to church, breeding fine livestock, captaining his steamer *Ogemah* and enjoying country life with his children. Jameson returned home to Ireland, and died at Queenstown, County Cork, on December 24, 1850. Langton did better, but his venture was still not paying. As early as 1835, he concluded, "I was led away with the rest of the mania and thought that our time would come sooner than it has." By 1851 he had sold 1,866 acres, at which time he won the county seat in the Legislature and moved to Peterborough.²⁷

There were numerous reasons why Jameson, Wallis and Need failed. They had acquired land with little consideration of how to find buyers, and tried to sell it at considerably higher prices than the going rate for Crown land at auction. There was simply not the demand, especially in Jameson and Wallis' case, for land that was no better than a random selection at inflated prices. A significant portion of Jameson and Wallis' venture was financed on credit from wealthy friends back in Britain and they could not afford to pay interest for a generation or more as they waited for buyers to emerge.

Yet even as the local gentry crumbled they continued to oversee the development of the region and manipulated the emergence of new leaders. The communities in many ways grew from the seeds they had planted. When Need first left, he entrusted Mossom Boyd with his mills. This grew into a lease of his property, and Boyd gradually became the pre-eminent businessman in Bobcaygeon, having also given up farming. Thomas Need decided that Boyd would be his heir as the leading figure of Bobcaygeon. Need would not sell property on the waterway to anyone who might interfere with Boyd's water privileges. The Orde brothers—Conservative stalwarts and lawyers from Lindsay and Peterborough—wanted to buy his property around Bobcaygeon, but Need thought it was only fair to sell it to "one who has borne the labour & heat of the day." He was very generous in extending time for Boyd to pay off mortgages, while he hounded George Strange Boulton for payment. Eventually—on September 2, 1869, more than thirty years after Need had first entrusted him with the mills—Boyd completed the purchase of his interest.²⁸

While he was putting together the money to buy out Need, Boyd was slowly piecing together land holdings that would dwarf all others in the region. Scattered across many townships from Harvey to the headwaters of the drainage, his acquisitions were closely linked to his lumber business. Boyd had an eye for a bargain, but he also purchased knowing that the timber might be worth more than the lot itself. Once he had cut the trees he wanted, he could sell the lot. He amassed a total of 6,106 acres in Fenelon and Verulam alone.

The gentry brought out and employed a large proportion of the early settlers often on some sort of arrangement where they exchanged labour for land. This gave the speculators cheap labour as they could purchase land for far less than their workers paid in turn. For some, like John Menzies, the arrangement led to hardship. He worked for John Langton, and from the description of his employer's sister, he was "an intelligent and able man, and the most useful one John has yet had." Menzies bought one hundred acres from his employer in 1837, at the speculator-friendly price of £1 per acre. Despite his industriousness, he was not able to keep up with his payments and in August 1841, Langton seized his crops. That month Menzies gave up his property, the title going to Anne, and moved to Kingston with his young family to try again.²⁹

The 1840s brought a lull in migration to Fenelon and Verulam. The gentry were no longer promoting migration and employing settlers as before. When Jameson and Wallis left, they lost interest in many of their local ventures—their central institutions, the mills, were not kept up, though Major McLaren continued to oversee their operation until the sawmill burned around 1858. In 1852 it was observed that they had "let the mill rot down and have forsaken the place and left the people in the rear to suffer every inconvenience on acct of their [sic] being no mills to transact their business and has finally put a stop to any further settlements in that quarter." Need had a more inspired heir, but Boyd was still struggling to build capital. With Langton being the only major speculator remaining in the area, much of the patented land was owned by distant, often unknown investors, while non-residents continued to buy up the townships. By 1851, 74,159.5 acres (66.1%) had been patented. Yet the census showed that the rate of settlement actually slowed—the population increased by 80 from 1841 to 1851, compared to 108 in the previous nine years, while 18% fewer properties received their first deeded

occupant. Only 20,422.5 acres (18.2%) is known to have been owner-occupied. The landscape, then, remained largely one of vacant lots.³⁰

With their self-appointed visionaries scattered, the local communities continued the arduous task of building an agricultural landscape from the forests. Local leaders emerged from the old families that had seen the task through from the start—Bick, Dick, Ingram, Kelly, Junkin, Jordan, Bell, McConnell, Thurston, Mitchell, Brock, Hunter and Boyd—the most prominent of all. These new leaders and the landscape around them were both moving away from the English aristocratic ideal—professionals, farmers and businessmen took the place of the gentry, while their estates slowly dissolved into a countryside of family farms.³¹

During the 1850s and 1860s the pace of landscape reconstruction accelerated markedly. Finally, about a generation after the first grants in the area had been made, the absentee holdings began to disintegrate, allowing immigration, and the proportion of land in the area that was owner-occupied to accelerate. For the first generation of speculators it was often a painful process. Several investors, including Robert Jameson, died without having realized a return on their outlay. Jameson and Wallis' second partition in 1848 left Jameson's heirs with a large amount of Canadian property that they had little interest in, including half of the partnership's holdings in Fenelon and Verulam. At the time Jameson's estate was liquidated in 1852, 15,667 of the partners' 17,751 acres remained. His heirs sold his holdings adjacent to Fenelon Falls to Wallis and most of the remainder to Toronto lawyers James L. Robinson (eldest son of John Beverley Robinson) and John Cameron (a conservative politician and executive councillor). Robinson then sold much of it to George William Allan, a Toronto politician and lawyer in June 1856. Allan disposed of only two lots before he transferred the rest to trustees in 1862. They gave him about one third of his purchase price and liquidated the land over twelve years.

John Cameron sold three lots totalling 400 acres to people who would farm the land. But he was not faring much better than Jameson had. In May 1859 he sold the majority, 2,981 acres, to Hector Cameron, who studied law at his office and became the Conservative representative for North Victoria—Rosedale, originally Rosadale, was named for his wife. Hector was not able to sell a single lot to an occupant before he and John defaulted on their mortgages. The Bank of Upper Canada foreclosed and transferred

most of the land to William Margach, a land dealer and lumberman based in Lindsay, who liquidated Jameson's holdings by 1874.

Wallis' share of the venture nearly ruined him. By the end of 1859, he had disposed of 3,024 acres, 2,824 of which went to people who would actually use the land. However, sales were far too slow to meet the costs of holding his remaining 6,557 acres, and by 1860, his ventures in the colony were essentially bankrupt. After 1860 the land he sold came mortgaged to his creditors, and by 1864 he was giving away lots to buyers who agreed to assume the mortgage. His lenders began liquidating his holdings in 1861. By February 1869, all but 1,346 acres were sold. Wallis lost five lots after 1860 for failure to pay taxes. His creditors finished cashing in on his property in November 1877. Of the land sold after 1860, 1,855 acres went to various speculators, but the majority was sold to occupants.

Jameson and Wallis had been almost completely unable to profit from their most valuable holdings. Lot 21 X was included in Jameson's 1841 marriage settlement. By the time Wallis' creditors foreclosed on Lots 22 to 24 X (421 acres, including the village of Fenelon Falls and his former home, Maryboro Lodge) in October 1864, he had made only seven sales of lots in Fenelon Falls, and Rosedale was not yet laid out. Wallis knew that land value was increasing with the growth of the village, so he reacquired 150 acres in lot 24, with part of lot 23, which he sold as town lots. In the meantime, his family's wealth rescued him. In 1858, he sold the Maryborough estate in Cork, Ireland, where he had spent much of his childhood, and in 1872 received £15,500 for the Coombola Estate, inherited from his aunt, clearing about £8,500 after mortgages.³²

As Jameson and Wallis' land venture crumbled, other investors picked up the slack, though none took the same interest in promoting the community as the early gentry once had. These speculators or land dealers included several from the District, though only two major investors, Boyd and Jabez Thurston, were locally resident: Robert Dennistoun, a former Fenelon Township gentleman who had become a Peterborough lawyer; Robert Nicholls, a Peterborough merchant, who bought cheap land at auctions for non-payment of taxes; the Orde brothers; and William Margach. Margach was one of the better instruments for transferring land from non-local investors to resident farmers, and was speedy at his work, only holding four lots for more than two years. The largest land

speculator of the period was Mossom Boyd, whose lumber business was just emerging as one of the Canadian giants. Boyd, like these later buyers, usually did well on his purchases, though again, these lots might be held indefinitely. In fact, the final Boyd lot, 12 X Verulam was not sold by his estate until 2005. Until the 1980s and 1990s, Boyd's estate held properties worth millions of dollars each, including Big Island, and part of 14 X, the south shore of Little Bob.

Yet for all of Boyd's success his family was private and eschewed many of the public aspects of gentility, although they basked in domestic opulence and built two grand estates in Bobcaygeon. They also frequently avoided public office—after running unsuccessfully for the Conservatives in 1854, Boyd declined the opportunity to campaign again in 1867. Mossom Martin Boyd, his second son, turned down personal entreaties from Sir John A. Macdonald and Mackenzie Bowell, both sitting prime ministers, to join the Conservative Party—Bowell had written, "Cannot too strongly urge you to accept nomination. Highly important. Only means of saving riding. Don't say no." He was not convinced even when he was promised that the party would do their best to "have you go in unopposed, in other words, I don't think that you would have an election at all, and I should do all in my power to prevent your being put to the cost and annoyance of running." Nor would he agree when they nominated him despite his protests. His younger brother, Willie Boyd, however, was elected to Bobcaygeon council in 1898, and as reeve in 1900 and 1901.³³

The rapid expansion of Boyd's business in the 1850s accelerated immigration to the area, as did several timber businesses at Fenelon Falls and the recovery of some of the local infrastructure as a new generation of local leaders took over ventures that were neglected after the collapse of the gentry. At long last, speculators were able to find buyers for their properties even though they persisted in charging more than the cost of Crown land at public auction. From 1851 to 1880 the bulk of the Crown and Clergy reserves, long maligned for impeding settlement, were sold to owner-occupants. Their reputation for keeping land out of the hands of those who might use it was not deserved. They were far more efficient at transferring land directly to settlers than lots that were not reserved. In practice, the distinction between the reserves and other land was that the reserves were not open to any of the systems of land grants (some exceptions were made

for Crown reserves). Instead, they had to be purchased at public auction, which fetched higher prices than the going rate for Loyalist rights in the 1830s. Speculators did not buy nearly so large a proportion of these properties—only valuable locations were worth the investment. 50.4% of Crown and Clergy reserves in this area (excluding those where exceptions were made to allow a preferential grant) are known to have been patented to someone who would occupy the lot—a far higher rate than that for granted land. They tended to go to owner-occupants slightly more slowly—the average date of first owner-occupant for Crown and Clergy reserves was about 2 years 7 months later than other lots, but many of these reserve lots had been squatted on for years prior to patenting.

Squatters are known to have occupied 12,852.5 acres (11.4%) in these two townships, certainly an underestimate because of the clandestine nature of their activities. They were fairly successful at acquiring land which they occupied. 62.3% of known squatters later acquired that lot-though this most likely overstates their success rate, because those that found their way into the documentary record would be more likely to retain their lots than those that did not. Squatting began before the first deeded settler arrived in the area. By the 1840s or 1850s it had become a streamlined method of acquiring land—though there was apparently one case where it led to physical confrontation between rival claimants. A person had to reside on a lot, clear at least two acres—five would almost certainly get a claim recognized—and get two neighbours to make oaths before a Justice of the Peace that the claimant had made the improvements. The squatter was then eligible to buy that lot at valuation. Most often a land surveyor was called out to value the land—and prices commonly ran from 5 to 10 shillings per acre, significantly below the cost of land by private sale. Some valuations were made by reeves, one of whom seemed quite willing to help his constituents by attesting that their land was swamp and therefore almost worthless. Squatters also had some assurance of retaining their improvements prior to purchase, as any Crown land sale to a third party could be disallowed if a squatter promptly demonstrated prior occupancy. They also could sell their improvement to another potential occupant. However, some squatters mistakenly took up patented land apparently thinking that it was still held by the Crown. They were actually trespassers, with no property rights, at the mercy of the absentee owner, who might be well pleased that their work had increased the lot's value. There

were several cases where squatters then made some effort to buy the land, but came up empty-handed.³⁴

Though squatters have often been portrayed as a distinct class of occupants in the rhetoric surrounding nineteenth century debates of land policy and subsequent historical works,³⁵ squatters frequently owned other land. Many squatted on lots adjacent to ones they owned, and refer to the date they occupied their primary lot as the date they took up the other, probably with some justice as many used adjacent unoccupied lots as well as their own from their time of settlement.

Squatters varied considerably in their use of land. Some, like Angus McLaren, arrived very early, built farms, and left a family in the region that persisted for generations. McLaren settled near the creek that bears his family name sometime before 1833 on lots 2N, 3, 4W & 5W III. His brother, Daniel McLaren, who drowned in the creek, squatted on 4 III in the 1830s. In the early 1840s Angus also died, leaving his wife Margaret with four daughters who continued farming around their home on 3 III, where the eldest, Mary, was born in 1833. Margaret acquired that lot by 1856—it having been granted to an absentee Loyalist.³⁶

Matthew and Susannah Ingram, emigrants from Magheraculmoney Parish, County Fermanagh, Ireland—the same parish as the Junkins—took up residence on 21E VIII Verulam in 1833, just before the birth of their daughter Maria, who is remembered as the first child born in this farming community. Matthew purchased a lot from Thomas Need in 1837. He subsequently expanded his farm onto 20 VIII, a clergy reserve, on which an absentee, Blaney Mitchell, had paid one instalment in 1833. This sale was cancelled and Ingram received a patent for the lot in 1841. Matthew's elder brother James and his wife Jane emigrated at the same time and lived briefly on William Jordan's property, 18 I Verulam, before moving to 19W II, which James' second son, James Jr., acquired in 1856. Matthew had eleven children and James had five, and all eight of their sons surviving to adulthood farmed in Fenelon, Verulam or Harvey. Like their relatives the Junkins—Maria Ingram married William Junkin's oldest son John—they are the ancestors of many families in the region.³⁷

Families frequently squatted on lots while they held deeds for others. Carnaby Thurston (1W III Verulam), Thomas Thurston (2E IV Verulam), Jonas Thurston (2W IV

Verulam), Irvine Simpson (2 IX Verulam), John Blatchford (12W IV Fenelon), and James Junkin (22W & 23W IV Verulam) all occupied lots while they or their immediate family owned nearby land. Jeremiah Twomey squatted on 27 II Verulam while operating a store in Fenelon Falls. In a case like John Duggan's, squatting on an adjacent lot could be accidental. For other squatters, like William Devitt (28E VIII), it was a step towards establishing his family—he and his brothers, Thomas and Henry, settled an isolated pocket of farmable land in the neighbourhood known as the Devitt's Settlement. Some people cleared large areas on land they did not yet own—Daniel Flynn improved 80 acres on 9 III Verulam before his family acquired title, and several squatters had more than 60. Many, however, did very little on the lot, perhaps only a "caricature of a log shanty of the rudest description," before trying to acquire it, and in some cases stripped timber. As long as the Crown tolerated squatting, whether someone held a patent was of little consequence unless there was a counterclaim. Then, however, a great deal of attention might be paid to precisely what each party had done on the lot, and at times the character of squatters entered the discussion. One speculator embroiled in a dispute wrote repeatedly to the Crown Lands Department denouncing the "mean squatter" on his land.³⁸

Cross-referencing records of squatters with soil surveys shows that there is no appreciable change over time in the quality of soil on the lots that squatters occupied. While some might have sought the best agricultural lots, squatters did not have free range to choose lots in the township. There were certain lots which they had a better chance of acquiring. They may not have been entirely motivated by agricultural productivity and may have chosen a lot because of proximity to other holdings, the waterway or good timber.

The government's position on squatting was ambivalent. The 1841 Land Act did not give squatters any right to pre-emption, but in 1842 this right was confirmed, though they had to pay rent and interest from the time of occupation. In January 1859 the government issued a warning that no claim to pre-emption would be considered after September 1, requiring a payment of \$5 annual rent per 200 acre lot in addition to the purchase price. Two years later it was decided to auction off the remaining lots in specified townships to end squatting. In Fenelon and Verulam few lots were acquired by squatters after 1870, and the last sale closed in 1893.³⁹

During the 1850s, 1860s and 1870s much of the townships finally passed into the hands of owner-occupants. By 1861, 47,173 acres (42.0%) of the townships had been owned by someone known to have occupied the lot. Ten years later this had risen to 81,457.25 acres (73.6%) and by 1881 it had reached 92,089.25 acres (82.0%). The landscape had become one largely of family farms—some of which would last generations as a nucleus of the community. While many moved on, about one hundred family farms in these two townships endured at least a century.

With this backbone, the stable, prosperous agricultural community that settlement promoters had envisaged was becoming a reality. It was mostly, though not totally, an agricultural landscape. Though the largest local business was a lumbering operation, most residents were farmers. Its farms were rapidly expanding in acreage and productivity. At long last—the ways that land was redistributed had ensured that the reorganization would take decades—it had become a place where land was held by 'actual' settlers, by and large families raising another generation to earn a living in the countryside.

Yet in many ways the Kawarthas had become quite different than what had been envisaged early in the century. The colonial state and elites did not know the region well enough to set in motion a program of landscape re-creation that could march steadily towards the objective. Their methods often mapped lots significant distances from their actual location; they did not have a very good sense of the contents, qualities or potential of lots; and their abstract schema fell short of providing ideal local infrastructure. Their limited resources dictated that many aspects of the transformation escaped their attention or contradicted their intent. Plenty of timber disappeared without an official trace; squatting was widespread and at times facilitated; and land speculation became a necessary evil, quickly assuming a central role in the resettlement process. Though a facsimile of a grid landscape developed, it was rough enough that rumours persist that the surveyor of Verulam Township was a drunk. The Kawarthas were not dominated by an elite modelled on the British aristocracy.⁴⁰

Though many elites planned a countryside reflecting contemporary Britain, they could not re-create their homeland. The society based on gentrified patrons intimately connected to the colonial elite collapsed because no economy that could support them was established. It is no coincidence that the only member of the early local gentry to

endure was Mossom Boyd, an industrious, driven and conscientious businessman, who devoted far less time to conspicuous display than his peers. By mid-century, the leaders in the community were distinguished more by the contributions they made within local society than their aristocratic pretensions and external connections.

From the promise of the gentrified settlement in the 1830s, soon followed by its disappointment, to the gradual coalescence of a community of family farmers, the outlines of an agricultural landscape were coming together. While the transformation lagged behind the rate at which the Crown deeded its millions of acres, it was remarkable nonetheless. Within sixty years of when John Huston and James Kirkpatrick drew the outlines of an orderly, rational, agricultural landscape, a farming community had come together and was on its way to completion.

The haste that characterized land redistribution—placing land in investors' and occupants' hands for development as farmland, before its potential was known—left a lot to be figured out. In the Kawarthas, environmental conditions on the microscale were pivotal to the success or failure of farming. As most land was deeded and taken up as farms, practical experience would separate the properties where agriculture stood a chance from the rest. Learning on the fly, as so many were, it took at least a generation for spatial pattern, economy, and material culture of agriculture to sort itself out.

James L. Robinson	Toronto lawyer, son of John Beverley Robinson	5720
George S. Boulton	Cobourg lawyer & politician	5314
John Cameron	Toronto lawyer & politician	3541
Malcolm Cameron	Huron lumber merchant & politician	2375
Thomas Clark Street	Welland County lawyer & politician	2275
Benjamin Holmes	Montreal banker & politician	2175
Sir Allan Napier McNab	Premier & director of Great Western Railway	2125
John Henry Dunn	Receiver General	2099
Rt. Rev. Alexander McDonell	Catholic bishop	2027
George William Allan	Toronto politician & lawyer	1950
Alexander Fraser	Glengarry politician	1800
Anthony B. Hawke	Chief Emigrant Agent	1200
Earl of Mountcashel	Irish emigree land speculator	1040
Donald Cameron	Whitby speculator	900
John Strachan	Bishop & Executive Councillor	800
John Macaulay	Kingston businessman, Surveyor General, Customs Arbitrator	800
William B. Jarvis	Home District sheriff	800
Duncan Cameron	Toronto banker, provincial secretary	700
John Ham Perry	Ontario County registrar	548
Samuel Street	Queenstown businessman	500
Peter McGill	Montreal banker	400
William Proudfoot	President of Bank of Upper Canada	400
John Radenhurst	Clerk, Crown Lands Department	400
John S. Macdonald	Premier	390
D'Arcy Boulton Jr.	Auditor General	224
John Kirby	Kingston judge, businessman & banker	200
John S. Cartwright	Kingston judge & politician	200

2.13 Prominent Early Land Speculators (acres)

Mossom Boyd	Bobcaygeon sawmiller	6106
Orde Family	Peterborough and Lindsay lawyers	5706.5
Robert Nicholls	Peterborough merchant	3716
Robert Dennistoun	Peterborough lawyer	3686
William Margach	Lindsay land agent	3646
Ferdinand McCulloch	Montreal banker	2434
Jabez Thurston	Verulam Township farmer and sawmiller	1516
James W. Dunsford	Verulam Township and Lindsay politician	1382
George Dunsford	Lindsay lawyer	475
Hartley Dunsford	Victoria County Land Registrar, banker	431
Martin Dunsford	Lindsay lawyer	425
Michael Deane	Lindsay provincial land surveyor	275

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3. The Family Farm

As settlers sailed across the Atlantic, dreaming of new homes and lives, they were engaging in an enormous collective project. Together, they had the chance to build new lives for themselves, hopefully far more prosperous and stable than the ones they left behind. But they did not aspire to a world that was that different from the one they knew. If anything, most wanted to live in Britain's agricultural landscape transplanted. Upper Canada, like most temperate regions of eastern North America, seemed to have the potential to one day resemble the old sod. The Kawarthas in particular might be "the most English of all the districts,"¹ and were settled overwhelmingly by British émigrés.

It seemed natural to the migrating society that their new homes would be farmland. After all, the European countryside had been mostly agricultural from time immemorial. In a society of Christian farmers, many accepted that God had banished man from Eden "to work the ground from which he had been taken." Adam Smith theorized that proportional to the labour it employs "the capital employed in agriculture... adds a much greater value to the annual produce of the land and labour of the country, to the real wealth and revenue of its inhabitants" than manufacturing. He expected development in manufacturing and foreign trade to follow farming, as it seemed was happening in centuries after he wrote in Britain, as revolutions in agriculture preceded the Industrial Revolution and the great growth of foreign trade that continued throughout the nineteenth century. More than in the French Empire that preceded it, colonization meant agriculture. From the colonial governors to squatters almost everyone had naturalized this connection.²

Though few doubted that Upper Canada would become farmland, the landscape they found was foreign. They encountered an Ojibwa economy that had adapted over centuries to life in the Great Lakes region. But settlers had not come to live that sort of life, though they soon learned to adopt and adapt Ojibwa knowledge. Many of the emigrants probably did not realize the scale of their undertaking—as they made new homes for themselves, they had to recreate the world around them. How many of the first emigrants realized that they would probably not live to see their farms complete? How many knew that they could expect a lifetime of hard, back-breaking, often freezing-cold, tedious manual labour? Many lost a finger, chopped their foot or even died along the way.

They would be plagued by blackflies and mosquitoes, live for years in what would be a rough shed back home, make do without almost all the tools they were used to having. In Upper Canada, jobs that were easy in Britain were difficult because the nascent communities first had to create the infrastructure in which to work. Few had the resources to devote themselves to improving their properties as well as they would have liked from the start, so most steps in farm creation had to be preformed several times—good houses, barns, fields and roads had to wait, because farmers first needed some shelter, producing fields and a way around the neighbourhood. Just when a family thought they finally had produced a permanent building, fire might set them back again. The nineteenth century built landscape was very fire prone. Houses, mills and village shops burned time and again. Being so common and seemingly so difficult to prevent, many were fatalistic as they contemplated the scourge. Though catastrophic for its occupants, conflagrations often promised new birth, as they forced the replacement of antiquated wooden structures. Many of the brick blocks and buildings that remain standing were constructed in the aftermath of a blaze. Making do with what they had, families would be fortunate if their children's farms functioned properly.

Many settlers probably also did not initially realize that they could not recreate the British countryside in a new continent by simply transplanting familiar plants and animals. That they did ultimately produce a countryside that looked quite a bit like their old habitations was deceptive—following Alfred Crosby's work many scholars have mistakenly chronicled the apparently easy spread European agriculture to 'neo-Europes.' Some species or varieties did conspicuously well, but many could not withstand Canadian winters, parasites or predators. Others could survive, but would not thrive like they did back in Europe. In making farms, migrants across North America had to create new varieties, sometimes even new species, and a new set of relationships between themselves, their companion species and their environments. This was their evolving way of life.

Today many people take for granted that southern Ontario is farmland, so few appreciate how radically different the nature of the region became with agricultural colonization. In the age of resettlement, the uplands that had been almost entirely forested were mostly cleared. All of the clearing then occurring in colonies across the world would

have produced a significant shift in global carbon cycles. By the twentieth century, perhaps one-third of all species present were not native—encompassing a tremendous variety of organisms, from earthworms to grasses. The introduction of agriculture also brought major changes in soil structures, many of which are difficult to enumerate, but which certainly included a significant drop in soil organic matter. The processes by which soil formed, its rate, and the types being produced all changed. As this part of the earth dissipated, it also affected carbon cycles. Many wetlands were drained or reduced in their extent. With deforestation the accumulated snowfall melted more quickly in the spring, intensifying freshets. With this water running off more quickly and without forest canopy to block sunlight, ground level humidity was lower while temperatures increased.

Agriculture brought many new types of landscape. It did much more than restructure the region to produce crops and graze livestock. About four percent of the countryside was dedicated to roads. Stone piles were nearly as extensive. Villages sprung up to serve nearby farming communities and once they got the stumps out of the way many village lots were not stumped until the 1880s or 1890s—they were intensely developed. Population and manufacturing centres often accumulated conspicuous amounts of waste.

Settlers in the Kawarthas had much in common with their peers across North America, but local conditions were a crucial factor in the environmental ecologies they could create. Though Ontario agriculture might seem relatively homogenous at first glance, the farms of Fenelon and Verulam Townships are markedly different than those of Essex, Niagara or Haliburton. Land in the Kawarthas was quite variable in its agricultural potentials, even over relatively small distances. It mattered how much of a lot was swamp or gravel, whether the soil was sandy or clayey, if it was relatively level or rolling hills. Despite all the abstract agricultural theories circulating recommending the most advanced techniques, livestock and crops, as well as the triumphal visions of the apparently natural advance of British agriculture, settlers had to learn what crops and animals would thrive in their new homes. It took time to invent and master all the necessary methods. Before long they started realizing all the ways that a farm in the Kawarthas would differ from those they had seen before.

Creating the new biota of the agricultural landscape was not just a matter of introducing species from across the globe to mimic Britain. Most of these species came from habitats that were very different from the Kawarthas-many from Eurasian grasslands. Each had particular needs, and for them to thrive the farmers had to create specialized environments. They also sought to eliminate predators and parasites. While some critics treat agriculture as an exploitative enterprise, to have any success farm families had to nurture their plants and animals. They relied on an understanding of their place in this ecology that was more tangible than much environmental thought of more recent periods. They invested their lives in creating these relationships between themselves, their companion species and their new habitats, and in ensuring that they continued to be fruitful. Though many introduced weeds thrived in their new situation, few crops would compete with native plants, so fields had to be cultivated. Native animals would feast on gardens, crops and livestock, so farmers undertook to eliminate injurious species. For generations to come, the immigrants, their plants and animals continued to work together making a home for themselves in the Kawarthas-the manufactured environment of the family farm.

Over the longer term, many of these settler colonies across the globe seemed to be spectacularly successful in mimicking the British agricultural landscape overseas. Today it seems quite natural that much of southern Ontario is farmland. From Massachusetts to New Zealand colony after colony created farms with much in common. The apparent success and this superficial commonality largely concealed how difficult it was to create these settlements. It was not, as many have assumed, the expansion of the British people, plants and animals to all of these colonies. Time and again, introduced species and methods failed. Some plants and animals could not withstand the cold winters, others were susceptible to parasites found in North America or were easy prey for predators. Systems of field management proved impractical in new surroundings. Finding substitutes could mean cultivating crops from similar North American species, finding varieties from other regions that were adaptable, or selectively breeding varieties better suited to the Americas. Much of the process was global. Plants and animals were taken from distant locales, and adapted to help create an agricultural landscape. Along the way, native species and traditions were also employed, often so naturalized into British-style

farming practices, that in time almost everyone came to think they were the same as those back home. As they sought to transplant Britain, they actually created quite distinct cosmopolitan biota. Together these plants, animals and people grew together with their adopted environment to produce a new ecology. As they sought out species and techniques to replicate Europe, elements of the emerging landscape were shared across thousands of miles—from shanty designs to raspberry varieties—often originating in Eurasian grasslands. But, despite certain similarities with Britain, the Kawarthas were very different from the natural habitats of most of these species, and settlers laboured to make a world where all of these useful organisms could thrive—these manufactured environments were their family farms.

Upper Canadian farms were much more complex than is often assumed. While farm life tended to be overwhelmingly local and domestic, government officials took an interest in exports, then a principal source of revenue, which has subsequently been shared by many historians, notably Harold Innis and John McCallum. Even as more recent scholars have attacked the wheat staple, most still focus disproportionately on wheat culture, at times seeing farmers "wedded to the growth of wheat" or at least implying that it was "the principal crop." Wheat and wool were the farm products best able to bear the cost of transport from the Kawarthas, but it took time for farms to develop to the point where they could produce beyond local needs and, though the region was on the waterway, it was difficult to get commodities to the district towns or Lake Ontario. Then, when rapid transport networks were constructed, wheat prices began to drop due to colonization of the prairies. Throughout the nineteenth century wheat was an important crop, but only a small portion of farm families' livelihoods.³

Though in time their farms incorporated crops from across the globe, their occupants lived circumscribed lives. Farming neighbourhoods were quite isolated—it is no coincidence that most found their spouse within a mile or two. A trip even as far as the district town was unusual. The majority of migrants from Britain never saw the relatives they left behind again. Few received newspapers—it was not uncommon to lose track of days of the week. Their lives centred on the seasonal rhythms of the family farm and their neighbourhoods. Yet plants, animals and elements of their new culture were drawn from all over the globe, as they relied on a material culture honed through the settlement of

many colonies. Especially in early years, the diffusion of goods and ideas was often informal, passing between friends and relatives, while gentry frequently introduced plants and animals after they travelled to the front.

Few commodities had a cash market. Farms were not specialized or unencumbered—cleared fields, let alone monocultures, were unusual. All production was labour intensive—farmers were literally reaping the sweat of their brow. Agriculture was driven by muscle power, limiting the proportion of any farm that could be arable. Artificial transportation networks were rudimentary. Those crops that were marketable fetched prices that reflected the amount of labour required for their production. Yields tended to be high initially as soils had been fertilized by years of accumulated leaf litter from their recently forested past. The cost of farm inputs was low, as they relied on their own manufactures.

The Kawarthas were well suited to this kind of agricultural economy, better than many regions advantaged by industrial agriculture. Many hard-working settlers were very successful in developing their farms, and their communities were proud of their accomplishments. But none of the factors that had underlain the area's agricultural development were constant. Changes were apparent even for the pioneer generation.

By the 1880s and 1890s farmers were at last creating the new world that they or their predecessors had imagined in the 1830s. Yet even as the roughest traces of this agricultural countryside began to appear, the never-ending process of improving it, increasing its efficiency, and finding less laborious ways of doing things was underway. From the beginning of settlement a cadre of improvers promoted more efficient or 'scientific' ways of farming. Though many of their ideas were impractical, their schemes far too simplistic, and their foolproof models for profit fruitless, farming came to embody their ideals. Practical farmers invented the means to achieve improvers' objectives, proven and refined through years of practice.

Improvements usually entailed an increase in the cost of farm inputs. Modest as mechanization was, the industrialization of agriculture nourished growing villages—in the late nineteenth century most farm machinery was manufactured within a few miles of where it would be used. At the start of resettlement, the village population was almost non-existent. Some of the pioneers would live to see one third of the population in

villages. As they developed, many more consumer goods became available, and farms slowly became less dependent on their own manufactures. What had begun as a society of farmers was steadily becoming a society with a large proportion of farmers. As time went on it became less apparent that the countryside should be organized around the imperatives of agriculture.

The diverse landscape of the Kawarthas was not as suitable for mechanized agriculture as some other regions. As the best arable land was interspersed with swamps, steep hills, creeks, stony outcrops and ridges, most farms had portions unsuited for machinery. Whether or not an area could be worked with machinery came to dictate how the different parts of a farm were used, and which farms were preferable. Though better implements drastically reduced the amount of labour needed to sow or reap a crop, there were limits to how mechanized the Kawarthas' farms could become. In the twentieth century, proponents of industrial agriculture promoted machines and techniques unsuitable for use in the majority of farms in this region. Most have scarcely adapted to high-input agriculture, huge fields, and specialized market production. Much of the landscape of today remains the family farms created by the first generations of settlers.

¹ John Langton, Early Days in Upper Canada (Toronto: MacMillan, 1926), 12.

² Genesis 3:17, 23, NIV. Adam Smith, Inquiry into the Nature and Causes of the Wealth of Nations (Hammondsworth: Penguin, 1970), 463. Patricia Seed, *Ceremonies of Possession in Europe's Conquest* of the New World, 1492-1640 (Cambridge: Cambridge University Press, 1995).

³ Serge Courville, Quebec: A Historical Geography (Vancouver, UBC Press, 2008), 112, 145. Douglas McCalla, Planting the Province: The Economic History of Upper Canada, 1784-1870 (Toronto: University of Toronto Press, 1993).

3a. Clearing an Agricultural Landscape

The Kawartha Lakes were unusual in having a large proportion of aspiring gentry and book-trained agricultural enthusiasts among their earliest settlers. Almost all of these migrants lacked practical experience in farming, but they certainly were not short of ambition or agrarian theories. Raised in a culture that valorized contributions to the development of agriculture, they hoped to raise themselves to live like the aristocracy back home: owning estates, superintending the farm operations of labourers or perhaps tenants, living a genteel life off the profits, but doing little or none of the manual labour themselves.

Missionaries serving in Ojibwa villages started the introduction of European-style agriculture to the Kawarthas. After Kahkewaquonaby (Peter Jones) and Methodist missionaries converted local villages in 1826, the New England Company—a society founded largely by Presbyterians in 1786 to perform mission work in parts adjacent to that region, but later usually allied with Anglican projects—sponsored resident missionaries who tried to teach agriculture. Received with a great deal of enthusiasm, though better versed in Christianity than farming—settled farm life and Christianity were together seen as pillars of civilization—the instructors worked together with government officials who had much in common with aspiring gentry farmers. Government officials and missionaries placed their hopes on agricultural settlements at the existing Ojibwa villages and on Indian Point, Balsam Lake, that they hoped would bring all the advantages of 'civilization,' but these proved disappointing.

Ojibwa farming and official efforts to promote it persevered despite initial setbacks. Converting natives to agriculture remained one of the Indian Department's principal objectives for the balance of the century—a fixation reflecting agriculture's centrality in British society. Officials usually thought about creating European-style domestic economies to the exclusion of other ways of living. Their achievements were limited. Ojibwas reasserted their cultural identity, but many of the farming techniques were adopted, and became important in the natives' ways of life. As colonial farming was by no means a true copy of Britain, Ojibwa domestic economies were another step removed. Missionaries were never able to efface hunting, fishing, trapping and gathering because they remained essential to local livelihoods—settler and Ojibwa alike. Yet,

farming helped stabilize natives' food and fibre production in an era of rapid ecological change.

Gentry farming followed a similar trajectory. They started to take up waterfront estates in Fenelon and Verulam in 1833 and eagerly developed their properties. Some brought labourers with them, others hired locally. Many realized within a year or two that farming would not elevate them to social distinction, while others persevered for a decade or more. But all moved on to other pursuits, and all but one, Mossom Boyd, left the townships. The decline of the gentry roughly coincided with the end of the Ojibwa settlement at Balsam Lake.

In their place, less affluent, more industrious farmers were left to create an agricultural landscape. The aspiring gentry had brought many of these farmers to the Kawarthas as labourers. Those who endured all the hardships that came with chopping farms out of the forests were overwhelmingly families that expected to stay and enjoy the fruits of their labour. There were not many, if any, professional settlers—people who followed the frontier of agricultural settlement making and selling one farm after another. It was very unusual for anyone who had any success in clearing a farm to go on and make another—making one would consume their working life. Many did have children who moved on to a new frontier.

Great numbers of trees were burned in making these farms that would have fetched high prices a generation or two later. In the earliest days of resettlement, it would only pay to get out the very best trees for timber. Thirty or forty years later, if a new settler found any good timber on his newly acquired land, he had plenty of options to profitably dispose of it. But the vast majority of standing timber would have no market during the nineteenth century and almost all of it was burned. Aggregated to the extent of agricultural colonization of several continents in the nineteenth century, this was a significant change in global carbon cycles.

Farmers redefined the nature of the Kawarthas. Many aspects of the former ecosystems continued into the period of agriculture, scattered though the forests became, and exploiting these through trapping, gathering, hunting and fishing remained an important part of local subsistence. More than some areas, the Kawarthas became a mosaic of fields, stone piles, water, forests, swamps, villages, roads and trails—

accentuating the region's diverse landscape. Within sixty or seventy years of the start of agricultural settlement, the outlines of the region's new identity became clear, and remained largely intact to the present.

By the time of the American Revolutionary Wars, several centuries had passed since agriculture had been practised on any scale in the Kawarthas. In the early seventeenth century, the last traces of Iroquoian farms could be seen along the waterway, but by the 1780s they had disappeared into the forests. Though they may have cultivated small amounts of corn, the small Ojibwa villages had little reason to raise crops considering the abundance of wild rice, and their skill at gathering, trapping, hunting and fishing. But as the Six Nations and Loyalists moved to southern Ontario their situation changed.

The Ojibwas' knowledge of the experiences of other native groups in eastern North America during the resettlement period would have given them a good sense of what they could expect. In time the massive influx of immigrants would dwarf their own population. Their way of life was sustainable when the population of the entire Trent Watershed was a few hundred, but with agricultural settlement, the population of every township along the waterway would be many times the Ojibwa population as a whole. Early on, the challenge was not so much that agricultural settlement affected the populations of the plants and animals they relied upon, but rather that it was more difficult for everyone to reap enough as the human population multiplied. Though Ojibwas tried to maintain their privileges, natives and immigrants alike believed they had a right to hunt and fish. Agriculture was a way to make up the difference.

Having shared southern Ontario with two agricultural societies since 1784, an Ojibwa leader emerged who served as an intermediary between the three. Kahkewaquonaby was the son of Provincial Land Surveyor Augustus Jones and Tuhbenahneequay, daughter of chief Wahbanosay of the Credit River Ojibwas, born at the heights overlooking Burlington Bay in 1802. Augustus was also married by native tradition to Mohawk Sara Tekharihogen. Since Augustus distanced himself from Tuhbenahneequay, she raised Kahkewaquonaby until 1816, when Augustus enrolled his fourteen-year-old son in a school in Saltfleet Township. Baptized as Peter Jones at a Mohawk Anglican Church on the Grand River, he did not initially take much interest in

Christianity. He went on to work briefly as a brick maker to support his schooling in 1822, before attending a camp meeting at Ancaster in 1823, led by William Case. There he underwent a dramatic conversion to Methodism.¹

Kahkewaquonaby returned to the Credit River and won over his band of Ojibwas. He and Case then set off spreading the Good News to Ojibwas across southern Ontario. There were already a few converts. In 1825, sixteen year old Pahtahsega (Peter Jacobs), who lost both his parents when they had drunk to excess, went to Belleville and asked to be educated. He was given board and schooling. In 1826 their message reached the villages along the Trent, and their converts included Shawundais (John Sunday) of Grape Island and chief Cheneebeesh (George Paudash) of Rice Lake. By that August thirty Rice Lake members had converted. Kahgegagahbowh (George Copway) recalled the conversion at Rice Lake:

The missionaries first visited us, on the island called *Be-quah-qua-yong*, in 1827, under the following circumstances. My father and I went to Port Hope, to see our principal trader, John D. Smith, in order to obtain goods and whiskey, about twelve miles from Rice Lake. After my father had obtained the goods, he asked for whiskey. Mr. Smith said, "John, do you know that whiskey will kill you if you do not stop drinking? Why, all the Indians at Credit River, and at Grape Island, have abandoned drinking, and are now Methodists. I cannot give you any whiskey."

"Tah yah! (an exclamation of surprise), it cannot be I must have whiskey to carry home; my people expect it," said my father. He wished to buy a barrel, but only obtained, after much pleading, about five gallons. My father promised to drink no more when the missionaries shall have come to Rice Lake. We reached home the same day about one o'clock, and the Indians were awaiting our arrival, that they might have some fire-water. They assembled themselves together and began to drink and to smoke. Many of them were sitting on the grass when the whiskey began to steal away their brains. One of our number suddenly ran in the crowd, and said, "the black coats (missionaries) are coming, and are on the other side of the point." Each looked at to the other with perfect astonishment. My father said to our informer, "invite them to come over to us;" and the one who was dealing out whiskey, "cover the keg with your blanket, and don't let the black coats see it." The whiskey was concealed, and then came the messengers of glad tidings of great joy. They were converted Indians, saved by grace, and had been sent to preach to us, and to invite us to attend a camp meeting near Cobourg. After shaking hands all around, one of them delivered a speech to the half drunken Indians. He referred to the day, when they were without the good news of *salvation*. He spoke with great earnestness, and the tears fell from his eyes. He said, "Jesus Christ, Ke-sha-mon-e-doo O-gwe-son) (i.e. the Benevolent Spirit's son), came down to the world, and died to save the

people; all the Indians at the Credit River, and Grape Island, are now on their road to the place where the Saviour has gone. Jesus has left a book containing his commands and sayings to all the world; you will see it, and hear it read, when you go to Cobourg, for the black coats have it. They wish you to come and hear it. To-morrow is the Sabbath, and on that day we do not hunt, or work, for it is the day which the Great Spirit made for himself." He described the way the Son of God was crucified. I observed some of them crying; mother heaved deep sighs; the half drunken Indians were struck dumb, and hung their heads. Not a word was uttered. The missionaries said, "We will sing, and then we will kneel down, and pray to the Great Spirit....They stood up and sang. O what sweet melody was in their voices! The echo was so great that there appeared to be a great many more singers than we could see. After the hymn, they prayed with the same fervency as they sung. ... My father arose, and took the keg of whiskey, stepped into one of the small canoes, and paddled some thirty feet from the shore; here he poured out the whiskey into the lake, and threw the keg away.

They then left to attend a camp meeting that night, where many were converted over the next three days. By January 1827 one-third of the combined population of Rice and Curve Lakes was won over.²

The Methodist missionaries believed that imparting a settled, agricultural way of life was an indispensable part of their mission—tilling the soil and Christianity went hand in hand. There was little reason to doubt that a non-agricultural society would have more difficulty relating to the Bible, as it is filled with stories and parables of a farming society. The first man (Adam) and all the other creatures were created from *adama* (Hebrew for arable land)—sharing the root '*dm*, identifies man with arable land. From the Garden of Eden, the fall of humanity ("Cursed is the ground because of you; through painful toil you will eat of it all the days of your life..."), famines, the beloved Psalm 23 ("The Lord is my shepherd..."), to Jesus' parable of the sower, the Bible recounts story after story relating spiritual life and farming. Nineteenth century missionaries often doubted that natives could understand Christianity if they did not also learn agriculture. As Kahkewaquonaby explained, "we had no village, no good houses, no sheep, no oxen, none of these good things: but, when we got Jesus Christ, we began to desire good things."³

Most Britons, including the government of Upper Canada and many missionaries, called the combination of settled agricultural life and Christian virtue 'civilization.' In the period when the Kawarthas were resettled, the Upper Canadian government and many missionaries shared 'civilization' as a primary objective in their relations with Ojibwas.

Many officials found these preachers distasteful because of their American ties, lack of education and emotional methods, but they could agree on this intent. The officials must have expected that it would make the communities more governable. But, missionaries found it was difficult to teach Ojibwas who spoke little English and did not read. It must be assumed that Kahkewaquonaby and William Case were preaching a form of Methodism tailored to the Ojibwas' lives. Translated to fit into their spiritual realm, it was not as exclusive of Ojibwa culture and tradition as many teachings were later in the century. In this context 'conversion' would not necessarily imply revoking former beliefs, though the Rice Lake band did settle *Chepahhemahnesik* or Spook Island, which had previously been feared—also the site where their missionaries lived from 1828. Susanna Moodie recalled:

Their ideas of Christianity appeared to me vague and unsatisfactory. They will tell you that Christ died for men, and that He is the Saviour of the World, but they do not seem to comprehend the spiritual character of Christianity, nor the full extent of the requirements and application of the law of Christian love.... Their ignorance upon theological, as well as upon other subjects, is, of course, extreme. One Indian asked me very innocently if I came from the land where Christ was born, and if I had ever seen Jesus. They always mention the names of the persons in the Trinity with great reverence.

She observed that they continued to believe in traditional animistic spirits, and practiced their own rituals as well. Their willingness to learn others' religious practice was by no means limited to Christian tradition, taking an interest in spiritual artifacts from other cultures as well.⁴

The missionaries did, however, condemn several practices that were then common among Ojibwas, including polygyny and the use of cradleboards. But the primary evil they saw was alcohol. Missionaries observed how much *shkodewaaboo* or whiskey had hurt them. Pahtahsega could testify to losing his parents. Kahkewaquonaby recalled being left temporarily lame from hunger and exposure when all the adults were in a "long drunken frolic." Shawundais said that before his conversion the only words of English he knew were 'pint,' 'quart' and 'whiskey.' Missionary David Sawyer remembered that his father sold him and another boy to a trader for two gallons of whiskey. Converts took pride in telling stories of dumping traders' whiskey barrels, or how trader Smith "razed like a devil because he could not cheat them as formerly when in their drunken state." But others said the same trader Smith encouraged them to work with the missionaries and "seemed much delighted" that they "drank no more whiskey." Shawundais campaigned to have the colony enforce the ban on selling liquor to Natives. When Thomas Need arrived at Curve Lake and tried to hire two boys with brandy, they "uttered a loud shriek of horror at the sight of the *poison*... and fled away from us into the woods."⁵

Religious meetings were very popular, often drawing a majority of village residents, called to congregate by the sound of a horn. They met together with neighbouring settlers and sang hymns—while the immigrants sang in English, Ojibwas joined them in translation. Samuel Strickland recalled neighbouring Ojibwas asking to come hear him read service and singing Kahkewaquonaby's translated hymns. Many early missionaries delivered their sermons in English with translation, but Kahkewaquonaby and Shawundais were able to preach in Ojibwa. They were often very emotional, and sometimes meetings continued all through the night. Prominent preachers continued to visit, including Shawundais, Pahtahsega, Egerton Ryerson and William Case. Chief Cheneebeesh frequently exhorted villagers to maintain their Christian devotion. Kahkewaquonaby visited about every other month to preach intensively for several days.⁶

Almost immediately after their conversion the New England Company and the Methodist Missionary Society hired resident missionaries and school teachers for the Ojibwas, overseen by Baptist Rev. Richard Scott. George Bissell worked at Rice Lake in 1825. By November 1827 Rev. Hamilton Biggar had taken up residence at Rice Lake. In 1828 James Evans, who was raised in Kingston-on-Hull, England, and trained as a grocer, but had undeniable linguistic talent, took over the mission and school, which then had forty pupils. He was assisted by Eliza Barnes, Miss Ash and Ojibwa convert Henry Steinhauer, from the Rama Band. By 1830 about fifty were attending and many had made strides in learning English. In 1831 Daniel McMullen succeeded Evans, who went on to gain notoriety for his Ojibwa-English dictionary and Ojibwa hymnbook. In 1828, Aaron Hurd, a fifteen year old from Sandgate, Vermont, who was often afflicted with ill health, was at Lake Scugog, and by the next winter Barnes was present as well. Hurd served there until 1831 when he was transferred to a Mohawk mission and died in 1836 at the age of 23. Scott died in 1837 and was replaced by Baptist Rev. John Gilmour, who had

considerable success building an immigrant congregation. Often students were not in school long before they were called to teach, sometimes at quite a distance from home.⁷

The schools were conducted in Ojibwa. As Kahkewaquonaby observed, "the children taught in their own language learn very fast, but make very slow progress in... English." Each class had an Ojibwa leader. In 1828 leaders in the district were Peter Rice Lake, George Paudash, Peter Wausson, John Cow, Peter Cow, Peter Jones, Isaac Irons, C. Goose and John Johnson. They learned natural history, geography, English literacy and numeracy. By 1830 James Evans had seventeen of fifty-two writing, fourteen learning arithmetic, and twenty-two reading the first seven chapters of Matthew's Gospel-in 1829 Lieutenant-Governor John Colborne agreed to have the government printer produce 2,000 copies of this passage under Kahkewaquonaby's inspection, with Ojibwa on one page and the English translation on the opposite. Boys were shown how to farm-clearing land, ploughing, seeding, harvesting-and trades-carpentry, shoemaking, blacksmithing, and wagon making. Girls learned European-style domestic economy-how to sew, spin, weave, process farm produce, cook, knit, do needlework, manage a dairy, and keep a tidy house. Many of the demonstrations were also intended for anyone in the community who was interested, and Egerton Ryerson occasionally helped. Charlie Anderson, the missionaries and the teachers helped villagers get farms running by giving them seed and implements, helping them clear land, fence, plant and harvest it. In 1833 the Methodists gave women pin cushions, needle cases, needles, scissors, thread, bobbins, thimbles and some articles of clothing. At Grape Island the missionaries brought in a cabinetmaker, blacksmith, shoemaker and tailor to teach their trades. But Daniel McMullen wrote in 1830, "the most difficult part of our missionary duty is to bring this people to the habits of industry, from their having been so long accustomed to an idle and wandering life."8

These lessons were generally received quite well. Frances Stewart recalled one Sunday when a party arrived at an Anglican church where "they were very attentive and anxious to understand. Afterwards they came forward with their primers and cards of letters, requesting the ladies and gentlemen to instruct them, seeming really very desirous to be taught." They were also making progress towards being farmers. The Rice Lake village had cleared forty acres by 1829, then spent £50 on livestock in 1835. In 1837 they raised 300 bushels of wheat, 20 bushels of peas, 350 bushels of oats and 140 bushels of

potatoes. That year they spent £100 on implements and the same amount in 1838 for seed. In each of 1836, 1837, 1838, and 1839, Curve Lake invested in its farming operations, buying implements, horses, cattle and oxen. These villages then had cradles, scythes, snaiths, scows, ploughs, harrows, sleighs and logging chains. At Alnwick the government had Homer Hecox build a sawmill in 1836, costing £325—with a 275-foot long dam, and a 200 ft tailrace. With these innovations, Ojibwas diets had become more varied, especially in lean seasons, and supplemented by provisions they purchased, such as salt pork, potatoes and flour. They also started wearing European-style clothing. Many men sported straw hats, shirts, coats, waistcoats and trousers, while women wore gowns, mantles over their shoulders, petticoats and leggings. Thomas Need observed that Handsome Jack Cow, who died in August 1830, was one of the last Ojibwas who did not wear trousers.⁹

The missionaries worked to ensure that their adherents had good European-style buildings. They took particular pride in Grape Island, with twenty-three log homes, a chapel, schoolhouse, hospital, general store, blacksmith's shop, and mechanic's shop—all neatly whitewashed and paid for by subscriptions from the United States. Cheneebeesh and other chiefs asked the missionaries and the government to build a village. By 1829 they had erected twenty-two log homes, a school and chapel at Rice Lake, the public buildings to serve the Curve Lake community as well. The homes were 25x20 feet, complete with cellars and stone chimneys. Some villagers helped with the construction. They started a settlement at Lake Scugog that same year. In 1831 there were sixteen houses at Curve Lake, with plans for ten more to be complete within a year. Thomas Carr observed better interiors that contained "two beds each, having hangings and other ornamental appendages, window curtains, Cobourg chairs, tables, shelves, and even chairs for the youngsters"-good furnishings for that period in the backwoods. In 1835 Alexander McDonell hired Samuel Cottingham of Omemee to construct twelve houses at Balsam Lake that, by 1841, even had a box stove. In 1837 the Indian Department oversaw the construction of twenty frame houses at Alnwick, clad with clapboard. In 1840, Rice Lake residents got out the logs to build four more houses, then wrote to the Indian Department asking them to assemble the houses and put a verandah around chief Cheneebeesh's home. The Department hired James Patten and he completed the

construction in September 1841. After 1840, some of the houses were made of brick-clad frame, with pine shingle roofs, though most residents lived in log cabins. In 1843 construction of a chapel at Chemong Lake began. By 1847 there were thirty houses at Rice Lake and twenty at Curve Lake. The missionaries paid for the erection of some buildings, but most was paid for out of the Ojibwas' annuities.¹⁰

Methodism could be very strict. John Wesley rose every day at 4 AM, and wrote of late risers, "by soaking... so long between warm sheets, the flesh, is as it were parboiled, and becomes soft and flabby." As missionaries often did elsewhere, they insisted that their followers wake early and follow a regimented workday. At Grape Island, they sounded a horn at 5 AM in winter and 4 AM in summer summoning all to rise. At 7:30 in winter or 6:30 in summer, a bell indicated that it was time for breakfast. Bells at 12:30 and 5 PM marked the other two meals. A horn sounded at 9 PM to prepare for rest. Some Ojibwas rebelled against these teachings. At Grape Island, non-conformers were expelled and ended up in Kingston, where critics condemned their drunken, idle, and disorderly behaviour. They joined Rice Lake émigrés in Bedford Township, north of Kingston and received a 2680-acre reserve on concessions IX to XI, but did not remain there long. They were ordered to return to their former homes. An 1836 treaty, signed only by missionary Shawundais, surrendered the reserve.¹¹

By the 1830s, the missions had made good progress towards their objectives. Ojibwas still lived much as they had a generation before, but supplemented these pursuits with their farming. Most participated in Christian ceremonies, though this was probably largely a veneer over long-standing beliefs. As this program remained distant from the outcome the government and missionaries envisaged, they hoped that by starting fresh at a new village, Ojibwas might take the next step. There were about sixty former Lake Scugog residents at Curve Lake, including Chief Jacob Crane, who were also looking to move to a separate village. In 1833, working on their behalf, Scott proposed moving the Curve Lake settlement to "a more healthy and promising location near Balsam Lake." Three years later, Alexander McDonell, Crown Lands Agent at Peterborough, established Crane and his party, with some residents of Curve and Rice Lakes—many chose to remain behind—on Indian Point, Balsam Lake. There were already squatters there who had to be evicted—if a settler had asked for the location with such adverse possession he

probably would not have received the lot. Nearby was the former Ojibwa campsite at the rapids at Rosedale, surrounded with better farmland. But James Wallis and Robert Jameson, two of McDonell's friends were already filing the papers to secure that lot, patented to Jameson in 1843.¹²

Nothing was recorded in the surveys to indicate that Indian Point was not suitable for agriculture. Rather, much of it was marked 'good land,' which in keeping with surveying customs would have meant that it was not swampy and the trees seemed to grow fairly well. McDonell may not have known any better, but it was a terrible choice. Indian Point has very little topsoil and parts of it are alvar—excessively drained rock that remains open because trees can scarcely survive. Though there were some small pockets of soil, the 1,206 granted acres were for all practical purposes useless for agriculture any competent farmer should have realized it immediately. But the problem was not effectively raised to government, and Ojibwas carried on trying to farm stony Indian Point, keeping oxen, while raising corn and potatoes in 1840. To make matters worse, there were irregularities in McDonnell and Samuel Peter Jarvis' handling of the account to build their houses. They had expected ten by 1839, but only two were complete, with a start on six others. They were also finding that Balsam Lake was too distant from settler society, and that they would rather be closer to the colonial towns.¹³

By 1843 the band had realized that the project was futile, being "dissatisfied with the climate and the quality of the land at the Balsam Lake." It held a council "to see how and when we could buy good land." Chief Crane told Jarvis that "we wished to leave Balsam Lake because it was too far out of the way. We told him there were no merchants near the place and we find it difficult to get what we want. We wanted to go to Scugog where there was plenty land and plenty white people." It purchased 600 acres on Scugog Island—the former site of an Ojibwa village that had not been granted as a reserve—out of their band funds. Some left for Snake Island and Curve Lake. The government undertook to sell Indian Point for their benefit, but did not find anyone interested in farming it. In 1860 they granted it to Sandy Dennistoun for \$2175.60 for timber. After stripping the timber, he sold the property to John Grandy in 1868 for \$10,000, and the peninsula has since become a Provincial Park and cottage community. The government had John Cotterell build more houses for the band at Scugog out of their annuities, and

the villagers subsequently built some on their own. The model settlement at Grape Island had its challenges as well. Officials realized by 1834 that it was too small. Because the island was not even large enough to pasture one cow, the Ojibwas grew their crops, chopped their wood and kept their stock on other islands. They asked to move to a farm adjacent to the Rice Lake village. Eight families moved there in the interim, but settled at the reserve in Alnwick in 1837.¹⁴

Damaging as it had been to the credibility of those trying to teach the Ojibwas to farm, the Indian Point settlement was not the end of Ojibwa agriculture. To the end of the century and beyond, farming was an indispensable part of their way of life-potatoes and preserves to tide them over winter, horses for transportation, milk cows, and other livestock, supplemented with the produce of their gardens. But their farms were much smaller than most of their immigrant neighbours. By 1847, there were only three barns and three stables in total between the Rice Lake and Curve Lake villages. In 1864 Chief Joseph Whetung had the largest farm at Curve Lake, with eight cleared acres, a horse, an ox, three sheep, one other young animal, a barn, two ploughs, a set of harrows, wagon, sleigh and four spades. Their returns were often reduced by purchasing rather than producing inputs like seed, peas, hay, straw, and oats, despite the warnings "to prevent so large an expenditure of your money in future for any article which the industry of your Young Men should provide." While they lived in their houses for the winter, many preferred to inhabit bark huts for the summer, and they continued to use wigwams when travelling. Not sharing the profound reverence for agriculture, it made little sense to dedicate a generation of strenuous labour to creating large farms, when they already knew how to make a living hunting, fishing, trapping and gathering. For a good trapper, the returns from the fur trade were far easier than those from clearing forests to sell wheat. Baskets, quillwork moccasins, brooms, leather goods and canoes were better trade goods for them than knitted shirts, shoes or scows. In an economy where Ojibwa manufactures were so important, it was folly to imagine that they would only be farmers.¹⁵

Initially Ojibwas seemed to have been genuinely hopeful about the opportunities that came with agriculture, but as the century wore on, the impetus to become farmers seemed to come increasingly from the Indian Department. Ojibwas almost never took an

	Rice	Curve	Lake	
	Lake	Lake	Scugog	
Population	123	129	32	
Horses	14	8	4	
Oxen	9	1	0	
Cattle	11	6	4	
Sheep	0	3	6	
Pigs	26	6	4	
Young stock	5	10	1	
Barns	10	8	0	
Frame houses	1	0	0	
Log houses	29	24	9	
Ploughs	15	4	3	
Harrows	11	5	2	
Wagons	5	1	1	
Sleighs	8	5	0	
Cutters	4	0	1	
Buggies	0	0	1	
Fanning mills	2	4	1	
Spades	25	38	13	
Corn (bu)	89	59	8	
Wheat (bu)	351	108	21	
Rye (bu)	0	0	2.25	
Oats (bu)	208	112	1	
Peas (bu)	285	35	0	
Potatoes (bu)	610	808	114	
Hay (tons)	3.5	12.5	0	

3.1 1864 Assessment¹⁶

interest in increasing their agricultural holdings, and from the 1860s, many preferred to lease their land, particularly at Lake Scugog. The Indian Department was reluctant to allow non-Natives to lease reserve land. To get the officials to agree, band members often made clearing land a term of the lease, so they could suggest that the leases were a way of improving their holdings. But the lessees did not always do the work band members expected, forcing the Department to settle disputes. At Rice Lake one villager complained when his neighbour rented out property he thought his own. One lessee was accused of getting Natives "crazy drunk," then inducing them to sign papers they were unable to understand, without the consent of the chief. only to have the band council ask the Crown to uphold the lease because he was a "good tenant."17

Despite the setback at Balsam Lake, the missionaries and Kahkewaquonaby still believed in the importance of education. Kahkewaquonaby, like many reformers, believed that one reason they did not progress as fast as he hoped was because their parents "retain many of their old habits; consequently, the good instruction the children receive at the School is, in a great measure, neutralized at home." The existing schools took breaks for the children to hunt with their parents, much as children were often absent from voluntary schools throughout Upper Canada, especially during harvest. Paralleling the move towards more formal schooling elsewhere, these reformers wanted more stringent education for Ojibwas, but with special emphasis on teaching them industry. Assisted by his close friend Egerton Ryerson and the Mississauga General Council, Kahkewaquonaby successfully campaigned for a Manual Labour School and Model Farm, travelling to Great Britain to secure £1000 in donations. The government also supported the plan, with T.G. Anderson hoping to see the day when their sons would be "doctors, attorneys and magistrates." But they preferred that the bands pay any expenses above the amount raised out of their own funds—one quarter of their annuity was granted to run the school. It opened in 1846 at Alderville, despite Kahkewaquonaby's efforts to have it built at his home village on the Credit. By 1848 Ojibwa Allan Salt and Miss Cook were the teachers. But the outcomes of this residential school did not meet their expectations. Yet many of the Ojibwa students soon became missionaries and travelled to spread the Good News in nearby villages or thousands of miles away.¹⁸

The Ojibwa conversion occurred just as large numbers of migrants began to arrive. Though Loyalists had settled in Quinte from the 1780s, a fair period elapsed before colonists started moving into the Kawarthas. Early immigrants tended to stick close to Lake Ontario, and once the front row of townships had been partly settled some ventured further inland. Oshawa received its first settler in 1794. Elias Smith and his sons, often called the founders of Port Hope, began work on mills there in 1795. By the time of the treaty in 1818—thirty-four years after the Loyalist migration—the first settlers were making their way north of Rice Lake, hiking past miles of unoccupied lots on their way. Adam Scott was among the very first, building a mill on plains by a rapid north of Rice Lake, which became known as Scott's Mills or Scott's Plains-presently, the foot of King Street, Peterborough. Scott was legendary: six-foot four, 260 lbs, and reputed to have carried the 250 lb crankshaft from his mill to Port Hope for repairs. He routinely crossed the Otonabee River on stilts to check on his pasturing cattle. He lived in a "ramshackle, clapboard dwelling, with a dilapidated look" that he had built himself. Though "honest, sober and kind-hearted," his "temper was so short and his movements so erratic that the farmers had to wait for opportunity and use a good deal of diplomacy to get their lumber sawn, or their wheat ground." He did not last long in the milling business, losing it through debt to John Brown of Port Hope in 1827.¹⁹

Scott's Plains was transformed from this tiny outpost to a village with Peter Robinson's assisted migration. In 1825—the same year that the town-plot was surveyed— Robinson led 415 poor Irish families, totalling 2024 people to the plains, where they

camped in "huts of pine and spruce boughs; some with slabs and others with logs of trees" until they were able to take up lots in the nearby townships, and remained over winter. Each received 100 acres, a shanty, tools and seed. The surrounding townships had few settlers before the Robinson migrants. Emily's first recorded settler arrived in 1819. By 1824, fifty-four settlers and their families had ventured overland to Emily, forty-five of whom remained by 1825. The Robinson settlers populated Emily, Ennismore, Douro, Smith, Asphodel, Otonobee and to a lesser extent Ops, which received its first settler that year. By 1833, Peterborough (renamed in Robinson's honour in 1827) had 2,000 inhabitants, a store, medical practitioner, school, and two resident clergy. Prior to the settlement of Fenelon and Verulam, settlers, largely Gaelic-speaking Highlanders, were also travelling into Eldon from Lake Simcoe.²⁰

The first immigrants to the Upper Lakes were not connected with either those in the row of townships to the south or Eldon—though many settlers from both directions soon ended up in South Verulam and western Fenelon. Instead, they were mostly officers retired on half-pay or aspiring gentry, who reached the region via the waterway. Most intended to live off the proceeds of managing an agricultural estate, as the aristocracy back home had done for generations, and pensioners had the advantage of income to fall back upon. All of these early elites chose lakeshore properties for aesthetics and transportation rather than the prosaic imperatives of agriculture. The best farmland in this area was not to be found immediately adjacent to the waterway. John Langton explained:

It is the most English of all the districts...there is not that want of water which has caused such great loss in many of the inland townships; instead of being shut up on all sides by forests, you may obtain a healthy airy frontage to some of the numerous lakes... and, lastly and principally, it has an extent of internal navigation unparalleled in any part of the world I should think.

On their way to the Kawarthas they bypassed townships that were sparsely settled—some traveled farther because they lacked the means to buy such farms, gentility being distant indeed. But as soon as he settled, John Langton proudly wrote to a friend, "I became, for the first time in my life, a Lord of the soil."²¹

John Sawers—the son of a Lieutenant of Marines, who Langton described as "a silly boy"—was the first to arrive on Sturgeon Lake in 1833, setting about clearing a 1,416 acre estate on 15-20 IX and 18 VIII. Need took up an adjacent lot, 15 VIII. Richard

Atthill—a graduate of Trinity College, Dublin and the son of the parish rector in Magheraculmoney, County Fermanagh, Ireland, who subsequently took holy orders himself—migrated to the shore of Sandy Lake in Harvey (11 XII), before settling on Sturgeon Lake (15-18 V Verulam) in 1833. He amassed 1,096 acres, including his estate, Brandeston, and paid an installment on at least 600 more. George John Toker took up adjacent land (18 IV) in 1837 and lived with Atthill at Brandeston. John Darcus-a mayor's son from a large Irish city—also went to Harvey first, but found the soil there unsuitable and took up 11-13 VIII Verulam. Darcus occupied 435 acres, but did not own any of it. He made the first payment on two government lots, and it seems that he was squatting on the privately held waterfront lot. Alexander McAndrew, who came from a merchant family in the Aberdeen area, purchased 9 I Verulam (40 acres) and paid an installment on five other lots (8 I and 6 II Verulam; 6-8 XI Fenelon) totaling 720 acres. Andrew S. Fraser, a lieutenant from Roxboroughshire, Scotland who had served in the Napoleonic Wars, used his half-pay pension to settle on 11, 12 & 13W VI and 11 VII Verulam, 620 acres. Langton remarked, "I know nothing of his parentage, but he is a Scotchman and poor, and so of course is highly descended." Matthew Warren also settled in 1833. The following year Mr. McCall (8 IX Fenelon) and W.A. Macredie (8 X Fenelon) arrived south of Sturgeon Lake. Macredie's brother Tom followed a couple of years later, as did Simon Purdon (11 IV Verulam), another half-pay officer. In 1839, James Hartley Dunsford, a rector, vicar and justice of the peace from Gloucester, arrived with his children James Wicks, Hartley, Augusta-Agnes, Lydia, Caroline, George and Martin. They were perhaps the family with the greatest pretensions, bringing a coach and driver, George Bick. They immediately set about building a grand home that was "a conspicuous object all the way down," named the Beehive (1839), on their 720 acre estate (16-19 VI Verulam).²²

Cameron Lake had its own perimeter of gentry estates. Francis Dobbs, "an agreeable, gentlemanly, elderly" half-pay officer, settled 20 and 21 VII Fenelon (400 acres) in 1833 and also paid an instalment on 23W VII (91 acres). Two years later, Robert Dennistoun—the fourth son of thirteen children of a prominent Glasgow banker, who was raised on the Camis Eskan estate in Dumbartonshire, Scotland—began work on his 562-acre property, "Golgrain" (26 & 27 VII & VIII Fenelon). His cousin George Dundas

occupied part of his farm, 27 VIII in 1837. Gawin Hamilton—the son of Major Hamilton, a Peterborough merchant and miller, who had served in the British Army in Egypt—took up his father's grant about the same time as Dennistoun on the opposite side of the lake (26 & 27 X & XI Fenelon, about 470 acres), naming the estate "Glenara." Stephen Moore, the Third Earl of Mount Cashell, bought 1040 acres on the northeast side of Cameron Lake (28 — 31 XI Fenelon, 28, 29, & 31 I Verulam). He did not live in the region, and was trying unsuccessfully to lease out Amherst Island to tenant farmers. Jameson and Wallis both took small steps towards lakeshore estates on either side of Fenelon Falls—Jameson on 23 IX and Wallis on 23 XI. On Balsam Lake, Admiral Henry Van Sittart was granted a 1000-acre estate on North West Bay, and was said to have purchased—apparently paying one instalment on one eighth of the lots—24,000 acres more. Many of his genteel peers likewise gave only part payment for their lots. Their grand estates were always somewhat illusory, as many could not afford to pay in full, others borrowed the money to finance their purchases. Yet they remained proud lords of manors that would never quite be theirs.²³

One gentleman who started an estate on the north shore of Sturgeon Lake was not from the same mould. Mossom Boyd's family was of some means from Ballymacool, County Donegal, Ireland. Mossom's direct ancestors had fought on the losing side in the 1745-46 rebellion in Scotland, causing them to depart for Ireland. He was the son of Captain Gardiner Boyd, who was then serving in the British Army in India. At age 14 both his parents died, leaving Mossom in the care of guardians in London. He received some military training, and had expected to serve in India as well, but five years later, in 1834, he set out to meet his friend, John Darcus, in Canada. He worked for a period on this estate, then another belonging to Darcus, before settling on 15 IV Verulam. An orphan in a new continent, he did not have the financial resources of his gentlemanly peers—when he was married it was in a borrowed suit. He also did not have the same social pretensions, and was frequently, though not always, absent from the Sunday teas, chess matches and outings of the University Club members—graduates of Oxford or Cambridge. He was not afraid to get his hands dirty, cleared his farm himself, and later personally ran lumber rafts. His enduring reputation is that of an extremely industrious, determined, meticulous, hard-driving man who got things done, more able than any of his hands.²⁴

These immigrants "of a superior caste" looked condescendingly upon the farmers in neighbouring townships—Ops being settled by "the lowest class of Irish & is in a wretched state;" Ennismore boasted "the most worthless of all the worthless Irish emigrants" and Lindsay "may fairly rank amongst the worst, if it is not the most blackguard hole in Canada." For the gentry, the common course of Upper Canadian agricultural development—a lifetime of hard labour, living in dirt-floored shanties, reliance on home or neighbourhood-made tools and implements—was below them. Inspired to live like the English aristocracy, steeped in the literature on improved farming, they hoped their operations might also serve as an example to humbler neighbours.²⁵

Many of these gentry were more certain of their objective than the means of achieving it. They envisaged a grand agricultural estate with a fine country home overlooking the lake. A 200-acre lot would be wholly inadequate, so most purchased a few hundred acres or more. If they had the means, many doubtless would have purchased thousands. The better gentry houses were two stories, about 1500 square feet each. Built of log, they were plastered inside. Wallis had the exterior of his Maryboro Lodge (1837) coated as well. The houses paled in comparison with the estates back home, but for the backwoods they were quite pretentious. When their neighbours were living in shanties, the white-plastered exterior of Maryboro Lodge would stand out across the lake. They conspicuously displayed financial resources beyond the reach of most settlers, especially when plaster, shingles, nails, and other building supplies had to be brought in by canoe or scow.

Creating these estates in Upper Canada was a very different matter than back in Britain—the gentry were in one respect counting on this because they could never afford it in the old country. While land and timber were cheap, the colony had a host of different obstacles to overcome. Large country homes did not transplant very well to the backwoods. Timber was abundant, but most other building materials were difficult to come by, and almost all the wood used in them was green. As a result they were very draughty, and when combined with freeze-thaw, it was difficult to keep plaster on the exterior of buildings. While fine homes were built in Britain without insulation, in Canada

they were almost impossible to heat, even though they used only the best firewood. Since "there is always one sort which burns better than the others and as long as there is a supply of that sort, no other will do... the sugar maple blazes away on every hearth." Anne Langton recorded in her journal:

The mercury stood only three degrees above zero in our room whilst we were dressing. At noon it rose to five, and once we contrived to raise it to eight, which is the utmost a good fire has been able to do for it... Much of to-day has been spent in keeping ourselves warm, by which I do not mean standing or sitting over the fires, but going about piling wood upon them, and also with paste and brown paper seeking to keep out the cold wind.

On other occasions, she recounted the thermometer in her house being "ten, twelve or even fifteen degrees below the freezing point" and water freezing "within two or three inches of the chimney, which feels quite warm to the touch." The Langtons hired one of the neighbourhood boys, William Dick, as a chopper. In winter he was occupied all day chopping and hauling "ruinous" quantities of wood for their house, often two large trees a day, accumulating "a mountain" of wood chips in the yard. They burned three to four foot long logs that could be equally large in diameter. At the back of the fireplace they had a backlog, large enough that it took two people to carry. Two of these estates still stand—Maryboro Lodge and the Dunsford's Beehive. Neither one is occupied in winter. Robert Graham bought Langton's Blythe (built 1837) in 1860, but found it uncomfortable, so his son John built a new house in 1878. Relatives occupied Blythe until the mid twentieth century—though much of it was too cold to use in winter. It fell into disrepair and was disassembled.²⁶

The gentry's exertions in creating country homes were paralleled by those in the social sphere. Demanding deference from the majority of their neighbours, whether or not the working classes felt so obligated, they tended to socialize with those they considered their social equal. On occasion they travelled two hundred miles by foot, canoe, or horse for balls. There was always a degree of ridiculousness among the backwoods gentry— pretentiously eating with silver cutlery on a table formed of a door and two barrels, then enjoying the evening with cigars, snuff and fine whiskey. The Dunsfords, perhaps the most affluent of the local gentry, had a harp and piano. When they came out they brought a carriage, prompting Anne Langton to remark, "I hope that they do not forget to bring a good road too."²⁷

Gentry estates relied on a great deal of hired labour. Some brought labourers with them from Britain. Richard Atthill brought the first Junkins. The Dunsfords came with George Bick. But most of the time, they had to secure hired hands locally, and many were surprised by the cost. John Langton often complained to his brother about the difficulty and expense of hiring labour. In January 1834 Langton had two men chopping by contract living in their own shanty, a washerwoman, one man working at his house, and a boy cooking, carrying water, cutting firewood and chopping. By June he had thirteen workers. In the 1830s a good man expected \$8 to \$12 per month—boys \$4 to \$6 and female servants \$4 plus board. A girl nine to twelve years of age could be had for board and clothing, but Catherine Parr Traill found "this is far from a saving plan, as they soon wear out clothes and shoes." Older girls might get \$2.50, and could be expected to bind grain, plant and hoe corn, or cultivate potatoes. Skilled labourers received higher wages still carpenters charged \$1.25 or \$1.40 a day. The greatest expense, however, was the board, which William Hutton of Hastings recalled as:

Extravagant, and such as few of the most opulent farmers at home would indulge themselves with, if indulgence it could be called. They must have hot beefsteak, veal, or ham, with eggs and tea for breakfast, meat for dinner, and meat for supper every day, with abundance of what they call sauce, i.e. vegetables, pickles, or preserved sweets of some kind.

The cost of this, when these farms had little produce of their own, was well over \$200 a year. The total expense of a hired farm labourer, then, would easily top \$300 a year. This cost would be the equivalent of at least 350 bushels of wheat, shipped to market. As the gentry settlers were arriving in the Kawarthas, Thomas Need realized that they required flour and barrelled pork in fairly large quantities, put in a considerable store, and found it a profitable trade. Langton decided to import it himself, and shipped overland from Whitby to Port Perry, finding this cheaper than via Peterborough. Langton had to row boats of potatoes up from Lindsay in his first years of operation. While the gentlemen superintended their men clearing land, planting or harvesting, ladies had servants to make their lives more comfortable. Anne Langton recalled, "when I rang our little hand bell, to have the tea things taken away, did I not feel grand!"²⁸

Having come to the Kawarthas, expecting, like their masters, to better their lot in life, servants did not see their status as permanent. John Langton recalled:

The working classes here naturally feel an independence which you do not find at home, and which, if you give way as some do, will soon lead them to consider themselves your equals; others again, by endeavouring to keep them under as they call it, only give rise to insolence and make themselves cordially hated. But I have never seen any yet who by a quiet reserve of manner cannot be kept respectful. At particular moments and with particular characters you may unbend occasionally and thereby make yourself liked without losing any authority.

The servants often did not share their employers' gentrified aesthetics. Anne complained of "the Canadian ideas of tidiness" while her servant was milking the cows "exactly at the step of the front door." Even if they were willing to pay top dollar, labour was hard to come by. The gentry spent much time travelling to look for workers. They often had to do with fewer hands than they would like. On operations large enough to require much additional labour for harvest, shortages could then be particularly acute. It was easier to find men in winter, as they would have less urgent work on their own farms.²⁹

The gentry soon learned that they could not expect that hired labour would satisfy all their needs and whims. Shortly after her arrival Anne Langton noted, "we may have thought John dilatory, but now we are surprised that he got anything done, workmen being so scarce and some of the work attended with great difficulty and requiring much labour." Whether due to a shortage of funds or men, the gentry often ended up having to work themselves. Their living conditions were a long way from what they imagined. Boyd was appalled when he first saw his old friend Darcus on his farm:

The dandy Darcass as he was called on the other side for his foppishness, with his face, neck & hands as black as a negro's (he & 3 men he had hired were logging...) His ragged shirt & pants, his close cut hair, face all red with gored blood from mosquito bites &c., was a far different object than when I last saw him. I felt like turning back but he insisted on my stopping a week with him, which I did.

The gentry often found themselves dirty, covered in soot, and tormented by mosquitoes. Anne Langton commented on her brother showing up for dinner "in costume, the shades of which are somewhere between the smith and the chimney sweeper." They frequently observed how they were contravening social norms, how unusual it was to see persons of their class working in the presence of labourers or keeping a store, and that ladies often had to perform tasks reserved for men back home.³⁰ The gentry could have a farm made for them much more quickly than those neighbours who did their own work. Thomas Need contracted to have 20 acres cleared on his farm on March 20, 1833—the year he settled in the Kawarthas. For £3 7s 6d per acre, the contractor agreed to "chop, log, clear, burn, fence & spread the ashes." Though costing less than an employee, it was a considerable expense nonetheless—£67 10s to clear a field was more than ten times the amount he had paid for the land. He let another contract that year at \$12.50 per acre, and said that men could be hired to underbrush at \$1 per acre. He agreed to have a shanty built for him for £6, including a chimney. Work started on May 15 and he was able to move in June 1. That week he planted potatoes, and by June 21 he had a fence around his garden. Soon after the shanty was built, he began work on a more substantial home, costing \$80, which was raised on the 27th and the chimney two days later. That fall he planted more wheat hoping "next year to be selling & not buying my wheat." In 1834 Need grew oats, and logged in the fall, allowing him to plant more wheat. He paid \$40 to have a barn built. He soon had between 35 and 40 acres cleared.³¹

John Langton was one of the most ambitious in improving his property, and saw opportunities that others would never consider. When he selected the property, he was enthusiastic about the possibilities presented by a small creek. Though on sober reflection he knew a mill would have difficulty competing when Fenelon Falls was so close, he did on occasion entertain the fantasy, and Alexander McDonell had sold him the property representing it as "a good mill site." He hoped it might be used for a thrashing machine or irrigating the meadow below—perhaps to imitate the floating of water meadows that farm improvers back home revered. He planned to make beer and sauerkraut. He also felt that it was an advantage that part of his property was swampy. He expected arrangements before long to coordinate large drainage projects. He set about surveying the best outlet despite the "difficulties of attempting to take levels through a large extent of such tangled mass as a Cedar Swamp presents." He thought that most people preferred hardwoodsupporting upland because it was easier to clear—another example of how colonial farmers settled for inferior returns as they scrimped on labour.³²

Like Need, Langton developed his estate quickly with the help of his labourers. Abraham Fitchett had a contract to clear land at Blythe and was to receive a yoke of oxen

as part of his payment. Langton experimented with many branches of farming. He laid out a garden for 1834, writing to his brother to send over seeds and spades. That same year he kept five hens, a nanny goat, tried rabbit breeding, expecting "numerous fresh meat dinners," and bought a spaniel puppy. He acquired cats, pigs, a cow, oxen, a kid (which soon died), five hens and a duck egg which he tried to hatch under the hens. Having 35 acres cleared, he planted 16 acres of wheat, with some oats, peas, potatoes, turnip, mangel wurzel and corn. By October 1834, Langton had invested over £604 16s 2d on his estate, including £202 4s on land, £79 6d on clearing it, £58 8s on oxen, £13 on cattle and pigs, £79 15s on labour and £36 2s 8 ½ d on a house and furniture. For pasture he cultivated timothy, red and white clover as early as 1835, suggesting that his family might send out clover seed if they thought the cost justified. Early on, his focus was wheat production, but he later went heavily into sheep as well.

In 1835 Langton produced calculations of his per acre profit, assuming that he hired labourers to work his estate for him. He determined that "potatoes & turnips yield by far the largest profit, but being bulky articles you cannot go very far to market with them & often you will not be able to dispose of them at all, especially the latter." But selling potatoes to new settlers could be profitable. He hoped they might fetch 1s 3d or 1s 6d a bushel and claimed that they had sold as high as 2s 6d. But since the sales were not reliable, he thought it better to feed them to pigs. He figured that an "acre of potatoes with the assistance of a few bushels of Barley, peas or corn ought to rear and fatten 4 pigs, which for a good part of their time, having been picking up a living in the woods." He anticipated selling his 200 lb pigs for £3 each, yielding a profit of £11 per acre, once the costs of the grains were deducted. Acting on this plan, he brought five pigs to bring his total to ten, and was looking to buy more. Clearing land, he estimated, would cost £3 10s per acre, and a pig stye £2 10s. So it seemed to him that the way was clear to live off the expanding farm—the more land he cleared, the greater his profits. By his calculus, his estate might clear several thousand pounds a year.³³

Langton discovered that there were many hard lessons on the way to being a farmer. His rabbits died. He lost most of his poultry by the fall of 1834, and found them hard to keep over the winter because their feet froze. He had to kill his oxen after one of them was accidentally injured. He found Swedish turnips and mangel wurzel tough sales,

"the quantities which my neighbours wanted were so small that it was not worth while to charge them with it," and resorted to leaving them at a Peterborough store. In 1835 he planted 5 or 6 acres of oats, 4 or 5 of potatoes, 2 ¹/₄ of Swedish turnips, 1 of mangel wurzel and a garden—all of which were destroyed by grubs, passenger pigeons, insects and caterpillars, with the exception of his peas and onions. By 1838 he had two horses, four milk cows, two oxen, a bull, a young ox, two heifers and pigs. That year he expected to "yield about £40 profit besides paying my expenses of living," and expected the return to "annually increase." Yet as early as 1835 doubts had started to creep into his head, and conceded that: "I was led away with the rest of the mania and thought that our time would come sooner than it has."³⁴

	Year Settled	Acres Cultivated	Horses	Oxen	Milk Cows	Calves
John Langton	1833	80	2	4	4	2
Robert Dennistoun	1835	75	3	0	3	3
John Hore (Robert Jameson)	1833	45	2	2	5	0
Gawin Hamilton	1835	38	1	2	2	0
James W. Dunsford	1839	35	2	2	2	0
George Dundas	1837	26	0	2	0	0
Francis Dobbs	1833	23	0	0	0	0
Mossom Boyd	1834	22	1	2	2	0
Richard & Edward Atthill	1833	20	0	0	0	2
Andrew Simon Fraser	1833	20	1	0	3	0
George John Toker	1837	20	0	2	2	2

3.2 Gentry Estates from 1841 Assessment

Though it may have seemed in the 1830s like the Kawarthas was becoming a gentry-dominated landscape, most of their ventures were failing almost as soon as they started. The 1840s and 1850s were a difficult period for the gentry across Upper Canada as political and social changes began to undermine the Tory elite.³⁵ The local gentry were not even close to meeting their costs of labour from the proceeds of their farms. Thomas Need, despite once claiming that his crops were "good & paid me *well*," found "that my farm is by no means a source of profit." He explained that because "I put too many irons in the fire... I could not keep them all perfectly heated & more than once burnt my

fingers." Finding that he did not have the time to run the farm and mill, on top of all his leisurely pursuits, he turned his attention away from the farm first, letting it on shares. Need claimed that while he was able to produce 20 to 25 bushels of wheat per acre, "my tenant managed to humbug me... I did not get once 10 or 20 bushels for my share." Need decided to sell his farm as early as April 1834, but continued to hold it long after he left the colony. It later passed between prominent gentlemen George Strange Boulton, John Langton, Adam Hudspeth and E.D. Orde—and was forfeited three times for back taxes.³⁶

Most of the gentry farmers only managed for a few years, if that, before they realized their estate was doomed, then left to pursue other ventures or to join the rapidly expanding professions. In 1835, a year after Need had given up on the prospect of his farm, Langton concluded that "Canada is decidedly not the country any of us thought it was," and knew that many of his neighbouring friends soon would be gone. McAndrew departed that year to enter business in Liverpool, ending up in New York City. W.A. Macredie followed in 1836, and his brother Tom soon after. Sawers entered the army and McCaul returned home, and both soon died. Sawers' property went to his son Augustus, but he left after a few years, married, and lived in Peterborough, founding the *Examiner*. His property went to Morgan Jones, son of a Kentish minister, who drowned crossing Sturgeon Lake. Darcus moved to Peterborough, creating the Peterborough Backwoodsman and Sentinel in 1837, became a Justice of the Peace, but fled after being caught forging wolf bounty certificates to collect the \$6 reward. Jameson gave his estate to his father-in-law, John Hore, who also did not stay long. Atthill went to Newmarket where he became curate, allowing Toker to occupy Brandeston, but Toker then left in 1841, and died in 1842, leaving a widow and two girls. Since he had not completed the purchase of the estate it reverted to the Crown. Gawin Hamilton died in 1843 at the age of 33. Dundas took an appointment in the Hudson Bay Company in 1844. The same year Dennistoun became a student in the law office of George Strange Boulton-he had previously decided to leave in 1837, but changed his mind. Fraser moved to Peterborough in 1847 and became a police magistrate. Then only the Langtons and James Wicks Dunsford remained. Dunsford, who had survived in part on credit from Thomas Need, was the last of the group to leave. He became a prominent local politician, his brothers having already taken up professional careers. George Dunsford decided much more

quickly that farming presented a poor prospect, leaving to article with Boulton in the early 1840s. Their father left for Peterborough in 1844 to edit the *Gazette*.³⁷

Despite all of the gentry's investments, Fenelon and Verulam were still overwhelmingly forest in 1841—a landscape of unfinished lakefront estates and vacant speculative lots, with a smattering of small nascent farms. Overall, the assessment rolls indicate that 1,099 acres (1.0%) were cultivated. This was an underestimate of the amount of chopping since those absent on enumeration day were not included, and five of the old gentry estates-McAndrew, McCall, Macredie, Sawers and Darcus-were not then superintended. With hired men, the gentry were able to clear farms much faster than most of their neighbours, and had more livestock, especially beasts of burden. Twelve other (former) gentry estates accounted for 37.9% of the cultivated acreage. Aside from the gentry, there were only four farms between the two townships on which more than twenty acres were cleared. The largest belonged to William Jordan, who had chopped 29 acres. He was an upstanding, disciplined and industrious man of moderate means, with better education than most of his neighbours.³⁸ Thomas Need may have been correct to say that immigrant farmers "ought not to go out to Canada with the expectation of obtaining more than a comfortable independence; this he will probably secure, together with the blessings of robust health and many quiet enjoyments," but gentility was not to be had. The gentry estates slowly dissolved into a countryside of family farms.³⁹

Even John Langton's returns on the largest farm in the area did not exceed the cost of one hired man—a very small return after eight years of hiring many labourers. John explained to his brother William in October 1844:

The complaints are universal of the difficulty of making a living by farming, and I feel no doubt, after giving it a fair trial, that in the present state of affairs it is not to be done. Still I cannot bring myself to think of giving up the farm, for the chances will certainly improve every year and in time even farming alone will probably become more profitable. Were there any other means of making a little money to help the farm, the kind of life is one which I should prefer to any other, and though agriculture alone is a poor prospect, you may live better on a small sum on a farm than anywhere else. The question is what other means of money-making there are, and it is a question which I have asked myself and others five hundred times without getting any satisfactory answer. Ways of making money there doubtless are, but almost any I can think of involve the necessity of moving to a more civilized neighbourhood and it is exactly this I want to avoid. He considered many options to supplement his farm income. Regarding the possibility of a steamboat, "the chances of profit are not very encouraging, and the risk and capital to be expended are great," and of a distillery "my mother is most decidedly and strongly opposed to it on the score of morality." The next year he still faced the same problem:

Farming alone, though a most interesting occupation will clearly not pay up here with wheat at three shillings a bushel. By industry and care a farm will pay its own expenses and keep the house in food, besides providing you with house, horses, and a man for helping at matters not immediately belonging to the farm, but beyond that it will yield no cash. Doubtless things will daily improve; the farm itself is every year enlarging and is being cultivated at less expense.

By the 1850s Langton was running out of time. When he was elected to Parliament in 1851, he moved to Peterborough, but stayed at Blythe that winter, then took his leave for good in May. He hired John Brown to manage Blythe, but his financial room to manoeuvre continued to decrease. By 1855 Thomas Need held a mortgage on the estate for £500, but since he had advanced more than that sum, Need was asking his agent, Robert Dennistoun, to get additional collateral against Langton's life insurance. Langton then decided that he had no choice but to give up the farm and sold it April 1, 1856 to Mossom Boyd, who flipped the property to Robert Graham eight days later.⁴⁰

Though their sojourn was short, the gentry were very important in getting these settlements started, since their hired help became the nucleus of the emerging communities. Richard Atthill brought out James McConnell, who became the tavern keeper at Bobcaygeon. George Bick, a future Reeve of Bobcaygeon and Verulam, who was instrumental in the construction of the Methodist church, arrived as coachman and gardener for the Dunsfords. Darcus brought out a gardener, carpenter and farm worker. Another leading local Methodist and schoolteacher at Bobcaygeon, John Taylor, found frequent work with Langton. Langton's chopper, William Dick, went on to become Reeve of Fenelon before moving to the Red River settlement where he served in the legislature. Several other early local settlers got their start on the Langton Estate including Daniel Flynn, Henry Brandon, John Grey and Edward Reilly.⁴¹

William, Jane and James Junkin set out from Magheraculmoney, County Fermanagh, Ireland, as employees of their parish rector's son, Richard Atthill. Once they arrived in Verulam Township in 1833, they worked at building his Brandeston estate and soon began farms of their own. All but one of their siblings followed—a total of eight, plus one first-cousin—and they became the progenitors of a large fraction of Verulam Township. It is often said in the area—and is not far from the truth—that all of the old families either are Junkins or are related to them. Many of the Peter Robinson settlers came from the same region of Ireland, as were several other families that soon followed, including the Ingrams, Irwins, Browns, Bells, and Gallaghers. Atthill's successor at Brandeston, Wickham, brought out John Patterson, representing another founding family. Later on, the Littletons, Brokenshires, Ellerys, Palmers, and Copplestones all came to Fenelon Township from the same fifteen-mile radius in Cornwall.⁴²

Making farms was a daunting task. Success could only come through the collaboration of the neighbourhood. Upon arrival, many settlers lived for a period with friends—either new found or those that they followed in their migration. Some resorted to makeshift shelters. In his first days in the Kawarthas, John Langton and his friend John Hay resorted to sleeping in a hollow tree and under Langton's canoe. He recalled:

I gave Hay, as my guest, my best blanket, my waterproof and the choice of bed, and I believe he slept pretty well; but as to myself, my lair was on an inclined plane, so that as soon as I fell asleep I rolled out, and instead of sleeping under the canoe, I slept under the drip of the canoe; as the fire had gone out, when I woke about one, and my blanket was very thin, I felt considerably cold.

They could also make a rough A-frame tent by supporting a ridgepole with two others, then placing sticks on a diagonal from the ridgepole to the ground. This could be covered with bark or boughs. Though some might have to make do with such shelters for a few weeks, building a shanty was usually the first task of a settler starting out.⁴³

By the time the Kawarthas were resettled, shanty construction had become standard across eastern North America. Straight, moderately large trees were selected and chopped into lengths for the walls. Cedar and pine were the most common and best choices of material, being light, durable, easy to work and fairly, or in the case of cedar, very rot resistant. For those acquiring land from the government, settlement duties required them to erect a 12 x 16 structure, and it was difficult to build a much larger room by this method—some were as small as eight by ten. The walls were stacked round logs, notched together at the corners, usually not much more than eight logs high. The round

logs never fit neatly together, and had to be chinked with mud and moss. Doors were often chopped out after walls were raised, and covered only by a hide, if at all. It might also have a window, though John Langton recalled they were unnecessary because the gaps between the logs made the shanty like "a tin lantern; every motion inside was visible" from the outside. If it had a chimney, it was usually formed of sticks and clay, but more often it was just a hole chopped in one of the highest logs above the hearth. The roof was usually made of scoops—a row of troughs made of half a hollow log, covered with another row inverted. Most settlers' guides recommended basswood for the roof, even though it was very prone to rot, because it was easy to work and often hollow anyway. Cedar was a better choice and was often used. The roof would be shed style, sloping from a height of six or eight feet at the front to four or six feet at the back. A reasonably well-constructed roof of this style would not be much affected as the logs shrunk. Wealthier settlers might build a board or shingle roof. Thomas Need made a roof of thin pieces of lumber cut into squares.

Because of the weight of the green logs, it took at least two men to raise a shanty; a third would make the job easier. Hollowing the troughs was the most time-consuming part of the construction, taking several days. Two good axe men could notch the corners and raise the shanty in two or three days. More commonly, the neighbourhood held a raising bee and got it done in a day. Shanties were rarely watertight, always drafty, smoky and dirty—and most settlers got fleas. John Langton recalled:

That, unless I sit up until one or two to get very, very sleepy, the fleas will have commenced their attacks before I get fairly asleep and then there will be little rest for me, for when once they begin they come in such armies, that even in the dark I have caught a dozen or two in the course of the night.

Living in such close quarters families, and perhaps friends sharing their accommodation, had little privacy—they ate, chatted, slept and worked in the same room.⁴⁴ Until they had separate farm buildings, settlers kept their pigs and chickens in their shanties with them. Once the household moved to a better home, the shanty often continued to serve as a stable.⁴⁵

Shanty furniture was mostly made by hand from what could be found on or around the farm. A bed might be fashioned from cedar poles, and filled with straw, moss, boughs or leaves. Seats were often log benches. For the table immigrants might have planks or deals from the mill. They might also buy boards for shelving. Some drove pegs into the wall to hang their belongings. For a hearth, settlers often only had a large stone sitting on the floor, surrounded by a ring of stones to stop the walls from taking fire. Thomas Need was much better outfitted, with "a camp bedstead, a chest of drawers, and a well-filled bookcase; it also had the somewhat unusual luxury of a chimney, pegs for the suspension of guns and fishing implements, and shelves for my scanty kitchen utensils." For those fortunate enough to own one, buffalo robes were used as blankets.⁴⁶

Having provided themselves with shelter, immigrants began the arduous task of carving agricultural land out of the forests. Thousands of monotonous hours of swinging an axe went into the creation of every farm-the best choppers might fell an acre in a week. Underbrush and small trees up to about six inches in diameter were cut a couple inches above ground level using a billhook or axe, then piled for burning or perhaps used as a primitive fence. In North America there were two common methods of killing the larger trees—chopping or girdling. Effectively, there was not much difference, as most of the vegetation had to be felled in either case. But some farmers chose to girdle—peel a ring of bark around the tree, damaging the cambium and leaving the tree to die—some of the largest trees. Girdling worked best on large hardwoods-they were more difficult to chop and most rotted more quickly once killed. But rotting standing trees were thought as progressive as cleared fields. Girdled trees could be dangerous as no one knew when their massive branches would crash to the ground with deadly force. Many emigrants' guides recommended chopping down girdled trees after a few years, negating most of the advantages of this method—it did not save that much time in the first place, especially when all the work of underbrushing was taken into account. Girdling was really only putting off work, and for the little time saved, most farmers thought it was not worth the risk and inconvenience of a field littered with dead-standing trees slowly rotting away—stumps were trouble enough.⁴⁷

Chopping down these massive trees was risky—especially for immigrants with no experience handling such giants. Trees often weighed several tons and their impact could be lethal, as Langton's neighbour, Alexander Daniel found out:

He had sold his best milch cow to [his neighbour, William] Jordan for twenty dollars, and the day before she was to have been delivered a tree he was

chopping fell and killed her. Jordan agreed to take half the dead cow at the rate of the price he was to have given, though not half as much worth in beef as a milker.

Felling trees at waist height for convenience and safety, choppers soon learned to remove a wedge out of the face of the tree to control the direction it fell.⁴⁸

By the time the Kawarthas were settled, the American style axe was popular across the North American colonies. It was more powerful and better balanced than traditional European axes, which had only a strap of metal rather than a poll on the backside of the blade. Axes were made at blacksmith shops, but were fetched from Peterborough before there were local smiths. By 1865 Francis Belch ran a specialized axe manufactory at Fenelon Falls. The axes of early settlement had straight handles; the colt's foot did not become popular until later in the century. They also tended to have softer blades than modern axes—with steel bits welded onto the iron blades—so care had to be taken in their use, especially not to scalp them on stones while underbrushing.⁴⁹

There were a few other ways to clear land, using fire. With the slashing technique trees were left where they fell for a year or two to season, then burned. Alternately, they could be dropped into windrows—trees were felled from opposite directions to form a series of parallel rows across a field, which were then ignited. But with both of these methods, the burn was often incomplete, and the job of chopping, repiling and burning the charred remnants was unpleasant. Also, the fire would consume humus, reducing its fertility. In an intense burn, most of the soil nitrogen could be lost, though nutrients were released from the wood.⁵⁰

Many advocated felling trees once they had leafed out in the spring but before they had much sap in them, saying that they would dry faster. Once felled, trees were stripped of their branches, chopped into lengths that were manageable for oxen, and dragged to great piles—called 'logging up.' They were then covered with brush, awaiting 'the burn,' which usually took place around May or in the autumn. Anne Langton described John's 1838 burn as:

Rather an exciting proceeding, and at times exceedingly picturesque and beautiful. There was nothing to prevent our giving due admiration to the grandeur of the destructive element; it was accomplishing nothing but good. The brush heaps are immense piles and blaze up furiously. There was a little wind in the favourable direction, which carried the smoke into the wood, where it mingled with the trees very beautifully. The main part of the conflagration was over before night, but the scene was pretty when the darkness came on, reminding us of an illuminated amphitheatre. Unfortunately a thunder-storm with much heavy rain came on the next morning, or the consuming of the encumbrance of the ground would have gone on for a week or more.

Burns vaporized much of the forest cover of the Kawarthas. Perhaps a few select probably pine—logs were taken to the mill, and cedar rails were often set aside for fencing. Few trees were marketable for timber in the 1830s, and though many bemoaned the loss of this timber, a significant portion would still not be saleable seventy years later. In early years, fire was the only practical way of getting rid of the trees standing in the way of their farms. By the 1880s, some landowners like Rev. William Logan tried to use the value of the standing timber to offset the cost of getting their land cleared.⁵¹

Freshly cut trees were scarcely burnable, so the timbers usually had to be left for at least one summer before ignition. Burns had to be managed, often through the night and neighbours might help. A breeze helped to intensify the fire, but settlers wanted to make sure that it blew away from their buildings—shifting winds could be dangerous. Thomas Need recalled that at one of his burns, the:

Wind rose so high as to endanger my shanty and adjoining buildings; large burning flakes fell continually on the thin cedar roof, which frequently took fire; fortunately, water was at hand and the labourers exerted themselves so cheerfully that the menaced evil was warded off. New settlers are often deprived of their all in a *burn*; for even on apparently still days, the volume of flame will collect a strong current of air, which scatters sparks and splinters to a great distance; thus the house is burnt to the ground, whilst the unconscious owner and his family are admiring the progress of the flames.

Fragments large and small had to be thrown back onto the piles, the men working in heat "just as much as is endurable." At close range, the smoke would redden their eyes while they were blackened from head to toe. The fires were so large that their lights could be seen flickering on the night sky for miles around. Because it usually took several days, even a couple of weeks, for the heaps to disappear, they were often extinguished by rain and had to be reignited.⁵²

After the burn some settlers collected the ashes, either to spread on their fields or for the manufacture of potash or soap. If excessive ash was spread or left on a field, for several years it would be too alkaline for most crops. The ashes had to be gathered before they leached, which might occur in one rainfall. An acre of broadleaf hardwood produced 50 to 110 bushels of ash, each bushel capable of making 5 lbs of potash. The hardest wood was preferable—beech, maple, oak, elm and ash were said to be the best—while softwoods had so little potassium that they were useless. In the first years of settlement there was little market for ashes on the Upper Lakes, though they sold for four pence per bushel at the front, for export to Europe. Canadian potash was valuable as fertilizer, to bleach linens, scour woollens and print calicos, and in the manufacture of glass, soap, drugs, dyes, and gunpowder because it contained a higher concentration of potassium carbonate than European produce. By 1851 one ashery operated in Lindsay, a second within two years, one was in Omemee from the 1860s, and the Morrison brothers ran one in Woodville. Critics of the potash trade claimed that it caused lasting harm by missing an opportunity to apply this potassium fertilizer.⁵³

Ashes could be leached on the farm in a basswood trough, vat or tub with a hole in the bottom. A layer of twigs was placed in the bottom of the barrel, covered by straw, then finally the ashes. Boiling water was poured onto the ashes and they were gently compressed to leach out the lye, which collected in a trough below. The process would then be repeated with cold water, until the ashes could not be leached further, and the lye had become lighter in colour. Women tested the lye's strength with a potato or egg—it was strong if either floated half above the surface. If it was to be sold for potash manufacture, the lye was then boiled until viscous like tar—called salts of lye or black salts. At an ashery these salts were heated to about 1000 F until molten whereupon a blue blaze appeared, signalling that they were purified. Potash could be further purified and calcinated to produce pearl ash, which was white and used to make baking soda. The leached ash made a good fertilizer, providing nutrients and helping to neutralize the acidity of virgin soil.⁵⁴

Most of the time, however, the lye was used on the farm. Most families stored fat, entrails, and grease in a soap box, preserved with weak lye. Women boiled the lye and grease in a kettle, combined at a rate of about three pounds of grease to a pail of strong lye. When a scum of grease formed on top of the lye, it had become saturated; if it would not thicken it needed more grease. If the lye was too strong, water might have to be added to make the soap thicken. Soap was also made by boiling grease in weak lye, then adding

strong lye and leaving the mixture in the sun for a week or more. Some wives added the lime produced by boiling bones to improve their soap. The finished product, soft soap, was clear and slimy. Families often used soft soap, but some preferred it hardened. The wife added several handfuls of salt to the boiling soap, causing the mixture to separate into hard soap on top, with brown lye settling. After cooling it overnight, it was boiled in turpentine or resin and salt, then put in pans or moulds and left by the stove or fire to dry.⁵⁵

Seeing how much work went into felling, bushwhacking, bucking, piling, and burning, some settlers thought it might be easier just to light the forests on fire. As and Samuel Richardson torched part of 8 VII in Fenelon Township, then wrote to the Crown Lands Department to receive a preference for its acquisition on the basis of this 'improvement.' Emigrant guides frequently explained that fires should be set when the wind was blowing softly away from the farm buildings—"in the favourable direction" which might well burn off some trees. Early on, settlers could often assume, especially in wetter months, that if they had no nearby neighbours and no buildings on their property, then forest fires would burn out on their own without doing much damage. Though some tried it, lighting the forests on fire was not an effective way to clear them, because the largely deciduous forests of the Kawarthas were not very inclined to burn, so the fires would not effectively clean areas. The charred remains of the dying forest would be far more unpleasant and dangerous to clear than the living forest, and without the underbrush to kindle the fire for a controlled burn, it would be difficult to dispose of the remains.⁵⁶ As the countryside became settled, grassland and slash (tree remnants left behind after chopping) replaced deciduous trees, making the region more pyrophillic, thus forcing fire-starters to be more careful.

Chopping was a slow process for those who could not hire it done. Most scholars estimate that pioneers cleared somewhere between one and three acres per year—usually calculated by averaging over a township, often from the start of the township's settlement.⁵⁷ These statistics can be misleading, because many lots were unoccupied for long periods of time. Even after they had received their first owner-occupant, a fair proportion of lots were abandoned for a period of time. There were also a large number of settlers who never made any appreciable progress towards clearing a farm. Looking only

at those who made a life of farming these lots, but who lacked the resources to hire choppers, few cleared less than two acres a year. Four or five was a fair average, six to eight was very good, and a few managed to sustain a rate above ten acres a year. The highest rates often belonged to families with a few young men. The rate of clearing did not change substantially between 1851 and 1871. Comparing settlement with assessment data, most of these families were producing enough food on their farms to support their families within six to ten years. Diligent families usually cleared most of the home farm within the parents' lifetime, and many made a reasonable start on a farm for each of their sons that remained in the area.

In early years, farmers usually made extensive use of surrounding properties. Property rights mattered little when the owner was an unknown absentee—often neighbours did not know whether a lot was patented or not. Firewood was cut freely, although people preferred to burn wood they needed to clear off their own lot. They gathered wild fruits and berries and tapped trees to make maple syrup or sugar. They hunted where game could be found, cut hay in beaver meadows, and most of the townships served as common wooded pasture.

If they had been able to dedicate themselves to the development of their farms, families could have progressed much more quickly. But few, aside from the gentry, could avoid dedicating most of their time to making a living with the very primitive resources of the backwoods, labouring countless hours to meet their bare essentials. Most steps in the creation of a farm had to be performed several times before farmers realized their ambitions. First they raised makeshift shelters, then progressed to a shanty, and finally several years later might put together the resources to build a farmhouse. Small clearings allowed them to grow some crops, then they might improve patches so that a plough could be used. Having a field was many years down the road. As their fields progressed, they moved their fences. The same gradual developments occurred with barns and outbuildings, implements, tools, and almost everything else that farmers had to work with. Most immigrants came over with some idea of how farms should work, but would spend their lives making do, and inventing ways to get jobs done before they finally had proper tools, implements, buildings, fields, time and financial resources to farm the way they understood.

Once finished the burn, settlers would still have nothing resembling a field to show for it. Many of the trees would be still alive. Most of the broadleaf trees would resprout after being cut down, especially moderate sized trees—the largest and smallest were more likely to die. Some species regrew from the stump. Others suckered from the roots. Despite having chopped an area, by the end of the summer it might be covered with trees again—some of them over six feet tall. In some cases, where these sprouts were left unchecked, they soon filled in the forest. Cutting and recutting killed the trees, leaving a stumpy field.⁵⁸

Given the technology of the early to mid nineteenth century, disposing of large stumps was all but impossible, though smaller stumps could be grubbed out and burned. Many settlers piled brush on larger ones to burn them, but this usually only charred the exterior, which still stood at waist height. Some original stumps still remain. Settlers' fields were littered from end to end with stumps, perhaps 120 per acre that were over six inches in diameter. Some species rotted faster than others. Maples and basswoods might decay enough so that smaller roots could be broken by ploughs within a few years, and the stump removed in perhaps ten years, but pine and cedar stumps could persevere a generation or more. In 1838 John Langton managed to plow around the stumps in a field three years after it had been cleared—a tough job for the draft animals. Little cleared land existed in the Kawarthas until the 1870s, even in the villages. For the first generation, crops had to be planted around stumps. Langton recalled making his first garden: "there is such a tangled mess of roots to be cleared away that the axe & the pick axe with the assistance of the hands almost supersede the use of the spade." Many crops such as potatoes and corn were grown in mounds rather than rows, and grains were hardly planted, if at all, until the ground could be broken up. In the early days, land was prepared for broadcasting with the drag or harrow—which might be a treetop; a log or pair of logs with spikes driven in; or a simple 'V' shaped wooden frame with pegs attached—because there were too many roots for a plough. After a few years many hardwood stumps rotted enough that their roots were broken with wood-framed, single-furrow ploughs. Though pioneers could then plough before planting their crops, most spent the rest of their lives weaving around coniferous stumps.⁵⁹

Beasts of burden were among settlers' first acquisitions—they were often shared among friends and made clearing land much easier. Most pioneers preferred oxen to horses as beasts of burden—they were hardier, stronger, less expensive and could do more work without being fed oats or grain. Ox yokes were also less expensive than harnesses, and most farmers could fashion one themselves. They were easier to train and control—it was fairly easy to teach an ox to move its feet one at a time when they were tapped. When ploughing or harrowing around stumps, oxen would tend to stop when the equipment snagged, while horses tended to jerk and might break either the harness or equipment. Buck and Bright, as most yokes in Upper Canada were named, would also work around the smoke and fire of burns. Livestock found many plants and shrubs to eat in the forests, and cattle browsed young deciduous trees, but the bush diet flavoured cow's milk.⁶⁰

Many pioneers were limited to farm animals that could survive in the bush. Pigs were among the most adaptable, and many soon became quite independent. Feral pigs, referred to as razor backs or sometimes alligators as they developed longer snouts, could fight off any predator they came across, so they multiplied in the woods. They were known on occasion to attack women and children. Pasturing at large remained common practice for much of the century. With each species having its own taste in forage, they probably had some selective effect on the composition of the forests. Pigs enjoy tubers, wild vetches, and various nuts. In other regions, they suppressed the growth of oak and beech. Cattle browsed young deciduous trees, while tending to leave conifers alone. However, the population of semi-feral livestock was likely never high enough to dramatically affect the countryside of the Kawarthas.⁶¹

As forests provided pasture, swamp grass was fodder. Many creeks contained large strips or patches of grass, often formed from sedimentation behind beaver dams, which eventually forced the beavers to leave as their pond became a meadow. There was a large beaver meadow on Lot 23 XI Fenelon, just east of Fenelon Falls, and one of over twenty acres on the west half of 17 I Verulam. Need claimed to have a beaver meadow of nearly 100 acres around his farm on 15 VIII Verulam. In early days, those who did not have a meadow on their own property often did not have to travel far to find one on an unoccupied lot. Not as nutritious as European fodder crops, these grasses and sedges were

variable in quality—bluejoint was said to be one of the best—and grew very densely. Cutting by hand was a wet and mucky job, usually undertaken between June and September. John Langton's meadow produced about four tons of hay in 1834. Many farmers left the hay in the meadow until winter before hauling it back. Beaver hay was cut to the end of the century, especially in townships to the north.⁶²

With stock roaming at large, farmers built fences to keep animals out, rather than in-the term fence was derived from 'defence.' Though some farmers resorted to fallen brush as obstacles, snake fences were the first style with any permanency. The forestgrown cedars made excellent rails. They split well because they were straight grained, they had few branches, and sometimes yielded eighty rails per tree. Some gentry preferred oak, and others apparently used basswood because it split well, only to discover that it rotted very quickly. Having saved logs when they were clearing land, farmers split them into rails, and many took pride in the number they could produce in a day-some claimed 150. Depending on the farmer's skill with axe and wedge, it might take a month and a half to make enough rails for a mile of fence. Most experts recommended building a fivefoot high fence, with twelve-foot rails, though many farmers scrimped on the height. Snake fences were by no means proof against livestock—almost any could go over or through if they were determined, so farmers culled 'breachy' animals. Snake fences were an excellent fit on pioneer farms. They cost nothing but labour, the rails could last generations, they were relatively light, and could be easily moved—which was essential in early days when plot boundaries often shifted as farmers made and remade fields on the way to completing their farms.⁶³

Farms often went through a succession of layouts until they stabilized into the near universal pattern of the late nineteenth century. In early days plot boundaries were often irregular, related to the peculiarities of the land being cleared. Families might build homesteads and stables once or twice in different locations before raising permanent farm buildings. Plots often changed between garden, arable and hay before they coalesced into fields. Most had buildings and rectangular fields square to the road. Houses and barns were detached, but built in close proximity, usually either with the house yard beside the road or one whole field back. 100-acre farms were usually divided into four fields of about twenty-five acres each—often half the lot in each direction. One or two of these

would be subdivided into smaller fields and contain the house and barnyards.

Divided into fields, the farm layouts became permanent as they were worked year after year. As they ploughed, farmers turned up stones, hauled them to the field perimeter and piled them on the fencerow. As the years went by, most fencerows became a stone pile from one end to the other, broken only where there was a passage from one field to another. Rough fields usually had stone piles scattered throughout them as well. Stone piles became a foot or two deep and several feet wide, so fences had to be built on top of them. Once stone piles were in place, moving a fence became an ambitious job.⁶⁴

As they made farms, settlers completed many jobs that could never be undertaken alone and others that involved hours of drudgery. They relied on a culture of mutual aid to make this work go more easily, and, aside from the gentry, neighbourhood exchange was barter, almost entirely unrecorded. For almost any job, farmers could expect that a neighbour would help if asked, and the whole neighbourhood would gather at a bee to raise a building, chop, saw logs, pick stones, plough, husk corn, pare fruit, build roads, quilt, sew, mow, cradle, bind grain, underbrush, haul heavy loads, or perform other laborious tasks. Every month there would be several bees in a neighbourhood, and in some seasons settlers spent as much time working with their friends as alone. After the work was done, the host served a dinner, then might have a country dance, often enlivened with a generous supply of whiskey. The entire community was expected to attend bees, and they could accomplish a great deal of work in short order-at James Lithgow's ploughing bee in 1890, 32 teams were at work. The early gentry, however, were less interested in helping their neighbours—not seen as their equals—husk their corn or log the back forty. They preferred to rely on employees, and thought of their neighbours as potential labourers who would work on developing their estates—hopefully at low wages. The gentry did not want to reciprocate with their time. Anne Langton described bees as "a perfect nuisance, the period between seed-time and harvest is almost filled up with them." But, as the gentry all gave up and left, the farms of the Kawarthas were largely built by these neighbourhood gatherings that most attended "with as much eagerness as a peasant runs to a racecourse or a fair." Bees brought together the expertise of the neighbourhood to create each home and farm, and bees continued well into the

twentieth century. Since everybody worked together on each farm, they ended up looking similar.⁶⁵

Pioneers had to cope with the almost total absence of specialized labour, since the local economy was almost entirely composed of farms. Before there were mills in the adjacent communities, or when these mills were not working, farmers ground grain themselves, or wives might carry it on their backs to the nearest mill—perhaps thirty miles away. Some created hominy blocks, by hollowing out the top of a hardwood stump, then crushed the grain with a wooden pestle. This worked reasonably well with corn and wild rice, but it was difficult to grind wheat. After pounding the grain settlers separated the bran, either by winnowing or passing it through a cloth or sieve. Grains could also be ground by hand between rocks, and there were some reports in nearby townships of parents chewing corn to soften it for their children's consumption. Pioneers took the few horses in the township many miles to the nearest blacksmith.⁶⁶

Prior to the erection of Need's (1833), Jameson & Wallis' (1836), and James McLaren's on McLaren's Creek (1841), the nearest mills were Calder's in Beaverton and William Purdy's at Lindsay. Purdy was a highly controversial figure. Being a Methodist, he was not respected by many in the British and Anglican elite—"an old Yankee rascal" to John Langton—though his supporters remembered him as a Loyalist. Born in Westchester, New York on August 14, 1770, he migrated to St. John in 1787, then two years later to Upper Canada, as it was about to be named. He received grants as both a Loyalist and the son of a Loyalist. In 1814 he purchased the sawmill at present-day Thornhill—soon known as Purdy's Mills. He added a gristmill, but it burned in 1828, prompting him to sell the property.⁶⁷

In December 1829 Purdy applied for the mill site on Lots 21 V and VI Ops—the present site of Lindsay—and received the grant on the condition that he build a saw and gristmill by October 1, 1831. In his application he mentioned plans to build a dam twelve or fourteen feet high, and then pressed the Crown for several years to absolve him of all responsibility for damages due to flooding. Though John Colborne issued an order-in-council to "secure him in the rights of keeping the water at its present height without subjecting him to an action for damages" they did not issue any further indemnification, despite his application to Parliament. But he had trouble building a dam of such

proportions, finding that "in consequence of the pond being very extensive it was 4 months filling with water." When part of his dam broke away, he asked for an extension. When his dam failed again the next year, so much water had been backed up that another mill forty miles distant by water was stopped for five weeks by the surge on its lower side. It took six months for the water to completely run out, and when he re-erected the dam the Scugog River was entirely stopped for three months. By October 1833, Purdy had a 45x20 foot sawmill and a 41x31 foot gristmill in operation, located near the present-day intersection of Georgian and Ridout Streets, where the banks were very steep. His milldam caused an enormous amount of flooding around Lake Scugog, because the land in the region was very low—John Langton estimated the mill pond at 11,000 acres. Because there was already settlement around Lake Scugog, some families lost their farms, and roads were flooded out. Many adamantly opposed the height of Purdy's new dam.⁶⁸

By law, mills charged no more than 1/12 of the grain for grinding it, and by custom collected that amount. When a farmer took his grain to larger mills, it was carried up to the top floor and dumped into a trough inclined to feed it down onto the millstones at the correct rate. A trough collected the grain from the stones, and a man shovelled it into containers to convey it to the drying floor. Once bolted—the husks removed—its processing to flour was complete. Stone ground flour is nutritious and had a stronger flavour than modern wheat flours, as the wheat germ was left in the flour.⁶⁹

Settlers endured the "insect plagues" that descended on them in May and abated over the summer. Most pioneers lived in houses that insects could easily penetrate, so they would be bitten round the clock, trying to sleep while mosquitoes buzzed around their heads, "cruelly tormenting, defying almost every means of defence used against their attacks." A visitor to Bobcaygeon in 1833 noted, "nothing will dislodge them from the houses, but suffocating clouds of smoke, raised by a smudge in the middle of the room—a remedy not less disagreeable than the annoying insects it is said to remove." One day John Langton estimated that he had between 500 and 1000 insect bites on his face. But most kept working despite the onslaught, perhaps covering themselves with grease. By 1840, some of the better gentry homes had mosquito blinds.⁷⁰

In the first decades of settlement, mosquitoes transmitted malaria. One of the four parasites that cause malaria, *Plasmodia vivax*, was commonly found in the Kawarthas.

Though less deadly than *Plasmodia falciparum*, found further south, it usually killed about a twentieth of those infected. Malaria was brought over to the Americas by colonists. *P. vivax* was common in Europe until the twentieth century, and can remain dormant for months, so people who were apparently healthy when they left Europe could become ill after crossing the ocean, then spread it to the new continent. It became endemic along the eastern seaboard, so travellers from either the United States or Europe could bring it to the Kawarthas. *P. vivax* usually died over the winter, unless it survived in a dormant state. It caused "high fever, with skull-splitting headache and icy pains throughout the skeleton." The victim often senses severe chills and shivers as the temperature increases, then feels very hot and starts sweating. As the parasites live for about 48 hours, the outbreaks recur in two-day cycles.⁷¹

Outbreaks of ague—chills or shaking—were fairly common in the first two decades of settlement, and many of these were likely malarial. When John Langton passed Rice Lake in 1833, he remarked that if you stay long there "you will probably catch the ague." That fall there were cases on Buckhorn Lake, and Thomas Need fell ill. Ops was reputed to be one of the worst townships in the area—parts of it low and swampy. In 1835, eight of the Fenelon and Verulam gentry fell ill, and more cases followed the next year. Need had attacks again off and on for a month. In 1842:

A man who had just come into the country died of fever. About a fortnight later three other members of the family fell ill. This occasioned a panic, and ended all but the most necessary intercourse with the shanties where the family lived. We had caused one of the two families living together to be removed to a shanty on our piece of land. One courageous woman has been invaluable in both places. She said that she smoked and before going into the house took a little brandy and wormwood and considered herself proof against infection.

One victim was "perfectly delirious, with fever, acute headache, pain in the back and in all the limbs," one day, then "about his work apparently quite well, after an attack of violent perspiration," the next. Anne Langton observed that "in some settlements there is nobody near to apply to, and the poor creatures have nothing to do but lie down, and let the fever take its course." One widow died of the fever two or three days before her neighbours found her. It killed Anne and John Langton's mother and aunt. Consequently, many genteel settlers, including John, Lydia (Dunsford) and Anne Langton, decided to

leave the backwoods for other settlements. The common treatment, for those who could access it, was quinine—a intensely bitter alkaloid from the cinchona bark, harvested in South America and distributed through chemical companies in Britain and the United States—which was effective. But it was expensive—even by 1880 an ounce of quinine cost \$2 or \$3 on the American retail market.⁷²

Most settlers believed that their fevers were caused by miasmata—disease causing vapours released from the decomposing organic matter in swamps or "from the exhalations of the vegetable soil, when opened out to the action of the sun and air," especially "when the sunshine is let in upon a sufficiently large tract of country, it is then that the evaporations become so baneful." Some believed that there would be no outbreak as long as the forests remained intact and the soil was unbroken. The term malaria was from Italian for bad air—*mala aria*. There was some empirical truth in their observations, as mosquitoes tended to be more prevalent in the landscapes they blamed for the ague.⁷³

Residents around Lake Scugog suspected that the cause of the illness was William Purdy's milldam, as it had raised Lake Scugog 14 feet and flooded about 11,000 acres. In 1835, while he was surveying the Trent Waterway, N.H. Baird examined Purdy's establishment, finding that it rendered Lake Scugog "one continued scene of drowned lands and decayed timber, with at intervals, the former residences of settlers, shewing parts of the roof out of water." It had covered fields to depths up to nine feet, and Baird listed 32 settlers who had lands flooded. Purdy argued that his mill would not work on less water, but Baird observed that the gristmill was made "upon the rudest principle possible… wasting more than would drive six manufacturing runs." He advised lowering the dam from twelve feet to five. Affected settlers rose in 1838 and destroyed Purdy's Dam, but it was rebuilt. In 1841 the fevers around Lake Scugog were particularly bad:

In one place the heads of forty families besides women and children died & there were scarcely living left sufficient to bury the dead. In many cases it was three four & even six days after the death of a person before the corpse could be put in the coffin or interred, owing to the impossibility of obtaining the necessary assistance, & that too during the months of July and August, several entire families have been found dead in their houses & in some instances, it is too much to be feared that the children & sick have died from want of assistance & food, owing to the death of their parents & other members of the family, a whole family was discovered dead in their house in such a state of putrification that the neighbours found it necessary to burn the

house, corpses and all as no person could be found to enter it for the purpose of interring the bodies.

The following winter, many faced privation because they were not able to harvest their crops. Purdy had moved to Bath in 1841, where he was to die January 15, 1847, but his sons Jesse and Hazard carried on the mill. On December 27, residents of Ops, Manvers and Cartwright rioted again, destroying the remainder of the dam and the sawmill flume. A Committee of the Colborne District Council investigating the riots concluded, "the dreadful sickness which prevailed last summer was mainly to be attributed to the unnecessary height of water raised by Mr. Purdy's Dam." It suggested that "the riots proceeded solely from the distress arising from sickness and not from any malicious feeling towards Mr. Purdy, of whose moderation and forbearance throughout all parties speak in highest terms" and recommended reducing the mill dam's height by five feet in the autumn, when the danger from decayed vegetable matter would be least. The magistrate had already reported, "it was unsafe for him to proceed against the rioters." By May 23, the level of Lake Scugog was approaching its former height, and many settlers would "proceed to any lengths, rather than permit the recrection of it." After much public debate, the Board of Works of the Province of Canada stepped in, paid Purdy for his water rights and built a new dam downstream in conjunction with the Lindsay lock, with a head of seven feet, completed in 1844. The same year the Purdys left, selling their 400 acres and mills at Lindsay to Hiram Bigelow for \$10,000.74 Malaria disappeared after outbreaks in Fenelon Falls in 1880 and Peterborough in 1881. Having not been able to survive winter except in a dormant state, it was by then becoming less common in Europe and the north eastern United States as more people employed screened windows, drainage and guinine.75

The settlement of Fenelon and Verulam took place over roughly fifty years. As the gentry occupied the waterfront, others took up land at the south end of Verulam Township, near the older Emily settlements and around McLaren's Creek in Fenelon. The first settlement in the area was around the southwest arm of Sturgeon Lake. Angus McLaren was living there at the time that the first deeded settlers arrived in Fenelon, his neighbours Arthur and John Jarvis. Samuel Brock founded Cambray (Lot 5 I Fenelon), building a sawmill before 1839 as he worked his way towards acquiring the lot that would

become the village. The McLarens met with great misfortune. Daniel McLaren drowned in the creek bearing his family's name and Donald McLaren was killed by a falling tree, leaving a widow and five month old daughter, Mary (later McFadyen). His widow remarried, and soon died, leaving Mary in the care of her aunt, Janet Blatchford, herself a widow, who lived on Lot 14 II Fenelon and was working towards its acquisition with her son Ewen. Janet and Francis Barjero were the first settlers in the vicinity of Islay (15/16 II Fenelon), soon to be followed by Duncan Graham, Donald Spence and Donald Gilchrist by 1842. Amos Coates settled in 1843 on the west half of 8 I, between Islay and Cambray. Ronald Gilchrist (19 I Fenelon) arrived in the neighbourhood of Glenarm about the same time. By 1839, William Suddaby and John Thompson had occupied 22 E V, near Zion. Soon afterwards, John Chambers, Archibald McNevan, Isaac, John and Thomas Moynes followed. Henry Eyres, Asa Richardson, Thomas and James Earls moved to the neighbourhood of Cameron in the 1850s. Powles Corners formed quickly, with David and Francis Willock, John Gillis, John Minthorn, John Cullis, John Kempt, William Powles, William Parrish, Henry Hall and Samuel McGee, Francis Robe, Andrew Hall, Philip Mark and William Heron all acquiring land within six years starting in 1852. The settlement was named for William Powles, who arrived in Fenelon Falls in 1837, having previously been a clerk and shoemaker and who became the villages' postmaster in 1844.76

John Hunter, a veteran of Waterloo, settled on the west half of Lot 1 IX in 1832, and is said to have built the first shanty in Verulam. Much of the early settlement south of Sturgeon Lake was concentrated from the south arm of Sturgeon Lake east to the Scotch Line, Concession V of Verulam. Within a few years of the onset of resettlement, William and John Bell; Andrew Mortimer; Carnaby, Henry, Jonas, John, Thomas, and Jabez Thurston; John Sherriff; James Murdoch; Arthur McConnell; and Francis Hay had settled near Dunsford. McConnell had in his care William Playfair, who had been orphaned on the trip over, but got a location ticket for the east half of Lot 4 I Verulam, which he went on to clear and acquire. James and Bernard Teevin took up a lot on the east side of the south arm of Sturgeon Lake. Robert Mitchell, John and Peter Macdonald, John McPhail, Robert Robertson and Martha Lithgow were early residents on or near the Scotch Line.⁷⁷ Aside from the waterfront gentry estates, the early settlement north of Sturgeon Lake was concentrated in two areas—both connected to the gentry. John Lyle, who worked for Thomas Need, took up the east half of 22 IX in 1833, constructing one of the first shanties north of the lake. That same year, Matthew and Susannah Ingram settled 21 E VIII, with Matthew's older brother James taking 17 VIII. George Bick soon joined them on the east half of 21 IX. The early settlement near Blythe, included John Menzies, William Jordan, tailor William Allen, James Witherup, and Alexander Daniel. Edward Kelly came to Verulam township around 1836, and took over Mossom Boyd's farm.⁷⁸

The northern parts of the townships, especially those distant from the waterway, were among the last parts taken up. Settlement around Bury's Green began around 1852 with Thomas, Albert and Edward Hopkins, from Tipperary, Ireland. John Fell (known locally as Squire Fell) moved from Cavan Township to Lot 14 I Somerville. Fell's home in Yorkshire, England was known as Borough Green, from which the settlement took its name. Isaac Walker followed from Cartmel, Yorkshire (27 E V Verulam) in 1864. During the late 1850s and 1860s, most lots in the neighbourhood were taken up. Immigrants included William, James and Joseph Flett; John, James, Richard and David Lamb; Samuel Pogue; John Dobson; James Akister; John and James Patten; Alexander Dunseath; William Gibson; Stephen and James Billett; Peter Lorden; Thomas Howie; and William Tweedy.⁷⁹ Brothers William, Henry and Thomas Devitt from Clough, Ireland, took up Lots 28E, 29 and 30 V Verulam in 1860, forming the nucleus of Devitt's Settlement.⁸⁰ George Britton, Susanna Tiers, Thomas Olver, Dugald McLean and David Northey occupied lots around Fairbairn Corner in the 1860s. John Cameron sold the first village lot in Rosedale to Alex MacGregor in 1865. To the north, Joseph Eades who moved from Scarborough to Somerville Township in 1853 and was soon followed by his parents, formed Eades' Settlement (renamed Baddow when it became a post-office town in 1875).⁸¹

As the lots of Fenelon and Verulam were settled in the 1850s and 1860s, some promoters expected that settling the north country would stimulate the commercial growth of Fenelon Falls and Bobcaygeon. Somerville and Bexley were occupied soon after nearby or comparable lots in Fenelon and Verulam, but immigrants did not seem as interested in the next rows of townships. There were only isolated pockets of good soil on

the edge of the Canadian Shield and it was not blessed with the same transportation routes, though much of it could be accessed via the Burnt and Gull Rivers.

The Crown Lands Department noticed that a large piece of Ontario stretching from Ottawa over to Lake Huron was slow to settle. Taking for granted that the region should become farmland, they recognized that part of the problem was its inaccessibility, being a long way from the waterways that had carried immigrants to the southern townships. They planned colonization roads to connect the Ottawa-Huron tract to the settled townships to the south. Philip Vankoughnet, Minister of Agriculture, advertised the virtues of Shield agriculture in Canada, and especially Europe, offering free land, hoping to attract "Eight Millions of People" to farm the Ottawa-Huron tract. One of the earliest and most successful was the Bobcaygeon Road.⁸²

Surveyed in 1854, the Bobcaygeon Road ran north from that village dividing the townships of Verulam, Somerville, Lutterworth, Anson, Hindon, Ridout and Franklin on the west; Harvey, Galway, Snowdon, Minden, Stanhope, Sherborne, and McClintock on the east. It had been conceptualized as a straight road, and a reasonable approximation was achieved as far north as Hindon, but from there north the surveyors found any pretence of straightness unreasonable in Shield country. Construction began in 1858, as settlers obtained land at three agencies: John Roche (Lindsay), Richard Hughes (Bobcaygeon) and G.G. Boswell (Minden). By 1861, it was almost complete to Bell's Line.^{83 84}

In 1858, the government laid out the Victoria Road, running north from Glenarm on the boundary between Eldon, Bexley, Laxton and Digby on the west; and Fenelon, Carden and Dalton on the east. By 1862, twenty-five miles were constructed, reaching Uphill. The Cameron Road ran from Balsam River (Rosedale) to Coboconk, and by 1874 was within four miles of Minden. The Monck Road connected the Bobcaygeon and Victoria Roads. It was intended to run on the northern boundary of Carden, Laxton, Somerville and Galway, but again liberties had to be taken with the route. The Buckhorn Road reached north from that village. The Peterson Road ran from the Bobcaygeon Road east to the Madawaska River north of the Monck Road. West of the Bobcaygeon Road it was named the Vankoughnet Road after its most ardent promoter.⁸⁵

Many people questioned the colonization road project from its start, arguing that it was pointless because the region could never become but the roughest imitation of the British countryside. Some joked about how stony the ground was. One man recalled pensioners remarking "that they wished they had brought some of the old cannon captured in the Crimean war with then, so they might shoot the seed into the ground, for they said that was the only way they knew the seed would be successfully planted in that kind of soil." Stories also circulated that much land was sold by the 'back fifty racket.' Sellers "would always claim that the back fifty was splendid farming land; of course the settler could not help but admit that the front fifty was a little rough and rocky, for the stranger could usually see that for himself."⁸⁶

Surveyors' opinions were divided concerning the fringe of the Shield. Many reported what their superiors wanted to hear-that the land was well suited for settlement. But others could not help noticing the challenges that lay ahead. In Galway Township, Michael Deane took much "pleasure in being able to state that it... is generally well suited for settlement." For the same township, William Drennan reported much of the soil was "little better than bare rock." Charles Sproatt found a large portion of Clyde unsuited to agriculture; Drennan that parts of Havelock were "very barren and rocky;" James K. Roche noted the Carden alvar, with less than six inches of soil "assumes a barren aspect, a close thicket of stunted pines and evergreen prevailing varied occasionally with patches of prairies land;" James Fitzgerald that part of Monmouth was broken and rocky and the "greater portion of [Burleigh] being of so barren and sterile a character as to render it totally unfit for agricultural purposes." Even when they reported land unsuited for farming, they usually concluded on a more positive note: Fitzgerald's exploration of Monmouth concluded that the majority of the "soil is rich and fertile;" and Roche observed that "Carden though presenting at first sight a forbidding appearance, on account of its extent of thicket, plains and swamps, possesses advantages which will ensure its permanent occupation." Most were favourable in their reports: John James Francis described both Dysart and Harburn as "excellent farming land." Though Charles MacDermott's 1868 settlement guide warned that "the Bobcaygeon road passes through a very bad country," there always were others willing to defend the project. The Victoria County Council petitioned the Governor General hoping that he would have the Victoria

Road extended north to the Parry Sound Road while decrying that "misrepresentations are continually being made as to the unfitness for settlement." The Crown Lands Department continued surveying townships as farmland well into Northern Ontario.⁸⁷

The Crown Lands Department went ahead granting land despite the few cautionary reports—the onus for investigating soil quality of the free land fell to settlers. The Crown did not have much difficulty finding people to make a claim to land along many of the colonization routes. In 1861 Richard Hughes reported that most of the lots along the Bobcaygeon Road had been given away as it was complete (to Bell's Line) and that it should be continued north from there. Several villages grew out of the Bobcaygeon Roads, in Galway, and in the vicinity of the road in North Verulam and Somerville. John Hunter, son of the first settler in that township, left south Verulam to open a sawmill at Kinmount (then called Burnt River Crossing) as pioneers took up the first lots there. He had it in operation by June 1859, also keeping a store, tavern and stables. That same year settlers started arriving at Gull River (later Minden), which had a mill by 1860 and soon became a regional centre. ⁸⁸

Despite the growth of these villages, the Colonization Road scheme did not work as well as its promoters hoped. While many lots along the Bobcaygeon Road were occupied, it did not by any means lead to the dense settlement of the adjacent townships—the Ottawa-Huron Tract attracted nothing like the 8,000,000 people that Vankoughnet imagined. In 1865, just three years after the Peterson Road was first cut, parts of it needed clearing again because there was not enough traffic to stop the trees from resprouting. In parts where settlement was sparse, it would be a chore to keep the roads clear. As far north as Fenelon, Verulam and Somerville, settlement more or less followed the Lot and Concession survey system. Though the townships to the north were laid out the same way, opening these roads with farm beside farm on a grid was not realistic. Crossing cliffs, bogs and generally rocky rolling terrain, opening the prescribed roads would have been unrealistic, and many of the resulting farms would have been entirely worthless for agriculture. On the fringe of the Shield, even where they tried to hold a line, roads ended up following the terrain, and farms were made where the pockets of soil permitted.⁸⁹

In the upper reaches of the Trent Watershed, the Crown advertised ten townships for sale in 1859, on condition of guaranteed settlement. A company formed in London, England, called the Canadian Land and Emigration Company and paid \$195,000 for nine townships or 403,125 acres—Havelock, Eyre, Clyde, Guilford, Harburn, Brunton, Dysart, Dudley and Harcourt. Only one member of its board had ever been to Canada—the chairman, Hon. Richard Chandler Haliburton, for whom the new county was named. But there is no evidence that he ever examined the tract. It tried to sell its land for \$1 per acre, roughly double the price it paid, but soon discovered, like so many speculators before them, that it was a difficult business. Not only was much of the land unsuited for farming, the Crown was giving away lots on the nearby settlement roads, with better transportation links to settled townships under the Free Grant and Homestead Act of 1868. In 1890 parts of Cavendish were included for free grants as well. The company had some lots that were worth acquiring, and did much to support settlement in developing the village of Haliburton, but there was never a realistic prospect of making good its investment through the sale of farmland. In twenty years it sold approximately one twelfth of its land. To many locals, the company soon became a punch line—George Thompson said that its tract "was only fit for darned fools and bears to live on"-and it seemed oblivious to the fact that its pine timber was its most valuable asset.⁹⁰

Part of the appeal of the Canadian Shield and its fringes was the prospect of minerals, especially iron ore. Many of the strikes were accompanied by fantastic expectations that this bonanza would bring great prosperity to the whole region. Wild optimism attracted huge sums of money to develop these resources. Starting in 1820, Charles Hayes developed the Marmora Iron Works, which soon had two blast furnaces and could produce three tons of iron daily. It was not profitable, because of the costs of smelting and transportation to Belleville. Lacking the funds to build a canal connecting Crowe Lake to the Trent System, the mine closed. In 1837 Upper Canada considered buying the property to employ convicts, but decided against it. Upon the completion of a railway to Blairton, iron ore was shipped from Marmora to American markets from 1868 until the 1880s. There were ore deposits in concessions VII, VIII, IX and XIV Somerville, as well as 27 XIII and XIV Galway and around Crystal Lake. Thomas Paxton and a partner mined 5 V Lutterworth, near Davis Lake. Paxton used his position as M.P.P. to

have a colonization road built to his mine in 1880, where he had eighteen men working, but he was bankrupt before the route was complete. In April 1882 he leased the property to Sam Parker, who went under after the uninsured plant burned the next year. There were reports of iron near Fenelon Falls in 1878, 1880 and 1890. The largest area of activity in the Upper Trent Watershed was near Furnace Falls and Devil's Creek (named Irondale in 1883) in Snowdon Township—one favourable report estimated that it contained 3,000,000 tons of high-grade ore. The challenge, it seemed, as at Marmora, was getting the ore to market. At the time the ore was discovered, the nearest rail link was at Lindsay.⁹¹

Robert Gibson found iron while clearing 20 I Snowdon, attracting the attention of some of the largest American iron companies, including the Bethlehem Iron Works, Charles J. Pusey's company of Sodus Point, New York, and the Union Iron Works, Buffalo. After many companies took samples, Shortiss and Savigny formed the Snowdon Iron Company. They built a \$30,000 charcoal cold blast furnace capable of producing 3,000 or 4,000 tons annually, but their enthusiasm soon waned. In the meantime, there were many other discoveries of iron in the vicinity and the Victoria Railway was built connecting Haliburton to Lindsay via Kinmount, passing within 6 ³/₄ miles of the site. William Myles paid \$10,000 for a 99 year lease of the property and started constructing the necessary line—backed by \$10,000 in bonuses from Port Hope to ship his ore from there, and \$5,000 in rebates promised by the Midland Railway. By October 1879 his rail bed was complete to the mine, only awaiting the installation of ties and rail on the last two miles. Unfortunately he ran into trouble by building the line across private property without permission, and discovered that his mine tapped only sporadic pockets of ore. Having reportedly invested \$40,000 in the railway alone, he gave up. He did not realize the bonuses because they were payable upon the completion of the line and when his first load of ore reached Port Hope. The Chicago firm of J.C. Parry & J.G. Mills began constructing a smelter, charcoal works and sawmill at the Falls on the Irondale River in 1881, investing more than \$60,000 on the smelter and mines—henceforth the community was known as Furnace Falls.⁹²

Pusey partnered with E.A. Ivatts and Henry Howland to purchase Myles' interest for 35 cents per ton royalty, already having a mine on an adjacent claim. Incorporated as the Toronto Iron Ore Company, their deposit was much better than Myles', containing a fourteen-foot wide vein, said to be of excellent quality, 65% metallic iron (pure magnetite contains 72%). Employing 60 men at his three mines, Pusey completed Myles' rail link, built a boarding house at Furnace Falls, and a summer home for himself at Irondale. After finding another significant deposit further south beneath the Monck Road, Pusey offered to alter the course of the road in exchange for being allowed to develop it, but Snowdon Township refused and claimed the ore. After appealing to the province, Pusey was allowed to proceed. He then devoted most of his resources to the northern deposits, and dropped a 100 foot shaft on the Howland Mine, but continued to look for better deposits—it seemed that none had met his expectations, though he continued to ship ore to Sodus Point. By 1883, Pusey had closed the mines—there had been reports as early as 1880 that Snowdon ore was difficult to sell—having become more interested in the construction of the Irondale, Bancroft & Ottawa Railway, which reached Irondale in 1886. The following year, however, he purchased the Furnace Falls smelter—which Parry & Mills had scarcely completed before they gave it up—and let the mill to William Robinson

On September 9, 1887, an enormous forest fire razed Furnace Falls, putting an end to the developments. While many outside observers thought it was potentially a flourishing industry, Pusey knew that the samples were disappointing and did not replace the structures there. He considered building a smelter at Lindsay in 1889—but turned his attention again to railways. He asked the counties of Victoria, Peterborough and Haliburton for \$10,000 each, and Ontario for \$3,000 per mile to extend the IB&O Railway to Bancroft, in addition to \$3,200 secured from the Dominion Government. By 1893 Pusey and Howland had made some progress on its construction, but the railroad did not reach Bancroft until 1910. In the early 1890s Pusey's mining operations resumed, then closed permanently. It was said that the problem was too much sulphur in the ore.⁹³

Many other minerals were found on the Shield or its fringes, including a gold rush to the east at Eldorado in 1866. In 1865 William Hunter found oil while drilling a well on his farm, Lot 6 VI Verulam. A Bobcaygeon committee chaired by Joseph Kelso set up a joint stock company, but it soon discovered that it was not worthwhile. Oil was unearthed at Cambray in 1866. The Bobcaygeon *Independent* reported gas in their backyard in

1875. Henry Calcutt, Peterborough brewer and steamship owner, created the Galway Mining Company and built a mine four years later to develop a lead and silver deposit south of Union Creek. It operated sporadically for the rest of the century, having its shaft deepened in 1892, before it was sold for unpaid taxes in 1898. Lead was mined at Galena Hill, Lot 2 V & VI Somerville. When silver was found at Crystal Lake, an unsuccessful mine started. The region exported a quantity of talc in the early 1890s. Phosphates were found in Dudley in 1879, copper in Haliburton in 1884, gold in Galway, oil in Somerville near Coboconk in 1891, tin in Galway in 1892, coal in Haliburton and Somerville in 1897, gold at Kinmount the same year, and corundum at Stony Lake in 1898. But none of these finds amounted to much.⁹⁴

As the settlement of the north country was playing out, Fenelon and Verulam inched towards becoming an agricultural landscape. The 1851 agricultural assessment reported 5,117.5 acres under cultivation in these townships (4.6%), an underrepresentation of the total amount cleared, though a reasonable gauge of its order of magnitude. Reflecting the preference for hardwood covered land, lots occupied between 1841 and 1851 had significantly more beech, maple, basswood and elm than averagethey were drier and would later score better than average on the soil survey. Yet the lots more than half cleared in 1851 and 1861 contained relatively poor soil-the bulk of this land came from the former gentry estates, which had been chosen in large part for their scenic locations rather than for their agricultural potential. By 1871, 39,309.9 acres (35.0%), according to the agricultural assessment, had been cleared. By then, the scruffier parts of the townships were being settled. The former gentry estates were still among the largest clearings, though most had been subdivided between several households, but they were no longer the largest operations, as other families had eclipsed them in the ensuing generation. The largest cleared farms belonged to Jabez Thurston (400 acres), John Daniels (300 acres), George Bick and John Ireton (250 acres each).

The agricultural landscape settlers created, much of it artificial prairie, intermixed with slash, swamps, emerging villages and woodlots, was far more fire prone than the region had been when they arrived. While the Kawarthas prior to 1830 had a lower rate of forest fires than most other regions of North America, forest and brush fires soon became common. A minority were deliberately set. Most were ignited accidentally or by

lightning. Though settlers created more sources of ignition, the increased incidence of fire came largely through modifying forest structure—especially in leaving behind brush as they cleared land and harvested trees. Bush fires often cost farmers their crops, houses and barns—logs, clapboard and shingle exteriors all caught readily. The Carews of Somerville lost their house and crops twice—in 1858 and 1890. Dry cedar fencerows were very difficult to extinguish once ignited, especially if surrounded by dry grass.⁹⁵

It did not take long for settlers to learn how flammable partially cleared land could be. In 1834 John Langton's employee, Abraham Fitchett, informed him that his fire:

Which has been smouldering in old logs ever since my burn, had broken out with the high wind and that the cedar swamp in front of my house was all in a blaze. Having removed everything from Grey and Reilly's shanty, which was in the greatest danger, he had left two of his boys with orders to watch the progress of the fire and break open my house if necessary. I jumped into the first boat that came my way and pulled off directly; Grey followed with Fitchett and his son, and soon after Macredie and McInnes put off after me. Having fallen [on] a most miserable abortion of a boat and the wind being very high I landed as soon as possible and struck off through the bush, being much assisted by my new road which I fell in with. Grey and I, having the one a wife and child, and the other his property at stake, far outstripped the rest and got most of the contents of my house out before assistance arrived. When we reached the bottom of the hill, from the top of which I knew we should ascertain our fate, we moderated our pace; I must say I felt very philosophical, receiving great consolation from the recollection that I had lent Jameson the day before eleven plates; but upon reaching the top of the hill my house gladdened my sight-entire-though Grey's was a heap of ashes. He is now however domesticated in my vacant shanty and does not appear to have lost anything but one knife and fork.

They controlled the fire by wetting the ground around it, but John nonetheless kept his belongings packed up so that he could evacuate at a moment's notice, as he sat up all night watching. Another fire in the woods near Langton in 1834, put his house in "greater danger than ever." Though there were six men fighting the blaze, it encircled them, so "that had the buildings caught, not an article could have been saved. However, with the exception of an outhouse & my rails for the garden fence being burnt, no damage was done." In October 1838, one of John Langton's workers accidentally started a blaze in the woods near Blythe, with the ashes from his pipe, that burned for several weeks.⁹⁶

In May 1845, Thomas Need recorded that "a stupid fellow set fire to a brush heap & the woods being so dry the progress of the fire was awful. We had much ado to save

the mills & houses & fought fire vigorously all day." That summer brought "almost tropical heat" in July and August as "the earth became dust; the grass, stubble, the small creeks, and most of the springs were dried up." That August a second fire tore through the cedars and tamarack forests of the Long Swamp, at the southeast corner of Verulam Township. The same month another fire destroyed the fences on Augustus Sawyers' farm west of Bobcaygeon.

1856 was another bad year for blazes. In September 1874 there were several fires, including on Big Island and on Samuel Patten's farm near Bury's Green. In July 1875, while huge fires raged in Stanhope, there were bush fires near Cameron, Dunsford and Bobcaygeon, and another near Bobcaygeon that September. The following September flames spread near Lindsay, Kirkfield and Fenelon Falls. September 1877 brought more in Fenelon Township, and Ops, which claimed J.T. Power's mill and Vincent Bowerman's shingle mill at Cambray. September 1881 was one of the worst months in Ontario and Michigan. In Fenelon and Verulam several homes were lost. Near Powles Corners the fires were so bad that a cow "was driven by the flames until she could not go any farther, when she was overtaken and burnt to a cinder." Head Lake and Bobcaygeon residents worried that their village would be razed. The Reeve of Bobcaygeon called workers out to fight fires in Rokeby and south of the village, as it filled with smoke. A spark from the train ignited the 'Big Trestle' rail bridge north of Kinmount, while other bridges between Kinmount and Minden were consumed. There were bad fires in Coboconk, Mariposa, Ennismore and the Muskoka District. In September 1887, the blazes around Bobcaygeon again filled the village with smoke, as large fires hit North Verulam, and several homes were burned around Islay. The smoke in Lindsay was so dense that it burned eyes and visibility was less than two blocks. The steamer *Esturion* got lost for three hours on Sturgeon Lake. Part of the smoke that year may have been from the massive conflagrations in north country timber limits. The next July fires raged near Balsam Lake and Bury's Green, where farmers put ladders on their barns to facilitate fighting flames. For a time Fenelon Falls was thought to be in danger and there were several blazes near Kinmount. There was a large outbreak near Baddow in May 1889, and several around Bobcaygeon in May 1891. A large grass fire started near Cameron in 1893. Others around Bobcaygeon filled the village with smoke in September 1894. In Galway Township, Joel

Aldred had just loaded a wagon of hay "when a cinder from the burning forest fell on the hay. It was with difficulty that he got the team unhitched, for the hay in the load and the stack went off like a powder magazine." It was also a bad year near Kinmount. In 1896 many buildings were lost, as there was a fire near Providence Church in July; more during August in North Verulam, near Bobcaygeon, Nogies Creek and Fenelon Falls. An enormous conflagration that year tore through former Gilmour limits in Galway and Cavendish. Another singed the outskirts of Fenelon Falls in September 1898.⁹⁷

Dangerous as fires were in the countryside, they could be far worse in villages, especially downtown. Many blazes started around stoves and fireplaces. With wooden buildings packed closely together or sometimes abutting—perhaps separated only by wooden walls, and covered with cedar shingles—if a fire consumed one building, the bucket brigades might not be able to stop it before it ran a block or more. Many villages seemed to have a fire bug. The Great Fire of Lindsay on July 5, 1861 started in a small house on Ridout Street, near Lindsay Street, and tore through two mills, four hotels, the post and customs office, plus 83 other buildings-running from Russell Street north to Peel Street, and west to William Street. The same year there were two large blazes in Peterborough. One at Fenelon Falls on July 28, 1873 destroyed six houses and three stores, and on March 29, 1876 MacArthur's block and eight stores were consumed. At Fenelon Falls, Noble Ingram's Dominion House, W.L. Robson's grocery, John and Thomas Nevison's harness shop, Thomas and William L. Robson's grocery and Jeremiah Twomey's hotel, stable and blacksmith shop burned on March 13, 1877. That May, half of Coboconk was levelled as flames spread from behind John Keys' hotel. On June 17, 1877 a fire on Bolton Street in Bobcaygeon consumed W.B Read's store, J.H. Thompson's book and stationery store, both the Montreal and Dominion Telegraph Offices, the post office, Charles Bradfield's dry goods store, J.G. Edward's Hardware, J.T. Robinson's grocery, and Mrs. Edgar's home and millinery shop. Seven buildings in Fenelon Falls burned May 8, 1880, including the planing mill, sash and door factory that John Peel rented from Joseph McArthur; E.R. Edwards' livery; the Fenelon Falls Gazette office; and a storehouse used by grocers McDougall & Brandon. The Great Fire of Fenelon on April 21, 1884 began in the kitchen of George Crandell's hotel on the southwest corner of Bond and Colborne streets and ran south to Francis Street. The villagers managed to keep it on

the west side of the main street, but it destroyed the Mechanics' Institute; Whitney W. Blott's restaurant and home; Albert Laliberte's tailor shop; Samuel Newman's dry goods shop; C.W. Moore's dry goods, groceries, boots and shoes; Agnes Heeley's millinery; John Kellett's bakery; watchmaker L. McDonald's; Richard Cooper's harness shop; painter Stephen Nevison's; the shops of shoemakers A. McKillen, James Cullon and Ludgar Laliberte; and George Manning's dry goods. In 1888, fires destroyed a couple of buildings in both Lindsay and Bobcaygeon. More than half of Minden was levelled on July 28, 1890. On September 26, 1890, an inferno started in the stable at William Dunbar's hotel consumed almost the entire business section of Kinmount. There were three large fires in Omemee between 1890 and 1892. On November 18, 1892 another Fenelon Falls fire destroyed the businesses of baker Alfred Northey, watchmaker John Slater; bootmaker Henry Pearce; F.H. Magee's harness, furniture organ and clothing shops; and the Mechanics' Institute. On May 2, 1900, a fire from James Capstick's Bobcaygeon Massey Harris implement shop burned three adjacent buildings, including Samuel McClelland's shop and home. Several other buildings caught fire, but the fire brigade managed to extinguish them.⁹⁸

After seeing fires rage uncontrollably through villages across the province, many village and town councils decided to invest in fire fighting equipment—though there was often a debate about the value of steam fire engines versus their cost. Owners of large business like sawmills and factories, who had the most to lose from fire, and could save on their insurance premiums with protection, were among the most ardent supporters. These businessmen often also had fire fighting appliances of their own, which the village would take advantage of—Fenelon Falls kept part of its fire hose at Frank Sandford and W.H. Walsh's pump, which was acknowledged to be the most effective engine in town from the time it was bought in 1890. Four years later, Fenelon Falls looked to upgrade its engine, but opponents charged that it was unfair to expect tenants of the main street shops to contribute, when their landlords could refuse, while allegedly benefiting more than them. Others claimed that it was not fair to make villagers outside of the downtown pay when their houses might be burned before the equipment would be set up on site. The early fire engines were on wheels, but had to be drawn by horses, and only functioned where their hoses could reach water. Within their range of transport, they were used

against structural, grass and bush fires, and delivered much more water than a bucket brigade, though some fires still caused great damage before they were checked. In 1861, about two months after the Great Fire, Lindsay acquired what was declared to be "the finest engine in the province." After an initiative to spend \$2000 on a fire engine, hose, ladder and engine house was defeated, Fenelon Falls bought two small engines from William Hamilton of Peterborough for \$109, including hose in 1877. Though they were "useful enough in checking an incipient fire or preventing imperilled buildings from igniting, are but wasting their energies when attempting to extinguish a fire which has got fairly underway." The village learned from the Great Fire in 1884 that this was not adequate protection. It soon purchased a second-hand fire engine from Midland at the bargain price of \$166.75 and put up a building at the market square to house it. Bobcaygeon established a fire brigade in 1874, and bought a Waterous fire engine in 1889. Fenelon Falls was offered the same deal, but balked at the cost, \$2,500.⁹⁹

Village councils also started to regulate buildings, in an effort to reduce the number of fires, and to contain them. As London, England had enacted centuries before that all new buildings within five miles of the city gates had to be made of brick or stone, Canadian villages looked to brick clad buildings to create fire-resistant partitions that would slow the spread of fire. But while some European cities had long since required tile, slate or stone roofs, cedar shingles remained the standard in Canada, and the weakest part of many buildings' defences: Fighting a fire in the nineteenth century often entailed men scrambling onto the roof to put out the shingles. In 1877 Bobcaygeon passed a bylaw empowering council to order any chimney, flue or stovepipe they considered unsafe either improved or removed. They set fines of 50 cents to \$5 for anyone neglecting or refusing to assist in extinguishing fires, or for using fires, lights or candles in "any livery or other stable, barn or any other combustible place, without being properly covered or secured in a lamp or lantern." In 1876 Fenelon Falls prohibited the construction of wooden buildings within 40 feet of the main street.¹⁰⁰

Notwithstanding the threat of fire, the settlers' efforts created a landscape that embodied the farmers' productive economy. By the end of the century, most of the land in this region was harnessed to meet the needs of families, though wetlands often remained difficult to employ. The new character —fields, fences, barns, houses, roads, yards,

woodlots and a developing waterway—redefined the region to visitors and locals alike. But the agricultural landscape of the Kawarthas depended on farm families to continue their daily labour to maintain its new organization.

Having worked for a generation to chop their farms from the forest, agriculture in Fenelon and Verulam was settling down to routine by the 1880s. Some of the pioneers' children were not interested in staying home to work the family farm, while others knew that their brothers stood to inherit. Having a pioneering spirit of their own, they were restless to make their way on a frontier as their parents had. At that time, the Canadian prairies, with their deep, rich soils were opening to rapid agricultural settlement. Many people decided that the future lay in the west, and left for Manitoba or the Red River settlement. In the 1880s the Dakotas, Kansas, Oregon and British Columbia were also popular destinations. In 1882, Mossom, Mossom M. and W.T.C. Boyd, Alexander Niven and John A. Barron applied to incorporate the Lindsay Colonization Company, which aided settlers moving to Manitoba. There was so much emigration by 1891 and 1892 that settlers' trains left Lindsay every Tuesday in March and April. But many others stayed behind to live off their family's farm—over 100 remained in the same family to become century farms in Fenelon and Verulam.¹⁰¹

By the 1880s, farms were approaching the form that pioneers had imagined. Old families that had lived there from the 1830s could look back with satisfaction on the progress that they had made. Those who were successful were rewarded for their lifetime of work with a modest prosperity, reaping the fruits of their labour in their old age. These old families had become established as the leaders of the new communities. Though most who had set out to make farms from the forest were not able to see the project through to completion, those who did proved that the Kawarthas was a place where hardworking families of modest means could make comfortable lives. An often-cited proverb reflected the hope of many who undertook making a farm: "every individual who, to youth and health, joins perseverance and industry, will eventually prosper." Though few in the first generation lived to see the fruition of their labours, many contented themselves in the belief that their descendents would one day realize their ambitions.¹⁰²

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3b. A New Way of Life

Most early settlers' lives, aspirations and achievements centred on their family farm. In these close-knit communities, people lived for, and depended upon, their families and neighbours, who usually acted like relatives—in time this often became reality through marriage. Lives centred around place within these circles, at the husking bee or gathered around the kitchen table. Though some men worked a few winter weeks in the shanties, most had only occasional dealings outside the neighbourhood—families spent most of their time with people who lived within a few miles. For those a few concessions distant, visiting the nearest village was a special occasion—often no one in the family would make the trip for several weeks. Their world encompassed the farm, their neighbourhoods, and the social and religious communion of their church.

With very few exceptions, such as the lands that Mossom Boyd's company managed, every farm successfully created was made by a family or families and the community. A lot of single gentlemen with more money than average tried to make farms on their own, and all of them failed. In this society, it was through family and community that work got done, and only within this context did the project make sense. The first generation laboured for a lifetime to build homesteads, an accomplishment that was just approaching fruition as many were in their declining years. Their achievement was more for the benefit of their children than themselves—they provided for the next generation prosperity that they scarcely had time to enjoy themselves. Many laboured in hope that their contributions would live on through their descendants.

Working with only muscular power and few implements, the overriding challenge of the economy was the enormous amount of manual labour that went into everything. The lifetime of chopping to clear fields was only the beginning. The amount of work that their family could invest limited what farmers could achieve. They needed each other to accomplish all of the jobs that went into raising a family while creating and operating a farm. Children grew up quickly in pioneer societies and were put to work as soon as they were able. There was not much time for play and few toys, as children were raised working alongside their parents.

Though agriculture was based upon family farms and their neighbourhoods, the colonial government and elites interested themselves in markets, particularly goods for

export. John Graves Simcoe explained, "the product of the Earth, which forms the Staple of Upper Canada must be Wheat." Historians like Arthur Innis and John McCallum shared their interest in the external dimensions of agriculture, but more recent scholars have questioned whether there was a wheat staple. Yet, Upper Canadian farms are usually treated largely as wheat farms, whether or not it is interpreted as a staple. Most accounts of agriculture focus on the market—if farm families produced staple exports, whether they were economically rational, market-oriented, or aiming for self-sufficiency, and frequently how and when rural life transitioned to capitalism. But such market-oriented farming could not work in these backwoods—because of the challenges of transportation, the difficulties of producing large quantities of wheat, and better economic opportunities in the domestic economy. Throughout the nineteenth century wheat was an important crop, one of a host of goods that could be sold. Along with wool, beef, butter, and pork it could conceivably be exported from the district, but little was produced for export in these diverse farm operations.¹

Even gender historians like Beatrice Craig and Marjorie Griffin Cohen focus on produce for the cash economy, such as wheat, dairy, poultry and woollens, choosing goods to isolate the role of particular family members. These approaches tend to distort family economies as many of the marketable goods were the joint produce of several hands—hams, fruit, woollens, maple syrup, potatoes, beef, and even wheat more often than was commonly acknowledged. Moreover, for husbands, wives and children alike, most work had no connection to the cash economy.

There always were a few commodities that were imported—some were absolute necessities, like sugar and salt for preserving; a few common medicines; cloth; while others like tobacco, alcohol, dried fruit, spices and tea made life a little more pleasurable. Though Douglas McCalla uses the goods purchased at stores to stress the importance of market connections, and suggests "no one admits to" believing "in a time when families made almost all of the things they needed," the quantity of goods purchased at these village stores was minute compared to what farmers made for themselves, especially in the stable families that persevered for generations. While settlers never lived in isolation from international exchange and by the end of the century were producing a variety of goods for market, throughout the nineteenth century a very strong majority of the goods

they needed, owned and consumed were the fruit of their family's or neighbourhood's labour. That farmers used salt and sugar, some even had glazed windows by century's end, should not distract from the miles of split rail fences, suckers, dyes made on farm, hewn tree trunks serving as joists, fieldstone foundations mortared with local lime, homemade furniture, vegetable gardens, orchards, laying hens and maple syrup. Everyone had a hand in almost all of this domestic produce: a tick bed, stockings or pork, carrots and potatoes for supper. They knew from hard experience how wonderful it was to have a good pair of stockings and what work went into making them. Those who succeeded were not strangers to self-sacrifice as they contributed to the common good.²

It is equally a distortion to stress the importance of the market and 'rational' economic behaviour in an economy that was nearly cashless, where very little was produced for sale, and where even formal barter accounted for a minority of transactions. While many writers romanticized the self-sufficient lifestyle, the economy was based on mutual aid—almost all of their production depended in one way or another on neighbours. Self-reliance of farms or neighbourhoods was not an objective as much as an economic reality. Whether at a bee or smaller gathering of friends, working together broke up the monotony of farm labour, and made the varied skills of the neighbourhood available to all. Given the technology of the day many essential tasks were difficult or impossible for families to accomplish on their own.

The ability to meet its own needs was one of the most important ideals to most farm families, valued in tandem with diligence, perseverance, and frugality. This duty did not necessarily entail a desire to avoid exchange. Families setting off to live in a new clearing endured many years of hardship, and often hired out to underwrite their family farm—in early days, usually to the local gentry. Many were initially poorer than they had been back home, and dreamed of one day having a homestead. To them, farms represented self-sufficiency—of their community, more than their family. Almost everything was produced by someone they knew, and families succeeded by improvising, and relying on their own and their neighbours' fabrications. There were very few luxuries—almost everything was utilitarian. Very little of their produce was exported from the region, and only a small proportion even made it to the village. There were a few more capitalized farms by the 1870s, but even they were modest.

When we see farmers doing work other than plant and animal husbandry, especially tasks such as logging or blacksmithing, it might seem that residents of this area never really specialized in agriculture. But, from the 1830s, farming characteristically involved a diverse set of tasks—and could not have been otherwise when living in a society almost entirely lacking specialized ventures. More than almost any other occupation, an essential characteristic of a successful farm family was the ability to overcome a multiplicity of challenges, each member being a jack of all trades in their own way. In these communities, there would be no reason to question whether helping a friend or neighbour by burning lime, spinning wool, hauling logs in the bush, or building a harrow was really part of farming. Being a farmer entailed supplying most of your own needs, and much of the work was only tangentially related to raising crops and animals.

Constantly facing a plethora of jobs demanding their attention, colonial farmers employed many labour saving expedients. With these rationalizations differentiating their systems of agriculture from those of Britain, many literary observers pointed out their shortcomings relative to European ideals of farming, giving them the reputation of being prodigal in their use of land. As environmentalists later developed a critique of western agriculture, many of their concepts have been assumed to apply to this period particularly their critiques of the exploitative mentalties and practices of capitalism. But nineteenth century farming was a long way from embodying capitalist production—fields were far from being monocultures, and the impact of soil erosion has been overstated. That scholars have been inclined to see change as degradation pre-determines the conclusions to be drawn from an ecological revolution such as the introduction of agriculture. Conversely, many writers sympathetic to nineteenth century techniques are inclined to see them as more ecologically sound than those of the twentieth or twentyfirst—citing the fact that great modern ecological challenges were not then so much of a concern. Some, like Brian Donahue, even suggest that older systems of farming embody the ecological ideal of sustainability.

These debates overlook how different the environmental challenges of the nineteenth century were from those concerning the modern environmental movement. The primary environmental challenge of backwoods farmers was that most arrived into a world that would not support them as it then existed. As immigration multiplied the

population of the area, they had to create a liveable environment in order to remain. Their relationship with their environment was practical, focused on finding a place for themselves, as was the relationship between their productive practices and other species.

Many families sentimentally looked back to the homes they left in Britain and aspired to recreate that world on the new continent. But Europe did not transplant easily to the Americas. The challenge of introducing crops and livestock has often been neglected, as some scholars following Alfred Crosby report the apparently easy advance of these species. Many assume that because similar crops were grown in Europe and North America, European crops must have had an easy transition. Many of the plants their ancestors had relied upon were not able to survive the climate or the parasites of their new world. So they had to create a new biota that was suited the environment they found. Across North America, colonists adapted native plants to fill roles in a British style farm, as they imported others from across the globe. Family farms were remarkably globalized in their species content—Russian apples, Chilean strawberries, North American raspberries, along with many ancient agricultural species originally from Eurasian grasslands that were able to make the transition. None of the important crops, and none of their animals, except perhaps the turkey, were derived from those native to the area. Though they brought species from around the globe to the Kawarthas, it was designed to replicate Britain, so the new plants were given English or traditional names. Once they had created a system of agriculture suited to their new homes, it was easy to forget that it was not simply Britain transplanted.

Since farmers brought species from a host of ecosystems across the globe, they had to create artificial environments that suited the needs of their plants and animals. For a generation or more, humans, along with their plants and animals, were all adapting together to the new environment they encountered. Year after year farmers laboured to maintain fields, keep parasites under control, kill weeds and eliminate predators. The work was incremental—every year their farms became more productive, more suited to their companion plants and animals, so it was more likely that the oats, sheep and currants would thrive. The process was similar to what their ancestors had done to create agriculture in Europe, but in the colonies this transition was made with tremendous speed.

Up and down the concession lines, by the first years of the twentieth century most of the lots had been transformed into family farms, with a modest prosperity, often proudly displayed with a new frame home. As the communities had worked so hard to achieve this way of life, it was durable: well into the twentieth century almost everyone in the farming community lived by it. 'Achievement' was the modest pleasures that came with a successful farm: having apples when the orchard was in season; garden produce; meat from the neighbourhood beef ring; a larder full of preserves; warm clothes for winter; a neat, tidy and commodious home; and the blessings of one's own family.

At the heart of each farm was a family and their homestead. Living in a society that expected stable domestic relationships, practically everyone was imbued with a strong sense of their mutual responsibilities—within their family and community. Though many spouses bickered, never quite agreed on their aspirations and might resent sacrifices they made years before, almost everyone compromised enough to raise their families together—the vow "till death do us part" was taken very seriously. A small number decided to live separately, and then the husband might publish notice in a local newspaper that he would no longer be held accountable for obligations his wife contracted on his behalf, as was the expectation within a family. But in these close-knit communities such salacious news would travel almost instantly in any case, and families that split apart were usually judged harshly by their peers. Separated wives often returned to their families of birth, while their husbands usually continued to live in the home they had together occupied.

Families were more commonly broken apart by the passing of one spouse. The death of a husband was more common than that of a wife. Though neighbours would feel obliged to help, it was difficult for either parent to manage without the other, especially if their children were still young. Single fathers would often try to remarry, an outcome that was less common for widows. The loss of a father could be devastating for a family, often meaning that they could not carry on the farm, as women had limited employment prospects. Yet, one of the earliest settlers in Fenelon Township, Janet Blachford, managed as a head of household, until she passed her shanty and a small clearing around it (6SW I) to her son Ewen. The family, however, never owned the property—it was one of the lots granted to surveyor James Kirkpatrick, which after being sold for backed taxes, became

part of the village of Cambray. It often fell to children to help the family get by without a parent, and in any case elder children were expected to help raise their younger siblings. A few children had the misfortune to lose both parents, and were sometimes then adopted by a neighbour. While emigrating, William and Ann Playfair's mother, father, sister and brother died of Cholera at Montreal. Another couple on their boat, Arthur and Mary McConnell adopted the children. Arthur convinced the Crown Land Agent Alexander McDonell to give twelve-year-old William a location ticket, adjacent to his own farm, for the land grant in recognition of his late father's military service. They raised William and Ann, and twenty-four years later Arthur helped William secure a grant of the lot.³

Children were put to work as soon as they could help their parents. School attendance was generally spotty, especially during periods where labour was at a premium, as when the harvest was brought in and processed. Once they were twelve to fourteen years old, adolescents began to work like adults, and few attended school thereafter. Childhoods were spent around the farms. Boys might gather puffballs or catch suckers, while their sisters picked berries or made a sampler to practice their needlework. Much childhood 'leisure' contributed to the family's livelihood. While it was unusual for farm fathers to take a job in the shanty, other than perhaps working a few weeks as a teamster, young men might trek north for a winter's work to complement the family's income.⁴

Most families had more than one child, and usually, but not always, the farm would pass to the eldest son. In some cases, such as when he had morally transgressed in his father's eyes, he might be disinherited. Other sons usually inherited a secondary parcel of property, or their father stipulated that they would receive financial or material benefits from the estate. Because a farm represented such a tremendous amount of labour, in many cases there were hard feelings over the distribution of property. This society assumed that a daughter's needs would be met by the family she married into, though it was customary for her father to grant her a dowry when she was married to help ensure the prosperity of the new union.

Families operated within close-knit communities—when they did have time to spare from their work, friends gathered around their kitchen tables to share stories about each other, gossip about their neighbours, recount amusing things their animals did, and

talk about their distant friends and relatives. The farm neighbourhoods were socially isolated from the outside world. The immigrants had left their families behind, rarely to be heard from, and in time these bonds were usually severed. In their place the neighbourhood functioned as their new families. When children married, more often than not they chose their spouse from one of the nearby farms. Until the second half of the twentieth century, it was unusual to marry someone who lived more than a few miles distant.

Neighbours usually were well aware of each other's business, and most expected conformity to the customs of the neighbourhood. Their farms, homes, clothing and furnishings were much the same—it could scarcely be any other way when they made so much together. In a society that was overwhelmingly Christian, friends also often looked out for each other's moral well-being. Recriminations for transgressions like Sabbath breaking could be shocking—in 1843 one man took such religious guidance as enough of an affront that he appealed to John Strachan, Bishop of Toronto, for mediation. Though meddling and rumours could be destructive, this sense of community also meant that in time, almost everyone became someone who would, as the saying went, give you the shirt off their back.⁵

The farms of the Upper Kawarthas were created while the ideal of the breadwinner-homemaker division of labour was gaining ascendancy in the western world, as Jan de Vries has shown. While local newspapers were often filled with such romantic images of domestic bliss, they were a long way from the material realities of the region. When the immigrants arrived in the Kawarthas there were no farms, little money, and it was hard to speak of prosperity. How could wives possibly keep their homes neat and tidy while living with farm animals on a dirt floor? A lot of work was needed before families could get to the point where they had fields to raise wheat, barns to house it, horses and wagons to ship it, a village mill to grind it, a stove to bake it and a family to share their daily bread around the kitchen table. As they struggled to make their farms, so many other responsibilities kept husbands from focussing on being breadwinners and wives on keeping a house and raising the children. Yet many continued to dream of one day achieving such a degree of affluence that they could have a neat, commodious frame house, even though it entailed much more domestic work. Would it not be wonderful if

their grandchildren could have a happy childhood, a toy to play with, and perhaps even be spoiled with confections?

Nineteenth century British society expected husbands to provide the home, and they therefore, legally at least, chose where to live. In the backwoods, this meant that he would acquire title to a lot, which rarely had a substantial clearing. In a few cases widows acquired lots to improve with the help of their children. More often single men acquired land before marrying. Later on, as the countryside was turned into farms, some young couples started out on cleared land—often acquired through the husband's family. In the second generation, usually both husband and wife were from the neighbourhood, and both would generally find their new home familiar—since everyone in the neighbourhood worked together to develop the properties, they often closely resembled each other.

Families did not generally inhabit a shanty for long before they wanted a larger, more meticulously constructed house. Prior to 1851 all the finer houses in Fenelon and Verulam were either log or frame construction. Of these, log predominated, forming 89.7% of the total. Much of the material for a log house could be obtained on the farm. Felling large pine, cedar, hemlock, or elm logs, farmers used an adze to square them on at least two sides, then notched the corners, usually into a dovetail. Few used logs smaller than a foot in diameter. At a raising bee, their neighbours would help stack the logs one on top of another. As with a shanty, wooden wedges, mud and moss could be used to chink gaps between the logs, until plaster was available. Logs served as floor joists, and milled lumber was usually purchased for flooring, though logs could be flattened with an adze—making them very rough once they dried out. Interior partitions were usually frame. If well built, log homes were durable and several of these pioneer homes are still standing. But they were often not the most comfortable homes. The walls and floor would move as the timbers expanded and contracted with shifts in humidity, opening gaps in some seasons, and perhaps rendering doors dysfunctional in others. Their size was also limited, rarely exceeding twenty-five feet on any side.

In domestic forestry wood tended to be used with a minimum of processing. Considerable time was invested in selecting trees that were just right for the application, having a crook or split in the correct place. When woodworking was being done with rudimentary tools, trees that were naturally the desired shape more often than not were

the quickest and best choices for a job. Wood was also frequently used green, especially in the first years, because settlers were rarely willing to wait a year—or several years for larger pieces of hardwood—for the finished product. The shrinking of the wood had to be taken into account in design, and skilled crafters ensured that shrinking would tighten important joints.⁶

The problems that came with using green wood were perhaps most conspicuous in house construction. While the wait necessary to season wood was often impractical, for large timbers it was out of the question. As a result, log buildings had to be chinked. Gaps opened up between boards even when sawn material was acquired. In shanties, these problems were part and parcel of the style of construction whereby logs did not fit neatly together in any case. Shrinkage made the fine finish that the early gentry sought a bit more rustic than they would have hoped. Anne Langton remarked on the plastering of Blythe:

Our rooms will be warmer, although the sun will not shine so brightly through the walls as it used to do, and we shall not need to go round stuffing with cotton and wool, and pasting brown paper over the holes as we did last winter. Moreover, every word spoke above-stairs will not be heard below stairs, and *vice versa*, neither will it be necessary, when washing an upper room, to cover all the furniture in the room below it, etc. Though our floors appeared very well laid in the first place, yet the shrinking of the wood made many a wide gap in them. There is no such thing as getting seasoned wood for building, and scarcely such a thing as making full allowance for shrinking in cases where you may attempt to make it, so that for a length of time many a little alteration or re-adjustment is becoming necessary.⁷

Many floors in finer early homes—some of which had been painstakingly levelled and fit using an adze—were chinked with plaster much like the walls of a shanty.

Early construction also tended to use timber in bulk, rather than having it manufactured into lumber. When there was such an abundance of trees, transportation to mills was so difficult, especially for those who were not on the waterway, and the cost of milling so great in proportion to the value of the trees, it often made little sense to use lumber. The resulting construction could be very strong, though heavy. Many unsupported horizontal timbers sagged under their own weight, though usually without much consequence for structural integrity. Many aspired to own something similar to the homes that their genteel neighbours built in the 1830s. The common vernacular became a white frame house with green shutters. Frame houses could be much larger than log, but required milled lumber and nails. They became more common as cut nails replaced forged nails. Their biggest drawback before the advent of insulation was that they were often, in the words of John Langton, "miserable shells which can never be kept warm." Some families filled their walls with a lime-based concrete to keep the drafts out. Though they also had to be periodically re-sided, farmers could acquire boards at minimal cost, as the Statutes of Upper Canada entitled them to have their timber milled for half the produce. Some structures, especially outbuildings, were timber framed. John Lyle had one of the first frame houses erected in October 1833.⁸

In the next decade two stone houses were built—owned by James McConnell and William Edgar—and the first brick-clad house was built for William R. Dick. By the turn

3.3 Houses of Fenelon and Verulam ⁹						
	Brick	Frame	Log	Shanty	Stone	
1851	0	14	96	82		0
1861	1	280	851			2

 $\frac{1}{2}$ of the century, most new houses were brick-clad. While log houses and shanties often sat directly on

the ground or on large rocks, better homes had stone foundations, bound together with lime. These frame houses were often built upon heavy timber sills, usually squared with an adze. Masons Pat and John Powers were living near Fenelon Falls by 1840. Much of the stonework around Bobcaygeon was done by William Cosh, a stone mason and bricklayer from the Isle of Wight, who moved to Galway in 1860, then Verulam seven years later.¹⁰

The first brick buildings used material from small neighbourhood pits, though it was difficult to maintain the uniform heat necessary for good produce. By 1874, David Willock made brick on his farm in Fenelon Township. In 1888 Nathan Day started manufacture on his nearby property. A.B. Coates produced brick at Cambray, and Robert Ringland southwest of Goose Lake in Eldon Township. In the 1870s, John McNeely was operating at Omemee, and by the 1880s John Kennedy was producing at Nogies' Creek. William Jordan opened a brickyard on his farm near Cameron Lake in August 1885, but he was almost immediately flooded out when Cameron Lake was raised with the construction of the Fenelon Falls lock. Though his operation was brief, the Fenelon Falls *Gazette* took him to task for charging the same price as Lindsay brickyards did for their products, delivered. Towards the end of the century, larger works attracted much of the business, including S.J. Fox's near Lindsay. Moving material from the manufacturer to the construction site was a laborious job, however, farmers often calling a bee to get it done. In 1894 Yeoman Smith, Thomas Hopkins and C.J. Lamb of Bury's Green all held bees the same week to get the brick for their houses. When John Green clad his house at Bury's Green in 1898 (31W VI Verulam), sixteen of his neighbours brought their teams to haul brick, and it took them two days to complete the fifty-five mile round trip.¹¹

These larger frame homes brought a compartmentalization of space to domestic lives. Whereas many log buildings had at most two rooms, perhaps one to cook and one to sleep, the frame houses might have ten or more. Now families had a parlour to entertain guests. They could greet certain visitors like the minister at the front door, usually leading to a hallway, which was one of the most neatly finished rooms in the house. However, most guests, following the tradition of log homes, still entered through the kitchen and did their visiting there. Many had a dining room, where they could serve meals like gentry and separate consumption from the production of food. Most had different bedrooms for parents, boys and girls, though families were often large enough that children of the same gender still had to share bedrooms.

Frame houses started to make it possible to have a clean and tidy home—with dirt floors or gaps between the floor boards log houses were usually quite dirty. Large houses necessitated additional work, not only in sweeping and scrubbing floors, but also in keeping them warm. Being so much larger than log homes, many were designed to have four, five, even seven stoves. One woman, who grew up in the twentieth century, remembered her father distinctly telling her that he would not chop wood for more than three stoves. Families aspired to have better furnishings, beds instead of ticks, a dining room table, cupboards, sideboard, chesterfield and chests. Acquiring, cleaning and maintaining all of these domestic goods entailed still more work. But few complained as they built these houses—it was the fulfilment of a dream. Many had worked their whole lives so one day they could live like the gentry.

In early years furnishings were largely homemade, often improvised, such as tables that were just a wide plank or deal.¹² By the 1860s better-off families purchased

what they needed. Furniture businesses frequently combined with undertaking, as joinery was also essential to making fine caskets. Pine was the most common material, though several hardwoods were used, especially oak, maple, cherry, butternut and birch. Cabinetmakers also served as upholsterers. The styles imitated relatively plain European imports. Cutting joints by hand and custom producing every piece, furniture making was time consuming, but the best pieces were built to last generations. By 1865 George Greene, James McClelland, John Moore and Alexander Trotter were joiners at Bobcaygeon, while Benson Whytall and R. White worked at Fenelon Falls. Trotter had a long career at Bobcaygeon, where George Byng entered the business in 1888. At Fenelon Falls, Lewis & Humphrey Deyman were the best known furniture makers and undertakers, in business from at least 1881, carrying on after Humphrey's death in 1896, and employing Lewis's son Cecil until 1956. In 1884, William McKeown built a furniture factory on Francis Street, which endured to the end of the century. Sidney Gainor also made some furniture at his Fenelon wagon shop. Mr. Kettles opened a cabinet shop at Dunsford in 1879.¹³

In the first half of the nineteenth century, most families both heated their houses and cooked at the hearth—though gentry estates like Blythe were designed to employ a combination of fireplaces and box stoves. An iron crane swung pots over the fire, and bake pans were placed in the coals. Meat was cooked on spits or suspended on wires. Soon families graduated to masonry chimneys, a great improvement over the fire-prone wood and clay improvisations of the shanties. Families gathered around the fire in the evening to eat, socialize, and do what work they could by its light. It was customary to hang guns over the fireplace to stop them from rusting, along with an assortment of other items to dry. Fire places were inefficient in their use of wood—though they were able to burn backlogs a foot or more in diameter that could keep the fire going for several days and were often smoky. Before the introduction of matches, if householders were using a stove or did not have a backlog to last through the night, coals had to be covered with ash to reignite the fire the following morning. Some built outdoor ovens of stone or clay, which were especially useful for cooking in summer without heating the house.¹⁴

By 1846, stoves were sold at Peterborough. They gradually became the common source of heat—"more convenient, and... not so destructive to clothes as the great log

fires." Cookstoves made it far easier to regulate temperatures in preparing meals. George Bertram sold hardware and stoves at Lindsay, and had a branch at Fenelon Falls from 1880 to 1883, before selling to his brother-in-law, Gilbert Anderson. At Fenelon Falls, tinsmith William F. Burley was in business by 1871. When he left town, Joseph Heard took over the establishment, buying Bertram's stock in 1886, after Anderson had returned the business to Bertram. Heard continued as a tinsmith and sold hardware until his death in 1911, succeeded by his son William John.¹⁵

Not all settlers could afford a frame house with a box stove. In 1851, 42.7% of households lived in shanties, which were deplorable at their worst. Late in the century, one man lived alone in a building that "was merely a place about eight feet square, with walls made of poles, old bits of lumber, and anything which could be obtained to make a shelter. It was roofed in a similar manner with poles and slabs, and had no chimney or fire place. The door consisted of a couple of bits of board nailed together and held up against the hole left for an entrance by a prop on the outside. In this miserable hovel the old man eked out an miserable existence before a fire built on the ground, and with no other sleeping place but some grass shook down between the wall and a log."¹⁶

Preparing meals was a hot and laborious job. Even by the end of the century, few families used any coal, and a lot of time was spent hauling wood and feeding the stove, not to mention the work that went into chopping, splitting and stacking the firewood. Younger sons were often delegated to deal with the wood. As the same stove or hearth served to heat the house and cook meals, kitchens were often oppressively hot in the summer, leading many families to erect a summer kitchen. It was hard enough to afford one cookstove, let alone a second one for a summer kitchen, so disassembling its pipes and lugging the heavy cast iron appliance became a spring and fall ritual.

Wives often did not have the time to bake bread—they would be working at it off and on for the whole morning—but when they did they demonstrated their culinary skills. To make a good loaf they had to develop a keen eye for the consistency of the dough, and, even if the family owned an oven, maintaining a consistent temperature with wood fuel required experience and vigilance. Hops were a common source of barm to leaven bread. Catherine Parr Traill explained the method:

Take two handfuls of hops, boil in a gallon of soft water, if you can get it, till the hops sink to the bottom of the vessel; make ready a batter formed by

stirring a dessert-plate full of flour and cold water till smooth and pretty thick together; strain the hop-liquor while the other keeps stirring the batter. When cooled down to a gentle warmth, so that you can bear the finger well in it, add a cup or basinful of the former barm, or a bit of leaven, to set it to work; let the barm stand till it has worked well, then bottle and cork it. Set it by in a cellar or cool place in the summer, and in winter it is also the best place to keep it from freezing. Some persons may add two or three mealy potatoes, and it is a great improvement during the cool months of the year.

One of Anne Langton's servants added a little maple sugar to the mixture, which she found allowed them to keep the fermentation for up to ten days, and save repeating the operation whenever they wanted bread. But most settlers used the 'Yankee' method:

Mix flour with warm salt and water, and set it by the fire to rise. But it must be carefully watched, the temperature must be kept even, no easy matter in cold weather. They usually put their vessel within another closed vessel of warm water, but even then it requires great attention, for if the fermentation is too long delayed it becomes sour. Moreover, whenever the right degree of fermentation is attained, then and there you must mix your loaf at whatever inconvenient season it may happen to occur. If the operation is successful you have very good bread, but there is great uncertainty in it.

Traill did not like this method "though the salt-rising makes beautiful bread to look at, being far whiter and firmer than hop-yeast bread, there is a peculiar flavour imparted to the flour that does not please every one's taste, and it is very difficult to get your salt-rising to work in very cold weather." The hop method persisted for generations, and many women continued to ferment hops after the advent of commercial yeast cakes.¹⁷

In the early years many settlers had "no time to think of raising bread" and instead made "a frying-pan cake... unfermented dough baked in one cake about half an inch thick." Bread in Upper Canada was often not made from wheat alone—many preferred potato bread. As Traill explains, "to make up about a stone and a half of flour" in bread that is lighter than usual, boil 3 dozen potatoes, in 3 quarts of water until it has "appearance of a thin gruel, and potatoes have become almost entirely incorporated with the water," then mix with the flour, adding no more water. Potato bread remained common as long as hops were used as a leavening agent.¹⁸

During summer and fall, the whole family spent countless hours processing and preserving farm produce for winter. When it was harvested, almost all produce was quite dirty, and even store-bought ingredients usually contained impurities that most families carefully removed. Starting with some of the earlier fruits, and continuing as they pickled cucumbers, prepared ketchups, sauces and hams, there was hardly an idle moment for months on end. If they worked diligently, they might have it all done by Christmas. As they prepared the preserves, they also carefully saved the seeds for the next year's crop. Roots like potatoes had their sprouts trimmed and saved just before consumption. By the end of the century, most neighbourhoods had a farmer who specialized in butchering. Nevertheless, even then most families slaughtered smaller animals. Children learned young how to wring chickens' necks and help their mothers pluck them.

Families in the Kawarthas were very careful to husband the few resources they had, adopting the motto "waste not, want not." Few disposed of anything that had a prospect of being used, and most intergenerational farms retained obsolete tools, furniture and household goods long after they had fallen out of service. Many kept holey boots for years after they had been forced to replace them, lumber offcuts, old handles and spare parts, in case they might one day be needed. On new farms, most families well understood what it meant to do without.

By the turn of the century, the most affluent locals were starting to install running water. Every other family carried water for drinking, washing and cooking. Many had shoulder yokes, which helped younger children to carry two buckets at a time. Families were quite economical in their use of water. Though a few were fortunate enough to have a bath tub—a relatively light, usually circular basin—few bathed frequently—often several months passed between washings. Though their bodies would tend to secrete less oil than with modern bathing habits, clothing often became encaked with dirt before it would be laundered. Parasites were relatively common and people were accustomed to the smell of sweat and smoke.

In early days, while most farms relied on creeks and streams for their water, ground water was preferred, especially when livestock used the same watercourses. A few were fortunate enough to have springs on their property. To locate water, settlers turned to the neighbourhood expert in witching. The water witch loosely carried a forked hazel twig, walking until the fork turned downwards, which would indicate the location of water. Many farms had a good source of water within a few feet of the surface. Towards the end of the century, pumps superseded buckets for drawing water, with Sam

Brokenshire's shop across from the train station in Fenelon Falls being the best-known local manufactory.¹⁹

A large portion of the population who lived on the Trent waterway, including the villages, took their water directly from the lakes and rivers. Concerns over its quality increased as the century wore on. While the disposal of mill waste in the waterway had long been contentious, other sorts of garbage were generally tolerated. By 1889, there was so much junk in the Fenelon locks that the gates would not open and close. In the 1890s some villages started waste collection in an effort to improve sanitation. Yet people still erected water closets either directly over the water, or nearby, with the containment pits placed near or below the water line. Responding to occasional outbreaks of typhoid fever, boards of health also started to outlaw wells near stables, though they often paid more attention to filth that caused foul smells than waste in the waterway.²⁰

Especially later in the century, many villagers preferred to get their water from springs, which were plentiful on the hills overlooking both Fenelon Falls and Bobcaygeon. In 1880 Bobcaygeon installed a fountain in the market square from a spring on the hill above, which was upgraded to include iron pipes seven years later. In 1879, Fenelon Falls Council was petitioned to lay pipes from the spring at the top of Colborne Street, but after debating the cost, nothing was done—though George Crandell supplied it to his hotel in 1883. In 1894, Robert Jackett privately installed wooden pipes alongside the main street from the spring to feed a fountain, selling subscribers keys to operate the taps. The next year he started installing water lines to private properties, and soon was servicing the south side of the river by running the pipes on the bottom of the river. But water tolls were very controversial, and by 1896 village council started making grants to support his water system.²¹

Farms tended to have several outbuildings located in the yard around their house—an outhouse, a woodshed, a root cellar and perhaps an ice house. Woodsheds could be very rough buildings, as they only had to keep the family's cordwood dry. Some consisted of stacked timbers that were neither squared nor joined. In time, most farmers opted for a frame building. Outhouses were not far from the house, often with an adjacent apple tree.²²

The root house was one of the most important outbuildings, especially for log houses that did not have a cellar beneath them. It was usually built of stone-though log might be substituted, especially for the parts above ground—partially below grade, extending down far enough to get below the frost. Five to six feet was a good depth for a root cellar, but in many places either groundwater or stone forced the family to make do with a shallower building. Root houses were preferable to cellars because they tended to be cooler over the winter. In a cellar some roots rotted by spring. Catherine Parr Traill denounced "the vile custom of keeping green vegetables in the shallow, moist cellars below the kitchens" blaming it for "much of the sickness that attacks settlers under the various forms of agues, intermittent, remittent, and lake fevers." Some families neglected to dispose of rotting roots, and by summer their houses became "more and more vitiated as the heat increases." Many thought it prudent to scrub the cellar in spring to remove all decaying material. Usually among the first outbuildings on any farm, Thomas Need completed a root house in September 1835. Filled with produce in October or November, it was recommended to leave potatoes out in the sun to dry for a few days before storing them. Families also stored cider, apples, barrelled pork, beef, and other preserves. Farmers lacking a root cellar kept their tubers in a pit.²³

Ice houses were much less common—usually limited to prosperous farms on the waterway, or those who sold ice. The *Canadian Post* provided its readers with an ice house plan in 1900:

The sills to be bedded in the ground 2x12 and the inner studs, 2x6, sheethed on both sides with common boards, the outside to be covered with felt paper, the space formed by sheathing to be filled as compactly as possible with dry sawdust or tanbark. The outer studding to be 2x4 spiked on outside of sheething and covered with common siding, leaving a space under frieze and above base of 3 in. The foundation to be porous, sandy soil, or if of soil that will not admit of the ready escape of water, to be underdrained with tile. The floor to be constructed by spreading from 6 to 8 in of sawdust or tanbark, and after levelling it, cover with common boards, leaving about 1 in of space between each for water to escape. The plates to be the same as studs, 2x12, rafters 2x4. The roof should be shingled. Ventilators in the top of the roof 2 ft 6 in square, to be surmounted by a small cupola with open slats. Doors double with sawdust.

Those fortunate enough to have ice could keep a cold box, better preserve dairy products and have more fresh meat in the summer.²⁴

After waiting until the ice was about twelve inches, perhaps even twenty four inches thick, it was cut with ice saws—much like a crosscut saw, but with only one handle—into blocks fifteen or twenty inches square. Hauled out of the water using tongs, blocks were loaded on sleighs to draw back to shore. The blocks were stored in icehouses, usually with sawdust between each layer and a pile on top, in addition to the material within the structure itself. Properly insulated, the supply could last through the summer.²⁵

From the late nineteenth century the local market increased for ice. McDougall & Brandon became one of the first local businesses to acquire a refrigerator in 1883. Between their homes and businesses, the Boyds used a lot of ice—1464 blocks in 1892 and 2394 in 1903. In 1903 they had John McDermott on contract for 3 cents a block. Several companies also exported ice by the railcar load. Early in 1890 there was a shortage of ice in the cities, which sent buyers scouring Ontario offering a dollar a ton. Because not enough rail cars could be secured to ship the ice as it was cut, several large warehouses were built on Cameron Lake for the Silver Lake Ice Company, John A. Ellis, McDougall & Brandon, as well as one belonging to John Austin, Henry Austin and William Ellis. In addition to the inventory John A. Ellis stored in his two warehouses (each 130 by 60 feet), Ellis also shipped 15 to 20 cars a day during the cutting season. Floating blocks of ice to shore, he had an elevator that could load twenty-two tons of ice on a rail car in twelve minutes. That winter large quantities were cut at Devil's Lake as well.²⁶

The gentry planted flower gardens, going to considerable trouble and expense importing flowers and shrubs to the region, often direct from Britain. By 1827, William Custead had a nursery at York, with agents at Port Hope and Cobourg. Bringing many of his plants from New York, some were of questionable hardiness. The gentry took great interest in laying out geometric designs for their gardens. The Langtons planted tulips, hyacinths and lavender, and had vines and 'rose-trees' surrounding their porch. They also collected wild flowers to grow in flower boxes, and employed a gardener. They used the wood chips made by their choppers as a sort of mulch. The Dunsfords grew roses at the Beehive. Virgin's Bower or Wild Clematis was one popular wild vine often domesticated. By 1848 the Toronto Nursery had an agent at Peterborough selling fruit trees, grapes, gooseberries, strawberries, raspberries, rhubarb, asparagus, shrubs, roses, dahlias and many flowers.²⁷

Towards the end of the century, flower gardening had become far more accessible, as families had more leisure time for aesthetic considerations. Flower and vegetable seeds were readily available at village drug stores-in 1897 the Fenelon Falls Drug Store was selling many bulbs including hyacinths, tulips and lilies. In 1877, the Lindsay Horticultural Show offered prizes for Balsams; Calceolaria; single and double Fuchsia; single, double and variegated Geranium, Petunias, China Pinks, Pansies, Antirrhinum, and Phlox Drummondi. By the end of the century, local gardens included flowers from all over the world, including many roses, tea roses, rugosa roses, prairie-rose, butter-andeggs, chrysanthemum, blue chimney bellflower, gladiolus, peony, lilies, bouncing bet, zinnias, marigolds, Virginia creeper, scarlet runner, morning glory, wild honeysuckle, sweet pea and dahlias. Lilacs were the most common shrubs, and snowball bushes graced many homesteads. Towards the end of the century, hedges were also becoming popular, using spruce, cedar and hawthorn. Few doubted that the grandest gardens adorned the Boyds' estates, which even had an irrigation system.²⁸ Mossie Boyd, following the fashion of the day, imported buckthorns, not only for landscape plantings, but also as a hedge that he hoped would contain livestock. When he placed his first order in 1891, he had expected them to have large thorns like hawthorns, which were the traditional English hedging plant. He tried to return them thinking it was a mistake, but was assured by the Toronto Nursery that they would be thorny enough given time.²⁹

Many families planted landscape trees—sugar maples and red oaks were among the most popular from the start. John Langton shipped in a scow load of trees in 1839, and planted ornamental locusts at Blythe. He left some of the larger trees near the house, and sowed grass seed underneath, planning a park-like setting for his estate. James Wallis, having thousands of acres from which to choose the site of his estate, built Maryboro Lodge in an open bur oak grove at the mouth of the Fenelon River, overlooking Cameron Lake. Later the Boyds took great interest in planting trees on their properties, having their men find spruce, cedar, maple, walnut, and elm, while introducing hackberries, honey locust and Norway spruce. At Lindsay, Thomas Beall raised walnuts at what is now Walnut Grove Apartments.³⁰

In the first years of resettlement, planting landscape trees was not much of a fashion, with the exception of the gentry. Surrounded on all sides by forest, growing shade trees was not a priority, so few kept any of the trees around their houses. Most old growth trees were not particularly suited as landscape trees, growing in a form vastly different than those in open land. Younger specimens had no branches for dozens of feet up, and, having always lived in a forest, became susceptible to windfall. Smaller trees assumed a similar form-often having tall, relatively narrow trunks, some could not stand without the protection of surrounding trees. Elms, however, were sometimes retained in a clearing. Towards the end of the century, landscape trees gained wider favour, as many families surrounded their homes with gardens and planted shade trees in their yard. Some planted exotics, like the European Ash on Reid Street, Bobcaygeon. Towards the end of the century, it was considered tasteful to line the driveway with sugar maples. Some experts urged farmers to build shelter belts, recommending mountain ash, ash, basswood, buckthorn, hawthorn, locust, oak, hickory, walnut, butternut, beech, chestnut, pine, sugar maple and Manitoba maple. In 1883, John Duke's Lindsay nursery sold a variety of exotic trees ³¹

In the 1880s and 1890s public tree plantings became more common. In 1883 the province established Arbor Day—which originated in Nebraska in 1872—to encourage municipalities to arrange for tree planting. Usually celebrated on the first Friday in May, school teachers led their pupils to plant trees, shrubs and flowers on public property—around the school, on the roadside or at cemeteries. Observing it as a general holiday in Bobcaygeon in 1885, villagers planted nearly 500 trees. From 1871 residents were encouraged to plant roadside trees, which were protected by fines up to \$25 from injury or removal. Bobcaygeon hired men to dig and plant trees in 1898. Many Bobcaygeon villagers admired The Elm on King Street, while at Fenelon Falls, the Maryboro oak grove was the arboreal landmark, site of church picnics and other public gatherings.³²

Considerable work went into landscaping the house yard, especially for the gentry. It was often one of the first places where stumps were removed or chopped to ground level and stones were hauled away. The Langtons collected pebbles for a walkway at Blythe. The affluent also introduced the fashion of graded lawns, which on many properties were a chore to create. The Langtons began work on theirs almost immediately

after they arrived. Later on, Willie Boyd created a lawn on the rocky terrain surrounding Edgewood. For years, starting in 1890, he had mill hands intermittently hauling soil, gravel and sawdust to fill and create a lawn, levelled out with a land roller and ameliorated with lime. Creating a lawn around the Big House was easier, as the property was not as rough. The family had a lawnmower by 1883, and Willie purchased a horse-powered one from A.E. Bottum for \$85 in 1898.³³

By way of the vegetable garden, families varied their diet with fresh produce in summer and autumn and preserves in other seasons. The gentry made vegetable gardens a priority, visiting nurseries in longer-established towns to obtain seed and stocks direct from England. One of the challenges of using seeds from such a distance was the time of travel, often starting with the wait as mail crossed the Atlantic. By the time parcel arrived, it might be too late to plant them that year, and some seeds like parsnip, rhubarb and mangolds could not be trusted after the first year. Beans, peas, carrots, leek and onions were generally good for two years; asparagus, lettuce, mustard, parsley and spinach for three; broccoli, cauliflower, cabbage, celery, radish and turnip for four; beet, cucumber, gourd, melon and pumpkins for five. They also planted flowers and shrubs to beautify their vegetable gardens. Passing seeds among friends and neighbours, they introduced many plants to the region. By 1827, most of the vegetables that would soon be common were available at Custead's nursery in Toronto. He also sold a variety of herbs: caraway, marigold, sweet basil, sweet marjoram, anise, common sage, red sage, summer savoury, thyme, lemon thyme, and tarragon. One of the first things that Thomas Need did was to establish a garden. By July 1833 Need could boast of having grown his own salad. On July 10 he planted melons, cucumbers, cabbage, lettuce, broccoli, turnip, parsley, radish and mustard—probably too late for most of these crops to mature that year. The next year he started work April 13, and was sowing potatoes and cabbage on April 18. But horticulturalists soon learned that most crops could not be planted too early as killing frosts often came in May and early June.³⁴

As vegetable gardens made such a difference to their diet, some horticulturalists went to great lengths to force plants—either to extend the season during which they could be harvested, or to grow vegetables that could not ordinarily develop in the Kawarthas which was then a bit cooler than at present. They planted their crops in a hot or cold

frame. A hot bed was made by nailing planks together into a wooden box, perhaps $9 \ge 5$ feet, eighteen to twenty inches deep, with glass on top in sashes. The frame was placed on about thirty inches of fresh horse manure mixed with leaves or straw, having been fermented, turned, fermented again, and then left under the frame until its temperature dropped to ninety degrees Fahrenheit. Soil was then placed on top of the hot bed, which was sheltered from the prevailing winds. A cold frame was similarly built, but without manure to heat it. Frames were useful to grow cucumbers, melons, and tomatoes, which were difficult to raise within the local growing season. It was also common to force cabbage, lettuce and celery to obtain earlier crops. But when grown under glass, plants had to be watered.³⁵

Early on, many farm families did not take much interest in raising a vegetable garden—there were too many other jobs to be done. Fresh vegetables seemed a luxury and most were difficult to raise in the bush. Beyond weeding, they also had to contend with pests like locusts, aphids, grasshoppers, cutworms and the cabbage butterfly. Early settlers did grow mounds of corn, squash, pumpkins and several varieties of beans— French or green, kidney, Lima, and white runner. Pumpkins, if boiled long enough, could be reduced to a form of molasses. By 1871, 67.5% of farms were enumerated growing garden crops other than potatoes in the assessment. Settlers often spent their time gathering, rather than raising crops. There were abundant wild strawberries, raspberries, blackberries, cranberries, black and red currants, gooseberries, bilberries or juneberries, huckleberries, and, in places, blueberries. Wild plums were picked and could be preserved in maple molasses. Wild nuts from butternut, walnut and beech trees were also eaten. Butternuts were especially popular—they were used as dye, eaten or pickled. When they ripened in September, groups of boys set out to gather them.³⁶

The most important crops in any vegetable garden were those that kept well, followed by those that were commonly preserved. Year-round staples included carrots, onions, beans, cabbage, turnip (used in larger quantities as fodder) and some beans. Cucumbers, tomatoes, and peppers were the most common vegetable preserves. It is often said that tomatoes or 'love-apples' were thought to be poisonous, and were not eaten until later in the century, but they were an important part of John Langton's garden as early as 1835. Peas were grown for fodder and domestic use—especially marrowfats once they

became common around 1880. Other common garden crops included beets, cauliflower, sunflowers, broccoli, parsnips, radishes, lettuce, asparagus, celery, rhubarb, citrons, and melons. Common herbs included caraway, thyme, sage, basil, savoury, mint, marjoram and parsley. In 1880, the Anglican Rev. William Logan imported sugar cane seeds to see if they would grow in Fenelon Falls.³⁷

Even when village stores began carrying a broader range of goods later in the century, most garden produce was difficult to market—perishable, bulky to transport, and most who wanted fresh vegetables could supply themselves or acquire some from friends or neighbours. For most of the century little was brought to market, though in the last years of the nineteenth century, Lindsay stores bought and sold limited quantities in season. In 1896, lettuce, radishes and onions sold for a nickel a bushel, pickling onions for a dime. Cucumbers at 25 cents per basket were relatively valuable.

Corn was very important in pioneer diets—introduced to the Upper Lakes by 1833. Eaten fresh, it could be dried and was often enjoyed as hominy:

The whole corn is steeped for some hours, twelve at least; it is then boiled in what is commonly called white lye, which is made with a small portion of ashes tied up in a cloth, or a clean bag, but a large tea-spoonful of saleratus, or a bit of pearlash would, I think, answer as well or better than ashes, and be less trouble. Drain off the water when the corn has boiled for an hour or so, and lay the corn on a pan before the fire to dry. When the fine skin begins to strip a little, put it in a clean bag, and beat it till the scales fall off. Sift or fan the bran away, rubbing it through your hands. When clean, return it to the pot, and boil it with plenty of water for six or eight hours, keeping it closely covered till it is quite soft. This dish is eaten with milk or with meat seasoned with pepper and salt.

The season was short for growing corn. It did not always ripen and was sometimes left until injured by frost. Bears, birds, mice, squirrels, chipmunks and raccoons often devoured it as it neared maturity. Raccoons were the nemesis of corn farmers, and many hunted them at night in the ripening fields. Coon hunting was an enjoyable sport for many—on moonlit nights they were flushed out by dogs, or boys' imitative barking, and were often eaten. The species seemed resilient, as there never seemed to be any shortage. The corn harvest was often processed at a husking bee.³⁸

To the end of the nineteenth century and beyond, potatoes were the largest source of dietary starch, despite having less protein than most grains. They were one of the few domesticated plants that did well in the bush, and were planted by most settlers from the beginning of their residence. Families spaded the ground and planted them in mounds, as Traill recalled:

One person drops the seed on the ground, at a distance of sixteen or eighteen inches apart, and two feet between the rows: another follows, and with a hoe, draws the earth each way over the set: some flatten the top of the hill with the hoe, and shape them like little mole-hills. When the shoot breaks the ground, and the leaves expand, the earth is again drawn up to the plant. In the fresh virgin soil, one hoeing is all the crop receives, but in gardens, we give the potatoes a second, and sometimes a third hoeing.

On older farms ridges could be prepared with a plough for planting in May or early June. A few planted a second crop in August for a late harvest. Potatoes were among the highest yielding crops, averaging 67.3 bushels per acre in 1871—some farms reached 400. But digging potatoes was labour intensive.

The Colorado beetle attacked potatoes and tomatoes, causing serious losses beginning in 1874, and lasting well into the twentieth century. Damage was spotty, as one farm might lose heavily while its neighbours escaped unscathed. Though some attacked them manually, many families resorted to Paris Green, (Cu(C2H3O2) 3(Cu(AsO2)2). This was one of the most common and potent nineteenth century poisons, also a bluegreen pigment—its name came from its use as a rat killer in Parisian sewers. Common potato varieties included Early Rose, White Elephant and Beauty of Hebron. Surplus crops served as fodder, and small quantities were marketed in nearby towns. The largest producers in 1871 were Thomas Staples at 700 bushels and Charles Fairbairn at 600. Often potato prices increased sharply as the new crop started coming in.³⁹

Turnips, though eaten as a vegetable, were used in large quantities as a fodder crop. Planted after ploughing, if possible, and requiring extensive hoeing, they averaged 64.5 bushels to the acre in 1861. The largest producers in 1871 were Dougald Brown with 3000 bushels and Charles Fairbairn with 2000. An important element of many 'improved' forms of husbandry back in Britain, some farmers preferred turnips to hay as their fodder crop. In 1871, for instance, seven years after settling, Isaac Walker was already raising 1000 bushels of turnip, but only eight tons of hay. New settlers could thus grow a large amount of feed on a small acreage—Walker then had forty-five acres cleared and two horses, eight cattle and seven sheep to support. Turnips were, however, susceptible to fly damage.⁴⁰

Mangolds or mangel wurzel were grown in much smaller quantities as a fodder crop, and were also susceptible to fly damage. John Langton cultivated both turnip and mangolds as early as 1835, but it seems that not many followed his example with the latter crop. William Dick was the only farmer to raise mangolds in 1861—15 bushels on half an acre—and a decade later there were 101 farmers growing them. Of these 22 farmers produced more than five bushels, while John Daniels, William Swanton and George McNabb raised 100 bushels each. The crop was gaining in popularity, and some farmers came to use them quite extensively. In 1882 J.L. Read produced over 1000 bushels.⁴¹

As they started their vegetable gardens, many farmers cultivated small fruits. Raspberries were among the earliest and easiest fruits produced, usually in hills or ridges. Wild raspberries grew very well around the clearings. But Traill did not feel that they should be cultivated because "it grows too weedy, and there is no rooting it out; besides you will find it in all your fields, fences, and even in the very forest." Many improved varieties of raspberries were available, including some European cultivars-which were more successful than many fruits at being transplanted to the Americas. Imported fruits frequently had trouble surviving the cold winter and warm dry summer, so those that persisted were carefully selected and improved American fruits. The most popular varieties in the Kawarthas by 1881 were: Philadelphia, a hardy, heavy-bearing, resilient berry thought to have been domesticated from a wild plant found near that city around 1840; Orange, a descendant of the European Antwerp berries, selected for being more vigorous and suited to a wider range of climates; and Franconia, brought from Paris, said to be "the hardiest large raspberry, very productive and very excellent." The most popular black raspberry was the Mammoth, distributed by the Portland Seed Company of Oregon. In later years, the proportion of berries of American origin continued to grow, including the popular Everbearing, domesticated by Shakers in New York State. By the early twentieth century, European berries had become rare, though larger and considered of superior quality.⁴² All common blackberries descended from native American plants. The Kittatinny blackberry, domesticated from a wild plant at Hope, New Jersey, was popular

in the Kawarthas, as it was in much of North America. Having large, high quality fruit, it was, however, not as hardy as some other varieties.⁴³

The abundance of native strawberries, as with raspberries, tended to discourage cultivation, and improved cultivars were initially rare in the Kawarthas. By the eighteenth century Chilean berries, some crossbred with North American plants, were replacing North American and European berries in gardens on both sides of the Atlantic. In early years, some settlers transplanted wild berries to their gardens, but in time, these gave way to commercial varieties, such as Wilson, Jenny Lind, Buns' New Pine, Triomphe de Grand and Hooker.⁴⁴

Currants and gooseberries were among the first fruits introduced to the European colonies in North America. European currants were used to produce new varieties more suited to the continent, and almost all of the improved cultivars were derived from European plants. The native black currant produced similar fruit to the European, but not as large, and was found to have a "rank taste." Native red currants were unusual, but received more favourably. Many families tried to raise English gooseberries, only to see them mildew "which often destroys the promise of a fine crop." By mid-century, European gooseberries had been largely supplanted in the United States, though they persisted a while longer in the Kawarthas. The Langtons had gooseberries and currants in cultivation by 1837, and by the 1870s they were available at local stores such as S.G. Corneil's in Lindsay. In 1889, Lindsay's W.M. Robson was selling gooseberry plants for \$1 a dozen. The popular local varieties of red currants were Red Cherry, one of the most common across North America—vigorous, healthy, with very large fruit, originally from Italy; La Versailles, similar to Cherry but not usually as productive, from Versailles, France; and Victoria—hardy, very vigorous, productive, of high quality, though the fruit was small and ripened over a period of time, from Houghton Castle, Northumberland, England. White grape was a preferred white currant, having a large cluster, and being vigorous, hardy and productive, was thought to derive from European plants, though it was grown in the Americas long enough that its European ancestor was forgotten. Black Naples—very common in England and America, with a strong flavour, though an inconsistent producer-followed by Lee's Prolific were popular English varieties of black currants.45

Grapes did not transfer well to the Americas. Numerous attempts were made, but all failed because of downy mildew, black rot and the phylloxera louse, except on the Pacific Coast. Instead, North American cultivars were derived from native grapes, which were resistant to these parasites and tended to be table grapes, while more European varieties were suited to wine. Around Lindsay the American-raised cultivars grown included Delaware, Concord, Clinton, Niagara and Creveling. Other varieties were tried, but tended not to do as well. However, many found that American grapes died over winter and thus preferred to either gather wild grapes, or raise native grapes in their gardens—even wealthy gardeners like the Boyds. Of the two natives, the Frost was smaller, often harvested after frost, while the Fox was larger, sparser. Some wine was made in the area, but most grapes were for fresh consumption or jelly. Both natives were sour, and Traill recommended mixing one pound of sugar per pint of grape juice for jelly.⁴⁶ Blueberries and cranberries were gathered wild, rarely cultivated.⁴⁷

Important as small fruits were in their abundance during harvest season and as preserves for winter, orchards symbolized prosperity for the early gentry and later generations of farmers alike. One of the first improvements the gentry made was to plant an orchard, usually not far from the vegetable garden. Thomas Need had planted an orchard in his first year, then another half dozen trees that fall, and was appalled two years later when his cattle damaged them. In 1842, even after he had returned to England, he had ten more apple trees planted and made a point of pruning them when he returned to Bobcaygeon in 1845. Traill explained that an orchard "is a matter of great importance to the future comfort of the settler's family, is often delayed year after year, and that is done last, which should have been attended to at the outset." By the later decades of the century many farms had orchards.⁴⁸

Wild crab apples were fairly common in the area, but their fruit was sour, and most preferred Eurasian apples. These trees tended to branch fairly close to the ground, so orchardists trimmed off branches up to a height of about four feet. The familiar umbrella shape of wild trees is often in part due to cattle and deer browsing. The size of apple trees is highly variable, and for centuries Europeans had selected desirable plants by grafting or budding scions on vigorous rootstock—many practitioners preferred budding. Grafting wax was made from 1 part tallow to 2 parts beeswax to 4 parts resin. The British emigrants fondly remembered many of the improved varieties from back home and tried to introduce them to the colonies. A few like the Ribston Pippin⁴⁹ fared reasonably well, but most were not hardy enough for New England, let alone Upper Canada. Colonists then introduced a host of hardier trees, many from Russia. Brought to North America, European varieties produced seedlings, and a few were selected, named and propagated.⁵⁰

Once a variety was introduced, it could be spread through the neighbourhood by grafting it onto wild rootstock—though the native trees were so variable that settlers were wise to select vigorous young trees. By 1861, John Gilmour had a nursery at Peterborough, with an agency at Lindsay. From the 1870s, itinerant salesmen sold nursery stock or grafted scions onto local rootstock and there were nurseries and agents as close as Lindsay—including William Brown, Thomas J. Ray and W.M. Robson. In 1882 Robson sold apple trees for 15 cents each. By then, many varieties had been brought to the Kawarthas, the most common being the Golden Russet, Fameuse or Snow, Yellow Bellflower, Northern Spy, Red Astrachan, Alexander, Tolman's Sweet, St. Lawrence, Early Joe, Canada Red, Pomme Gris (a russet from Quebec) and Duchess of Oldenburg.⁵¹ Over the rest of the century, many more became common, most originating in Russia or North America, including Yellow Transparent, Wealthy, Roxbury Russet, Rhode Island Greening, Newton Pippin, Peewaukee, and Gravenstein. John McIntosh found a tree while clearing a farm near Dundlea, Ontario in 1796, that produced abundant and excellent fruit, which has come to bear his name. Though it soon became a commercial staple, it was not commonly grown in this area until early in the twentieth century. Selection of dwarfing rootstock was unusual in the nineteenth century.⁵²

Apples were eaten fresh, baked as pies, made into applesauce, or cider. In many houses it was "custom to set a dish of apples and a pitcher of cider before everyone who came to the house." Some families made as many as 50 barrels of cider per year. To keep, cider should contain 12 to 16% alcohol, which required apples with high sugar content. Russets were often thought the best apples for cider, and many crabs were suitable as well. Apple cider could also be aged into vinegar. Apples were also dried. After paring and coring them, they were dipped in boiling water to preserve their colour, then hung or placed on a drying rack—some hung them in the sun and wind. They were then stored in bags, hung in a dry place. Dried apples were often made into pie. Apple sauce made by boiling down sweet cider and cooking quartered apples in it, until thickened, was commonly served at all three meals.⁵³

Apple trees were afflicted by numerous pests. Named varieties of trees were clones, thus often susceptible to certain afflictions. Crab apples were usually more resistant to parasites than named varieties, being acidic with thick skin and plenty of tannin. A farmer with any size of orchard spent a fair bit of time caring for the trees. Borers were killed with a soap wash. Paris Green was used for the codling moth and for worms. The woolly aphis or louse was countered with soapy water, with a little fresh slacked lime. Lime and copper sulphate could be used for scab. Outbreaks of tent caterpillars received considerable attention in 1898 and 1899. The caterpillars were often attacked directly, by killing the nests of eggs. A common spray was 4 lbs quicklime and 3 lbs sulphur mixed in 8 gallons of water.⁵⁴

By the second half of the century there was some market for dried apples as shanty provisions, as well as in Lindsay and surrounding villages. It was, however, a secondary item of exchange, as many who wanted apples had non-market sources. Some barrels were exported to Britain. In the 1871 census, 16.2% of farms grew apples. William Hunter was the largest producer with 200 bushels. Only eleven farms harvested more than thirty bushels, and about half picked six or fewer bushels. In 1896 apples sold for between \$1.25 and \$2.00 a barrel, which spiked in the last year of the century to between \$3.00 and \$3.50.⁵⁵

Many families also grew pears, though they were less common than apples, and not as tolerant of poor soil. They were eaten fresh, preserved, baked or pressed to make perry. Though many trees in early years were seedlings—often useful only for cooking and pressing—several named varieties were common by 1881.⁵⁶ Most popular varieties descended from Belgian or French pears. Few were of English origin. European pears had difficulty adjusting to the cold winters and hot summers of North America, and only select varieties successfully made the transition. The most common, by far, was the Bartlett, known as the Bon Chretien in France, and the Williams in Britain. Adaptable to more soils than many other varieties, they were somewhat tender for the region, especially its northern reaches, and one Fenelon farmer observed that many varieties did not fully ripen. Bartletts were not considered the highest quality pears, but they handled

packing and shipping well, helping them become the most common commercial variety in North America. Other varieties popular locally included Madeline, Summer Frankreal, Belle of Brussels, Belle Lucrative, Flemish Beauty, Seckel, Louise, Vin de Jersey, Maria Louisa, White Doyenne, Vicar of Winkfield, Beurre Diel, Easter Beurre, Winter Nelis and Charmontel. Of these, the majority were European, though the Seckel was developed in the United States—vigorous and productive, its small fruit was "the richest and highest flavoured pear known." Several, like the White Doyenne, proved too tender for the area. The Flemish Beauty was a very hardy tree, productive with reddish brown fruit, but susceptible to disease. Fire blight, codling moths, San Jose scale and psylla often attacked them. Pear scab, a parasitic fungus, often forms on leaves and fruit, making fruit unsightly. Pear culture in the Kawarthas noticeably declined after its peak in the late nineteenth century.⁵⁷

Cherries were less common than pears, and sweet cherries were too tender to grow in the area. Most varieties were imported from Europe, as natives did not produce palatable fruit, although some families did make jelly from chokecherries. In the second half of the nineteenth century, the most popular variety was the Morello, an English pie cherry. Maydukes (originally Medoc) were hardy enough for the area and productive. Local farmers also tried sweet cherries such as Black Tartarian, Blackhearts and Bigarreau, all popular, vigorous and productive trees back home, but they proved too tender for the area. Montmorencies, originally from France, continued to grow in popularity. But by the time the crop was ripe, birds had often carried much of it off. Thomas Beall observed:

Cherries can be grown profitably with us if we had no robins, but as the law now stands respecting insectivorous birds, we do not want any cherries. ... I have, perhaps, thirty or thirty-five trees sufficiently large to produce one or two bushels each, but I never had a gallon of cherries yet. Our section of the country is swarming with robins.

Families raising cherries had to be careful to combat black knot, by pruning and burning affected limbs—from 1884 fines of \$10 to \$20 could be imposed for neglect.⁵⁸

Plums were difficult to grow in the Kawarthas. Beall observed, "the trees have been winter killed, and although the wild plum grows freely it has seemed impossible to cultivate even the hardier varieties of the orchard plums successfully." While many families were contented to harvest the native Canada Plum, some raised named varieties, including several types of Gage, Damson, Gold Drop, Egg Plum, Glass' Seedling, Magnum Bonum and Washington. The most popular was the Green Gage or Reine Claude, a small, round, green plum, considered the standard against which other plums were judged. The Damson was an ancient variety, vigorous and productive. Attacked by Curculio, they shared the susceiptibility of cherries to black knot and tent caterpillars.⁵⁹

When daytime temperatures rose above freezing in spring, families, sometimes with their neighbours, set off to the bush to get their annual supply of sugar-an item that could also be acquired from local Ojibwas. In early years of settlement, many employed the native method of gashing the tree with an axe or hatchet, putting a wedge of wood into the wound, and allowing the sap to drip into a trough below—which was injurious to the trees. It was preferable to auger to the required depth of about $1\frac{1}{2}$ inches, and to tap on the south side. Wooden, and later metal, spiles became the norm, as with sap buckets, while horses hauled the sap to boil. Often the sap was run through cloth to remove impurities. Boiling employed whatever vessels were available, and could last for several days. To clarify the syrup, eggs were thrown in while partially boiled. The eggs and impurities would rise to the surface and could be skimmed off—a process especially important in wooden troughs. In later years, farmers used flat boilers to expedite the process. The fire had to be watched to keep the syrup from boiling over. The distillation was complete once the syrup would solidify when dropped on snow. The neighbourhood often held a sugar-eating bee, perhaps with a dance to celebrate sugaring off. In the 1871 census, 21.3% of households made sugar, and their median production was 50 lbs. Few who bothered made less than 10 lbs, and the largest producer, John Chambers, made 260 lbs. In 1865 maple sugar sold at Lindsay for 10 to 12 cents per pound. Sap made vinegar if fermented, or a beer, with the addition of ginger. Maple syrup remained in demand, even after cane sugar was common in towns. Robert Dundas, a lumbering labourer, kept a recipe to simulate maple syrup: "For one gallon take 8 lbs of rough outside maple bark. 5 quarts of water. Boil this 20 minutes then strain and add 6 lbs of sugar and boil for 2 hours and you will have a gallon of fine maple syrup."60

Bee-keeping was not as common or practiced as early as sugar making. Some native bees produced a quantity of honey, including bumblebees, but many did not think

it worth collecting, as they were much less prolific than the honey bee (*Apis mellifica*), a native of the Mediterranean—reportedly introduced to southern Ontario by Delawares. Ontario populations were the common black bees, with some improvement from breeding with Italian queens. As swarms reproduced, they would throw off another swarm—one queen, two or three hundred drones and ten to fifty thousand workers—that beekeepers induced to occupy another hive, unless they flew off to different locale. When a swarm was found, whoever located it was considered its owner, even on someone else's property. A beekeeper who could demonstrate ownership of a nest had the right to reclaim them, even on private property, unless they settled in a hive. Often, though, when a hive was discovered, the honey was of more interest than the bees.⁶¹

In Europe, bees were traditionally kept in skeps—an inverted basket of coiled rope or wicker placed on a stone or wooden stand. By the time they were introduced to the Kawarthas, hives of upright frames had become the norm. After 1851, moveable frames began to appear, as beekeepers handled them many times during a season. To protect themselves from being stung, beekeepers could use a smoker, which would induce the bees to engorge themselves on honey—apparently their reaction to save their honey from a fire. During the last decades of the century, several improved smokers were patented, as well as centrifugal honey extractors to draw honey from a comb without destroying it.⁶²

The first honey in the Kawarthas was harvested on a small scale. In the 1871 assessment, 38 honey producers were enumerated, of which 11 produced more than 60 lbs—which would represent one productive hive. Henry Reazin had by far the largest apiary with 800 lbs. Over the next decade a number of other farmers acquired hives. Some, like Mary & Issac G. Moynes, Thomas & Robert Lockhart, and William & Joseph Kelso, gained a reputation for fine produce. By the 1870s, companies started to emerge. In 1878 W.M. Robson was selling the honey of S. Corneil's, Lindsay. By 1896, J.R. Hand had an apiary on Francis Street, Fenelon Falls. Farmers continued to go into the business, and some operated on an extensive scale, like Elijah Mark, who had 42 hives by 1898.⁶³

Despite the high quality of beeswax candles, they were rare in the Kawarthas, as the material was expensive and liable to crack in the hands of amateurs. Instead, tallow was made from animal suet or fat, which was strained, mixed with a small amount of

water, cut into small pieces, boiled in a pot, then strained again. After forming a cake, the tallow was melted. The tallow was purified to remove proteins, which would putrefy. In pioneer settlements candles were often made by pulling the wicks through wax, a time-consuming job. To expedite his sister's work, John Langton made Anne a machine that conveyed the wicks over a box of tallow, allowing several dozen to be made in one morning. Because of the rarity of slaughtered cattle in pioneer settlements, candles were then an expensive luxury, usually made with store-bought tallow. Later on, candle moulds became common, in which wicks were carefully centred, before the tallow was poured. As tallow cools it shrinks, so the moulds had to be refilled as they approached room temperature. The moulds were heated to remove the candles. Tallow had a low melting point so candles often liquefied before they were consumed, and it produced less light than beeswax, though both burned residue free. To the end of the century, homemade candles remained the norm, sometimes using purchased tallow.⁶⁴

The barnyard was usually adjacent to the house yard, garden and orchard. Because fires were all too common in both house and barn, the buildings were kept a fair distance apart so that the loss of one would not condemn the other. Several succeeding buildings were used and reused on the farm—commonly, when a family moved out of their shanty, it continued as a farm building. In the first generation of buildings, farmers often had several separate farm structures, such as a stable, pig stye, hen house, and mow. Large barns combining these functions did not become common until late in the century. Early farm buildings were usually log, and built like shanties. The size of these buildings was limited, so the larger barns—40 feet by 50 feet was not uncommon—were timber frame, with wood siding.⁶⁵

Around the turn of the century most farmers built a large timber-frame barn, with stables below and loft above. Commonly constructed either in the side of a hill, or with a gangway to allow access to the mow, they were up to 100 feet long and usually about 35 feet wide—designed to accommodate rows of stalls in the stable. The foundation walls were usually built about eight feet high of fieldstone, selected for flatness. Timbers, perhaps not squared on any side, supported the mow floor, which was either boards or plank. Because the timbers were often two to three feet apart, inch boards as flooring might break, especially as they aged. The mow was usually two or three bays, separated

by a timber frame supporting the roof. To the eaves the mows were about fifteen or sixteen feet high, built with a gambrel roof that would be about thirty to thirty-seven feet high at the peak, for a total height between thirty-eight and forty-five feet—there was some variation in the angles of the gambrel between barns. The rafters were usually cedar poles, perhaps four inches in diameter, with cull lumber to attach the roof. Raising these barns was quite an undertaking. Most families hired a mason to build the foundation, which two workers could do in a few weeks once the stone was gathered. Every timber usually had to be hewed at the ends to either make a mortise or tenon, or flattened to sit upon the foundation. This was done using adzes, axes and chisels. Each bent was assembled on the ground, then raised with poles and ropes—a job that would take the entire neighbourhood. Near, or adjacent to, the barn, was a driving shed, and perhaps a straw shed. Many arranged their farms so that arable land or hay was on one side of the barn, with pasture on the other. That way, they could let their stock out of the stable into the pasture, but also reduce the distance that they had to haul grain and fodder crops. With land so variable as the Kawarthas, however, this was not always possible.⁶⁶

Fall wheat was sown in September or early October, perhaps later. The crop had to be in the ground by the time snow came, and it was best if it had a chance to catch before the frosts came, as freezing could damage weak wheat. Once fields were covered with snow, this blanket protected them from the winter cold.⁶⁷ In both 1851 and 1861, more wheat was produced than any other grain, but by 1871, it had been eclipsed by oats. In 1851, the surplus that most families sold was modest. Per household, wheat production in 1851 was 106.4 bushels, alongside 64.8 bushels of potatoes. However, slightly more than half of this produce would have been required for home consumption. So, assuming that the export surplus was wheat, these townships might have grown about eighty bushels per family beyond its needs. There were, however, only sixty-one families in Fenelon and Verulam who produced more than one hundred bushels of wheat—the largest operation by far was John Langton, who harvested six hundred bushels on thirty acres. The median surplus was about seventy bushels. 26.6% of farms had no surplus at all—many of these were in early stages of development.⁶⁸

Ten years later, per household production was 46.2 bushels of fall wheat and 129.0 bushels of spring wheat. There were several large wheat producing operations—

Joseph Kelso harvested 850 bushels, John Willock and Donald Campbell had 800 each. Forty-two farms produced more than 400 bushels, together accounting for 27.0% of the total production in Fenelon and Verulam. Median producers raised 150 bushels of wheat, and would have a surplus of wheat and potatoes slightly over 200 bushels. There was still a significant proportion of the farm population just working towards being able to feed themselves—12.8% had no surplus.

By 1871, wheat production had dropped, even as farmers had larger clearings, with average production at 78.2 bushels of fall wheat and 23.8 bushels of spring wheat fall wheat was more valuable than spring, as it made whiter flour, but it was not as hardy. Production of fall wheat continued to rise, while spring wheat declined precipitously. Sizable operations were disappearing— the largest in the townships were H.J. Wickham and Michael Berkeley, both members of the new business elite, at 602 and 600 bushels respectively. Only 14 farms produced 400 or more bushels, even as the number of farms had increased by 57.8%. Median production was down to eighty bushels, and marketable farm surpluses were shifting away from wheat—a median surplus of wheat or potatoes being only about 110 bushels. Wheat had fallen to 19.6% of cultivated acreage from 49.7% in 1861.⁶⁹

The decline in wheat production that began in the 1860s continued, as many farmers concluded that their land was not suited to this grain. As pioneer farmers cleared the forests, they uncovered soils enriched with centuries of organic inputs from deciduous leaf litter. This accumulation of humus masked the underlying soils, and for a few years yields were relatively high. But, with the forest canopy removed, and little green fertilizer, the amount of organic matter in the soil fell, and it soon became apparent which fields were gravely or stony and which had deep topsoil. Though some farmers took pride in spectacular yields—the *Gazette* once reported 48 bushels per acre—and many strove for, or claimed, 20 bushels per acre, average wheat yields were 13.8 in 1851, 15.9 in 1861, and fell to 11.6 in 1871. In northeastern North America, before the advent of chemical fertilizer, wheat usually yielded ten to fifteen bushels per acre—eleven or twelve was a fair average.⁷⁰

Wheat production on any scale brought several other challenges. Once the crop ripened, farmers had a few days to harvest it, or it would shatter. Unless they had several

sons old enough to help, few could reap much more than ten acres each of fall and spring wheat, as few could afford to hire farm labourers, who were, in any case, rare. At the peak of wheat production in 1861, there were fifty farmers in Fenelon and Verulam growing more than twenty acres total—the largest was fifty-six. Wheat was susceptible to Hessian flies, which attacked the stem as maggots; wheat midges, which reached the region in the latter half of the century, ate the kernel; weevils lived off stored grain, alternately living in barn boards; smut; army worms; and caterpillars; but the greatest threat was rust. Black stem rust was a fungus that covered the stem, taking water and nutrients from the wheat, which caused the grain to shrivel. Spread by tiny, airborne spores, it would develop in the spring on barberries, then spread to wheat, oats and barley, and was usually worst in hot, humid weather. When rust was bad, wheat crops could be an almost total failure, and spring wheat was particularly vulnerable. Crop failures were usually isolated, affecting scattered neighbourhoods, perhaps in part because farms in Fenelon and Verulam tended to be concentrated in pockets, with forest in between. There were partial failures of either spring or fall wheat from rust or weevils in 1876, 1879, 1880, 1883, 1884, 1885, 1889 and 1892. Formaldehyde countered smut.⁷¹

Siberian wheat was a common variety in the Kawarthas until mid-century, having been imported because it could withstand Canadian winter, but it was very susceptible to rust. In 1841, David Fife, who lived in Otonabee Township, began importing seed wheat via Gdansk and Glasgow. His shipment, however, had been contaminated with a small amount of Galacian wheat, a red variety—red wheats tend to be hardier, can be grown on poorer soil and are more resistant to many pests than whites. He planted the grain, and watched almost the entire crop rust badly, leaving only the Galacian, which he presumed was a sport. Fife planted these seeds the next year, and that fall distributed samples to his neighbours. Red Fife became a standard spring wheat across Canada by the 1880s, and in 1904 was crossed with Hard Red Calcutta to form Marquis, also very popular.⁷²

Nineteenth century agricultural theory valorized crop rotation, and in Britain many improvers demonstrated the increased yields that it could produce. But they could be complex and involve several different crops, like the lauded Norfolk Six Course: wheat, barley, turnip, barley undersown with clover and rye grass, rye grass and clover hay, rye grass and clover ley. A simpler rotation was the Norfolk four course: wheat,

turnip, barley, clover and rye grass. While rotations could be justified in terms of the value of the return on each crop in Britain, Canadian agricultural economies were different. Wheat and barley could justify their expense, but few farmers could afford the labour to plant and harvest twenty acres of clover, few had enough livestock to consume the produce and the market for seed was always limited. Turnip was a bulky crop that was difficult to market and there were limits on how much could be used on farm-its production was also more laborious than hay. Rye grass and clover were expensive imported grasses, and most farmers doubted that their advantages as a fodder crop would make the outlay worthwhile. Modern studies claim that rotations boost yields by about 10%—and while these increases would be significant in Europe, they were far outweighed in Canada by the costs of raising a host of crops that were of marginal utility. If farmers employed any rotation, they alternated crops with fallow. John Langton tried rotations, but after several failures, concluded that they would not pay. One Upper Canadian observer recorded a field raising twenty-seven consecutive crops of wheat. Experiments at the Rothamsted experimental station in England found that under continual cropping yields decrease until they stabilize at about 12.5 bushels per acrewhich was not far off those in the Kawarthas.⁷³

The returns from wheat sales could be significant—in the 1870s, when the price of wheat was relatively high, ten acres of fall wheat, after deducting the grain needed for seed, produced revenues of about \$100—that was if it did not rust or fail. Potatoes could be more valuable per acre—at their average yield, an acre of potatoes fetched \$15 to \$20. But they were so laborious and also prone to potato bugs, that no one harvested more than 3.5 acres. For a period of time there were farmers—as many as a third of the total in 1861—who focused on the profits that could be made through wheat culture. But large wheat farms in the Kawarthas tended to be short-lived—Blythe, the largest in 1851, produced 100 fewer bushels of wheat ten years later. Joseph Kelso raised 430 bushels of wheat in 1871, roughly half his leading production of a decade earlier. At the time, critics would call these farmers 'wheat miners'—implying that they mined the wealth of the virgin soil to get a few good wheat crops. For a few years they did have unusually high yields, followed by a period of diminishing returns. Wheat was a demanding crop. Ploughing and wheat culture presumably accelerated the decline of soil fertility. But, with

the conversion of forests to farmland, soil organic matter was declining in any case these enterprising farmers at least got a few good crops of wheat while the yields would still be high. Most of them remained on the farm to diversify their production—contrary to claims in the literature that they foisted worn-out land on naive immigrants. By the end of the century the largest and most capitalized farms grew wheat, but it was not the focus of their operations.⁷⁴

Few thought that there was much to be gained from specialized production, as they would not be able to keep up during harvest season; if their principal crop failed, they would have little to fall back upon; and they needed a mixed operation to meet their own needs anyway. Other crops were seldom as marketable as wheat—though barley for a period in the 1870s was more valuable. Barley could also out-yield wheat—averaging 20.46 bushels to the acre in 1861. But in the early years, there was little market for it, and for much of the century it was raised almost entirely for domestic use. In 1861 most farmers who raised barley had between half an acre and two acres. The largest producers in the townships were Alexander Daniel and John Douglass with six acres each. As wheat cultivation declined over the 1860s, barley took up some of the slack, and by 1871 its output was 34.8% as much as the total wheat—an average of 35.6 bushels per household. However, only 48.5% of farmers raised any barley, and only 18.0% cultivated more than about three acres. A few raised fairly large quantities, like Thomas Taylor who reaped 700 bushels.⁷⁵

Though breweries were the largest consumers of barley in Britain they were not nearly as common in Upper Canada. Traill observed, "there is nothing the new settler complains more feelingly of, than the want of good beer and ale. Nobody brews beer in their homes in Canada." The common beverage was whiskey. By 1846 there was a distillery at Lindsay and Major Tom Murphy started another in 1853. Hamiton & Fortye had a brewery and distillery at Peterborough in 1834 that burned the following year. Beer production was, however, increasing in the district, making it available in the towns, though it took a long time for it to supplant whiskey as the most popular drink. Walter W. Boswell opened a brewery on Spaulding's Bay, at the south end of Peterborough, in the 1840s. Henry Calcutt started one of the most successful breweries in the region near Little Lake in 1855. After his plant burned in 1863, he rebuilt in Ashburnham, on the Otonabee

River. By the 1860s, once Lindsay was connected to other centres by rail, there was a steady demand for barley, some of it for export to American markets, with prices averaging about two-thirds those of wheat to the 1880s. For many farmers it became a cash crop alongside wheat, though it also could be used as a fodder crop. Like wheat, barley could be afflicted by rust, mildew and smut, though the losses did not seem to be as bad. Barley and rye were both attacked by jointworm.⁷⁶

Several other grains were cultivated to a lesser extent. Though decent crops could be raised on poor land, no rye was harvested in 1851, only 2.5 acres in 1861 and 360 bushels in 1871. It continued to grow slowly in popularity to the end of the century, raised by prominent farmers like Nathan Day and William Isaac. Commonly used for flour in Europe, most settlers thought of it as a fodder crop. Though there was little volume, there was a market for rye from 1881, when it was selling for 86 cents a bushel at Lindsay. It would not, however, reach that price again for the rest of the century. Rye was subject to attacks by chinch bug, Hessian fly and smut.⁷⁷

Buckwheat was also an uncommon crop that a few families raised to make flour, popular as pancakes. In 1851 there were 18 farms reaping buckwheat. None had more than four acres, and yields averaged 15.5 bushels per acre. Ten years later, 15 farms harvested an average of 15.6 bushels, yielding 12.8 bushels per acre. By 1871, 28 farmers raised buckwheat, and though most were still growing small patches for domestic use, Thomas Sheriff brought in 200 bushels. By the end of the century it was becoming much more popular. Buckwheat flour was then commonly available at Lindsay, and it was used in poultry food. It was a difficult crop to harvest, as the stems shattered very easily when dry. It was usually mown early in the morning, while still covered in dew, but losses in harvesting were still high.⁷⁸

In the 1860s, the Victoria County Agricultural Society attempted to introduce flax cultivation—there had been none in either 1851 or 1861—and newspapers occasionally published articles stressing its importance, as it was then in fashion. Seed could be acquired through Peterborough agents by 1847. It might be used for making linen or paper, but neither was common in this area, where paper was imported prior to the rise of pulp mills, and wool dominated cloth production. In 1871 two farmers raised a small amount of seed and two others harvested a small quantity of flax. Later in the century,

Mossom M. Boyd started raising flax seed and importing ground flax as feed for his Big Island Stock Farm.⁷⁹ Millet was available in the last years of the century, but it was not common, though Boyd had a field.⁸⁰

Oats were a dietary staple, especially to Scottish families, and one of the most important fodder crops. They could be raised on most soils. It is thought that they originated as a weed in barley and emmer (a primitive wheat) fields—and tended to have a high per acre yield—22.8 bushels per acre in 1851 and 31.7 in 1861. By 1871, oats were second only to hay among crops in Fenelon and Verulam. As early as 1851 most farmers raised a quantity of oats, and by 1871 it was the common feed for beasts of burden. The largest harvest in 1851 belonged to John Newson, 600 bushels. Ten years later both Jabez Thurston and John Lithgow reaped 1000, as did H.J. Wickham in 1871. There was always a demand for oats, whether for villagers or to ship to the shanties, but it was not the most lucrative crop. The highest recorded local price was 60 cents per bushel, lasting one week in 1884. Twenty-five to forty cents was much more common. It was always one of the highest volume articles of commerce, though most production was for use on the farm.⁸¹

Peas, also a staple of the vegetable garden, were another important fodder crop, especially for pigs. John Langton raised peas as early as 1835, and by 1851 most farmers reaped some quantity, though it was said that they did better after the soil had previously been cultivated. While many raised only an acre or two, Donald Spence brought in 200 bushels from six acres. The average yield was 16.1 bushels per acre in 1851, and 21.4 ten years later. By then, pea cropping had grown apace with settlement, Jabez Thurston harvesting 400 bushels, the same size as the leading crop in 1871. Many farmers harvested peas the same way as oats for fodder—mowing and cocking them, then leaving them to cure before hauling them to the barn. Some farmers let their hogs fatten in pea fields. Peas were marketed in fairly large quantities by the 1870s, Lindsay's Flavelles often arranging to ship farmers' crops to that centre for sale. Several types of peas were common by the 1890s, including marrowfat, mummies, Prince Albert, Blackeye and Canadian Beauty. They were susceptible to attacks of the pea weevil, which was very destructive, burrowing into pods and infesting the peas.⁸²

Settlers found that the region's naturally occurring plants were second-rate fodder. Many pastures and hayfields were therefore seeded, while others were taken over by

European crops naturalized from other plantations, or accidentally introduced. Thomas Need sowed some of his fields by 1835, and other pioneers began the work at about the same time. As part of settlement duties, occupants were expected to clear and seed the road with grass, though it is uncertain how often this was obeyed. Bluegrass—not actually from Kentucky, probably an Asiatic grass—had for centuries been one of the most important European pasture grasses. Rye grass had also long been a popular grass in Britain, though Italian rye grass tended to do better in Upper Canada. They also introduced red top, which many mistook for a native grass because it quickly sprung up in clearings. Quack grass, though often used in hay, was considered by many to be a troublesome weed.⁸³

From the start of settlement, improving farmers urged the cultivation of timothy, alfalfa and clover. Alfalfa, and especially clover, had been integral to crop rotations in Britain, and many expected that they would assume a similar role in Upper Canada. Though the cost and labour of cultivating them slowed their introduction, native grasses were such poor feed that farmers turned to European fodder crops. Some realized a return on their outlay through the market for their seed. Timothy, though it produces an abundance of nutritious hay, would disappear from a field over a few years. Alfalfa tended to survive longer, had a high protein content and was palatable. White clover tended to do well once introduced, often colonizing newly cleared land. Red clover was more commonly planted, and alsike clover produced smaller crops, but of higher quality. In 1861, six farmers raised 14.5 bushels of timothy, clover or alfalfa seed. Ten years later 106 farmers raised some quantity, most small amounts, though Henry Reazin produced 45 bushels. Prices were usually around \$4 to \$6 per bushel, though alsike clover brought \$7 to \$12 until the 1880s. By the end of the century improved fodder crops were standard on highly capitalized farms, but few farmers made seeding hay fields a priority.⁸⁴

As with garden seeds, it was often the gentry who brought seed to the region for many of the most important crops—direct from Britain, having their friends and relatives forward it to them, or by travelling to Peterborough or the front townships to purchase it—ranging from mangolds to alfalfa, trefoil and timothy. Later on, seed was sold at many stores, especially general, grocery and drug stores. Many of these retailers still took pride in selling British or European seeds, rather than North American. Once a species or variety was introduced to a neighbourhood, farmers usually produced their own seed. But, when farmers raised their own seed, newer varieties could be slow to introduce—as they would have to demonstrate advantages that would justify their cost. In later years, some of the more ambitious farmers ordered seed direct from large companies like William Rennie of Toronto, who offered much greater selection than the local stores, especially of fashionable varieties.⁸⁵

By the end of the century, fields of the Kawarthas were sprouting with many accidentally introduced species, brought with imported seed. All seed contains impurities, and standards in the nineteenth century were much lower than they are at present. Mossom M. Boyd, when he ordered seed, commonly wrote to insist that they send only what "you are absolutely sure is free from weed seeds." Like the crops they accompanied, weeds originated from disparate regions of the globe, and many were well adapted to living alongside a certain farm crop. Some produced seed that was similar enough that they were not separated out in winnowing. As soon as farmers started cropping their fields, they were infested with many of the same weeds present in Britain. Several of these were plants that had a long history of association with agriculture, and had come to depend on farmers' fields for their habitat. Some may have co-evolved to the point where they would not be able to survive in the wild. The most despised were those that were proficient at invading gardens or cropland. Farmers idealized monoculture fields, but when they planted a single crop, they left plenty of niches that other plants were ideally suited to occupy. They were, however, not without their potential uses. Lamb's quarters, for example, despised by many gardeners, was used elsewhere as greens.⁸⁶

Fighting weeds was serious business to many farmers, an integral part of creating the domesticated landscape they wanted to call home. It was commonly accepted that weeds could be eliminated if all farmers were diligent in rooting them out. A 1793 act of Upper Canada, later amended, shouldered farmers with this responsibility. Particular attention was given to Canada thistles, ox eye daisies, wild oats, ragweed and burdocks. Though councils sometimes hired workers to kill weeds on village streets, the act was usually a dead letter, because it was enforced by the overseer of highways only upon the petition of fifty ratepayers. But with so many weeds to combat, eliminating them often took a back seat to getting more land in cultivation. Once farms were cleared, stumps

were disappearing and better farm buildings were constructed, families had more time to think about weeding. In 1884, E.D. Hand observed, "on nine out of every ten farms the weeds are so numerous that to cut them down even once in the year would be a task which the owners are not all likely to petition to have imposed upon them."⁸⁷

The problem was not a lack of understanding or interest on the part of farmers. Most readily appreciated that monocultures promised to greatly reduce the amount of labour required for harvest and crop processing, and increase yields. While they enlisted their children to help fight weeds, it was apparent that monocultures were in all practicality impossible to achieve over any field. Many perennial weeds could reproduce vegetatively, so if part of the root remained, it could resprout. Usually gardens received the most attention, and work on the rest of the farm was selective. Most accepted some weeds, especially in hay and pasture. Whether in hay or crop fields, ploughing and reseeding was usually the answer—and crops took priority. Rotations also helped, since many seeds were adapted to live alongside certain species, but this was often not a very palatable option.⁸⁸

Most of the pernicious weeds were of European origin. Red clover seed was probably the worst culprit for the variety of weeds that travelled with it, which reduced its value. Its common contaminants included: green foxtail, which found its way into cereal and fodder crops; sheep sorrel, also found in grass seed, inhabited pastures, gardens and hayfields; lady's thumb or smartweed, common in pastures and along paths; nightflowering catchfly, very unpalatable to stock; English plantain; bladder campion; buttercups, also common in grass seed, which produced poisonous, blistering juice, and livestock usually kept well clear of the leaves, though it was less injurious when dried as hay; common dodder, also found in alfalfa seeds; and blueweed, common in pastures, especially those with abundant stone or gravel. There were several native species of dock, but those that caused farmers the most trouble were imported, usually in clover seed. Timothy seed often contained ox-eye daisies. Purslane accompanied many types of seeds, and often grew in gardens. Wild oats contaminated cereal crops. Chess or cheat grass found its way into wheat, and since it was hardier, would be especially prevalent where the crop was killed by frost. When its roots were broken by a plough, quack grass was able to regrow from each piece, and therefore was very common on cultivated land, but

did not fare well when cut as hay. Spurry was nutritious fodder for cattle and sheep, but was troublesome in grain. Chickweed invaded gardens and hoed fields, supporting plant lice. Purple cockle infested grain—the seeds were poisonous, and known to kill young chickens. Shepherd's purse and wild mustard were adapted to many parts of the farm and found in a variety of seed. Wild Vetch often invaded cereal crops. Prickly lettuce contained a narcotic (lettuce-opium), which was unhealthy for many stock. St. John's wort and wild carrot occupied pastures. Burdock was liable to mat in wool and could make it unusable. Hemp nettle, toad flax and chicory were also invasive weeds.⁸⁹

The Canada thistle (called the field or creeping thistle in England) was a large and conspicuous invasive weed adapted to compete with a variety of crops. Said to be "of the most pestiferous weeds," it was often taken as a symbol of negligent farming and the focus of anti-weed campaigns. The Canada Thistle Act required land occupiers to cut them down often enough to prevent them from going to seed, with fines of \$2 to \$10 for non-compliance. Hand, however, wondered at the sudden concern:

As if it were a new enemy, destined to be the death of agriculture if not instantly and utterly exterminated, instead of an old familiar one which the majority of people treat with indifference if not with absolute contempt. The proverb that 'what can't be cured must be endured' has been almost universally applied to thistles, and, pests as they are, farmers have managed to prosper in spite of them.

Sow thistles were more aggressive, able to take over large patches of cultivated fields.⁹⁰

Redroot pigweed, native to tropical America, was common in gardens and around root crops. There were several different types of plantain, some of which were native. Peppergrass often competed with clover. Wormseed mustard invaded grain fields and clover, and was eaten only by sheep—they were also the only stock to eat yellow daisies. Most stock refused to eat grain with any significant level of these seeds. Hedge nettle and fleabane invaded a variety of fields. Hardhack and upright cinquefoil invaded pastures. Cowbane, which grew in lowlands, was poisonous to stock, even though it looked liked parsnip and had an attractive scent. It and ragweed tainted milk. Goldenrod was also adapted to low pastures and hayfields. Since it was unpalatable to livestock, they tended to waste more hay if it was present.⁹¹

Before the advent of horse-powered mowers, most farmers cut hay once per year. Yields rarely exceeded two tons and averaged 0.97 tons per acre in 1871. Haying usually

began about the first of July, though some fields might be left until August or even September. Cutting swaths up to four feet wide, the men mowed with scythes. Caniff Haight recalled an Upper Canadian having gang:

The mowers were expected to be in the meadows by sunrise, and all through the day the rasp of their whetstones could be heard, as they dextrously drew them with a quick motion of the hand, first along one side of the scythe and then the other; after which they went swinging across the field, the waving grass falling rapidly before their keen blades and dropping in swathes at their side. The days were not then divided off into a stated number of working hours. The rule was to begin with the morning light and continue as long as you could see.

After allowing it to dry for a day—farmers usually tried to time their harvest for dry weather—they turned over the hay the next day with a rake—often a job for women and children. If a family had yet to build a hay mow, it could be stacked on a base of sticks covering stones. Grass would be placed on top of the pile, secured with ropes, or weighted down with logs or stones. Forking loose hay into the barn was a difficult job, as farmers had to raise it from the drive floor. By 1840 there was a hay-rake factory in Peterborough. By the end of the century many used pulleys to lift into the loft, while some had horse-powered forks. Farmers usually stored a quantity of oat straw as well, while women fashioned the best straws into brooms, hats, and a host of other goods. Some men slept in hay mows during hot weather.⁹²

While the advantages of running animals at large in early settlements had tended to outweigh the inconveniences, by the end of the century, as the domesticated countryside was coming together, and more land was cultivated, most farmers accepted that it would be preferable to fence animals in, rather than out. As railways crossed the region, cattle were struck by locomotives, almost certainly killing the cattle—in some accidents several were killed—and sometimes derailing the train, often damaging the locomotive. Though companies were responsible for fencing their line, animals still found ways to get on the tracks. Farmers could also be held responsible for damage that their stock did to other properties, especially if they had breached fences—even if the fences were not at the legislated height—five feet, with no gaps larger than six inches within two feet of the ground. Farmers could waste much time trying to find their animals, and despite the good will of most neighbours, stock might disappear. One Somerville man was caught firing buckshot at a neighbour's cow in the woods. Acts of Upper Canada in 1794 and 1803 discouraged running stock at large, but these regulations were disregarded in the backwoods. The end of the era of feral livestock came at different times in the different neighbourhoods, as exceptions were made to legislation requiring animals to be fenced. By 1850 it was illegal to pasture horses, cattle, pigs or rams at large in Verulam—though an exception was made for horses in northeast Verulam in 1852. In 1872, Verulam passed a by-law outlawing sheep running at large. For much of the century stock roamed through village streets, which helped prompt the fashion of fencing town lots and cemeteries—to prevent animals from "desecrating the graves with impunity." Bobcaygeon outlawed feral pigs in 1877, and cattle in 1904. In Fenelon Falls there was even a common pasture on the south side of the river.⁹³

In the countryside enforcement was often lax, prompting a Powles' Corner farmer to complain that the council allows "pigs to run on the roads, rooting up the ground and making seed beds for thistles and other noxious weeds. Then the council will turn around and order farmers to cut these weeds or run the risk of being fined." Fencing village cattle was "intensely unpopular," because most villagers who had milk cows had nowhere else to keep them but the streets and common pasture. In 1894 Fenelon Falls gave notice that the by-law preventing geese from running at large would be enforced and that cattle must be stabled at night, but it seems that little was actually done. The debate heated up in 1897 when posters were printed ordering that no stock be pastured at large within half a mile of the railway track—which would cover much of the village—as Council again moved for the by-law's enforcement. Hand observed, "the laws require trains to move so slowly that no harm can happen except to the luckless animal itself." The next year he argued:

Dogs are a far greater nuisance than cows; yet the owner of a dog can let it run night and day by paying a dollar a year. Why can't the owner of a cow have the same privilege at the same price? The enforcement of the by-law is equivalent to a direct tax of at least five dollars a year on every resident of the village who owns a cow but does not own a field; and a poor man with a family, who finds it almost impossible to get along without a cow, will have to pay for pasture no better than that upon the commons, shut her up and feed her ten hours out of twenty-four or let her starve and sharing two or three quarts a day in her milk. The by-law is unnecessary, oppressive and tyrannical, and should be repealed until the village becomes a town. In the 1890s some also advocated a law prohibiting villagers from milking and feeding animals other than on their own property. Many felt that keeping bells on their necks was a nuisance. It was not until the twentieth century, as the practice of villagers keeping livestock was declining, that most residents of Fenelon Falls and Bobcaygeon could agree to keep them off the streets.⁹⁴

Once established that livestock could no longer roam at large, either farmers or the township pound keeper were permitted to keep stray animals, but they were more commonly held by those that found them. Upon catching a stray animal, the finder was to advertise it in a local newspaper, and report it to a justice of the peace within three weeks. If the animal was not claimed for a year and the value of the animal was less than \$50which would cover most livestock-the finder then owned it. If it was more valuable, it would be auctioned off, and the finder would receive only the expense of feeding it. Keeping a stray animal without advertising it was subject to a \$20 fine. Notices concerning strays were common in many newspapers from the 1880s, especially in autumn when they started to require fodder—in part because more stock wandered as pastures were becoming depleted. Pound keepers would feed and water animals at the owner's expense, and the person caring for the animal was to give the clerk a description of the animal within 48 hours. If no one claimed it, the pound keeper could auction it off. Poundage fees, including food and water, ranged from 85 cents a day for oxen to 30 cents for pigs. There were also fines for allowing animals to run at large: ranging from \$0.50 to \$2 per animal.⁹⁵

On many farms, it soon became apparent that a significant portion of the land was too rough, gravely or stony for cultivation. This land would then be used as pasture—or the 'back 40.' Pasture was one of the least intensely managed parts of any farm, though it was essential to keep stock fed from May to September.⁹⁶ Most farmers allowed their stock to graze woodlots, fencing sheep in the clear because they were vulnerable to lurking wolves. While the selective pressure of stock at large in the early days of resettlement had not tended to be very significant, it could be much more important on farm woodlots. Yet, despite the pressure, hardwoods like sugar maple, basswood and elm grew reasonably well, though the woods tended to be more open. Beech was more

affected than other species because they have shallow roots that could be damaged by treading hooves. Within a few years many woodlots also contained pasture grasses.⁹⁷

In the first years of resettlement, as farm families struggled to get themselves established, they were often unable to provide much in the way of fodder for stock over the winter. They might have beaver hay, perhaps some straw or pumpkins, but stock often suffered through the winter. Once they were off pasture, milk cows were rarely fed well enough to sustain milk production. Because of their neglect, cattle sometimes got murrain or hollow horn. But even in the warm months they depended on the quality of pasture. Most years the fields would be drying up by August, reducing the quality of their feed sufficiently to limit milk production.⁹⁸

Cattle soon became the most important farm animals as the Kawarthas proved well suited to them. Many farmers acquired a milk cow before horses or oxen—when a team or yoke was necessary, most could make arrangements with a neighbour, but dairy products greatly improved the family's diet. Beef was a part of pioneer diets, though it was not nearly as common as pork. In 1851, 94 barrels of pork were made for every one of beef, but beef steadily grew in popularity, Traill explained its preservation:

Beef needs to be well packed in the barrel, and a good deal of salt strewn at the bottom. Strew a handful of salt between each layer of meat, and make a brine that will float a medium sized potato. To this add a quarter of a pound of salt-petre, which always improves the colour of the pickled meat, and four pounds of coarse sugar. Boil your brine, scum it, and when cold, pour over your beef: it should be quite covered, and a lid put on the barrel.

In early days, few killed cattle for meat—males were needed as oxen and cows for dairying. But by 1871 beef consumption had surpassed pork. With their farms better established, many began raising cattle for market. Slaughtered shortly before Christmas, this reduced the feed necessary for overwintering, and meat could be kept over winter without salting. The leather from tanned beef hides was one of the most important materials in domestic manufacture, and in the latter half of the century hides usually fetched \$4 to \$5 each, reaching as low as \$2 and as high as \$8.40.⁹⁹

Caring for stock was usually a job for boys, while women oversaw the dairy and made butter. As long as cattle were pastured at large, their milk was often strongly flavoured by their forage. Many found the milk objectionable, and others did not use it at all, though butter was soon a dietary staple. Early on, milk was left standing until it separated, then the cream was skimmed off and either beaten or revolved in a bag. Once there was a market for dairy goods, many wives used the proceeds of their work to help meet household needs. Churns followed—the early ones were a barrel, with a fitted lid and a dash that was lifted and lowered—many boys remembered this as a torturous task keeping the cream in motion until the fat had risen, allowing it to be put into butter moulds. By the end of the century some had a barrel churn that was rotated by hand or a dog treadmill—William Jordan acquired one in 1879. Butter from pastured cows tended to be yellow, but was much paler in winter. To give it the same colour some women grated carrots into water, then strained the solution into the butter. Butter was one of the more commonly marketed goods. Once at the village store, merchant Sir Joseph Flavelle, who worked in Peterborough and Lindsay before moving on to Toronto, recalled:

Each day, after the butter had been sorted as to colour, we packed it into small tubs containing about fifty pounds net. Each tub had a cotton cloth placed over the top of the butter, the edges of which were forced down the sides, and the top then floated with a solution of salt and water. The salt, in due course, became dry and hard and from time to time the tubs were examined, so that where this salt had shrunk from the edge, it would be re-salted, the purpose being to keep the package as nearly air-tight as possible. This butter was called 'store packed.' It was held in the cellar until the fall of the year, much of it becoming rancid. If no buyer came to purchase, it was shipped in lots of ten or twenty packages to commission merchants in Toronto and Montreal, in the hope that it would be sold and the cash promptly returned. ...

It was the practice of such farmers who could afford to do so, to keep their butter as made from May to October, packing each churning in small casks, hooped like a pork barrel, which when full contained about 100 pounds net of butter. These were held in their cellars until the end of the season, October, and brought to market by waggon or sleigh, when buyers like myself examined the butter by using an auger, which brought out a core the full depth of the cask, and competitive buying on the open market resulted in butter passing to whoever paid the highest price. The casks were weighed on the public market scale, and delivered to the buyer's premises after the market was over, where he held the butter for sale for local consumption, or to some exporter, or exported it direct to the British market.

Concurrently with these deliveries of dairy butter packed on the farm, the lump butter continued to come to the stores in the towns and villages over the county, and for weeks in the fall months, I drove to villages and towns, buying, or endeavouring to buy, the store packed, as well as the dairy packed butter, which some of these merchants held in their cellars. This in turn, in due course, was exported to London and Liverpool, where commission merchants sold it for the account of the shipper.

In the store packed butter, small merchants were frequently careless about sorting into colour, with the result that light colour and deep yellows were packed promiscuously in the same tub, and the butter, when drawn by auger, presented a curious assortment of colours. Almost all of the store packed butter, particularly that packed in the earlier months of the year, had become rancid. It is difficult now to understand how it was possible to find buyers who would take the product.

In 1851 butter production per milk cow averaged 54.8 lbs, increasing to 56.4 in 1861 and 63.4 in 1871—perhaps in part due to better feed and improved dairy animals. These yields were much lower than back in England, and roughly equalled the produce of about 100 to 140 gallons of milk. Not much cheese was produced by 1871—47 lbs of butter were made for every pound of cheese.¹⁰⁰

By the last decades of the century, farmers were better able to feed their cattle year round. Catherine Parr Traill, like many theorists, recommended turnips as winter feed for dairy, though they flavoured the milk. She suggested adding "a small quantity of saltpetre, dissolved in a little warm water, and mixed with the cream before churning" to mask their taste. Most farmers did not grow enough turnips to keep their stock through the winter, so Traill recommended cooking oats for their feed morning and night. Farmers gave them hay, perhaps with some oats or other fodder crops—but few would go to the trouble to cook for their cow's benefit.¹⁰¹

By 1851, 93.6% of families in Fenelon and Verulam owned at least one milk cow, with most households keeping either one or two. There were, however, a few families by that time who were producing well in excess of what a family would consume. William and Jane Jordan had eight cows, from which they produced 500 lbs of butter. John Langton—whose dairy would have been largely managed by hired help, and Robert & Mary Mitchell each had seven head. Ten years later William and Isabella Dick had 13 milk cows, and in 1871 Jabez and Margaret Thurston had 26. The Thurstons, however, were probably not managing the dairy themselves, as Jabez was then running a sawmill at Sturgeon Point. But while certain farms produced large quantities of butter for sale—in 1871 three farms made more than 1000 lbs of butter and 152 had at least five milk

cows—54.3% of farms had between one and three milk cows. Dairying mostly for their own use, common farms with two or three cows produced a small marketable surplus.

Dairying was reasonably lucrative, though there were several obstacles to its profitability. Before the advent of refrigeration, milk could only be transported short distances without spoiling, and since most families, whether in town or the countryside, had a milk cow, it was difficult to sell. Large dairy operations would produce great amounts of excess milk that could not be marketed—some topped 3000 gallons a year. Excess milk was used as animal feed, especially for swine. Without refrigeration butter had to be salted. Critics observed that there were great disparities in the quality of butter-inconsistencies in salting, impurities that were not removed from the cream, water that remained in the butter, and differences in the temperature of the cream when it was churned. At Lindsay, the price of butter from 1863 to 1900 averaged about 14 to 17 cents—which meant that the very largest operations in 1871 realized over \$200—about a third of what the largest wheat harvests brought in. While most of the butter was for local or regional markets, export trade to Britain grew in the last two decades of the century. John St. Lawrence sent what was believed to be the first export from Fenelon Falls, bound for Newcastle-on-Tyne in 1883. The next year a travelling buyer gathered 22,542 lbs for Liverpool.¹⁰²

Pioneer families raised pigs primarily for meat, and though they were only the third most common farm animal by 1851, they were by far the most commonly consumed. Producing large litters, being very efficient at turning fodder into meat and proficient at fending for themselves in the backwoods—eating beech nuts and acorns—pigs were very well suited to their role in pioneer families. Pork was usually salted as ham or bacon and smoked and hung or barreled for storage. Though these techniques tended to work better with pork than beef, spoilage was still common, and prudent wives regularly inspected their larder. Lard was made from the inner or kidney fat.¹⁰³

By 1851, 86.2% of households had at least one pig and 59.0% had four or more. Ronald Gilchrist, with nineteen, had the most swine in Fenelon and Verulam. Not much pork was produced in excess of domestic requirements—no family barrelled more than 800 lbs of pork that year, most packing 100 to 300 lbs. Not all barrelled their own pork, as William Allen was then butchering at Fenelon Falls on a fairly extensive scale. Ten

years later the largest operation was Alexander Daniel with twenty-four, and the median holding was four pigs. In 1871, William Bell had 50 pigs, and there were then twenty-four farmers in Fenelon and Verulam with at least a dozen pigs, but the median was still four pigs. While a few sold pork, most produced little more than they could use themselves.

When he first arrived in the backwoods, Thomas Need concluded that sheep could not be kept because they were vulnerable to wolves while living on small clearings scattered through the forest. But, within a few years, there were sheep in Fenelon and Verulam and they were as numerous as cattle by 1851. Much of the clothing and blankets in the nineteenth century Kawarthas were homespun and leather. Woollens, however, were not the only fabric used, as cotton cloth was imported from the first years of settlement, and was preferred for handkerchiefs, shirts, drawers, and other garments worn against the skin. Though more irritating when it rubbed, wool was warm, durable, and produced on farm.

Sheep had to be kept indoors at night, but even that precaution might not guard them from predators, as wolves might pick them off in broad daylight. It was not long, however, before dogs became as great a threat as their wild cousins. Canines had a reputation for killing and worrying sheep, and many sheep farmers felt that it should not be legal to keep predatory dogs. Others suggested that any dog at large after dark should be liable to be shot. In 1880, it was said that almost 200 sheep were killed by dogs in Ops Township. One night in 1877 Thomas Fell of Bury's Green lost fourteen of his eighteen sheep. Over approximately two weeks in 1891, dogs killed twelve sheep at Powles' Corners, while William Jordan, who then lived on the outskirts of Fenelon Falls, lost several others. In one 1896 attack, John Bell of Dunsford lost eighteen. In 1885, after a Fenelon Falls butcher lost eight sheep, village dogs started dying, apparently from poison, it being supposed that he poisoned the carcases and left them in the field. Dogs roaming village streets or the countryside were subject to an annual tax of \$1 that was used to compensate farmers who had sheep killed by unknown dogs-the owner being liable for damages. Dogs not wearing tags attesting to the payment of the tax were permitted to be shot by the constable. The dog tax was unpopular and some farmers applied for and received an exemption—in 1896 this was granted to all dogs in Verulam. Though

payments by the municipality to compensate farmers for the loss of their sheep were as high as \$6 for a sheep in the 1860s, by the 1890s, Verulam paid \$2.66 to \$4 for a sheep and \$1.66 for a lamb—calculated at 2/3 of its value. Farmers were allowed to shoot any dog on their property after dark that they believed might scare their sheep, as well as those caught attacking. In 1896 a farmer was sued after shooting a hound that entered his property while hunting for foxes, but the jury found for the defendant. Any dog known to have attacked or killed sheep was to be killed on penalty of a fine of \$2.50 for failing to do so within 48 hours, plus \$1.25 for each additional 48 hours the dog was kept after receiving notice.¹⁰⁴

Prior to shearing in May or June, many farmers drove their flock to the nearest lake or river to wash them. Even with water access it took time to get the dirt, matted manure and burs from the wool. Some neglected this step, but it was much easier to clean the wool on the sheep, though the water was cold at that time of year. Once thoroughly dry, hand shears clipped the wool—it took some practice not to nick the hide. After removing dirty wool, greasing it with butter, lard or oil, and carding it, women spent weeks at the spinning wheel, carefully drawing and twisting the wool to make even thread. In a day the operator might make six skeins of yarn as she walked twenty miles. Knitting yarn was often only spun once, but if used for cloth it was spun a second time. After spinning, a reel wound the skeins of yarn. Though most families knit for themselves, many took yarn to the weaver to make cloth. As more wool was sold, standards of cleanliness increased. Wool was washed to remove the grease and thoroughly rinsed to remove the soap before dyeing. Horse radish leaves or goldenrod flowers dyed wool yellow; outer skins of onions, sumac blossoms, walnut husk, butternut bark or maple bark boiled in alum for browns; imported logwood with pearl ash or indigo for blue; sumac bark liquor, followed by a little green copperas made slate; madder for red; lye followed by copperas made orange; and log wood steeped in cider or vinegar with copperas made black. Grey cloth was the least expensive and sold without dye.¹⁰⁵

Mutton was not a meat of choice for most settlers and could not be preserved by salting and smoking. It was, however, produced in some quantity, and each year farmers butchered some sheep, usually by Christmas, to save feeding them over winter. Many of those slaughtered each year were ram lambs, used for meat rather than leaving them to

kill each other. Lambing usually took place between January and May, and farmers had to be vigilant, especially during cold months. Sheep were also susceptible to ticks or keds, and some farmers dipped their sheep in a tobacco solution to kill the keds. By 1881 they could buy chemical tick killer, one brand of which claimed that it "improves the lustre and growth of wool and prevents it from matting."¹⁰⁶

From the beginning of settlement wool was one of the easiest commodities to market, being durable, easy to transport and useful to almost everybody. But in early years families were not producing much in excess of their needs—only 14.5 lbs per household in 1861, with one pound roughly equating to a yard of cloth. By 1871, wool production had more than doubled to 36.5 lbs, and in that decade an export market opened. At that time, yields of wool had increased from an average of 3.2 lbs per sheep in both 1851 and 1861 to 4.3 lbs. Sheep and lambskins were also fairly easily sold. In 1879 Jackson Reid of Bobcaygeon shipped direct to English buyers.¹⁰⁷ Goats were almost unknown—when George Laidlaw brought a few to the region around 1880, some locals had never seen one before.¹⁰⁸

Some of the early gentry brought poultry out with them—domestic chickens, turkeys, ducks and geese—and within a few years they were fairly common in Fenelon and Verulam. Most were allowed to run wild on the bush farms, often left to fend largely for themselves during the warmer months, while being fed in the winter. Poultry at large were vulnerable to predators—whether wild or farm cats—and some suffered miserably as their owners learned that they were not suited to Canadian winter. In winter chickens ate bran, mixed with vegetables and potatoes, with perhaps some meat scraps or grain. Eggs were one of the most common items of exchange at the store, and usually found a ready sale. In 1877, Lindsay merchants started grading eggs into two classes, common and 'fresh eggs,' which received 5 cents premium on a dozen. Soon the market was only for fresh eggs, but the prices fell back to those formerly offered for common eggs. Women managed poultry, often retaining the proceeds as with dairy.¹⁰⁹ Geese and ducks were most common on farms located on or near creeks, ponds or the waterway. Both fed on wild rice in the summer, but also received bran or grain in the winter. In 1884 when a hunter opened fire on a flock of tame geese in Cameron Lake, the farmer told him, "them

geese was his—leastwise his wife's and that if they didn't go right up to his house and pay their full value, they'd have to 'bide the consequences."¹¹⁰

While many pioneers preferred oxen, horses were faster, and as more land was cleared, with fewer stumps in the way, they started to replace oxen—a sign of progress to most farmers. Horses could run horse-powers, and more implements. In 1841 there were 29 horses in Fenelon and Verulam—mostly owned by the gentry—and 96 oxen. By 1861 horses outnumbered oxen and ten years later there were 3.5 horses for every ox. Though some oxen were used into the twentieth century, they were almost entirely superseded by horses. Mules were not found in the Kawarthas. While many farmers raised some horses for sale, most were for local markets and it does not seem that there was significant net export of horses from the region.

Keeping horses shod, making and repairing farm implements, blacksmiths were an essential part of the farming community—the first specialized worker in many neighbourhoods. In 1838 James Wallis was advertising to bring a blacksmith to Fenelon Falls, and one settled the following year. Anne Langton explained to her brother, "as you have never sent a horse five-and-twenty miles to be shod, or waited three or four months for some trifling yet essential performance of the furnace, I cannot expect you to understand the advancement in the settlement we consider the establishment of this worthy among us." In 1851, Thomas Heise was on 19W I Verulam and George Connell had a blacksmith shop at Fenelon. Jeremiah Twomey came to Fenelon Falls about 1854,

3.4 Late 19 th Century Blacksmiths ¹¹¹	
Baddow	William Dowson
Bobcaygeon	John Murphy, Archibald
	McIntyre
Bury's Green	Alexander (Alec) Connell
Cambray	John Sinclair, James Moffat,
	W.J. Jackson, W.G. Webster
Cameron	Walter Townsend, John
	Maunder, Philip Nothcott
19 VII Fenelon	Peter Moffat
3 IX Fenelon	Robert Wilson
Fenelon Falls	Henry Puley
Glenarm	Gilbert McFadyen, James Knox
Islay	Thomas Elford, Donald Tolmie

initially working at Wallis' mill, serving the village until he retired around 1892. Four years later James Moffatt and Thomas Bell were also established there. By 1861 Elias Palmer had a shop on the southeast corner of 24 VI Fenelon, and Thomas Clarke was on Lot 17 IV. James Chittick, Samuel Green and Samuel McClelland worked in Bobcaygeon. Four years later James Bell and Alexander Cullon were smiths at Dunsford, George Keith at Fenelon Falls and James Griffis at Bobcaygeon. In the decades that followed most of the smaller neighbourhoods attracted blacksmiths as well.¹¹²

By the 1860s there were specialized saddlers and harness makers in the area as well. John Nevison had a shop at Fenelon Falls by 1865 and Joseph J. Nevison moved there from Somerville Township in 1876. Joseph operated in Fenelon Falls until about 1913, and his apprentice Frank Magee had a shop from 1889 until the 1920s. Godfrey & Gunsolous and J.S. Boyce operated at Bobcaygeon. There were shops in some of the surrounding hamlets, including James Haisley and J.A. Williamson at Cambray, and John Armstrong at Bury's Green. Certain blacksmiths, like James Bell, also manufactured harnesses.¹¹³

Though farm-making is usually thought of as a process of deforestation, a good woodlot was an essential part of any farm. While commentators have for centuries implied that settlers had a hatred of the forest, they chopped selectively. To the end of the century and down to the present, virtually every farm had a woodlot and used it extensively. Some woodlots, and even a few trees within them, have persevered. While the farmers were fighting on year after year to create arable land and pasture, they were well aware of the extent to which they depended on their forest to make it happen. By the latter years of the nineteenth century, as the agricultural landscape was coalescing, this sentiment spawned a movement to actively manage woodlots. Writers encouraged farmers to plant species like maple, ash, or cherry. The wisdom of some of these enthusiasts' advice was perhaps questionable, especially when it pushed towards propagating 'craze' species, or species like maple that already reproduced abundantly and are not well suited to plantations.¹¹⁴

Late in the century, on some of the last lots settled, the use of woodlots was complicated if a lumber company held timber rights. These usually reserved all of the pine, the largest and best of which the company would cut. The occupants needed the produce of the forest to build their farms, and almost always wanted some pine for construction. They then were required to petition the company for permission to cut. The firms would not be inclined to give permission for anything that was merchantable, and might impose a contract for cutting the rest. For instance, Mossom Boyd Company gave

Nelson Alldred of 31 X Verulam, "permission to take a few dead pine to make say 1800 BM, on condition that if any damage is done to new growth on getting the pine out he pays us \$10.00. Otherwise no charge is made."¹¹⁵ For these arrangements they were somewhat at the mercy of the companies, who expected settlers to be scrupulous in not interfering with lumbering, especially with regard to what they cut and their use of fire.

As families worked towards making the landscape their home, they believed it important to eliminate predators in order that their farms would be safe for them and their animals. Many feared wolves—some recalled being chased, or carrying torches on their night journeys to ward them off. Their ancestors eliminated wolves from Britain, and they hoped to accomplish the same feat in North America. By the time the first settlers arrived a bounty was already in place. Originally 20s or \$4, it increased to \$6, then \$10 in 1892. From May 1845 to 1847 Peterborough & Victoria made thirteen bounty payments. Some early settlers worked to rid the vicinity of wolves to protect their animals—though their efforts up to the 1840s failed, as wolves continued to kill sheep and calves. Later in the century, wolves continued to be seen and killed in Fenelon and Verulam, and their hides could be sold to fur traders. Over the longer term, hunters did eliminate wolves from southern Ontario, some using traps or poison, but in the 1930s, coyotes began to infiltrate from the prairies, making the lives of sheep farmers more difficult once again. John A. Ellis accidentally released a coyote in 1892, but killed it after it caused considerable trouble among some fowl.¹¹⁶

Numerous other predators were targeted as well. Foxes, several members of the weasel family, bobcats and eagles attacked fowl. Skunks ate eggs, while lynx and bobcats might kill lambs or small pigs. There are no known historic reports of cougars from this region. Bears damaged grain or cornfields and might eat pigs, calves or sheep. Many settlers were afraid of bears, which was in part cultural, but no doubt heightened because bears would often start eating their prey before they killed it, so settlers might hear the agonized squeals of a dying pig. All of these animals were hunted or trapped, though seldom with the same vigour as wolves. Bears, however, could cause a great deal of excitement. When a bear was seen on a Verulam farm in 1896, the entire neighbourhood, including hired stonemasons "joined in the chase with shot guns, rifles, pitchforks, and stone hammers, and made it quite warm for Mr. Bruin," who got away. Bears occasionally

broke into homes and raided winter provisions. In 1876, James Bick had his basement robbed, so called in neighbours to keep watch. While hiding amongst his barrels, his crew were asleep when the bear returned:

Mr. Brock finding himself under the bear's snout, instantly threw a back somersault and landed head first in a crock full of buckwheat batter. Another of the watchers by a series of gymnastic efforts got the whole of himself into an empty flour barrel and put the head on, whilst the third cried fire and threw a tin of milk at the bear which hit Mr. Brock full in the chest, and formed a beautiful combination with the batter.

The bear came again the next night and was killed. For bobcats and lynx catnip could be used as bait. Foxes, lynx, bobcats, skunks and bears were often hunted for their skins as well, lynx being quite valuable.¹¹⁷

Many farmers considered some non-predatory species to be troublesome as well. Groundhog mounds dulled sickles or mowers, and horses could break legs stepping in a hole. They often knocked down grain around their burrows and could decimate vegetable gardens in short order. In the stump-strewn fields, they often dug their burrow underneath a root, and climbed the stool to sun themselves or look around. Many farmers enjoyed eating groundhogs. Moles also troubled gardeners and could be dealt with by putting tar covered sticks into their burrows. With many of their natural predators reduced in population, squirrels and chipmunks thrived and multiplied, feeding on agricultural crops. Bury's Green farmers held an annual chipmunk shooting match. Two captains chose teams, and in 1891 they managed to kill 729 chipmunks before the celebratory supper. Snakes were also feared, often out of proportion to any danger they posed—all the species found in this area were harmless—and were usually killed on sight. In 1894, Verulam farmers encountered "a monstrous snake... nearly six feet long." After they shot it, blowing "nearly two feet off the creature's tail end, which so enraged it that it made a rush at the men, but dropped dead when Mr. [W.H.] Ellis gave it the contents of a second barrel in the head." An expert thought it an adder.¹¹⁸

Birds had a bad reputation among farmers. Many thought the blackbird the worst, for its attacks on grain fields, so it was shot and made into pies. Crows were despised for attacking cornfields, ravens might kill poultry or young lambs, while blue jays, redheaded woodpeckers and bronze grackles had a reputation for eating fruit. The European sparrow was considered a pest. While some farmers thought ill of all birds, many came to

appreciate that some could be beneficial in combating insects. Instead of seeing all hawks as potential nuisances, publications encouraged them to spare the marsh, red tailed, red-shouldered, broad winged, rough legged and sparrow hawks—they left poultry alone and killed crop pests. It was said that hawks seen in winter should be shot, because those that farmers should encourage migrated south. The great horned was the only owl to be killed, as it preyed on poultry—the others controlled pests. Hawks, owls and shrikes killed mice and rats. Ducks, thrushes, rails, gallinules, native sparrows, finches, gulls, warblers, swallows, catbirds, wrens, cuckoos, robins, bluebirds, bobolinks, bob whites, meadowlarks, rose-breasted grosbeaks, ruffed grouses, orioles, plovers and woodpeckers killed insects. From 1873 it was illegal to kill birds other than eagles, falcons, hawks, pigeons, rice birds, king fishers, crows and ravens between March 1 and April 1.¹¹⁹

On their farms, many families had achieved much of what the gentry had set out to do when they settled in the 1830s-they had frame houses; large barns that could accommodate the stock and crops of a hundred acres; orchards; shade trees; and the sort of independence that came with life on the farm. Sitting on their porches, these successful families had much to be proud of. They had largely achieved the prospect that brought colonists across the Atlantic. Their success was the fruit of their labour—unlike the gentry who had expected to live off the work of others. The most prosperous worked several hundred acres with farm labourers to help with the worst parts of the job. Still, their operation depended on unceasing effort, without which it would not take long for forests to reclaim their fields. Great amounts of manual labour went into everything they produced—day after day, families' accomplishments were limited only by the amount of time they dedicated. The challenge became finding more efficient ways of producing farm commodities, to work more land, process more goods and enjoy more comforts. It would mean fewer neighbourhood gatherings to overcome the drudgery of repetitive work and the impossibility of domesticating the countryside with muscular power. But they hoped that an era of continued progress might bring the rising generation a prosperity that would have been fantastic when their parents started the work of hewing farms from the bush.

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- Fall: Belle Lucrative, Beurre Hardy, Beurre Superfin, Buffum, Onondaga, Goodale, Howell, Flemish Beauty, Sheldon, Beurre Bosc, White Doyenne, Grey Doyenne, Doyenne du Comice, Louse Bonne de Jersey, Graslin, Seckel, Duchesse d'Angouleme
- Winter: Beurre D'Anjou, Beurre Clairgeau, Lawrence, Beurre d'Aremberg, Beurre Diel, Beurre Easter, Oswego Beurre, Winter Nelis, Josephine de Malines, Vicar of Winkfield, President Drouard.
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Modernizing Agriculture

Machinery, new productive techniques, improved livestock, better crops and a rising generation of agricultural improvers promised a revolution for farmers in the closing decades of the nineteenth century—efficiency, progress, increasing standards of living and prosperity. Just as many family farms had come a long way towards embodying the ideals of the pioneer era, their descendants lived in a world with new and more ambitious expectations. The collapse of the gentry had led to a period of relative equality in Fenelon and Verulam as the remaining farmers laboured in common to overcome the rough conditions of the backwoods. But, by the 1870s, a new class of wealthy businessmen, often living as genteel farmers, brought conspicuous consumption to unprecedented levels. They became the leaders of the movement to improve agriculture, helping shape ideals of what a farm could achieve.

Over the second half of the nineteenth century farm machinery became common, allowing farm families to till land, harvest and process produce much more quickly. To power these machines, horses became ubiquitous and essential to production. But, with all of these machines, especially the more complex field equipment, substantial time and resources went into acquiring, operating and maintaining them. Some of the most significant machines were human powered, alleviating the drudgery of processing tasks cream separators, sewing machines, spinning wheels, washing machines, barrel churns, and corn planters. The acquisition of these tools revolutionized what ordinary farm families could produce for themselves, and made it easier for them to live as the gentry had aspired to a generation before.

But as mechanized agriculture became the norm, it came to define how farms could be used—from then on, one of the most important characteristics of a farm was how easily it was worked with machinery. Variable land—such as gravely hills mixed with rich bottomlands or wetlands and uplands—and hilly land generally did not suit mechanized agriculture. The new technologies tended to dictate less flexible field arrangements. On many farms a portion was considered arable, others became permanent hayfields or pasture.

Most families worked hard to acquire these tools that promised to ease their work routines and bring a greater degree of prosperity. These improvements were an important part of their growing commercial connections, and the consequent greater availability of consumer goods. The proportion of farm families in the economy declined, as villages, town and cities grew. It became common to speak of the rising generation moving on to the cities, but a larger portion actually worked in neighbouring villages. While many historians of agriculture suggest that late nineteenth century farmers shifted to mixed operations (and farmers did adopt some new crops), their operations had already been diverse. Better markets ensued for many types of produce, but this did not represent a very significant change in the layout and operation of farms. The proportion of farm produce for home consumption slowly declined, but as it did markets emerged for the goods that had been consumed on the farm previously. There were, however, significant changes in how families processed farm produce for their consumption-such as cheese production, which increased at the expense of butter. Growth of commerce in villages and regional towns, manufacturing, processing and retail accompanied agricultural development. Most of the commodities consumed in the Kawarthas were still produced locally.

Advanced pieces of farm machinery were of little use until farmers removed the stumps from their fields. From the 1870s stumping machines were circulating through the neighbourhoods of Fenelon and Verulam and finally created smooth fields. With better machinery farmers could theoretically harvest larger acreages, but this did not lead to specialized farming. Though a few farmers produced over a thousand bushels of a particular crop, their operations remained diverse to the end of the century—despite theorists who idealized a commercial or industrial approach. Many farmers wanted monoculture fields, but they were not really practicable before the age of chemical farming.

Genetic diversity was, however, noticeably declining in livestock, and to a lesser degree in grain crops. Many conspicuous attempts to demonstrate improved farming centred around 'improving' animals. Most of these operations were not self-financing which was part of their valorization, as gentlemen invested their wealth to give the world better farm animals. Though many breeders focussed on colouration and beauty, producing larger, meatier animals was a principal goal. Mossom M. Boyd's Big Island Stock Farm gained national renown for excellent Aberdeen Angus cattle, for attempting to cross cattle and bison, then for work on producing Polled Herefords. Selective breeding often involved mating related animals, and its objective was to eliminate the recurrence of certain traits—or as we would call it today, the perpetuation of certain alleles. Though breeders achieved certain specific objectives, critics often found the offspring had undesirable traits, including birth defects. These experiments failed more frequently than they succeeded, but desirable results achieved might endure. Farmers were urged to adopt these new breeds, and expected to fetch premium prices when they sold animals—as improved breeds often cost far more than ordinary stock. In time, however, the named breeds assumed much the same place in the market as common animals.

For all the attention that acclaimed livestock, the newest machinery and modern conveniences attracted, farm families were regularly slow or selective in adopting them. Many were initially sceptical of boosters' claims and waited for their experience to show the value of the purported improvements. Stable intergenerational farms were seldom very enthusiastic about the fads of farming. Year in and year out their production tended to be consistent, though they accepted innovations once they had been proven effective. They remained domestically and locally oriented. Though promoters continually preached capitalist and industrial methods, promising bountiful returns, most farmers retained timetested methods. By the start of the twentieth century, many farmers were sceptical of progressive claims, asserting "farming doesn't pay"—which was true as the returns from agriculture often were not monetary. While farmers continued to adopt innovations in all aspects of their lives, the perception that each generation was making a better life for themselves through agriculture was becoming less prevalent, and fewer ambitious youths saw it as their opportunity for advancement. Many, however, could agree to:

Let your ambition be to get a heavy crop off ten acres rather than scramble over twenty acres. Work a hundred acres farm thoroughly, and get the biggest crops out of it before you think of tackling two hundred. Get the best cattle. Use the best blood in bulls. Look out for the finest stallions. Keep good sheep. Banish scrawny pigs. Don't overwork the boys or drive them too hard. Don't make slaves out of the gentler portion of your family. Do something in the garden for flowers. Raise numerous vegetables for your own table. Plant trees about the house and along the roadside where needed. Beautify your houses, as well as farm thoroughly. Despite all of the promotion of rational ideals, farming was generally treated as an occupation of diligence, duty and responsibility, rather than commercial opportunity.¹

Clearing the Kawarthas was accomplished in the age of muscular power, with very rudimentary tools. Catherine Parr Traill's gentry family was better supplied than most, but she explained that:

A small farmer at home would think very poorly of our Canadian possessions, especially when I add that our whole stock of farming implements consists of two reaping hoes, several axes, a spade and a couple of hoes. Add to these a queer sort of harrow that is made in the shape of a triangle for better passing between the stumps: this is a rude machine compared with the nicely painted instruments of the sort I have been accustomed to see used in Britain. It is roughly hewn, and put together without regard to neatness; strength for use is all that is looked to here.

In the early years families often had a few essential tools, plus whatever they could fabricate on their own. Pooling their resources, an early settlement might be able to produce augers, grindstones, spades, adzes, files, gimlets, pails, and harrows. Trying to create and operate farms with so little equipment was extremely laborious. Children were put to work young and women might have to help in the fields on occasion. Hired gangs were unusual in Fenelon and Verulam because few had the resources to employ them.²

While much work could be done when farmers had the time, the two most difficult seasons of the year were planting and harvest. Within a few short weeks in May they had to get most of their crops in the ground. Many crops had to be harvested within a few days of when they ripened. Much of their livelihood depended on how much they could get done in a few weeks each year. Schools did not operate at these critical periods—attendance in farming communities was spotty at the best of times—because children were needed to help. Especially in these seasons, it was evident that the volume of requisite labour was the largest challenge in nineteenth century farming.

As Traill suggests, the usual pioneer tool for working the ground was a rudimentary harrow. Farmers could make a harrow by taking three logs, notching and pinning them to fit together in the shape of an A. In the first years, many used wooden teeth, which were easily broken, but they could fashion replacements themselves. Wooden teeth needed to be heavy in order to withstand being dragged, the added weight helping the harrow dig into the soil. In time, iron teeth from a blacksmith became typical.

Some farmers fashioned themselves a square-framed harrow—a very rough facsimile of those in Britain. Though they covered more ground, they were not well suited to pioneer farms because they would snag on stumps. Some pioneers made do with a more primitive drag, tree crotches, or trunks with segments or all of the branches protruding. Some just spaded or hoed to prepare land. In early days seed was broadcast, carried in a bag slung over the shoulder or a wooden box secured around the waist. The field would then be harrowed again and trampled or rolled with a heavy log.³

Ploughs were one of the first advances in tillage, usable once the smaller roots had rotted enough that they would not snag too violently while winding between the stumps. Early ploughs were often made mostly of wood, some were entirely wood, though most at least had an iron clad mouldboard and perhaps a steel edge on the share. The Loyalist plough was made from a crooked oak as a beam, with a crooked piece of maple split as the mouldboard, and an L shaped iron for a coulter. They were prone to breakdown, and farmers often did not get far before they had to stop and make a repair, especially as they tried to tear through roots. Cast iron ploughs were a tougher alternative—expensive, but they required fewer draft animals because they passed through the soil with less friction.⁴

The second half of the century brought several developments in plough design, as their construction passed from local blacksmiths to foundries and factories. Cast iron ploughs were redesigned to be the sum of several replaceable parts, and chilled iron introduced for the bottom edge of the share. Jethro Woods, of New York State, developed a plough that had wooden beam and handles; one piece of cast iron to serve as share, mouldboard, brace and part of the landslide; a second piece being the rest of the land slide; and a third as the edge of the share—the most common piece to wear out. Adapted into over 200 variations, this design became standard in northeastern North America. In 1837, John Deere of Grand Detour, Illinois introduced the first effective steel clad wooden plough, which was far more durable than its predecessors and designed to break the tough sods of the Prairies. In time, cast steel ploughs became standard, requiring far less labour. To speed the job of working a field, ploughs were combined into gang or combination ploughs, three shares being fairly common—by 1882 they were being manufactured at the Cameron Lake Foundry in Fenelon Falls. Gang ploughs might require two teams to draw, and some were designed to allow the farmer to ride the

plough. In the later years of the century, ploughs were designed to dig deeper because agricultural theorists then recommended deep ploughing. Though many farmers had long believed that subsoil should not be brought to the surface, they argued it was necessary— to control weeds, bury crop residues, better loosen soil for drainage, aeration and easier seeding. This intensive cultivation accelerated decomposition of organic matter in the soil, which stimulated plant growth in the short term, but reduced its fertility over the long term. It also accelerated soil erosion by wind and water.⁵ By 1871 there were more ploughs in Fenelon and Verulam than farmers. 80.3% owned at least one, William Dick had eight, and there were 220 farmers with more than one.

Over the second half of the century harrows evolved as well. The spring-toothed harrow was patented in 1869. Disc harrows became common from the 1870s—in time an essential tool to most farmers. Cultivators were available at that time, but were more slowly adopted. Seed drills began to appear in the 1870s, reducing the loss of seed to birds, distributed it more consistently, allowing farmers to use half as much.⁶

The traditional tool for harvesting grain was the sickle, an ancient implement. The reaper worked bent at the waist, grasping the shoots not far above the ground, as he felled them with the sickle. He would place them on the ground. If harvesting any size of field the farmer would usually have others follow to gather the grain, bind it into sheaves, and stack them in stooks. It took twenty to forty hours labour to reap, bind and stook an acre of wheat with sickles.⁷

By the time the first settlers arrived in the Kawarthas, the cradle was the usual reaping instrument, and it would remain so for the balance of the century. Cradles were developed from the scythe, which was operated standing. The blade was a bit shorter, with four or five parallel hardwood fingers running behind it to catch the grain—the bunch of grain was called a gavel. "There were men who would literally walk through the grain with a cradle," followed by a bandster to bind the gavels into sheaves. Another might gather the sheaves into stooks. Women and children often bound and gathered. The fastest workers claimed they cradled three to five acres of grain in a day—four or five times what a sickler could do, but two to three acres was much more common. On occasion local newspapers reported incredible feats, cradling 7 ¼ acres of oats in a day, or four acres between 1 PM and sunset. In 1884 the *Gazette* reported a man binding 232

stooks, each containing 12 sheaves, prompting the rival Victoria *Warder* to "ask that paper of purity to take, oh take, but 2 stooks away from either end." But in turn they observed even greater achievements, including binding 253 stooks. In 1890 the *Gazette* noted:

Thomas Curtis, of Verulam, got up at his usual hour, 5 o'clock and sharpened the reaper knives, after which he cradled around a grain field containing $7\frac{1}{2}$ acres. Then he hitched the horses to the reaper and went to work and at 3:50 pm had cut the whole field. Not satisfied with that, he went out after tea, bound 104 stooks, each containing 12 sheaves, and set of few of them up, finishing at 8 o'clock.

The downside of cradles was that they scattered more grain and often broke the straw. One Upper Canadian farmer advised, "gleaning is not worth the attention of even a child; the scattered grains go to the sustenance of the wild pigeons of which the flocks are sometimes *miles* in length." Frequently a few families would work together to get their harvest in.⁸ In the 1880s, cradles were manufactured by Islay carriage maker William Sangines, and John Geddes, who ran a cooper shop on Francis Street, Fenelon Falls, from 1890 to 1901.⁹

After the sheaves were drawn back to the barn—which often had to be done quickly to protect them from rain damage—the farmer could thresh the grain when he had the time. The usual method was to beat the grain with a flail—which was made of two pieces of hardwood, bound with leather. The thresher held the staff (about four feet long) in his hand, and swung the swingle or beater (about three feet long, but thicker) to separate the grain from the chaff and straw. The staff was held with both hands, rotating the swingle over the threshers' head and bringing it down sharply upon the grain. Some resorted to treading by cattle or horses to accomplish the same objective. This was less laborious, but tended not to do as good a job, and it was difficult to keep the grain clean. The grain was then winnowed—thrown upwards in a strong breeze, which would blow the chaff further than the grain. They could also employ a sort of sieve, made of a perforated, basket-shaped piece of leather with a wooden rim. When its contents were thrown upwards, only the grain would pass through the hide to the floor. It was, however, difficult to remove weeds like cockle and chess by winnowing. A brag day's threshing was thirty-five to forty bushels—seven to eight was usual. Root crops had to be dug by hand, and the labour of getting them in meant that few farmers cultivated more than a handful of acres.¹⁰

In the latter half of the century, machinery became available to expedite most of the repetitive tasks of harvesting. In the Kawarthas, haying equipment was more likely to be introduced than reaping implements. Jesse Ketchum of Buffalo, New York, produced a very successful mower in 1847, that a few farmers in the Kawarthas purchased, and around 1860 the two-wheel model with a hinged cutting bar was invented, a lighter machine that was much easier for the horses to handle—a form refined into the modern mower. By 1871 there were twenty-two reapers and mowers total in Fenelon and Verulam. Even after having acquired a mower, many farmers continued to cut the hay in inaccessible parts of the fields—hills, stony areas, or along fences—with scythes.

The revolving horse-drawn hay rake was introduced soon after the modern mower, displacing earlier models that looked like a large comb that was dragged across the fields. Horse rakes caught on much faster than mowers—by 1871 10.6% of farmers owned one—though many continued flip and gather their hay by hand. Hand raking, however, took five or six times as long as horse raking with a team and revolving rake. Hay tedders were also available to turn over the grass to facilitate drying. They were unusual in the Kawarthas, though Boyd owned one. In the last years of the century, the self-binding mower started to become common in Fenelon and Verulam. For shipping hay long distances, especially by rail, considerable economy could be achieved by pressing hay. Lumber companies used hay presses—the antecedent of the modern baler to prepare fodder for shipment to shanties.¹¹

Reapers attracted the interest of improving farmers in the United States following the introduction of Obed Hussey's (1833) and Cyrus McCormick's (1834) machines. Early models were, however, expensive, prone to breakdown, awkward, and most required at least four horses with eight to twelve men. On McCormick's machine, one man drove, another raked the grain off the reaper's platform and others followed to gather, bind and stook. Per man, they were not much faster than the best cradlers. They were not nearly as adaptable, and had trouble with heavy or wet grain, or patches that had been blown down. Marketed from the 1850s, the wealthiest farmers in Fenelon and Verulam were purchasing self-binding reapers from the 1880s. This new generation of machines represented a much greater savings of labour—three or four men could get in ten acres of grain in a day with a self-raking reaper, and the self-binder did the same work with only one man. Several farmers acquired reapers in the 1870s, and by the 1890s, they had become common. Even against these better reapers, some men competed for speed, and sent notice to the paper when they won. Other neighbours decided to show how much machines could do—Robert Poole, who also operated a threshing machine, claimed to cut, bind, draw to the barn, and thresh fifteen acres of wheat in a day. Reapers were not much use on rough, stony or wet land—even saplings caused trouble—and many continued to harvest with cradles.¹²

In the 1860s fanning mills and threshing machines started to be seen, easing the work of threshing and separating grains. They were manufactured at many local foundries, the Sylvester Brothers of Lindsay extensively promoting their models like the Champion Fanning Mill, with bagging attachment. Three men—one turning the crank, one feeding grain, the other attending the bags—could run one bushel of grain per minute. In 1871 66.3% of farmers owned at least one fanning mill.¹³ In the 1830s, Daniel Massey imported a threshing machine to Upper Canada, but they did not become popular until improved models came onto the market a few decades later. Though they had their critics, allegedly being expensive, wasting some grain, and rendering the straw useless, they became common in the last four decades of the century. Horse-powered machines commonly required four teams to turn the capstan, overseen by a man with a whip. Steam powered outfits were introduced to Upper Canada in the 1870s, and superseded horsepowers by the end of the century, although early models often broke the grain, rendering it unsuitable for seed or malting. While some of the most capitalized farms, like Boyd's Big Island Stock Farm, purchased their own threshing machines, most hired their work done. In the last three decades of the century, there was a threshing machine operating for hire in most neighbourhoods-Malcolm Smith, John Schell, Samuel Pogue, Curtis & Windrim and John Howie Jr. & Sr. at Bury's Green; James Thompson on St. Alban's line; Robert & Joseph Staples on the south shore of Balsam Lake; John Campbell and Isaac & Thomas Moynes at Islay; Smith & Hughes at Burnt River; John M. Marshall at Powles Corners; James Windrim at Cameron's Point; Poole & Willocks, Ireton & English, Graham & Gordon and Thomas Sheriff at Dunsford; Henry Sackett and George Green at

Balsam Grove; Robert Graham at Baddow; Henry Eyres and Charley McGregor at Cameron; and G.H. Dunn at Cambray. Threshing took place between late August and January.¹⁴

The steam threshing machines brought the first traction engines to the region, starting with John Howie Jr.'s *Abell's Triumph* in 1893. Henry Eyres soon acquired one as well. But traction engines were used almost exclusively in commercial applications, being too pricey for most farmers. Tractors were first seen in Ontario in 1914, and were quickly adopted by many, yet some in Fenelon and Verulam carried on without them until the 1960s and 1970s, and some continued to use horses as beasts of burden through the 1980s.¹⁵

The stumping machine was probably the most significant piece of machinery that became common in the late nineteenth century-without it most of the other improved implements were scarcely, if at all, useable. Some highly capitalized farms like Boyd's had stumping machines in the 1870s, and P.J. Avers started one of the first stumping businesses in the Lindsay area in 1875. In 1883, Frank Sandford sold Whitefield's Stump Machines at Fenelon Falls, and over the final two decades of the century, most farmers stumped their fields. At Bury's Green by 1895, Johnston Fell and John Lamb were in the stumping business, while Jacob Walker owned a machine for his own use. Isaac Elford operated one at Islay; Samuel McGee and Copeland Brothers at Powles' Corners; and George Foreman at Fenelon Falls. The machines were horse powered, with a tripod frame, usually fitted with wheels, and were operated by about six men. As they extracted large stumps they might leave a hole twenty feet in diameter and five feet deep. Many farmers burned the stumps, though some aligned them as stump fences. They could be quite effective against stock—being up to eight feet high, but often required some additional material to close gaps. Stumping machines could also lift boulders onto stone boats for their removal. They caused many injuries, especially as its operators were struck by chains that had either broken or slipped off the stump.¹⁶

While farmers and local blacksmiths had made most of the pioneer implements, as the horse-powered machinery improved it tended to be manufactured in specialized workshops. James Harvey opened a plough factory in Peterborough in 1842, which subsequently expanded to manufacture threshing machines and other farm implements.

By 1848 Daniel Wilson's Peterborough foundry made threshing machines, wagons, sleighs, ploughs and carriages, and James Hamilton had a long-standing foundry there as well. Three years later Samuel Lee operated at Lindsay. In 1865 P. & J. Hamilton's Victoria Steel Plough and Carriage Works at Lindsay was turning out "steel mouldboard ploughs, steel gang and sub-soil ploughs, horse hoes, cultivators, Horse Rakes, Harrows, and all the newest patterns of Agricultural Implements used on a rough or improved farm." In 1874 the Campbell Brothers at Woodville fabricated fanning mills, seed drills and straw cutters, while Bowles and Northcott of Cameron made solid pine rollers. Wetherup & Logan's Agricultural Emporium on Kent Street Lindsay sold "Reapers, Mowers, Threshers, Sawing Machines, Seed Drills, Gang, Steel and Iron Plows, Cultivators and Harrows." In 1876 Bradley Mowry, previously a sawmiller at Fenelon Falls, opened a foundry and implement factory at the corner of William and Russell Streets, Lindsay.¹⁷

There were a few large foundries and implement manufacturers in the region in the last decades of the nineteenth century. Most of them manufactured a variety of tools and machines, and encouraged customers to pay with scrap metal. By 1876 John Makins operated the Victoria Foundry at Lindsay, manufacturing ploughs, fanning mills, machinery for saw or shingle mills, steam engines and pumps. In 1899 he sold his business to John W. McCrae of Tillsonburg. At Bobcaygeon, W.C. Moore's wagon shop also sold mowers, binders, hay rakes, pea harvesters and binder twine. In 1882, Richard Sylvester, a 37-year old machinist from Enniskillen, moved to Lindsay and built a large implement factory on the corner of Kent Street and Victoria Avenue, Lindsay. Initially building single and gang ploughs, he branched out into reapers, harrows, prairie breaker ploughs, mowers, hay rakes, and self-binders. He conducted public trials on prominent farms in the region. In 1884 he had Thomas Bick acting as a sales agent in Bobcaygeon, William Cooper at Dunsford, and in 1896 Robert Ayers was agent at Fenelon Falls-also selling for Noxon Brothers of Ingersoll. In 1886 Sylvester partnered with his brother, Robert. They survived a fire in 1897, and at their peak employed 200 workers. He sold the business in 1911 to Tudhope and Anderson Company of Orillia. Peter Hamilton of Peterborough sold self-binders, mowers, rakes, ploughs, root pulpers, grain crushers, sowers and straw cutters through his agents J.R. Graham and Joseph Heard at Fenelon

Falls from 1889 to 1894, when Heard sold his showroom at the corner of Colborne and Francis Streets to Thomas Robson.¹⁸

In 1877 Thomas and William L. Robson purchased the foundry that William Hamilton had operated for a few years on the shore of Cameron Lake, on the rail line, at the present site of Garnet Graham Park. Hamilton had been scalded by the steam from a boiler, and lost his plant to fire on May 11, 1876. Thomas Robson was an iron founder from Middlesboro, Yorkshire, and had previously worked in Fenelon Falls as a grocer. In 1884 Robert Allen purchased William Robson's share in the business, but he again left in 1884. While they were principally involved in the manufacture of agricultural implements-ploughs, harrows, fanning mills, horse powers, stumping machines, pea harvesters, hay forks, straw cutters, silage cutters, root pulpers—they also made steamship and mill machinery, and outfitted R.C. Smith's sawmill in 1880. They also sold iron, coal, and binder twine, which was worth 10 to 15 cents per pound in 1890. In 1880, J.A. Moore acted as their agent in Bobcaygeon. Robson built his own agricultural implement showroom on the southwest corner of Colborne and Francis Streets, which was more than 90 feet long after additions in 1887, 1891 and 1892. On April 29, 1893 the foundry burned. Robson had only \$2,500 insurance on the plant he valued at \$12,000, because the premiums on foundries were very high. Though he did not rebuild, he continued making repairs and acting as agent for Massey-Harris, operating a second showroom after purchasing Heard's in 1894.¹⁹

In addition to the implement manufacturers, there were many dealers in the region. Massey Harris was a very popular brand among local farmers. Founded in the 1840s by Daniel Massey on his farm in Haldimand Township, it moved to Newcastle in 1849, then Toronto in 1880. Under Hart Massey they expanded rapidly, purchasing patents for the newest designs, and after merging with Alanson Harris & Son, claimed in 1892 to be the largest farm machinery manufacturer in the British Empire. Robson and Robson were their agents at Fenelon Falls as early as 1880, John Cullis at Powles Corners, James Capstick and later a Mr. Burke at Bobcaygeon. Around 1890 there were numerous other implement dealers in the area, including John Cameron and C.N. MacDonald in Argyle; William Falls at Bobcaygeon; J.S. Campbell and George Swanton

at Fenelon Falls; and Charles Tiers in North Verulam. Frank Sandford was agent for several companies including Harris as early as 1882.²⁰

In the 1880s and 1890s, mills shifted from grinding wheat and oats between stones to the roller process. It was much faster, but because wheat germ would impede the rollers, the germ was sifted out prior to milling. The germ contained vitamins and high protein oil, contributing much to the flavour of wheat, though removing it made flour keep much better. Many preferred rolled oats because they were hull free. Most of the mills also had a grain crusher to crush or chop other grains. Michael Berkeley opened a mill on the east side of McLaren's Creek at Cambray in 1878, running off steam and waterpower. Ten years later he converted it to rollers, and still kept a run of stones for those who preferred traditional flour. William B. Feir purchased it from his estate in 1892. At Fenelon Falls, the southwest corner of the former Wallis grist mill collapsed in 1883, then owned by R.C. Smith. The following year Findlay McDougall & John Brandon opened the steam North Star Roller Mill on Bond Street, west of Colborne Street, with George Nie as miller. In 1893 they, along with Henry Austin, purchased a stone building that the Smith estate had built with the intent of operating it as a gristmill, and employed Alexander Trotter and David Gage to install their rolling equipment, as well as two runs of stone-one for chop and one for coarse grain. By 1896 they had moved out of the Bond Street mill entirely. Meanwhile, Frank Sandford opened a grist mill in January 1890, run by Nie, intending to use it to make old-fashioned stone ground flour, but by October 1891 he was putting in rollers as well. In 1888, the Boyds sold their Bobcaygeon mill to Lindsay's William Needler for \$6000. Upon purchasing it, he converted it to the roller process, but sold it to Kennedy, Davis & Son in 1894. Despite the change in process their most common produce continued to be flour, oats, chop, bran, shorts and screenings.²¹

Though manure remained the most common fertilizer, farmers were frequently urged to use soil amendments, as was the fashion in Britain, but the practice was never as common in the Kawarthas. Salt was perhaps the most popular fertilizer, its promoters promising that it would increase yields by stiffening the straw. Most theorists recommended applying between 300 and 700 lbs per acre, depending on the soil type and crop. Available by 1836 at Cobourg, it seems to have come into fashion around 1880.

Sold by the rail car, some prominent farmers purchased several tons or a car for their farms. Smaller operators might partner, as the farmers at Bury's Green did in 1881 to order a car from C.L. Baker of Lindsay. But some questioned whether the repeated application of salt was advisable, and in time most concluded it had little effect.²²

Plaster (sulphate of lime or gypsum) was also available in Cobourg by 1836, and Thomas Need was quite interested in the prospects of a suspected bed near Bobcaygeon in 1845, but it was rarely applied as a fertilizer in the Kawarthas before 1880. The same dealers sold carloads for application in similarly large quantities as salt. A Fenelon Township farmer explained it helped retain ammonia and water in the soil; made clays more friable; and if it was absent, soil could not support crops. In 1881 it cost \$6 a ton at Toronto. Experts recommended several other fertilizers, including lime, shell marl, swamp muck, potash and bones, but these were not applied in nearly the same quantities, though bone meal became popular in gardening. Chemical fertilizers were becoming popular in Britain at this time, but were little used by farmers in the Kawarthas, though they were available in large quantities from Toronto dealers like Alfred Boyd. Superphosphate, the first popular synthetic fertilizer, was more commonly marketed to gardeners.²³

During the 1880s and 1890s chemical pesticides were increasingly common, sold at many drug stores. Paris Green was one of the most versatile, used to kill potato bugs and sprayed on orchards. London Purple, a by-product of the dyeing industry, and Hellebore were also common. The Bordeaux mixture (2 lbs copper sulphate to 3 lbs quicklime to 20 gallons water) was sprayed on fruit trees. To the end of the nineteenth century, chemical pesticides were common only in vegetable gardens, orchards and potato fields. These chemicals sometimes poisoned their users, especially from eating produce too soon after its application. The *Canada Farmer* and the *Canadian Post* both urged readers not to use Paris Green against potato bugs because of its risks, recounting the death of a cow from inhaling the dust of its application, and explaining "the bugs can be kept down by hand picking without very great cost of time and trouble."²⁴

Under-drainage of fields attracted greater attention locally in the last decades of the nineteenth century. Ditching roadsides began in Fenelon and Verulam in the 1860s, and carried through the end of the century. This municipal network received the water drained from fields, but in many cases water pooled, flooding parts of a farm. Stone drains could be constructed from materials at hand—digging a trench, arranging stone in it, covering it with gravel—but few were willing to go to the trouble, especially when the drain would be a permanent impediment to ploughing. John Johnston and Benjamin Whartenby, of New York State, produced a machine to manufacture drainage tiles in 1838, and by the 1850s several companies manufactured tile. Early patterns often had four to eight inch main drains, and secondary lines as small as 2 inches. Manufacturers recommended burying them 30 to 48 inches deep. Brickyards often made tile. S.J. Fox of Lindsay, one of the largest producers in the Kawarthas, stocked mostly 2 ½ and 3 inch tile. Tile drains tended to be limited to the most affluent farmers, like Mossom Boyd, Nathan Day, D.S. Willock, J.B. Powles, and Jabez Thurston.²⁵

In the late 1870s, there was much talk of emptying Lake Scugog, by creating a drain through the Oak Ridges Moraine to allow it to empty through Oshawa Creek into Lake Ontario. Residents around Goose Lake began advocating that it be drained at about the same time. Superintended by surveyor Michael Deane, the project was funded under a provincial drainage act, with the neighbouring farmers to be levied with the cost of its construction. Work began in 1878 and was complete the following year at a cost of \$1232. But it was not successful, as the drain was less than six inches below the bed of McLaren's Creek, and since water remained in the creek, the lake level dropped perhaps two inches.²⁶

At the same time that some ambitious farmers tiled their fields, work began on improving the drainage of Fenelon Falls. A creek ran through the village, joining the Fenelon River below the falls. By the 1870s, it was still visible above ground as far as Francis Street, but some of the main street shops had been constructed on top of it. On occasion, as during the spring freshet or unusually heavy rains, the creek flooded the village. In 1885 the village employed Robert Jackett to improve the channel from across May Street, and into the drain under the blocks of Colborne Street. Many store owners undertook works to prevent the creek from flooding their basements. Despite their efforts, occasional floods of the downtown continued.²⁷

As many farms had been largely cleared by the late nineteenth century, some farmers no longer had unlimited wood, so built fences that were more economical in their

use of cedar. Wood fences remained common, but many were constructed as either post and rail or dancey, also known as rider. Whereas posts held the rails up in the former, a rider fence substituted three or four stakes wired together to form a support. This saved the farmer from digging a posthole, a great advantage on stony land. If plough land was bounded by snake fence, the zigzag wasted a strip ten to fifteen feet wide on the edge of the field. With a dancey or post and rail fence this was brought under five feet. The difference was not as dramatic in pasture. Both dancey and post and rail fences were held together by wire, which increased their cost, though many recycled binding wire. They might not last as long as snake fences, being more prone to falling or being knocked down, especially in wet areas. Some farmers preserved their posts with creosote.²⁸

Wire fences, developed largely to overcome the shortage of wood on the prairies, were promoted in this area as well. Though farmers elsewhere experimented with parallel smooth wires, wire fencing in the Kawarthas was either woven or barbed wire. By the 1880s, local papers advocated wire fences with iron posts or barbed wire. For roadside fences, wire was advantageous because it allowed wind to blow across the road, while wooden fences tended to accumulate snow on the downwind side. Wire required less maintenance, and many came to see them as a sign of progressive farming. They were thought fashionable on town lots. By 1894 both Thomas Robson and Joseph Heard sold woven steel wire fences, and John Cullis of Powles Corners was among the first to try page wire in 1896. In the twentieth century, with the Bessemer process, steel fencing became more economical and common. Townships encouraged its use to reduce snow drifts on roads.²⁹

Barbed wire was available locally from the 1880s, costing ¹/₄ cent per pound. Some farmers, however, were reluctant to use it, fearing it would injure their animals. They found, however, that stock soon learned to stay away. In the twentieth century, it became very popular as a cheap way to reinforce ageing wooden fences.³⁰ Since there was such an abundance of stone on fencerows, Sam McGee of Powles' Corners, Joseph Stinson of Red Rock and Mossom M. Boyd arranged it into stone fences. But most thought that this was far too laborious.³¹

Livestock began to receive better care and feed as the century progressed. More farmers started purchasing rock salt for their sheep and cattle—some pioneer farmers had

seen their cattle lose patches of hair and develop sores from a lack of salt. Milled feed was becoming common for horses, especially in villages. In Britain, it was fashionable to give feed cakes to stock, and Mossom M. Boyd purchased large quantities of oil cake (made largely from linseed) from Alfred Boyd of Toronto around the turn of the century, costing \$29.00 per ton, delivered to Lindsay. While it might make sense for Boyd, who showed his animals nationally, to give them the best feed, most would not go to such expense. But oil cake was readily available at drug and general stores and found a market among villagers and others who took pride in showing their animals.³²

In 1889, John D. Naylor built a silo, said to be the first in the county, and was soon imitated by some other wealthy farmers. Silage—or ensilage as it was then known—was excellent fodder, stored green and fermenting. The challenge, before the advent of concrete silos, was preventing air circulation, which would cause it to sour. Early on it was often kept underground—Boyd had a silo that was 24 feet square and 25 feet deep, starting underground and extending upwards as far as the plate of the barn, covered with six inches of sawdust and a wooden ceiling. To prevent air circulation he later considered sealing it with tar paper. McDougall, Brandon & Austin built a cylinder of red pine planks, with a stone foundation, 18 feet in diameter and 24 feet deep. Samuel McGee and John Fell Jr. both built silos of the same dimensions. By 1894, R.D. Hamilton of Peterborough sold silage cutters for \$60. White flint, red cob, southern mammoth, and giant prolific were common varieties of silage corn.³³

Farmers were urged to purchase condition powders for their stock—Old English and Dominion were popular brands. The drug stores that sold them for 25 cents per pound published testimonials from prominent farmers. The Dominion brand claimed it was "both for fattening purposes and their curative powers in horses of heaves, coughs, colds, broken-wind, hide-bound, botts, worms, kidney complaints &c. ... Give it a try. It will repay you." Veterinary medicine was proliferating near the end of the nineteenth century, though most farmers were reluctant to have their stock examined because of the cost. Vets spent much of their time treating horses and improved breeding stock. By the 1890s, J.H.E. Vrooman operated at Bobcaygeon, R.M. Mason and W.M. Brown at Fenelon Falls and Yeoman Smith at Bury's Green.³⁴

In the latter half of the nineteenth century the tedious work of processing all of the

farm produce started to abate with the advent of new domestic and industrial equipment. One of the first and most laborious sectors to mechanize was woollens. By 1851 there were three weavers in Verulam Township—John Robinson, William and Alexander McGregor—and Francis Hay in Fenelon. Twenty years later there were ten in Fenelon

3.5 Prices at Lindsay Woollen Mills, 1877 ³⁵		
Pair bed blankets	\$3	
Pair horse blankets	\$2.50	
1 lb white or grey	15c	
stocking yarn, single		
twist		
1 lb white or grey	20c	
stocking yarn, double		
and twist		
1 lb coloured or grey	25c	
stocking yarn, double		
and twist		
Cloth (yard)		
Grey full cloth	35c	
Black or brown	40c	
Checked or striped	40c	
Satinette	35c	
All-wool women's check	35c	
All-wool white or grey	30c	

Township alone. In the last three decades of the century, however, much of the area's cloth was made in woollen mills. William Cottingham had the first carding and fulling mill in the region, operating at Omemee by 1843. Within eight years, there was a carding and fulling mill at Lindsay At Bobcaygeon, William Bick had carding and shingle mills on the north shore of Big Bob, at the corner of Front and West Streets until they burned in 1873. He had resumed operations by 1875, only to have the mills burn again in 1886. In 1890, A.F. Lane had a woollen mill at Bobcaygeon. By 1876, William H. Walsh had a carding mill at Fenelon Falls. Located by

the creek on Bond Street, he partnered with Frank Sandford to build a factory on the island in 1887, and operated until 1915. At Lindsay, J.W. Wallace had a woollen mill at William and Bond Streets by the 1870s. Selling out to the Horn brothers in 1892, he moved to Cambray—not far from where the Horns had been operating at their Eden Mills in Mariposa. At Horn's in 1896, a sixteen ounce shirt was 30 cents, a pair of blankets \$2, flannel 13 cents per yard and tweed 30 cents per yard. By the 1880s, most families took their wool to the mill to be carded, for two pence a pound if it was greased at home, or three pence if not. Factories usually charged half the produce to turn wool into cloth. Though many took advantage of this service, most continued to spin, knit and sew for themselves.³⁶

Labour saving conveniences found their way into dairying, such as the "Combined Milk Bucket and Strainer" that McDougall & Brandon sold in 1894. Numerous wives acquired efficient, modern churns. Donald Murdoch manufactured butter tubs to serve Bobcaygeon. In the final years of the century some families acquired cream separators. The traditional method of obtaining cream was to wait for gravity to separate the milk in two phases, but this often required between twelve and forty-eight hours and left about one quarter of the cream in the milk. The best cream separators could accomplish the same with thirty minutes work twice daily. They were, however, expensive, so few felt their cost was justified. But much of the labour of dairying remained unchanged—the cows still had to be milked by hand twice per day; even if the family was fortunate enough to have a separator, they still had to remove the cream; they still had to churn, salt and mould the butter. As machines improved, there was also a movement to increase the quality of butter—to make a consistent product, not to over-salt, not to use maple packages, and to ensure cleanliness. To the end of the century the power for dairy-making generally came from the farm wife, or her children if they were old enough to help.³⁷

While technical advances were slowly reducing the labour that went into buttermaking at home, more milk was used for cheese. The sudden rise of cheese-making was perhaps the most conspicuous shift in farm production in the late nineteenth century. Though some families made small amounts for their own use—taking rennet from the first stomach of a suckling calf—cheese was usually made in factories. Starting in the mid-1870s there was great public interest in its production. Meetings were called to establish co-operative neighbourhood factories. The co-operatives hired a driver to travel the neighbourhood circuit picking up milk at each farm, and sold the finished product through the cheese board at Peterborough to local merchants who exported much of it, then distributed the profit to their members. They were usually quite efficient at returning proceeds. The Bobcaygeon Factory in 1899 received \$11,790.81 in gross revenue, and paid its members \$9,452.87, after picking up the milk, manufacturing the cheese, and delivering it. That year Dunsford paid \$6328.82 from \$7781.92 gross revenue.³⁸

The Mariposa Cheese Factory, located on the seventh line, was one of the first in the region, opening in the spring of 1874, with Samuel Reazin of Cambray as its president. The next year farmers around Cameron and Powles' Corners met and decided to open one—David Willock raised it in 1875 and it was named the Fenelon Cheese Company. In 1882 J.L. and W.B. Read led the construction of a cheese factory at Bobcaygeon, and Frank Sandford opened one adjacent to his Fenelon Falls carriage shop

in 1888. From the 1880s through the end of the century, factories operated in most neighbourhoods—the Star Cheese Factory on Scotch Line, Dunsford, Cameron, Cambray, Fenelon Falls, North Verulam, Bobcaygeon and Red Rock. The output of these factories was usually between 70 and 200 boxes of cheese, about 60 lbs each, every two weeks. At the end of the century, Bobcaygeon and Red Rock turned out the most cheese, Cameron and Cambray the least. Most operated May to October, and required between 9 and 11 pounds of milk to make a pound of cheese. In the 1890s, creameries started to appear as well—often an outgrowth of the success of cheese factories. At Bobcaygeon J.L. Read branched out into butter making in 1893.³⁹

From the 1880s, a few prosperous farmers started erecting windmills—Charles Fairbairn was among the first in 1884. Several companies sold the machinery and frames of windmills. Some farmers, however designed and built their own, including R.C. Tompkins of Cambray. Their most common use was to pump water for livestock or to operate grain crushers, but they also powered sawing machines. John Cullis' mill ran a grinder that turned out 20 to 30 bushels of grain hourly. The residents of Oak Street in Fenelon Falls—which included several wealthy business owners—erected a 70 foot windmill costing \$230 to have running water in their homes and irrigate their lawns in 1898.⁴⁰

In the final decades of the nineteenth century named breeds of livestock increased in popularity. Ambitious farmers brought over breeds that were then fashionable in Britain, many of which had been recently improved. Prominent breeders felt that the easiest way to fix traits was 'in-and-in' breeding. This meant that animals with a desirable trait were bred to each other, some even mated father and daughter or mother and son. This fixed traits efficiently, but critics often found that this also might fix undesirable traits, and increase the incidence of certain birth defects, as genetic diversity dwindled.⁴¹

Colouring was one of the traits that attracted the most attention. In cattle, sheep, horses and pigs superficial appearance was one of the most important parts of the definition of any breed. Most top breeders would kill an animal if it was not born the colour they expected, and if a bull produced miscoloured animals, he might not be used again. Most livestock had certain breeds that were selected primarily for size or weight of carcass, even when this led to less palatable meat or less healthy animals. Among cattle,

breeds were also selected for quantity of milk, or its richness. Sheep were chosen to produce fine wool, or bulk of wool, while horse breeds coalesced around strength or speed.⁴²

Proud breeders spent hundreds, even thousands of dollars importing the finest stock, while recording their genealogy in the American and British pedigree books. Fairs and exhibitions promoted fine animals. For most breeds, the appearance of animals followed fads that might have little to do with the practicalities of the farm. Short legs were fashionable in many species in the late nineteenth century. At times the results could be grotesque—sheep over 400 lbs, hogs weighing half a ton that were so obese they could barely walk and had to be saved from suffocating on their rolls of fat as they slept. It was also well known that the constant inbreeding made the animals less healthy and less vigorous. Yet, many took for granted that it was in farmers' interests to acquire the very best, most improved stock that they could. New breeds did bring some tangible advantages, highlighted by their promoters at great length. In time, most local farmers recognized the benefits that came with improved purebreds and acquired stock as the prices became more reasonable—paying particular attention to males. Since they were territorial, farmers usually had at most one male of breeding age, and often brought in a new male to breed each year-it was a lot easier to acquire a better ram or bull than sell all the ewes or cows.⁴³

3.6 Notable Early Breeders of Improved Sheep ⁴⁴		
Leicester	William Isaac, Isaac Walker,	
	Charles Fairbairn, John & Richard	
	Lamb, John Cullis, W.D.	
	Ventress, Thomas Russell	
Southdown	John D. Naylor	
Cotswold	Richard Mark, Archibald	
	McArthur, Thomas Howie, James	
	Butler, George Laidlaw	
Shropshires	Thomas Robertson, Thomas	
	Greenaway, R.M. Thurston.	
Oxford	Nathan Day, Oliver Glaspell,	
Down	Thomas Russell	

Among sheep in North America, the Merino attracted more attention than any other breed, their importation being a fad early in the nineteenth century. Renowned for their fine wool, Merinos were never common in the Kawarthas, though Mossom M. Boyd kept a few on his farm. The Leicester was a much more popular, all-around sheep—producing

plenty of good mutton, vigorous lambs, and abundant wool. Southdowns were reputed to have the best mutton, while Cotswolds were among the most popular improved breeds

early on, being very large sheep, with a good fleece, but their critics did not like the meat's flavour or texture. Shropshires—large and producing excellent mutton—gained popularity in the 1890s. Oxford Downs tended to be a bit larger than Shropshires, had a heavy fleece and were a good meat breed. Many turned to improved breeds because they promised twins more frequently—twins in one-third of all births was considered excellent, a standard that was improved over the twentieth century.⁴⁵

Scrubs, or native cattle, tended to be hardy, and fairly multi-purpose, suitable for

3.7 Notable Early Breeders of Improved Cattle ⁴⁶		
Durham	John Cullis	
Ayrshire	H.L. Read, J.L. Read, W.T.	
	Junkin, Thomas Fairbairn	
Devon	Henry Purdue	
Angus	Mossom M. Boyd, Thomas	
	Robertson, John Junkin, William	
	Thurston	
Hereford	Mossom M. Boyd, John Hunter	
Jersey	James Dickson, W.J. Warren,	
	Bruce Hamilton	
Holstein	W.H. Stevenson, W.A. Gillis,	
	James Martin, John Junkin, James	
	Bick, John Kelly	

draft animals, milkers and beef. But farmers imported improved breeds of cattle that were more specialized towards one type of production. The first breed of cattle imported in significant numbers were Shorthorns, Durhams or Teeswaters. Having once been good milkers, they were selected to be excellent beef animals, and lost much of their utility for

dairying—though some strains were exceptional. Ayrshires were better dairy cows, but not so common, while Devons were good all-around cattle, suitable for dairy and making good oxen. Towards the end of the century Angus and Herefords (not yet polled) were two of the best beef breeds—Herefords also reputed to be good draft animals. Many of local Angus herds originated from Mossom M. Boyd's stock, and though he was a renowned breeder on the national stage, some of his customer's entrants occasionally beat Boyd at the Verulam show. In the last years of the century Jerseys and Holsteins were gaining popularity as dairy breeds—Jerseys produced very rich milk, while Holsteins surpassed the others in quantity.⁴⁷

Horse enthusiasts in Fenelon and Verulam were most often interested in racing animals. Races were very popular, especially around Fenelon Falls, attracting competitors from across the district. Events were held on Cameron Lake in winter, until Robert Jackett built a track at the fairgrounds. At the turn of the century, John Aldous' Little Hector was perhaps the best-known horse, travelling as far as Montreal to race, and even had a brand of cigars named in his honour. John Simpson's Lapidist Chief, who died after breaking his leg in an 1892 race, was also very successful as a race horse and sire. Though not accompanied by the same fanfare, farmers and business owners were importing improved draft horses at about the same time. Nathan Day raised Clydesdales and Percherons, two of the best heavy draft breeds. Mossom M. Boyd took particular interest in the Suffolk Punch, while residents of Fenelon Falls and Coboconk established the Fenelon Falls Belgium Association in 1899 to import a valuable stallion named Joseph.⁴⁸

3.8 Notable Early Breeders of Improved Swine ⁴⁹	
Berkshire	Thomas Russell, Thomas
	Moynes, Archibald
	McArthur, Charles Fairbairn,
	William Finley
Yorkshire	R.M. Thurston, Thomas
	Russell, Nathan Day, Thomas
	Fairbairn, Charles Fairbairn
Jersey	Thomas Moynes, Nathan Day
Tamworth	Charles Fairbairn
Cheshire White	William Routley

Berkshires, a smaller pig often said to produce the best pork, soon became the

most common breed. Yorkshires were also numerous, while other local farmers adopted Jerseys, Tamworths and Cheshires Whites.⁵⁰ Keeping fine poultry was often popular among village residents, and the most enthusiastic kept a great variety. Thomas Manning and Humphrey

Deyman had well-known collections at Fenelon Falls, as did Dr. Charles Bonnell at Bobcaygeon. Dorkings, Houdans, Plymouth Rocks, Leghorns, Black Cochins, Brahmas, Black Spanish, Minorcas, Hamburgs, Bantams, Polands, Wyandottes and Adalusians were common breeds.⁵¹

There were a few farmers in Fenelon and Verulam who kept fine stock of the most improved breeds. John Cullis, previously a resident of Cobourg, moved to Fenelon Township in 1871, having purchased William Dick's farm. Nearby Nathan Day operated Lakeview Farm, and Charles Fairbairn had a respected farm on the outskirts of Bobcaygeon. The Fenelon Falls firm of McDougall, Brandon & Austin also raised fine stock in conjunction with their business. On Balsam Lake John Carnegie and George Laidlaw both kept excellent stock, as did W.H. Stevenson, until Mossom M. Boyd stopped underwriting his operation in 1898. But of all the improving breeders in the region, Boyd attracted by far the most attention.⁵²

Under the management of the first Mossom Boyd, Big Island (or Boyd Island), acquired in 1873, was cleared, stumped, and pastured some livestock. Boyd had a boarding house and barn built there in 1878, adding a shed the next year. Big Island produced crops for the firm, especially hay, oats, wheat, potatoes and straw. To fertilize the crops, Boyd's men hauled manure across the ice from his stables at Bobcaygeon. The island provided pasture for the company's horses and cattle, and in 1880 produced 400 bags of grain. But as the yields declined, he started to wonder how good the island was as arable land, and Boyd owned plenty more that was better for cropping. While Big Island had tended to be fairly utilitarian, Boyd was "a great admirer of fine cattle and horses," and had taken some interest in keeping good stock. While Boyd's health was declining, his son, Mossom M. or Mossie, translated this interest into Big Island Stock Farm—soon one of the most renowned farms in Canada. In 1881 he chose the sites for his new cattle barn, complete with whitewashed stables. The last crop was taken off in 1883. Cultivation shifted to the Boyds' other farm immediately south of Bobcaygeon, equipped with house, barns and a cookhouse for the workers-the idea being that one farm would be tilled and the other pasture, but by 1886 only about half of the mainland farm was under the plough.53

Mossie had great ambitions in breeding, but having been raised in a lumbering family, his knowledge was initially limited, though he had plenty of wealth to back the venture. He wrote to Professor William Brown, at the Ontario School of Agriculture, Guelph, asking advice on the best way to establish a stock farm. Brown pointed Boyd towards some of the most renowned breeders. Early in 1881 he bought six Herefords from J.W. Stone, along with four Shorthorns. He did not find Shorthorns to his liking and sold out by 1883. Brown bought him a flock of Oxford Down sheep, the first place winners at the Toronto Industrial in 1881, but Boyd concluded after his initial attempts to breed them that they were sterile. He acquired another car of imported Herefords later that spring. In 1883, with the assistance of Professor Brown, he purchased three Polled Angus cows and a bull from George Geary of Bothwell, Ontario, that had been imported from Sir George MacPherson Grant, of Ballindolloch, Scotland, said to have the "purest blood in existence." He acquired animals through Hay & Paton's Kinoul Stock Farm, which claimed to be "the Canadian home of the Aberdeen Angus poll"—then very rare

animals in Ontario. He also bought several fine horses, including imported Clydesdales and Percherons. The cost of his herd was staggering—thirty of the finest cows might be worth more than the sawmill where his father made his millions. Having bought stock that was said to have a remarkable pedigree, Boyd's promoters were sure that they could produce rear stock of "the highest respectability," unlike common stock that might produce a calf of "dreadfully plebian birth, who was a notorious rake."⁵⁴

Boyd spared no expense in operating Big Island Stock Farm. Not only did he purchase the finest stock, he brought in commercial feed like oil cake and paid to register his stock on both sides of the Atlantic. He had carpenters building fences. His barn south of Bobcaygeon had two rows of stalls built so that a truck could run between to distribute food, and even had running water. Unlike most barns, the second floor was also laid out to house stock. But even as improvements were made on Big Island, parts of it remained forested, and travellers often camped there, to be surprised by the appearance of his cattle.⁵⁵

Mossie immediately achieved remarkable results in the show ring with his Angus cattle—from 1882 to 1886 few Canadian breeders surpassed his accomplishments.⁵⁶ Despite promoting his farm in the most renowned stock journals, sales were always somewhat slow, though very remunerative when they came—often \$300 to \$400 each. His customers included several local farmers. His operation was not, however, without challenges. His prize bull, Chivalry, imported from John Hannay, Gavenwood, Banff, Scotland and winner of three Dominion Silver Medals, produced off-colour stock—reddish brown instead of black—that was deemed fit only to be butchered for the shanties. Yet he remained "a marvel to look at."

Having risen overnight to the top of Angus breeders in Canada, through his ability to spare no expense in purchasing the best stock, Boyd's mind soon moved on. After turning down a partnership offer from George Geary, he auctioned off the bulk of his herd at Dexter Park, Chicago on May 23 and 24, 1888, selling 62 head for \$19,880, or an average of \$320. Some cattle reached \$700 each and even his doubtful breeders averaged \$221. It did not, however, entirely live up to the hype, as the papers had been promoting these animals as worth over \$50,000, saying that Boyd had turned down \$1,000 cash for one bull. He kept seven Polled Angus cattle and still had that same number in 1892.⁵⁷

For a few years, while Boyd's Little Bob Mill was cutting through many of the last stands of virgin timber tributary to the Trent, Big Island Stock Farm was not so active, though they kept some fine Angus and Hereford cattle. Boyd was, however, interested in breeding Suffolk Punch horses. For several years he had owned renowned breeding animals, especially Percherons and Clydesdales, while experimenting with Hackneys, Cleveland Bays, and Coaches, keeping several varieties for stud. But Mossie preferred the Suffolk Punch to any other draft horse, after putting them to the test in his shanties. He made some sales to other breeders—more often of Clydesdales and Percherons—but most of his horses were for the company's use.⁵⁸

In August 1892 Mossie offered Big Island and his prize stock for sale as he was attempting to auction off his lumber business, but he ended up keeping both enterprises. In 1893, as the lumber business at Bobcaygeon was starting to wind down, Boyd embarked on his next great project. While on the Pacific coast viewing timber limits with the view to shifting the base of his operations west, he travelled to California and purchased a buffalo bull, named Napoleon Bonaparte, that had been captured as a calf in 1886. Boyd believed that breeding Napoleon with domestic cattle would yield "radical improvement obtained in one cross; as much as, or more than, we could reasonably hope to effect in a century by the customary method of selecting." He found that the hybrid fur was spread more evenly over the body, was "a better color, has more lustre, with hair nearly as long and not as matted." The quality of the meat was better than cattle, they required less feed and the hump promised to furnish much more beef on the back than domestic cows—the spine of the hybrid being longer just where cuts of beef were most valuable. Compared to the bison, "the hybrids were larger, of 'smoother' build; wider chested, had better hind quarters, and stood straighter on their hocks."⁵⁹

Napoleon Bonaparte, or Old Boney, as he was familiarly known, created quite a sensation. After being quarantined three months, he arrived at Bobcaygeon on February 21, 1894, attracting large crowds as "the chief wonder" of the village. The Victoria *Warder* reported that many villagers were there "throwing the lariat. It is scarcely safe to go to Little Bob at present, not through any danger from the buffalo, but for fear some enthusiastic juvenile may lasoo you from his seat on a Clyde and go galloping off with you over the plains, strung up from the heels." Others were not sure what to make of

Boyd's operations. Certainly many were quite interested, and for years people gathered whenever there was an opportunity to see Boyd's stock. The Page Wire Fence Company tried to take advantage of the crowds and solicited for itself the opportunity to fence the cattalo and buffalo at exhibits to demonstrate the strength of their product. But there were always sceptics who wondered whether the animals really were worthy of all the hype.⁶⁰

The stock was shipped to Big Island for pasture once the ice was off the lakes. Some returned in October to go to the shanties, and the balance just before freeze up. Bringing them back entailed finding them first. Boyd's men often had trouble trying to ferry his cattle back and forth from Big Island using the company steamers and scow frequently the Paloma, which was also used for excursions. In May 1887, while transporting the prize bulls, "King of Trumps broke loose... and in attacking Chivalry fell & died." The deceased had been imported at great expense from Sir George MacPherson Grant. Later that year, the workers brought one of the prize Angus cows over to the mainland, but neglected to bring her calf. An hour after she left, with her calf "bleating its blooming little head off" on the island, the Boyd farm manager on the island was awoken by a "booing and bellowing" at his door, which "was the cow sure enough."

The buffalo and cattalo were far more challenging. They swam very well, and once they reached shore, had little respect for fences—jumping anything less than seven feet. The first year he was sent to pasture, Boyd had one worker devoted to tracking Napoleon. To keep an eye on their swimming herds, the Boyds had a cupola fitted on the roof of their barn south of Bobcaygeon—rebuilt at 350-feet long in 1904 after the first farmhouse and barn burned. Occasionally the Boyds resorted to sailing the lakes in their steamers or sending their workers through the adjacent townships looking for them. In 1896 one of the hybrids jumped out of the enclosure as they were loading the stock to return from Big Island, and by the end of the following day the workers still had not been able to locate it. Sometimes the workers took several days to catch or get the buffalo in a cage. That summer, when the Herefords were brought back from Big Island, the hybrid buffalo:

Evinced their dislike to be separated by swimming around the scow the cattle were on and trying to get on board. Saturday evening ten of these remnants of the wild west determined that they were not to be cribbed, cabined and confined on any booming island, and taking to the water struck out for Freeman's quarry, a swim of a mile and a quarter. Landing safely they made their way to the Bick settlement, and word was sent to the village that the removal of the gentle buffs would oblige for they had a profound indifference to fence no matter what height and were throwing on airs as if they owned the country. With some difficulty they were brought to the village and crossed the first bridge. The noise and sway of the bridge, however, frightened them, and they baulked at the second one by taking the river and swimming to Mr. Junkin's. Going round the point of the island they again swam to Mr. Garlick's and then went off full gallop to the Beehive and around to Brandeston. Monday morning the herd of Herefords were sent out to the Red Rock, and when the young buffalo met them, their delight was plainly manifested. They were then driven home without any mishap, going along with the cattle in the most well behaved and exemplary manner.

In 1898 one drowned while swimming off the island. Three years later Boyd received a note from Lakehurst informing him that "a herd of your halfbred are roaming around here in crop & on roads & people are afraid of them." Another farmer at Lakehurst wrote two years later that "your Buffalo has been at my place for the past 2 weeks and it is a great trouble to me, as it is very ugly on my cattle and I want you to come for it at once." In 1903 one of the cattalo swam off and joined the herd pasturing in Harvey. Two years later, a buffalo bull—acquired from the Rocky Mountain Park of Canada for two hybrids and some Persian sheep the previous year—escaped while being transported to the Island:

He went down with the cattle to the shore alright, but instead of going on the scow he bolted through the side works into the lake and started to swim across. The man left the scow at the shore and kept up with the buffalo in the Ajax. When nearing the Island he showed signs of tiring when they caught the ring in his nose with a pike pole, then got a rope through the ring and took him to shore without much trouble. When he reached land he galloped off into the woods.

He died later that year after he was dehorned to reduce the damage that he was doing, because the workers could not catch up with him to attend to the wounds. The park lent Boyd another buffalo bull in 1900. Napoleon had died of dysentery in 1896. His head was stuffed and hung in the Bobcaygeon Council Chamber for years.⁶¹

The breeding program also proved challenging. Boyd had been told that breeding a domestic bull to a buffalo cow was not fertile, and was not successful in attempting to acquire a buffalo cow or arranging to breed one on shares, so he contented himself breeding buffalo bulls to domestic cows. Once Napoleon arrived he wasted no time, breeding him to a cow the day after he arrived, and soon tried "The Perfect Impregnator" as well. His cattle successfully carried the hybrid calf 39 times, while 63 aborted. Of these he had only six bulls, of which three died at birth and another within a day. He also lost many of the cows he bred—once impregnated almost all of the cows started secreting amniotic fluid, they "appeared to be enormously bloated," which in some cases compressed their vital organs causing their death. The hybrid calves, though, were vigorous when they lived. Boyd concluded:

That the cross between the Buffalo and the domestic cow is impracticable on account of the great proportion of deaths among the cows and that the hump on the calf has nothing to do with these deaths. We lost many times more cows than we got calves. We only bred a few cows the second time and these were mostly successful from which we judge that those cows which prove capable of living through the ordeal once may be expected to stand it again in the majority of cases but we did not try a sufficient number to speak positively on this point.

From breeding his hybrids, Boyd determined that certain genetic characteristics were dominant: the buffalo body colour; Hereford white face; Angus polled head; buffalo hump (though modified), cattle's width of hind and front quarters; the cattle's trait of retaining their coat over the buffalo's tendency to completely shed the old coat before growing another; and the buffalo's voice. The hybrids had fourteen pairs of ribs, one more than domestic cattle, and weighed 1700 to 2000 lbs at maturity.⁶²

Mossie continued with the experiment, breeding the cattalo with cattle, the buffalo bull and each other. By 1901 only one of the hybrid bulls was alive—the other having drowned—and he was sterile. In 1897 he tried to breed the other to its hybrid half-sisters unsuccessfully. The next year he serviced the hybrids with a domestic bull, obtaining three calves, but the majority did not breed successfully. Sterility remained a problem, but through breeding the fertile hybrids, by 1914 he had raised eighteen cattalo with both parents hybrid. These animals then reproduced fairly regularly. The hybrid cows in his experience proved to be good mothers, "although the cows exhibit very small udders." In his experience they tended to stick with herds of cattle, "are less aggressive than many domestic cattle, but they are excitable." ⁶³

Boyd had some of the cattalo slaughtered, and distributed the meat to prominent butchers breeders to verify its quality. He had sent hides to Holt Renfrew, who paid \$85.50 to \$90, and to the Hudson Bay Company. He had others dressed by Fairweather & Co., and William Lech of Peterborough turned a hide into a coat. Reviews of the meat

and hide both tended to be favourable. Butchering was often difficult for his workers—in 1902, they slaughtered three, and "one came fine, second one gave trouble, got it down at noon" the third they decided to kill and bleed at the farm.⁶⁴

While the cattalo experiment was ongoing, Boyd undertook to breed the horns off the Hereford. By the 1880s, most prominent farmers recognized Herefords as one of, if not the finest, breed of beef cattle. But they almost always had horns, and polled cattle were said to waste less energy, injure themselves less often and be easier to handle. It would also save farmers from sawing off the horns-a job many thought inhumane. Boyd initially tried crossing them with two Polled Angus bulls-after enough generations of breeding back to Herefords, they would again be considered purebred Herefords. By 1898 he had produced twenty-three three-quarters Hereford calves—fifteen were polled and fourteen had colouring like Herefords. More of his seven-eighths looked like Herefords, and half were polled. Producing polled animals that looked like a Hereford was eased by the fact that both polled and white face were dominant traits. But he then learned about sport purebred polled Herefords-Warren Gammon of Des Moines, Iowa, had collected four bulls and seven cows. In 1903 Boyd acquired two bulls and intensively bred the polled Herefords to each other—all of his stock thereafter descended from these two. By 1905 they had twenty-two calves from the two bulls, three-fifths of the descendants of one and four-fifths from the other being polled. He fixed the trait and his Polled Herefords became one of the most popular breeds of cattle in Canada—and he became known as their Canadian originator, while Gammon took credit in the United States. Critics complained that when he bred the horns off the Hereford, he also bred off their hind end.65

Though Boyd sold out of Oxford Down sheep in 1886, he kept Southdowns and Merinos in the 1890s. He had Berkshire and Yorkshire pigs. When he purchased Napoleon Bonaparte in 1893, he also brought home Persian sheep from San Jose, California, to experiment crossing with his common black ewes. He found that they produced large lambs, and had the advantage of breeding at any point during the year, but their wool was coarse, though very fine when first lambed. He found that ¹/₄ Persian lambs were scarcely distinguishable from the Oxford Downs they were crossed with. He sent their skins to Fairweather & Company, Toronto, to have them tanned. By 1902 most of

his Persians died from being worried by dogs. With the Persian sheep, he acquired two Angora goats, but they died not long afterwards. He also had a puma from the Rockies that was said to subsist on wild duck and partridge; Shetland ponies; West Highland cattle; St. Bernard dogs; Texas Longhorn cattle; and Mexican burros.⁶⁶

Boyd ran stud circuits, offering local farmers the chance to have their stock bred at reasonable prices considering the cost of acquiring purebreds. He had posters printed telling farmers about the pedigree of his animals-that the stallion Peavine Squirrel's sire was "generally acknowledged to be the greatest saddle stallion Kentucky has had to date" and that this stud was "recommended for use on heavy mares to produce the much sought after cavalry horse for the British Army." In 1901, Peavine Squirrel travelled through Bailieboro, Bewdley, Cavan and Peterborough servicing mares for \$10 each, with a discount when an owner had multiple mares. Boyd had a policy of "all accidents to mares at owner's risk." In 1900, the Suffolk Punch stallion Tumbrel travelled through South Verulam and Emily, while Muster covered North Verulam, both charging \$8 a foal. The next year Samson ran through Gooderham, Haliburton, Minden, Gelert, Kinmount and Irondale at the same rate. In 1885 one bull served cows belonging to 46 local farmers, and another served seven more. In the following years his bulls travelled to Somerville, Emily, Smith and Ennismore. By 1900 a large number of Verulam farmers had taken part in Boyd's stud circuits. It also produced a fair bit of revenue. The Clydesdale stallion Abbotsford brought in \$2469 between 1884 and 1886.⁶⁷ Other farmers ran more modest stud routes. Francis Fyke of Fenelon offered a Durham Bull for \$1.50, while W.H. Stevenson had Holstein and Shorthorn bulls for \$1. William Hunter offered a Shorthorn bull in 1883, as did John A. Ellis in 1885, and Brandon, McDougall & Austin in 1899. Some stud animals came from further afield.⁶⁸

Mossie kept livestock until his death in 1914, but the venture was winding down after his sawmill closed in 1905. By 1906 the barn on Big Island had been taken down, the lumber and timbers sold out of the mill yard. He found that year rainy and observed that "very little has been done on the farm." He was, however, still growing hay, grain and root crops. He sold seventeen polled Herefords at a sale in Kankakee, Illinois in July 1907, another block that November at Windsor, and a third at Windsor the following November. Each year from 1907 to 1909, he offered to rent Big Island for \$3 a head. He

had another large sale in 1914, his stock realizing an average price of \$280. After Mossie died, the Dominion Government, at his son Cust's urging, purchased the Cattalo in 1915, and shipped them out to the northern plains hoping to repopulate the species around Buffalo Park. His estate continued breeding Herefords until 1972, under Bob Watt. The herd sire then sold for \$700—the same as the top price that Mossie had received at his first dispersal eighty-four years earlier. His son Winnett W. (Brownie) Boyd was heavily involved with the Canadian Hereford Breeders' Association and exhibitions in the 1920s and 1930s.⁶⁹

Though many local farmers took an interest in Boyd's work and the named breeds—buying improved stock, taking advantage of stud circuits, and adopting similar ideals for selecting from within their own stock—much livestock in the Kawarthas were still of traditional breeding at the time of his death. Although they had not yet converted to named breeds, by the late nineteenth century agriculturalists were constantly reminded of the advantages of improved stock. Newspapers continually promoted named breeds. Livestock buyers paid higher prices for them. In 1883 Thomas Bick paid \$25 and \$35 for steers the same age. Buyers continually urged farmers to improve the animals, and some even provided stud animals. George Matthews, the largest pork buyer in the district, wrote to the Fenelon Falls *Gazette* in 1893 encouraging farmers to cross Berkshires and Suffolks with Yorkshire Whites for sale to the British market.⁷⁰

By the end of the century, a few large businesses purchased the bulk of the produce marketed in the villages, especially agricultural commodities for export. The owners of these businesses were usually very wealthy, making it clear that there was far more to be made reselling farm produce than in raising it. William Cluxton of Peterborough was one of the largest grain buyers in the district in the mid-nineteenth century. At Lindsay Joseph R. Dundas acted as Cluxton's agent, buying the Lindsay business when Cluxton retired in 1870. In partnership with John and William Flavelle in 1877, they became large exporters—and John was Dundas' brother-in-law. John's son, (Sir) Joseph Flavelle, gained renown as a businessman after moving to Toronto. The Flavelles bought grain and eggs at Bobcaygeon as well, arranging with steamers to ship to Lindsay. Around the turn of the century they also bought peas from farmers around Sturgeon Lake, arranging for pickup by steamer. C.L. Baker dealt grain and packed pigs

at Lindsay in the 1870s and 1880s. Yet the majority of farmers in Fenelon and Verulam sold their produce at the nearest village, it not being worth the trouble of hauling to the regional centres to get higher prices.⁷¹

For the first few decades, much of the produce of Fenelon and Verulam that reached market was bartered at general stores. Barter continued to the end of the century, but larger buyers emerged at Fenelon and Bobcaygeon. J.T. Robinson bought grain at Bobcaygeon, building a storehouse in 1884 that allowed him to hold grain and speculate on the market. Rodents encouraged dealers to move grain quickly. At Fenelon Falls, McDougall, Brandon & Austin and William Jordan constructed grain storehouses in 1880. There was already a grain warehouse built with the railway in 1876. Joseph McArthur erected a storehouse in 1885 for his grain exporting business. McDougall, Brandon & Austin bought vegetables, potatoes, butter, eggs, cattle, pigs and sheep in addition to grain. They drove hundreds of market animals into Fenelon Falls—which was always quite a spectacle. Much of the livestock was shipped to Toronto, Buffalo or other foreign markets, and pigs frequently went to George Matthews' packery at Peterborough. Vincent Bowerman bought grain at Cambray in the 1870s and 1880s, built a warehouse in 1879, and was succeeded by H.J. Lytle after his death.⁷²

Most butchers purchased sufficient cattle to export some in addition to those they slaughtered. Henry Austin butchered at Fenelon, and shipped cattle from about 1875, becoming one of the largest distributors in the district until he partnered with McDougall & Brandon in 1896. In 1890, Austin sued a Verulam farmer, who he claimed had agreed to sell seven lambs for \$25 total. Austin claimed that he could sell them at a profit of \$1 each, and claimed that amount. The farmer received \$28 from another buyer, so Austin was awarded \$3. Thomas Bick sold his Bobcaygeon butcher business to Thomas Gilgore in 1885, to concentrate on travelling the district buying stock, and to manage his Harvey township cattle farm. William Waffle butchered at Fenelon Falls in the 1880s and 1890s. Alger and Avery operated for many years at Cambray before retiring in 1893.⁷³ The Horn Brothers bought wool at their Lindsay Woollen Mills, but also had agents at Fenelon Falls and Bobcaygeon, shipping from Bobcaygeon by steamer.⁷⁴

On October 29, 1880, Fenelon Falls passed a by-law protecting butcher shops by prohibiting anyone else from selling less fresh meat than a quarter of an animal. The next

day, John D. Naylor, a prominent Fenelon farmer, defiantly sold mutton and was fined, sparking great outrage. The by-law was repealed the following year. Though beef would not keep long in summer months prior to the advent of refrigeration, farmers rarely purchased meat from butchers. Instead they co-operated in neighbourhood beef rings, each farmer periodically contributing a cow and receiving approximately 20 pounds of beef when one was killed. Most rings had a resident butcher.⁷⁵

There were also traders who travelled through the district purchasing stock, often as agents for dealers in larger centres. Henry Reazin, and William Isaac bought cattle in Fenelon Township in the 1880s, while John Simpson shipped horses to Montreal. William Jack bought a variety of stock in the 1880s. George Matthews also frequently had agents in the area in the 1890s. Thresher William Eyres acquired grain around Cameron in the 1880s and 1890s, as an agent for W.D. Matthews of Toronto, building a storehouse at the Cameron rail station in 1881. John Copp was agent for Nicholas Weldon of Cambray or Toronto and for George Matthews in the 1890s. Many farmers drove their stock to the nearest rail terminal to complete sales.⁷⁶

The emergence of this multitude of businesses reflected a substantial increase in the quantity of farm produce that was marketed, and consequently in income spent on domestic goods and agricultural inputs. In the early years of settlement, the most commonly purchased items from the area's rudimentary stores were flour and pork. Eels, oats, rope, boots, stockings, bran, whiskey, brandy, wine, grog, biscuits, tool handles, tobacco, almanacs, halters, candles, wicks, copperas, mustard, turnip, postage, sugar, salt, watches, fishing line, glass, pans, butter, eggs, raisins, currants, tea, hay, cornmeal, coffee and cloth could be had. Stores in larger centres might sell vinegar, string, putty, lamps, lamp oil, pepper, soap, dyes, a few spices (allspice, alum, cinnamon, ginger, cloves, peppermint, cayenne, nutmeg, caraway, liquorice), figs, sulphur, cassia, starch, pipes, brooms, manila, cords, sherry, rum, herring, salmon, mackerel, rice, muscovado sugar, cream of tartar, saltpetre, latches, hardware and crockery.⁷⁷

In the second half of the nineteenth century, goods that once had to be fetched from the front became available at the general stores in Fenelon Falls, Bobcaygeon and Lindsay. In 1874 the most common items at George Swanton's store in Fenelon Falls were: milk, biscuits, sardines, butter, eggs, potatoes, sugar, apples, brooms, currants,

3.9 Prices at W.W. Blott's 1884 ⁷⁸				
20 lbs refined sugar	\$1			
16 lbs currants	\$1			
11 lbs Valentia raisins	\$1			
18 lbs figs	\$1			
1 lb tin salmon	15c			
1 lb tin mackerel	12c			
¹ / ₂ lb tin French sardines	21c			
2 lb tin lobsters	12.5c			
3 lb tin tomatoes	12c			
2 lb tin corn	12.5c			
2 lb tin pears	12.5c			
3 lb tin apples	10c			
2 lb tin beans	12.5c			
1 lb chewing tobacco	42c			
1 lb smoking tobacco	40c			
Dozen oranges	35c			
Dozen lemons	30c			

spices, tobacco, syrup, cod fish, candles, nails, pickles, candy, common nuts, coffee,

shingle nails, rice, bottled ink, bar soap, washing soda, raisins, cornmeal, tea, ham, seeds, ale, scissors, matches, and vinegar. By 1880 Joseph Heard sold tin eavestroughs at Fenelon Falls. In the early 1880s prunes, plums, oranges, lemons, grapes, bananas, pineapples, peaches, whitefish, cod, and oysters were available at Lindsay. Sunlight soap was stocked locally from 1892. A much larger variety

of clothing became available. In 1889 Hugh McDougall was selling cardigan jackets, fascinators, Persian lamb caps, fur coats and corsets. In 1874 J.C. Elliott opened a book store at Fenelon Falls, Hamilton Fowler a photography studio in 1876, John Maynard a jewellery store in 1877, William Nevison a picture framing business in 1885, William Ayers and John Hyslop a marble works by 1887, and Peter Deyman a fruit and oyster stand in 1893.⁷⁹

Though many continued to make their own candles to the end of the century, lamps were also becoming common. Kerosene or coal oil replaced camphene as the common lamp fuel—being less odorous and explosive, though still dangerous if the lamp was dropped. Kerosene was sold at Lindsay by 1862. At the close of the century more and better lighting was becoming common—instead of sitting around the hearth, some families enjoyed new leisure activities in the evening—reading, perhaps even playing a piano. They also might work longer after dark, though lanterns were very dangerous in hay mows. In the 1890s, oil heaters also began to appear. Early models claimed to be able to warm "a room 15x20 to a temperature of 70 degrees in the coldest weather at a cost of a cent per hour." But as they acquired these comforts, families remained careful to husband and reuse what they had.⁸⁰

While consumer goods brought an unprecedented level of wealth and comfort, farmers started to notice a disquieting trend. Prices fluctuated between years and seasons—for instance, after a snowstorm in 1876, the price of hay and oats rose quickly. In 1882 the Fenelon Falls *Gazette* observed that wheat prices had fallen from \$1.30 to \$0.82 per bushel within a year—a depression was beginning in Western economies. Though the market usually corrected after such rapid swings, over the longer term prices of farm commodities were declining.⁸¹

In the first years of the region's resettlement, the value of farm produce tended to be higher locally than in the larger towns. But as local production started to outstrip consumption, the situation reversed. By 1863, fall wheat sold for about 5-8 cents a bushel more at Toronto than Lindsay, spring wheat 4 to 7 cents, barley 35 cents, potatoes 17 cents, geese 5 to 20 cents, and turkey 10 to 30 cents. Hay was worth twice as much, \$22.00 a ton, at Toronto. Between 1863 and the end of the century, prices at Lindsay, on the whole dropped. The price of wheat, for instance, finished the century at about three quarters the value of that it had fetched in 1863, barley was about five-ninths, oats two-thirds, potatoes two-fifths and wool three-sevenths. In 1884, many in Verulam held their wheat over the winter, and started taking out wood to give them some income in the immediate term—they had to cut and sell several loads of wood to replace the income from their wheat. ⁸²

Concurrently the retail prices of processed farm commodities were rising relative to farm produce. For instance, spring wheat flour appreciated 25.6% relative to spring wheat, even while mills benefited from far more efficient processes to grind the grain. Yet, the costs of farm inputs rose substantially. To raise improved breeds of livestock farmers had to purchase purebred stock or pay stud fees, named varieties of crops were difficult to obtain outside of the market, and machines were expensive. The result was that farms had to sell ever larger quantities of produce, and had to continually increase their efficiency, just to keep operating. Most families expected that they would acquire more consumer goods than their ancestors, which necessitated even greater advances in productivity. With the increased productivity made possible by mechanization, a few of the best managers did reap large profits. The *Canadian Post* reported in 1882 that one Fenelon farmer made \$1100. But such returns were extraordinary.⁸³

Many farmers believed that the emerging commercial system was not entirely fair to them—a political cause taken up across North America by the Grange. The Order of Patrons of Industry, founded in 1868 was intended as an organization to bring farmers together to co-operate with each other and represent their collective interests. It became well known in the 1870s for its campaign against railroad interests and spread to the Kawarthas as it was reaching the apex of its political prominence. From its beginnings in the area around 1872, it had branches at Powles' Corners, Dunsford, and Glenarm by 1877. Farmers around Bobcaygeon, Fenelon Falls, Cambray and Rosedale soon followed suit.

Founded as a fraternal organization for farmers of both genders, it urged them to focus on morality rather than profits. Its members pledged:

To develop a better and higher manhood and womanhood among ourselves. To enhance the comforts and attractions of our homes and to strengthen our attachment to our pursuits. To foster mutual understanding and cooperation. To maintain, inviolate, our laws and to emulate each other in labour; to hasten the good time coming. To reduce our expenses, both individual and corporate. To buy less and produce more, in order to make our farms self-sustaining. To diversify our crops and to crop no more than we can cultivate. To systematize our work and calculate intelligently on probabilities. To discountenance the credit system, the mortgage system, and every other system tending to prodigality and bankruptcy.

It advocated temperance and women's sufferage, while pushing for a greater role for females in public affairs. Grange rules stipulated that at least four of its offices must be held by women, and it gave their votes equal weight in internal business. Its primary focus was to encourage farmers to work together on their purchases and sales, to end the exorbitant profits of distributors and retailers. It encouraged local orders to open cooperative stores, to avoid becoming beholden through mortgages and credit to the business community—aspiring to create an economy where farmers purchased from each other so they could reap all the rewards of their labour. In Fenelon and Verulam, grangers banded together to buy seed and salt. They often made purchases from local merchants, but leveraged better deals for themselves than they could individually. In 1893 the Patrons built a factory at Brantford to manufacture binder twine for its members. Many thought that binder twine 'monopolists' charged exorbitant rates, and a Cambray Grange meeting in 1895 was devoted entirely to the acquisition of this item. In 1895, local

Grangers talked about running their own candidate in federal election—though some commentators thought their positions were very similar to the Liberals. Though they spawned opponents in the business community, Granges continued to operate in this area until the end of the century.

But the Patrons were never anywhere near as powerful locally as they were in the American Midwest. Often it functioned much like an agricultural society—the leaders of both organizations came from many of the same prominent farm families. It often held meetings that would discuss some practical issue that affected farmers—such as feed for dairy cattle, building construction or the most advantageous crops. Its leaders were strong advocates of improved agricultural techniques—so while it continued to stress self-reliance, it then helped farmers get bulk discounts on industrially produced inputs. While most farmers bought into the idea of uniting farmers, it was not practical for the Grange to create an economy of farmers—the local economy had diversified in large part to meet farm families' demands.⁸⁴

Even as interest in the Grange declined, the challenges that farmers faced continued to become more evident. The agricultural economy had been extremely successful in many respects. Food production consistently exceeded consumption by a substantial margin, making societal famines a thing of the past. Many farmers saw their era as defined by progress—progress of farmers through developing their farms, progress of their communities evidenced by continued growth, and progress of their society through elevated standards of living. Yet, there were still individuals who had a difficult time making ends meet. A few stole to avoid going hungry, but most would never acknowledge such occurrences. Collectively the society focussed on progress, continually improving, producing more, and increasing efficiency.

Some farmers wondered whether they were not working twice as hard to make half as much. This may have been true. Towards the end of the century excess production was at least in part responsible for falling commodity prices—despite the efforts of farmers and the Grange it was hard to overcome this fact. But as they mechanized agriculture, their society was overcoming the greatest challenge of pioneer life—almost everything produced had depended on manual labour. Many jobs were so laborious or difficult that they required the combined efforts of the entire neighbourhood to

accomplish. People had spent much of their lives doing monotonous work. Most families had been limited in what they could achieve by the amount of manual labour that they could perform. Even as they lightened the burden of perpetual manual labour, machines were creating a new challenge to their way of life. With their returns declining—in absolute and real terms, as well as relative to the value of the commodities manufactured from their produce—and their costs increasing, farmers had to improve their methods to keep up. Though many families worked towards a settled, stable life on the farm, agriculture in the Kawarthas was always transformative. From the pioneers chopping farms out of the forests, families building and furnishing log homes, bringing land under the plough, pulling stumps to smooth their fields, replacing their old homesteads with frame houses in the new fashion, building large frame barns, acquiring better machinery, raising improved crops and livestock—farmers reconstructed their lives and their countryside time and again. Having come to rely on this continued change, the twentieth century promised revolutions of its own.

¹ FFG, February 26, 1881. CP, April 20, 1883.

² Guillet, The Pioneer Farmer, 1:86-87.

³ Thomas William Magrath to Thomas Radcliff, January 1832, in Radcliff, *Authentic Letters from Upper Canada*, 49. Danhof, *Change in Agriculture*, 200. William N.T. Wylie, *The Blacksmith in Upper Canada*, 1784-1850: A Study of Technology, Culture and Power (1990), 163. Mannion, Irish Settlements in Eastern Canada, 92-93. Haight, Life in Canada Fifty Years Ago, 45.

⁴ Haight, Life in Canada Fifty Years Ago, 45, 95. Jones, History of Agriculture in Ontario, 94. Fred A. Shannon, The Farmer's Last Frontier: Agriculture, 1860-1897 (New York: Farrar & Rinehart, 1945), 129. Danhof, Change in Agriculture, 183-185. Guillet, The Pioneer Farmer, 2:149-152.

⁵ Leo Rogin, *The Introduction of Farm Machinery in Its Relation to the Productivity of Labor in the Agriculture of the United States During the Nineteenth Century* (Berkeley: University of California Press, 1931), 22, 26, 31-37. Robert L. Ardrey, *American Agricultural Implements* (Chicago, 1894), 9-11. Robinson, *Facts for Farmers*, 921. Haight, *Life in Canada Fifty Years Ago*, 45, 95. Diva Souza Andrade, Arnaldo Colozzi-Filho, and Ken E. Giller, "Soil Microbial Community and Soil Tillage" in Adel El Titi, ed., *Soil Tillage in Agroecosystems* (Boca Raton, FL: CRC Press, 2003), 51, 55. Mossom Martin Boyd to Samuel Walker, Lindsay, April 27, 1880, *BF*, vol. 243, 245. Reaman, *A History of Agriculture in Ontario*, 93. Guillet, *The Pioneer Farmer*, 2: 149-152. Shannon, *The Farmer's Last Frontier*, 129. Gates, *The Farmer's Age*, 279, 281-283. Danhof, *Change in Agriculture*, 183-192, 196-199. Bidwell and Falconer, *History of Agriculture in the Northern United States*, 209-210, 282-285. Bailey, *Cyclopedia of American Agriculture*, 1:209, 387-392. *FFG*, August 5, 1882, September 27, 1889. Stephen R. Gliessman, *Agroecology: The Ecology of Sustainable Food Systems* (Boca Raton, FL: CRC Press, 2007), 3.

⁶ Rogin, *The Introduction of Farm Machinery*, 57. Ardrey, *American Agricultural Implements*, 21. Reaman, *A History of Agriculture in Ontario*, 50, 92-93. Shannon, *The Farmer's Last Frontier*, 130. Danhof, *Change in Agriculture*, 201, 206-208, 210, 213. Bailey, *Cyclopedia of American Agriculture*, 1:205, 207, 209, 394-397. VW, May 16, 1878, March 30, 1883. *FFG*, August 11, 1883, February 22, 1889, January 3, 1899. *CP*, April 21, 1874, August 6, 1880, September 3, 1880, May 16, 1884. Guillet, *The Pioneer Farmer*, 2:152. Bidwell and Falconer, *History of Agriculture in the Northern United States*, 211-212, 303. D.A. Lawr, "Development of Agricultural Education in Ontario, 1870-1910" (PhD, University of Toronto, 1972), 4. Shannon, *The Farmer's Last Frontier*, 131-132. Gates, *The Farmer's*

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- 7 Rogin, *The Introduction of Farm Machinery*, 126, 128, 130. Lawr, "Development of Agricultural Education in Ontario," 2. Higgins, *The Life and Times of Joseph Gould*, 33. Guillet, *The Pioneer Farmer*, 2:52.
- 8 Rogin, *The Introduction of Farm Machinery*, 126, 128, 130. Reynolds, *This Laughing Pilgrimage*, 12. Gates, *The Farmer's Age*, 285. VW, September 12, 1884, September 28, 1884, September 3, 1886. FFG, August 16, 1884, August 30, 1884, September 6, 1884, October 11, 1884, September 5, 1890. September 3, 1875, August 24, 1877, August 29, 1884, September 5, 1884, September 12, 1884, September 3, 1886, September 12, 1890. Mannion, *Irish Settlements in Eastern Canada*, 94, 113. Guillet, *The Pioneer Farmer*, 2:52, 54, 57. Haight, *Life in Canada Fifty Years Ago*, 55-56. Thomas William Magrath to Thomas Radcliff, in Radcliff, *Authentic Letters from Upper Canada*, 49.
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- 10 Rogin, The Introduction of Farm Machinery, 180. Gates, The Farmer's Age, 157-158. Mannion, Irish Settlements in Eastern Canada, 93, 115. Singer et al., A History of Technology, 3:137. Guillet, The Pioneer Farmer, 2:59. Haight, Life in Canada Fifty Years Ago, 4, 31. FFG, June 21, 1884. CP, October 3, 1884, October 10, 1884. Thomas William Magrath to Thomas Radcliff, in Radcliff, Authentic Letters from Upper Canada, 49. Reaman, A History of Agriculture in Ontario, 30.
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4a. The Firms

In their depictions of forest production nineteenth century observers and modern scholars alike tend to gravitate to a few large firms, exporting lumber and timber to Great Britain and the United States—it seemed this was the bulk of production. Ruthless timber barons reaped enormous profits as their companies swept through the forests like a hurricane, denuding the landscape as they stripped the wealth of the country. Their power was incredible, their word nearly a law unto itself, and it appeared as though many towns owed their existence to these ventures. They worked timber limits, owned by the Crown, on licences. Newspapers celebrated their achievements. While many historians are critical of the timber barons they implicitly accept much of this heroic image. But parts of this portrayal were actually a chimera.

Despite recent trends de-emphasizing staples trades in Canadian economic history, Canada's lumber industries are still narrated as the product of British demand in response to continental blockade during the Napoleonic Wars, and the American lumber trade, both overwhelmingly white pine. Scholars have observed secondary trade sectors, but little has been done to incorporate them into a comprehensive portrait. Overwhelmingly, the story centres on the rise and fall of the white pine staple, whether destined to serve as a mast, planking, lumber or siding.

Forestry is held up as perhaps the pre-eminent example of Canadian profligacy and waste. The lumber barons are frequently equated with robber barons. Many locals today say that Mossom Boyd never did anything for the community, or that he stripped, rather than created wealth. The companies are seen has having exploited an extremely valuable, but scarcely (if at all) renewable resource. They were extremely wasteful, quickly ran out of trees, and disappeared amidst a timber shortage. Creating an impoverished landscape, they threw communities out of work, leaving only ghost towns, as the lumbering frontier advanced across the country. In the words of A.R.M. Lower, "the new colonies got the minimum out of the wreck of the forests."¹ Most people would now agree that this tragedy might have been averted if only there had been greater regulation and an ethos of conservation to preserve the public interest. If the government had stepped in and forced the companies to use the forests efficiently, these industries might have benefited all.

The tendency to focus on the few large firms has distorted our understanding of forest history. The firms exported primarily white pine and red pine, with lesser quantities of white oak and elm. The forests they found were approximately 60% broadleaf, and the three most common species-maple, cedar and basswood-were difficult to market as either lumber or timber. The next three genera-pine, hemlock and elm-were more marketable, while oak was not very prevalent, often found on excessively drained sites. It was not, as is often supposed, that pine, oak and elm were the only useful trees in these forests. Upper Canada had inherited a culture of woodworking from Britain and the United States that had developed over centuries. Many emigrants came with knowledge of crafter's trades, and though North American species were commonly seen as inferior, their experience had fairly direct application. The largest adjustment was often to an economy with such reliance on personal or neighbourhood ingenuity to fashion just about everything from the rudest of materials-it was the age of wood. Years later, some old settlers recalled how much they had to learn while piecing together a home in the backwoods, though it might more closely resemble the housing for farm animals back home 2

The woods that were used in the largest quantities for domestic forestry were cedar and pine. Both are light, fast drying and easy to work. Cedar split easily and was remarkably rot resistant, while white pine was the best wood for general use. It tended to dry without excessive warping or checking. It was dimensionally stable, often fairly straight grained, especially among clear old growth logs. Reasonably strong for a light wood, it was fairly durable for many applications. As settlers furnished their shanties, outbuildings and barns, pine was the material of choice. Hemlock might be used as a substitute, but was often crooked grained, more difficult to season, and tended to splinter, warp and check. Piles of cedar were saved for snake fences. Straight, moderately large logs (the largest were too heavy to handle) would be saved for building construction, with perhaps basswood as a roof, even though it was quite susceptible to rot. Basswood bark was a good combustible for torches.³

Though other species might be more difficult to work, each had its essential places. Most non-food products were fashioned from wood, and in this economy, knowledge of the peculiarities of different species made all the difference. Tool

manufacture often called for the strongest materials. Much as pine was the general purpose softwood for construction, oak was the standard material where a great deal of strength was required, and where its weight could be tolerated. For the combination of strength, durability, rot resistance, resilience and ease of work, white oak was second to none. Its roots were used as sleigh runners. Though two species of white oak grew in this area, bur oak or *Quercus macrocarpa* was much more common than *Quercus alba*. Red oak was inferior in most properties.

Elm is tough, strong, rot resistant and durable, but was less popular among nineteenth century woodworkers because shaping its interwoven grain with most edged tools of the day bordered on the impossible. Yet as one of the most common forest trees, elm was used as structural wood, as in wagons or implement frames, log buildings and frame barns, especially where it would be used whole. It was one of the best woods for combining rot and abrasion resistance, making it well suited for wheels. American elm bark could be braided into primitive ropes or whips.

Ash best combines strength with relatively light weight, though not as suited to outdoor applications as white oak. It was employed for tool handles and the manufacture of implements, where the weight of other hardwoods would be disadvantageous. Ironwood, or hop hornbeam, was the hardest, toughest wood. The trees rarely grew much above 35 feet in height, but were very useful for tool handles, levers, wedges, ladder rungs, axles and mallets. Saplings of other hardwoods, especially beech and oak might be similarly used. Black Locust is the strongest and most durable of the larger trees found in the region, lasting even when exposed to the weather, and shrinks less in volume when dried than other hardwoods. It was therefore the best material for the trenails used to hold together timbers in log framed buildings. Basswood, on the other hand, was one of the softest, least durable, least rot resistant woods that could be found. It was however, easy to fashion into all sorts of different shapes for household goods, and it did not flavour food. Its inner bark was woven into mats. It was easy to transform into furniture and mouldings, as long as toughness was not required.⁴

Several fine furniture woods grew in the Kawarthas including black cherry, black walnut, butternut, oak, birch and maple. In pioneer days few settlers had the time and resources to put into conspicuous display. The Langtons, however, did, and had the good

fortune to have a grove of butternut at Blythe, which they fashioned into fine panelling, complemented with oak shelves and other pine woodwork. Red pine was excellent flooring material, being harder and more durable than white pine, yet still relatively easy to work. As the century wore on it became the standard flooring material, but was most often purchased as lumber.⁵

Though almost all of the larger types of trees had their application, masts, spars, clear pine and ship-grade oak were valuable enough in Europe to justify trans-Atlantic or cross-continent shipping. Other products like black locust, wonderful as it was for trenails, were readily available or subject to local substitution. Some species like black cherry were potentially more valuable, but were not in demand on the same scale as pine, elm and oak. The export industries then grew up around these three species, especially white pine. The firms always loomed large in the public discourse of their day, but they were never quite as large as they seemed. Timber and lumber exports were always a minority of forest production. Trees were more frequently employed in making local homes and farms, work that was usually inseparable from the functioning of family farms, and which has been described as part of the chapters on agriculture.

Though never as large as domestic forestry, the firms had a unique place in their communities—for much of the century they were the only big businesses in the Kawarthas. Their proprietors were among the most prominent men in the district, and their admirers took them to be the epitome of progress. While the farmers were advancing the region bringing all of the benefits of agriculture, the firms seemed to be simultaneously taking the next step towards industrialization.

These ventures stood out from their communities. While many farm families spent much of their time producing for themselves or their friends, the firms were geared to maximize monetary returns. They often did not share the sense of responsibility to care for their neighbours. Where settlers invested their lives labouring so that their children might enjoy a more prosperous life than they did, the companies only planned on working an area as long as the best trees held out. Common village and farm houses were much alike, often erected with the help of many friends on familiar patterns. The timber barons, in contrast, came to embody conspicuous consumption—living in grandiose estates, their homes perhaps designed by architects, behind stone walls, with servants; travelling in

yachts or fine carriages; wearing fine clothes, smoking imported cigars, and hiring private tutors for their children. Or at minimum, they tried to give the impression of affluence. In part for their ostentation, many proprietors were widely resented.

One reason that the timber firms loomed large in local development was because they were among the most powerful local political lobbies—generally disproportionate to their place in the economy of the Kawartha Lakes. James Wallis and Thomas Need were the dominant figures in their villages in the first years of resettlement. Then R.C. Smith, Henry Greene & John A. Ellis, and especially Mossom Boyd, rose to such stature that they could sway municipal, provincial and federal leaders. They had the power and resources to defy government, but were close friends with many officials concerned with their affairs. Since the bulk of their revenues came from trade with the United States and Britain, the timber barons depended on the Crown to ensure their access to markets, especially in negotiating tariffs. They also, at least in theory, needed the Crown to authorize their cut.

The Crown's claim to manage these resources was, however, dubious at best. A large portion of the cut, and almost all that took place in the era when standing timber was extremely valuable, had not been included in any treaty purchase. But forestry and native relations were managed not only by separate departments, but different levels of government. So the Ontario Crown Lands Department insisted on its right to regulate lands that the federal Indian Department would not be so sure that it owned, if it had thought much about the lumbering that was going on. Government struggled to understand what was really going on in the bush, and controlling the process was problematic. The valuable parts of a forest could disappear, millions of feet at a time, leaving officials with few clues pointing to the perpetrator. As long as the government was struggling to know whether trees were being cut, and if so by whom, their ability to control productive techniques was limited. Quite often the Crown's had little information beyond that which the timber companies, their employees or contractors provided.

On most issues the policies of the Crown and the interests of the lumber companies were hard to distinguish. While today the public expects government to conserve forests from excessive harvesting, nineteenth century policies encouraged production. Seeing the forests as a source of revenue and striving to prevent complaints

from rival companies that berths were underused or hoarded, most of the timber regulations were designed to ensure that companies were actually harvesting their berths and paying the Crown. As the most merchantable trees were becoming scarce, the Crown moved to reap greater revenues though auctions.

Though the timber barons were a powerful lobby, closely associated with the Conservative Party, and were usually accommodated by government, the Crown did have competing priorities. The protectionist political climate of the 1880s and 1890s, reflected in the National Policy and contemporary American tariffs, became a serious obstacle to the exporters' continued operations. American lumber firms and states producing large quantities of lumber were the strongest lobbyists in favour of tariffs. The Canadian government, despite its National Policy, was convinced by the lumbermen to make exceptional arrangements for them.

Their power was certainly not limited to the public sphere. They were close to a law unto themselves in dealing with their workers. In the world of the mills and shanties the proprietor often dictated to his employees, and they would obey if they expected to keep their jobs. The companies, especially those that were successful, deserved their reputation for being ruthlessly driven to profit, often without scruple. Given how tight their margins were, they probably could not have survived any other way. The firms produced some of the most rigidly hierarchical structures of discipline in their day. It was perhaps no coincidence that the most conspicuously successful, Mossom Boyd, came from a military family. He was a hard driving, uncompromising, determined man who seemed to unflinchingly meet any obstacle head on and find a way to drive his way past it. Having migrated as an orphan with almost nothing, he eventually succeeded in reclaiming the status his family had once enjoyed. At his worst he was bent on demonstrating his power, imposing his whims on others and defying government when it seemed there was little to be gained. But when it decided to, the family could make monumental contributions to their community. It was a stressful life, and none of the Boyds principally involved in the business lived to see their seventieth birthday. The owners and managers of the major companies took pride in being tough disciplinarians, so abrasive bosses were a fact of life for their employees.

As the only big business and the most volatile of the major economic sectors, the firms seemed to have disproportionate influence on local fortunes. When hiring they needed more work men than their villages could furnish. If a large mill went broke, burned or operations were transferred, scores of men were thrown out of work, causing many to leave town seeking another opportunity, while other villagers carried on as best they could. The lumber firms were the largest sources of off-farm employment, the greatest buyers of farm produce, and especially in early years when tied to the grist mills, the focal point of local exchange.

Arthur Lower, mirroring the arguments of nineteenth century promoters of agricultural development, accentuated conflicts between the farm and forest economies. He implied that forestry was detrimental to agriculture, farms were more prosperous if they were far enough from the woods that farmers were not tempted to neglect their farm duties in favour of working in the shanties. In the early days of resettlement, earnings from lumbering helped many farm families get established. Once they had a homestead, few would set aside their work to go to the shanties—especially since the shanties usually set up in fall, one of the busiest periods on the farm as families laboured to get in their crops, split firewood, butcher animals and preserve everything for winter. Not many farmers would forgo part of the returns of their summer work when lumbering wages were low enough that much of the labour had to be brought from other districts. Some thought it worthwhile to work a few weeks after Christmas as a teamster—a period when there was often less pressing work at home.

While there were political battles that pitted promoters of agriculture against the lumbermen's lobby—especially regarding the settlement of areas with merchantable timber—the farm and forest economies were inextricably linked. The forest supplied much of farmers' material culture, while the most important inputs for the shanty men, drivers and millers were farm produce. Copious quantities of meat, flour, oats and hay went into every log. Above all, the large firms were sophisticated transportation networks. Though steam, usually from cordwood, became important in the final decades of the nineteenth century, they had to feed the horses and oxen that skidded and hauled the logs out of the bush; the cadge teams hauling supplies—usually a day or more overland across rough terrain; the teams turning the capstans that towed logs across the

lakes; and all the men, chopping, sawing, road clearing, dam building, driving, loading and unloading across the tens, hundreds or thousands of miles that the wood and supplies travelled. Even steam power ultimately relied on men chopping cordwood and teams hauling it out. In the 1830s and even the 1850s, lumber and timber had little value beyond the tremendous amount of labour and organization that went into getting it from where the trees grew to a consumer, and only secondarily into its manufacture. In the final decades of the century, amidst fears of a timber famine, the prices for standing timber rose spectacularly. But it was no coincidence that Mossom Boyd & Company, the wealthiest local firm, got out as the hysteria was reaching its peak. These ventures lived by a model that required inexpensive trees because so much capital was tied up in transportation.

It is easy to assume that timber barons made stupendous profits off the forests, living lives of unthinkable affluence, especially compared to their workers. In a society that accepted that wealth brought status and power, the proprietors tried to create this perception, but it was often an illusion. There were two main branches of the export trades: timber and lumber. Prior to the 1870s and 1880s, lumber was usually an adjunct of the timber trade: large firms did not think it profitable to get out vast quantities of saw logs on their own. It enhanced the returns on their timber trade, though, to get out sound, straight trees that would not make timber while they were already cutting a limit, but could be turned into lumber. Both branches of the business were uncertain propositions. The productive infrastructure's cost was daunting. Operators, if they produced on any scale, had to advance huge sums to get the trees out and manufacture timber or lumber. Foreign trade was tantamount to gambling and it was often questionable whether the odds were in the producer's favour. It is easy to be envious of the Boyds' stupendous wealth, forgetting that they were the ones that survived, while the largest firm on the Trent Watershed, and the two largest lumber companies in its upper reaches, went bankrupt. A handful of entrepreneurs retired from the business having made a good living, but at the same time many men risked and lost everything they had. Among the firms playing the international market, most lost large sums at one point or another, a large portion ended up going under, perhaps to resurface, and none escaped difficult times. In a world where

affluence was often a mirage, it is too easy to forget that there was only one Mossom Boyd.

The plethora of smaller operators tends to be forgotten as the debates focus on the handful primarily involved in foreign trade. From the early days in the Kawarthas, most mills cut in the thousands, not millions, of feet, and marketed their goods locally, though a portion might be resold in international markets. Their work was often complementary to the big companies, sometimes taking advantage of the firms' economies of scale in getting the trees out, marketing through them, doing their custom milling, or selling them a portion of their logs. As with larger firms, it was a risky and difficult business, where only the most determined, skilful and fortunate survived. Even when successful, these mills produced a modest living, usually little better than most country craftsmen.

The large firms seemed like a hurricane passing through the region. Within a few decades they cut over forests that had been developing for centuries, taking with them many centuries-old pines. They certainly did not linger long in any region, as they stripped the large, clear straight pines, and some of the best oak and elm. Yet at the same time they cut selectively—in the nineteenth century, clearing forests was the domain of farmers not lumber companies. The change they brought was in forest composition, and when contemporaries observed the destruction of forests, it usually meant the end of merchantable pine, often accompanied by forest fires fuelled by the slash they left behind.

Before the annual harvest began, companies usually acquired rights to cut from the Crown or private landholders. From the creation of Upper Canada, reserving naval timber had been an official priority as lands was patented. Governor Murray was instructed immediately after France ceded the Canadas following the Seven Years' War, to reserve "for the growth and production of naval timber if there are any woodlands fit for that purpose." This was reiterated to Governor Carleton in 1775, and Upper Canada, under its first Lieutenant-Governor John Graves Simcoe, reserved masts when it granted land. In 1818 The Duke of Richmond ordered the Upper Canadian administration not to grant any land without first surveying it to retain "any considerable growth of masting or other timber fit for the use of our Royal Navy, and more especially, on the rivers."⁶

As simple as maintaining timber seemed in principle, it was usually impractical. The amount of timber that would fit such descriptions was

incalculably large, and the Royal Navy had no prospect of using any significant portion of the timber reserved. As the Kawarthas were surveyed, ship building timber was not recorded. Lord Sydenham repealed the reservation of naval timber with patents and all of the talk of setting the trees aside was of no practical consequence, with few exceptions. Once a patent was issued, in practice the timber belonged to the owner of the lot.

On Crown Land the companies were, in theory, subject to the regulations of the licensing system. Accounts of the legislation have sometimes taken the view that the laws were introduced as a means of conserving resources—ensuring that there would be trees to cut in perpetuity, producing steady revenue. In the last years of the nineteenth century some efforts were made in this regard, but the government took essentially no conservationist measures prior to that. The system was in fact designed to regulate the division of resources and produce revenue. Policies tended to be directed at spurring production, rather than conserving supply, and in practice allowed the firms very inexpensive access to material. Even as dwindling stocks of prime merchantable timber became a political issue, the small movement towards husbandry was primarily fiscally motivated.⁷

Until 1826, only contractors for the Royal Navy and their licencees were to cut timber on Crown Land—a law that proved unenforceable. Lieutenant-Governor Peregrine Maitland then proclaimed that any subject could cut timber on unsurveyed land tributary to the Ottawa River, as long as it was large enough to be merchantable, and they paid dues. For saw logs the dues applied only if they were of sufficient size to be cut into deals. If timber was cut below eight inches square duties were doubled (to discourage cutting immature trees), and timber found to have evaded payment was forfeit. The following year this system was extended to the rest of Upper Canada, after the colonial government ignored imperial instructions to institute an auction system. Operators applied for licences in the fall, paying one-quarter in advance.⁸

Licencees, however, were not limited to the quantity specified, and it was in their interest to underestimate the amount, as they might reduce the sum payable in advance. Dues were collected as the rafts arrived at Quebec, the port from which all Canadian timber shipped, making it fairly difficult to slip by undetected. Jones, Murray & Co., a

subsidiary of Horatio Gates & Co., collected the money, and there were irregularities. It was difficult at Quebec to tell whether timber was cut on patent or Crown land. Dues were later charged at Belleville, one of the two main outlets of timber from the Trent system, the other being via rail to Port Hope.⁹

	1826/27	1849	1851	1866	1869
Square Timber (1000 cu ft)					
White Pine	£ 2 1s 8d	£2 1s 8d	£2 1s 8d	£ 2 1s 8d	\$15.00
Red Pine	£4 3s 4d	£4 3s 4d	£4 3s 4d	£ 2 1s 8d	\$15.00
Oak	£ 6 5s	£ 6 5s	£ 6 5s	£ 6 5s	\$30.00
Walnut			£6 5s	£6 5s	\$30.00
Basswood		£2 1s 8d	£2 1s 8d	£ 2 1s 8d	\$15.00
Cedar		£2 1s 8d	£2 1s 8d	£ 2 1s 8d	\$15.00
Spruce			£2 1s 8d	£2 1s 8d	\$10.00
Elm		£4 3s 4d	£4 3s 4d	£4 3s 4d	\$20.00
Ash		£4 3s 4d	£4 3s 4d	£4 3s 4d	\$20.00
Birch		£4 3s 4d	£4 3s 4d	£ 2 1s 8d	\$15.00
Tamarack			£4 3s 4d	£4 3s 4d	\$20.00
Maple					\$20.00
Saw Logs	2d				
White Pine		7d	5d		\$0.15
Red Pine		5d			\$0.15
Spruce		2 ½ d	2 ½ d		\$0.10
Basswood					\$0.15
Maple					\$0.25
Walnut					\$0.25
Oak					\$0.25
Hemlock					\$0.10
Cordwood					
Hardwood		8d	8d		\$0.20
Softwood		4d	4d		\$0.15
Hemlock Tanbark (cord)					\$30.00

4.1 Timber Duties¹⁰

In 1846, the Commissioner of Crown Lands stipulated that licences auctioned that year could be retained until May 1, 1849. The Crown Timber Act of 1849 limited licences' duration to 12 months, expiring April 30. Companies were expected to cut 500 ft or 100 saw logs per square mile as long as there was sufficient timber present. In calculating the cut the Department assumed constant sizes for timber: white pine 70 cu ft, red pine 38 cu ft, oak, ash, birch, elm, basswood and cedar 34 cu ft. Because of this, companies were again encouraged to select the largest, finest timber, and leave the rest. From 1849 limits could be transferred, subject to departmental approval, and those having duly performed their cut or improved rivers for driving had preference for renewal. In 1851 ground rents were imposed on timber limits, with the intent of preventing companies from purchasing berths on speculation.¹¹

Ground rents and minimum cuts both gave lumbermen some incentive to accelerate cutting. But they could renew licences, so companies scrambled to acquire berths tributary to their mills, and might purchase others expecting to build a mill or sell the berth at a profit. Feeling the need to acquire more limits than they could immediately use, they were then expected to maintain a minimum cut, which if practiced would have been a nuisance to lumbermen. It does not, however, seem to have significantly influenced their harvesting patterns.

Lillian Gates observed that companies purchased land or made some payments just to strip timber. Even though the majority of timber in the Kawarthas was cut on patent land, most firms owned some lots where they logged, but on nothing like the scale one might assume from reading the literature or rhetoric of the day. Like Sandy Dennistoun, many operators purchased a few lots, but to obtain a return on their investment, they usually needed to sell the trees and then the real estate. Wallis cut some timber off his speculative lands, but he marketed a trifling proportion of the amount he owned. It was convenient that he could cut timber and saw logs off his holdings, but he was primarily motivated to resell the land at a profit. Boyd tried dealing some of his Verulam, Somerville and Harvey lots in 1861 by advertising that marketing the cordwood would pay for clearing the lots, but this was a tough sell.¹²

There were some lots where the standing timber might gross more at Quebec than the land—on the best lots topping \$6000. For instance, in the 1858-1859 season, Boyd cut

505 pieces of white pine on lots 24 and 25 X Verulam; 430 white pine, 12 elm, 15 oak and 2 masts on 9 XIX Harvey; 300 white pine and 10 masts on 5 VI Verulam; and 14 masts on 5 VIII Verulam. But Boyd only owned one and a half lots in Verulam where he cut timber in 1858-1859. The two hundred acre lot he held (5 VII containing 13 white pine, 20 red pine and 6 masts) he sold in 1864 to Thomas Middleton for \$500. Taking into account the expenses of rafting to Quebec and all the charges to send it across the Atlantic, the value of the standing timber did not exceed the value of the land.¹³

Companies could usually purchase the timber standing on patented lands, with prices varying from a few dollars up to \$2100, and many lots going for several hundred. Masts might be sold individually, as in 1854 when James Wallis sold the masts off his land in Somerville to Boyd for £1 15s each, plus one half of net profit. These arrangements allowed farmers to have trees removed that more often than not they wanted to clear, and receive payment for it. They allowed the firm to acquire the rights to the timber at lower cost than purchasing the lot, and relieved it from the obligation of finding a buyer and paying tax on the property in the meantime.¹⁴

In each part of the Kawarthas most timber was cut while settlement was sparse whether land was held by the Crown, speculators or settlement companies. In some parts, timber was even harvested before the township surveys, including Belmont (survey 1852-1855), Tudor (1863) and Wollaston (1863)—the last two cut by Gilmour & Co.¹⁵ And as long as there were few people around to see, many trees could be had for free. Timber theft was rampant throughout the nineteenth century. There is documentary evidence to suggest that most of the large companies stole, and it has to be assumed that the thieves preferred not to leave a paper trail.

There were several ways of stealing timber. One was to cut the proprietary marks off someone else's timber and replace them with your own. To distinguish the logs, each company had a distinctive mark—often more than one per firm—centrally registered under the 1870 Federal Act Respecting the Marking of Timber. It was branded onto each log using a marking hammer (like a sledgehammer with the company's mark raised on the face). To the end of the century the logs could alternatively be marked by hand with an iron, as they were in earlier days, but a more common substitute was to paint the logs in a colour distinctive to the company. For instance, Boyd's most common timber mark was

MB but could also be represented by Venetian red paint.¹⁶

The problem with replacing another company's mark was that sooner or later the victim would find out, and certain companies developed a reputation. There were many reasons, though, why the companies would not want to earn the wrath of their peers—they could retaliate, or might not co-operate in future. Many companies cut on other firms' limits. Then the victim could force the thief to purchase the standing timber. In one case, the head of one major firm wrote to another, with whom he tended to have good business relations, explaining that he was surprised to find that it had been stealing from him, and that he was sure that since the president now knew, his workers would not persist. Firms were not so tactful in their internal correspondence. At other times operators made sure that their men were very careful not to trespass upon particular companies.

Most firms tried to ensure that their thefts, especially those perpetrated on their peers, went undetected. They might have jobbers, as contractors hired to get out logs were called, do the dirty work for them. If the jobber was caught cutting without authorization, it was difficult to pin it on the company, though on occasion the limit holder had a pretty good idea who the thief worked for, especially if he marked the timber. Such clandestine work had its risks, as the owner, especially if it was a company, might well arrive just in time to confiscate a winter's work. In most places the logs were going nowhere until the ice broke up—unless they were near railways, or could be hauled away to a legitimate pile. But the guilty company would certainly make a jobber believe the risk was worthwhile.

Companies went to great lengths to keep a watchful eye over their limits, often employing neighbours. Crown and speculative land tended not to be as well supervised. Some speculators hired surveyors to look over their land. One found a logging road, shanty, and multiple firms already at work. The townships of Haliburton, privately held by the English-owned Canada Land and Emigration Company (Dysart, Dudley, Harcourt, Guilford, Harburn, Brunton, Havelock, Eyre and Clyde), were fairly easy pickings.

It was a common joke—and may not have been far from the truth—that CLEC did not initially realize that its timber was valuable. It certainly seemed unaware that on many of their lots the timber was far more valuable than the land underneath it, especially when

the government was offering free land grants nearby. While the company focussed on finding settlers for Haliburton, their timber began to disappear—justified in part by popular derision. By the late 1860s it began pursuing the sale of its standing timber, though it still did not seem to grasp how likely it was that the forests would disappear, without an interested party watching them. Being so distant from its holdings and to some degree reliant on lumber companies for its information (though it did have land surveyor Alexander Niven in Haliburton to oversee their affairs for part of the period) the CLEC was particularly vulnerable. On one occasion a major company applied to purchase timber rights in a certain CLEC township. The CLEC refused explaining that it wanted to preserve what it considered a valuable berth. The company then went ahead and took the best timber anyway.

Within lumbering circles, some individuals took pride in having pulled off the biggest or best heist. George Thompson recalled being told one year (apparently 1877-8) that he was to be both scaler and clerk for a job on CLEC land. He thought that impossible, but his boss explained "he would measure the logs and scale them right here in the office, where we could do it in a way that would be much more satisfactory to our firm than it could be done by walking through the bush." The CLEC agreed to his appointment as scaler, not realizing that he was also clerk, and he was to receive \$70 per month pay, a sum that would rival that of bush superintendents. As the CLEC customarily paid half the wages of the scaler, it was responsible for \$30 of his salary, the firm saying he was to be paid the unusually high sum of \$60. He and his foreman then manipulated the records to show half or less of what they actually cut.

At the same time, the firm arranged with a jobber, who also had a contract with the CLEC, to cut logs off one of the land company's virgin limits and deliver them to the CLEC's mill in Haliburton, while he cut for his other employer on cutover. He was then paid to cut the mostly rough and rotten logs that had been left behind into saw logs, and switch them for the fine timber belonging to the CLEC. It then scaled the logs cut for the CLEC at triple the size of the ones it scaled for itself, so that the CLEC would pay most of the cost of taking out both sets of logs. Both manipulations probably yielded over a million board feet. The CLEC did not realize it had been duped until the logs reached their mill, but by then the firm had paid every one off and the jobber had disappeared. The CLEC discharged Thompson and refused to pay him. But that was small consolation for all the timber that had disappeared, and it was not long before Thompson was a superintendent.¹⁷ Companies often manipulated returns, either to minimize the reported cut, as in Thompson's example, or to make stolen timber from one area look like it came from another. One company had a second firm mix stolen logs in with their legitimate drive. One concern stealing from the CLEC kept tabs on Niven's whereabouts.

Thompson recalled that fraudulent scaling was common: "quite a number of firms will only employ log scalers who they know will not scruple to make an affidavit to wrong measurements." Their bosses were not required to verify the correctness of the measurement, and Thompson thought the system might have worked better if the companies had to post a deposit on their honesty. There were many other ways that his firm took advantage of the CLEC. In his time the dues were \$1.50 per thousand feet board measure, comparable to Crown dues of the period, but not subject to the auction price for the berth as a whole. Because firms paid on the basis of the lumber they recorded at the drive, they might be picky, taking only the best, and leaving millions of feet, saying it was not worth the trouble.¹⁸

There were, of course, many small players in the game of timber theft and they did not have the same protections as the big firms—it was more difficult to pin the blame on someone else. If they were jobbing for a company, they would almost inevitably take the fall. The companies then might not even make sure that they got what they thought they had bargained for. The smaller thieves did have some advantages, however. One firm realized that after three years of trespass, perhaps 300,000 to 500,000 feet had disappeared from their limits. Because it was Crown Land not only did it lose the chance to cut the logs, it also owed stumpage of perhaps \$500. Ordinarily a concern would prosecute to recover the loss. But in this case, the timber was long gone, and it did not think that thief had enough traceable resources to force him to pay.

Companies who themselves stole and had agents stealing often had no scruples about prosecuting others. They might seek damages, such as paying for the timber, often at a price above its market value, or a criminal conviction. When someone stripped the timber with a location ticket for a lot, they might write to the Commissioner of Crown Lands to cancel the location. Respectable officials from justices of the peace to surveyors

spent a lot of time investigating these cases, and it is hard to imagine that they were all oblivious to their friends' charades.

While Boyd and many of his peers had a policy "to nip all the trespasses in the bud," dealing with them could be a complicated matter. Firms often felt they had to move fast because the perpetrator might disappear, especially if the logs could be gotten to a railway. When seizing logs, one had to be careful that they were not stolen again afterwards. Where surveys were difficult to interpret, a firm might resurvey an area to determine whether logs were in fact cut in trespass. One Verulam Township man had to have his lot lines run to show that a company had stolen from him. Victims had to weigh the costs of the survey against the returns of a successful prosecution. In some cases more than one firm was complicit. When another company was stealing the logs, the firms often thought it best to just sell them to the perpetrator.

Cutting in trespass on Crown Land was general practice, not effectively discouraged—if not tacitly encouraged. From the beginning of operations in the Upper Trent Watershed, the regulations stipulated that timber cut in trespass was to be seized, but this does not seem to have occurred to any significant degree. In the early 1880s, the Crown charged a 200% penalty on dues for timber cut in trespass. Rather than discouraging firms from cutting on Crown lands, it prompted them to select the best timber that was worth the extra expense, and leave the rest. Upon inspection, timber rafts acknowledged as having cut in trespass were larger than average. For Boyd's 1865 cut, the difference was about 15%. Many lumbermen presumably represented some of their timber cut in trespass as ordinary sticks.¹⁹

As the timber frontier advanced across the Kawarthas, Indian Reserves also tempted the unscrupulous, as theft was a difficult issue for both Natives and the Indian Department. As early as 1814 timber was taken from the Mohawks at the Bay of Quinte. Residents of Rice and Curve Lake had a particularly difficult time protecting their islands scattered throughout the Trent system, as most seem to have been rarely visited. They were then fairly easy pickings for timber thieves. The Indian Department received numerous complaints, and even of cases of theft off the home reserves. They often had little idea who to suspect, being left only with sleigh tracks, which were easy to disguise since so many travelled the lakes. Sometimes neighbours identified the thieves. In the best case, a fee for stumpage might be charged against the perpetrators. But the thefts carried on because there was a fairly good chance of getting away with it.²⁰

In 1854-1855 the Scugog Island Ojibwas sold standing timber to Thomas Paxton, a Port Perry saw miller. He paid chief John Johnston for the lumber—less an amount to cover debts—but Johnson did not equally distribute the proceeds among the band, leading five band members to ask Superintendent of Indian Affairs T.G. Anderson to have the money redistributed. On other occasions, the Department deposited royalities to the band account, but members were often unsure whether they were receiving payment. In May 1855, Boyd bought elm timber from Scugog Island chief Jacob Crane, without realizing he that needed Departmental sanction. By August he had their permission, but the Crown insisted that he pay them, not Crane. In 1865, the Department decided to sell another block off the Scugog Reserve, crediting the band account with half the bonus paid. In keeping with their long-standing policy of viewing all real property as an asset of the community as a whole, they then insisted that all sales be made through them, and disallowed all private arrangements.²¹

In 1874, the Department permitted Thomas Ferris to cut cordwood on the Scugog Reserve. Employing a gang of up to ten men, he went right to work, but they soon noticed that he was especially targeting hemlock—which was not the best fuel wood—and hauled out about 100 cords of bark, for use in tanning. After his "wholesale destruction of the hemlock," there was "scarcely a tree left standing" from their best blocks of timber. That year many non-residents were cutting timber on the reserve, and the Department was alarmed as it watched the sleigh loads drawn out. In late December the Indian Agent W.A. Pringle forbade the removal of any wood before it could be measured, only to find twelve teams hauling out more wood. Pringle seized all the cordwood on the reserve, but one man defied him, claiming that the wood belonged to him. Many had arranged with band members independently. Though Pringle collected some dues, plus fees to cover the cost of collection, many of the cutters were livid, spreading rumours of his unreasonableness. Some were angry because they already had the wood sold. One vowed that Pringle "will not go unpunished, for the injustice he has done in this affair."²²

Though they were expected to ask the Department for permission first, Ojibwas were usually allowed to get out timber themselves. They were even expected to write

before cutting cordwood, and many applicants explained that the reason for cutting was really to put the land into cultivation, reflecting the Department's expectations. A licensing fee was charged based on the amount cut. In 1875 William Marsden paid \$1 to cut 12 cords on his own lot. By the following year 15 cents a cord was the standard rate about half the going rate for standing fuel wood timber. While the Crown required licences to cut timber on private land, it seemed strict to apply this rule to those cutting wood on their own reserve lots, as fees would never be charged to farmers off reserve. But at the same time, the Department received complaints when wood was sold to be taken off the reserve and the community as a whole did not get the proceeds.²³ In 1873, after writing to the Department for permission, the Rice Lake Band started producing rail ties and hewn timbers on their reserve. They thought it best to cut rail ties from the tops of trees they used for cordwood. In 1867, the Scugog Band cut timber to construct a church and took it for sawing at Joseph Bigelow's mill in Port Perry. Bigelow gave them some of the lumber they were entitled to, but withheld the rest in payment for the debt of one band member. The village then wrote to the Department for redress-debts owed by natives were not legally collectable.²⁴

Township lands were often similarly under supervised. Early Verulam Township by-laws authorized its officials to sell the timber off the road allowances, and from the 1870s to 1890s councils tried to realize some income, but by and large this timber just disappeared, whether taken by those clearing roads for statute labour, or slipped away by the timber companies. Lots seized for backed taxes were also easy pickings, usually leaving officials with little idea who had done it.²⁵

Forestry around Fenelon and Verulam in the 1830s was almost entirely for local markets. For a few decades there had been fairly extensive export operations near the mouth of the Trent River and other major courses tributary to Lake Ontario,²⁶ but the distance and tortuous course of the Trent drainage from the upper lakes impeded exports. The vast majority of forest operations in this period were auxiliary to the project of clearing land for agriculture. As they denuded their farms, settlers saved a proportion of the timber, albeit typically a small one in proportion to what they cleared. Their homesteads were built largely from the produce of their own forests. Tools and the machines they contrived were commonly made entirely of wood.

4.2 Square Timber Brought Down the Trent, 1838 (cu ft) ²⁹			
White Pine	518000		
Red Pine	107000		
Oak	46500		
Elm	6500		
Staves	393000		
Deals	20700		
Pine Boards	72000		

The first saw mills on the Upper Lakes of the Kawarthas were those constructed as the nucleus of nascent villages. Some early settlers proximate to the waterway took select trees that they cleared from their farms to the mills to be ripped into lumber. By convention, reflected in the Upper Canadian Statutes, millers received half the lumber in payment. By 1835 there were sawmills operating, however intermittently, at both ends of

Sturgeon Lake, the adjuncts of the speculative land ventures of Thomas Need, Robert Jameson and James Wallis. Though both were rather small and primarily served the district, Wallis ran some timber in rafts of 50,000 ft, presumably en route to Quebec, as early as 1841. Some spars were driven from Buckhorn Lake three years earlier. Samuel Brock had a sawmill at Cambray by 1834.²⁷

Wallis disappeared from the business as he was distancing himself from his speculative land ventures around 1842. His mill gradually fell into disrepair, despite his concern for what this might mean for his land speculations. He tried various expedients, offering in the Peterborough *Despatch* of 1850 a fifteen-year lease of the mill on "almost nominal" rent. At that point he thought \$2400 was needed to make the mill run well. The following year the combined grist and saw mill was demolished in favour of separate buildings, still on the north side of the river. The sawmill then had a capacity of about 5,000,000 feet annually, sawing mostly logs cut tributary to the Burnt River. It burned to the ground on January 25, 1858, presumed to be arson, but Wallis had partial insurance and rebuilt. With Wallis' financial troubles, the site ended up in the hands of Sutherland Stayner, then Lindsay land agent William Margach, who lumbered on a small scale, before passing to R.C. Smith in 1864, who transformed it into a very large concern.²⁸

By 1858 Sandy Dennistoun, brother of Robert, an early gentry settler on Cameron Lake, was taking out square timber on the upper lakes. In January 1860 he purchased the Ojibwas' former settlement at Indian Point, on the understanding that "the said lands should not be stripped of the timber on them without the department being paid the full purchase money agreed upon." He sold lumber at Fenelon Falls, and was the key figure in

the Fenelon Falls Slide Company, which built the timber slide there, but did not remain in the business very long. After moving to Montreal, he married Margaret Pringle Redpath, of the famed sugar family, and is best remembered for founding the Montreal Golf Club.³⁰

At Bobcaygeon, Thomas Need had a sawmill running on Big Bob adjacent to the canal for the 1835 season—in the words of Boyd "the most substantial frame building I ever saw." He had the same contractor he was overseeing in the construction of the canal build it for him at a cost of £300, plus £50 for site preparation, and work began July 2, 1834. Up to that point Need had been living on a farm, which he then let, and moved to a shanty in the village of Bobcaygeon to oversee his works and occasionally run the mill himself, when he was not pursuing his other interests. Once the sawmill was complete, he cleared a yard and began skidding in his first cut of logs, taken from the vicinity, including some from his friend Richard Atthill's. He got in only about 350, "a very inadequate supply by his own calculation." He instead relied on neighbours to bring in their logs for sawing on the commission of one half. One neighbour traded a milk cow for 3000 feet of lumber.

His mill was of the sash style then common, where a single up-and-down blade was fit into a heavy moving frame, powered by a flutter wheel, cutting with about 100 strokes per minute. Flutter wheels were not as efficient as undershot or overshot wheels, and, later on, this had to be replaced to increase the capacity of the mill. Such mills were slow—his mill cut about six logs a day, which he figured would make about 2000 board feet of lumber. Two men ran it, lining up a log on a carriage and slowly ratcheting it past the reciprocating blade. Once past, they pulled the carriage back and lined the log up for another cut. He figured that the six logs were worth about 15s, he would pay a sawyer 5s and a labourer 2s 6 d, and sell the daily produce for about £3, leaving a profit of about £1 17s 6d. When he first operated the mill he tried running it day and night, manning the day shift himself, with Hiram Beatty overseeing the night—but its operation was always inconsistent. In his first year it ran until September 28, when the water had fallen enough that its operation was no longer worthwhile. He sawed mostly deals for construction, though he cut some oak, elm, and cedar for furnishings. His lumber customers were mostly his gentrified neighbours, many of whom bought two or three thousand feet at a time. That season he also ran two rafts of 50,000 feet each and the following year started making shingles. By 1850 his tenant, Boyd, had many more lumber customers, but still primarily sold from the mill.³¹ Need did not realize his hopes of £1 17s 6d daily profit, in part because of the poor design of the Bobcaygeon Lock. He was relying on its dam to raise the level of Sturgeon Lake for much of the head for his mill. The dam, however, was built directly on the rock, which was full of seams and allowed the water to run beneath it. But even when it was running well his cut was still below 1500 feet in 24 hours.³²

Need, however, soon "began to feel anxious to spend a few months among my friends in England," and left the mill in charge of his "trusty agent," Mossom Boyd. Boyd had undertaken the clearing of a farm with his usual energy, but found it a poor prospect and moved to Bobcaygeon as Need's employee. Need had a previous protégée named Morgan Jones, a young gentleman who had a small clearing near the outlet of Sturgeon Lake on 11-13 VIII Verulam—the lot first taken up by Boyd's old friend John Darcus. Jones was engaged to marry Caroline Dunsford, but while crossing Sturgeon Lake to visit his fiancée one December afternoon, fell through the ice and drowned. His potential inlaws mistook his cries for a wolverine. Boyd then became Need's favoured assistant and, coincidentally, married Caroline Dunsford. The family remembered Jones, and Jones' Clearance became one of Boyd's sorting jacks.³³

While Need visited home in 1839, Boyd oversaw the operation of the mill. In 1844 Need leased his house, the saw and grist mills, and land at Bobcaygeon mill to Boyd for seven years for £40 annually, which subsequently turned into a twenty-five year lease. In January 1845, Need returned and offered Boyd the opportunity to purchase the lease, while continuing to pay a nominal rent of 100 ft of boards, but Boyd had no available funds and declined. Need nonetheless oversaw improvements to the mill, then declined a counter-offer from Boyd before returning home. Need continued to wait for Boyd to put the purchase price together, while listening to bids from no others, until Boyd successfully purchased the mill and water rights with much of the village in 1869.³⁴

Boyd's uncompromising determination was legendary. One of his foremen, William Britton, recalled when they were hauling masts down to Sturgeon Lake:

On one occasion when the mast 'broke'—that it balanced over the brow of the hill—one of the pole horses was knocked off his feet, but there was no such thing as stopping [to Boyd] and the whip was put to the other eleven horses and the other

was dragged, fortunately without serious damage, and the mast landed on to the ice when promptly the whole lot—six span of horses with the teamsters on the backs, sleigh and mast, all went through the ice and the scramble of men and horses through the mud and chunks of ice to the shore made an exciting few minutes.

In the early years of his business, Boyd personally oversaw most of the operations chopping in the bush, sawing and running on the rafts, and living little better than his men. Yet he seems to have been continually driven to regain the status lost when he was orphaned. He maintained a reverence for classical education, gentility, and Britain, though his literacy paled in comparison with colonial elites and later his children. While eating the camp food on the drive of 1851 he found time to recite the deaths of the Roman Emperors.³⁵

Though performing the hardest manual labour himself when necessary, he expected deference and discipline, perhaps reflecting his military roots. His own children called him "Governor," which they familiarized into "Gov." He personalized his children's names with "ie": Gardie, Mossie and Willie. Even the workers called them "Mr. Gardie," "Mr. Mossie" and "Mr. Willie"—until his death, when Mossie became "Mr. Boyd." Always eyeing profit, he was frugal and lived by his proverb "better to submit to a small loss than be drawn into a greater loss."³⁶

In his early years, Boyd faced a continual shortage of operating funds. In 1848 he ran his first raft to Quebec, the year of the greatest recorded timber glut. He was able to carry on in part because of the generosity of Thomas Need. In 1849 he partnered with his brothers-in-law John Langton and James W. Dunsford. Both Langton and Dunsford were looking for a profitable venture as they had realized that they could not live as gentleman farmers, while Boyd needed access to their family wealth, both being far better off than him. Langton paid the expenses to get the timber to Trenton; Dunsford from Trenton to Quebec; Boyd contributed no cash, but piloted the raft and handled the sale. That year their raft included 180 masts and spars. But, as Langton explained, they did not always see eye to eye on how to run the business:

My two companions in the business are as opposite as light and darkness. Boyd is an Irishman whose blood got an extra boiling by being born in India, and all the Flemish blood of the Dunsfords has been concentrated in Jem. You might as well yoke a wild horse with an exceedingly sedate ox as get those two to pull together. ... As for Boyd he is admirably adapted in many respects for the work he is at. When a raft is once started almost every thing must yield to despatch.

The arrangement lasted until 1851, both Langton and Dunsford then moving on to politics. Boyd also tried his hand at politics, standing as a Conservative candidate in 1853, but was defeated, and declined subsequent opportunities, preferring to focus on the business. After the partnership dissolved, Langton carried on as Boyd's creditor and co-signed his loans, while Boyd also relied on advances from his buyers at Quebec and Glasgow. Boyd continued to expand the business, contracting with J.R. Young at Quebec to supply 76,000 feet of elm, 30,000 feet of pine and 100 white pine masts the next year.³⁷

By the mid 1840s timber was said to be scarce below the long rapids north of Peterborough, which were the primary impediment to rafting from the Upper Lakes, and several operators increased the scale of their operations there. In 1844, the Provincial Board of Works built slides on the Trent River, facilitating the passage of timber from Rice Lake to Lake Ontario—difficult as the trip remained. The rush to get out the export timber from Fenelon and Verulam lasted from then until about the 1870s, more or less coincident with the period when most lots were taken up by their first owner-occupants. Early on, the principal operators cutting in Fenelon and Verulam were Boyd, William Margach, James Irwin & Gardiner Boyd (a partnership of Mossom Boyd's son-in-law and son, based in Peterborough), George Strickland, Sidney Hawker—who cut mostly shingles at the mouth of the creek bearing his name, on 17 VI Verulam—and the Fenelon partnership of Henry Greene and John A. Ellis. When Boyd was working in Harvey Township in the late 1850s, he cut mostly white pine timber, with a bit of red pine, oak and elm and a few masts. In 1855, aside from privately held property around Fenelon and Verulam, Boyd's cut was concentrated in Somerville, Harvey, Ennismore and on the islands of Buckhorn Lake. There were several smaller sawmills operating by 1858, including David Sheriff (5 III Verulam, capacity 1,000,000 feet), Jabez Thurston (6 III Verulam, 150,000 feet), Joseph Elliott (Cambray, capacity 300,000 feet), and Thomas Lawrence (Fenelon Township, 300,000 feet). Boyd set up his shanty on the road from Bobcaygeon to the Beehive and in the winter of 1859-60 had one on Lot 22 Concession 4. In 1865, James Junkin had a licence to cut timber on the west half of 20 X Verulam.³⁸

The large firms grew along with the export trade from the Upper Lakes. To the 1870s, the square timber destined for Britain was the principal article of exchange getting out saw logs at the same time made the square timber trade more lucrative, but in this period the lumber trade was not profitable on its own. Though the returns might be great, timber was a very uncertain proposition. It paid as long as nothing went seriously wrong on the way from the Kawarthas to the British markets and the prices were reasonable. But from Lake Ontario across the Atlantic there were a lot of places where

4.3 Boyd Timber Sales at Quebec, 1860-1865 (Gross per 1000 cu ft) ³⁹			
Oak	£87 10s 4d		
Elm	£31 12s 11d		
Square White Pine	£45 9s 9d		
Waney White Pine	£54 2s 1d		
Red Pine	£54 0s 8d		
Masts (pc)	£21 10s 10d		
Spars (pc)	13s 9d		
Deals (3x9, 12 ft long)			
Pine 1 st	3s 4d		
Pine 2 nd	2s 1d		
Pine 3 rd	10d		
Spruce 1 st	16s		
Spruce 2 nd	11s		
Spruce 3 rd	9s		
Spruce Ungraded	10s		
Spruce Deal Ends (3x9, 6 ft long)	4s		
Spruce Planks (2x9, 12 ft long)	7s		
Beam Filling	£38 17s 4d		
Hemlock Lathwood (cord)	£1 14s		
Deck Plank (1000 cu ft)	£62 10s 2d		

fortunes could be lost. The rafts could wreck on the lake in storms or be torn apart in the St. Lawrence River rapids. They could sit at Quebec City for months with no one interested in paying the usual prices. They could also get lost crossing the Atlantic. Britton recalled when Boyd "told him with tears in his eyes how he was 'broke' having lost all his timber shipping across to the Old Country, but that he sent Mr. Gardie [his son Gardiner] and Christy Johnson across to England to see about it and that they found it in the middle of the ocean as they were going over and took it with them."⁴⁰

Boyd, like the other operators in the Kawarthas, shipped his timber at least to Quebec, where his agents were David Burnet and John Adam. He often sold direct to Glasgow agents George Gillespie and James Blair, as well as George Milne & Co. of Liverpool. In the early years, Burnet often loaned Boyd the money to get the timber out, and expected Boyd to market his timber through him at port—where he might charge higher commissions for timber brought out on credit. When Burnet died in 1853, Boyd owed him £3718. He was then getting out timber on credit for James and John Richard Young.

Marketing timber was no easy matter, and at times, Boyd or his sons resorted to selling it themselves at Quebec, or even in Britain when he was not satisfied with offers. But Boyd found it difficult to peddle timber in England. As he explained to Mossie in 1876, "outsiders have no chance but are the more likely to be entrapped you do not know who to trust. I have had to be very cautious not to encroach on their customers. Keeping this in view I have allowed it to be supposed that I am not here for the express purpose of selling timber but am always open to a deal."⁴¹

Most timber was sold by the cubic foot, or per piece for common sized cuts like planks and deals. Among square timber, oak garnered the highest prices, but was the most difficult to get to market, its weight making it more difficult to handle and float. Elm was the least remunerative, being heavier than pine and worth less. Boyd also cut small amounts of birch, ash, tamarack, and butternut square timber. Square and waney pine constituted the bulk of all timber sold at Quebec. For a period in the early 1860s, waney timber—squared with the corners left round—was actually selling at higher prices than square timber, which was usually considered superior, but Boyd's handlers found waney timber difficult to market in 1864, and recommended that he not make any more in the immediate future. Masts and spars were generally sold in small blocks, and masts especially were variable in price, depending on size and quality. Between 1860 and 1865, Boyd's masts sold for as little as £12 10s each, but one block brought £33 13s each. David Burnet, Boyd's agent at Quebec, explained to him that if he shipped too many spars at a time, it would affect the market for them—and they often seemed to be a difficult sale.⁴²

Though timber prices at Quebec seemed high, profits were uncertain. Agents charged up to 13% commission. Before the seller received any payment transatlantic freight, duties, bank commissions, and probably insurance were deducted. In 1864 and 1865 Boyd received from 5.5% to 29.2% of gross sales. The shipload at 5.5% brought

 \pounds 83 17s 9d—but after deducting the expenses of cutting, squaring, hauling, driving and rafting, this shipment lost money.⁴³

Boyd faced great adversity as his business expanded. In the early years he was in debt to many of his close friends and associates, and relied on their continued good will, as he would have been in no position to repay had they asked. He spent over three decades inching his way towards unencumbered ownership of his mills, putting together the resources to operate using his own capital, and slowly but steadily expanding the business. During this period many of his hands were friends or neighbours, working in part as reciprocal exchange. By 1858 the sawmill could produce 20,000 feet daily, or about 3,500,000 annually.⁴⁴

Until the late 1850s, it was difficult to transport any quantity of sawn lumber from the Upper Kawarthas to the front. Exporters could float scows down the Trent River or team it overland from Port Perry to Whitby—either case involving more difficulty than lumber's value would justify. In 1857, the railway from Port Hope to Lindsay opened the possibility of marketing large quantities of lumber. American markets became more accessible with the Reciprocity Treaty, and demand increased with urban and westward expansion. With this rail link, lumber on the upper lakes was loaded on scows, towed to Lindsay, transferred to rail cars, then went either by rail directly to markets, or was loaded back on ships at Port Hope and carried across the lake. After Reciprocity ended, a 20% American lumber duty reduced exporters' margins, but it was by no means prohibitive.⁴⁵

As Mossom Boyd's mill grew from Need's at Bobcaygeon, R.C. Smith expanded Jameson & Wallis' in Fenelon Falls. Smith's mill, on the south side of the falls at Fenelon, was the largest on the upper lakes. From his first year it ran night and day, then with a capacity of about 10,000,000 feet per year, plus a lath mill. Robert Charles Smith was from one of the founding families of Port Hope (formerly Smith's Creek) and brother of notable Toronto lawyer Sidney Smith. Within two months of the mill opening in 1864 its foreman, James Whistle, drowned below the falls when his boat upset in an eddy. From 1867 to 1881, Smith's nephew, John David Smith, oversaw the operation.⁴⁶

George Brownlee and Bradley Mowry purchased a part lot from James Wallis about a mile downstream from Fenelon Falls in February 1868, and it seems had a steam sawmill in operation there that summer, accessed off Francis Street. Brownlee lived in

Peterborough and Mowry in Lindsay. Their arrangement lasted until 1872. Mowry then partnered with George Hilliard, a well-established Peterborough lumberman, producing 4,000,000 feet in their first year. They stopped operating the mill about 1875, and Mowry opened a foundry in Lindsay. In 1881, a spark from the steamer *Ontario* ignited the mill, burning it and several outbuildings, before spreading into the woods. Hilliard sued for damages and received \$3800.⁴⁷

In 1869, Henry Greene and John A. Ellis purchased the point across from Brownlee & Mowry's mill on the west bank where the Fenelon River widens into Sturgeon Lake and built a steam sawmill. Most years they cut about 3,000,000 to 4,000,000 feet. Initially the road to their mill was little more than a blazed trail, but they spent a large sum of money improving it, and built a wharf in 1870—used by many villagers when the public wharf was inaccessible due to currents or floating saw logs. Tending to sell a much larger proportion of their cut locally than Boyd, they maintained an inventory of lumber despite leasing out the mill in some seasons. With the mill on the outskirts of town, they built an office on Lindsay Street. By 1876 they had A.W. Parkin, and from 1885 Samuel Parsons, as agent at their William Street yard in Lindsay. They operated a planing mill and sold sash, novelty siding, baseboards, stair stringers, doors, tongue and groove lumber, lath and fence posts. Around 1880 they did some custom cutting for Mossom Boyd.⁴⁸

Jabez Thurston operated a mill on his farm south of Dunsford until 1871, producing about 500,000 feet annually. He then purchased eleven acres at Sturgeon Point and built a home and steam sawmill there. After his mill burned twice within a year, he sold the property in May 1875, then operated a mill at Lindsay and lived between there and Dunsford. Though producing large quantities of shingles, he specialized in hardwoods, especially birch, for furniture. In 1883, Jabez visited the west coast of the United States, and was very interested in Oregon, sending his son Alf on a subsequent trip. Alf soon moved there and Jabez followed in 1892.⁴⁹

John Petrie had a steam-powered sawmill in operation by 1871 that cut 1,000,000 feet of lumber that year. Located on Lot 15 IX—Sawers' old estate—it was just west of Bobcaygeon on the north shore near where Sturgeon Lake narrows into the Big and Little Bob Channels. Though he marketed some of his lumber independently, he also

cooperated extensively with Mossom Boyd, who did some of his towing and distributed some of his produce. He marketed to Boyd's wholesale customers and did custom cutting for the larger firm. He increased his mills' capacity to 2,000,000 feet, but it was struck by lightning on May 1, 1899 and burned.⁵⁰

Michael H. Berkeley operated waterpowered saw and shingle mills at Cambray by 1869, producing for local consumption, square timber for the English market and exporting some lumber to the United States. In 1871, he estimated the annual production at 600,000 feet. In 1878 a drain was installed in Goose Lake, partly in hopes that it would improve the spotty waterpower on McLaren's Creek. In 1880 the shingle mill burned, but he rebuilt it immediately. After his death, his widow passed the property to William Berkeley and W.B. Feir—a former employee—took over its management.⁵¹

As the capacity of these mills moved beyond supplying the lumber needs of their villages, they became much more efficient in their use of water or steam power and the speed at which they could process lumber. While the old sash saws cut six logs or two thousand board feet using the entire water power of Fenelon Falls or Big Bob, with Yankee (or less commonly Irish) gang saws, and slabbers to square up the logs, tens or even hundreds of thousands of feet became the norm. But the gang saws' cut was not as precise. British customers expected true, square edges on deals and planks, which were best produced with the slow, carefully supervised cut of the sash saw. Quantity was far more important in the American market, suiting the Yankee gang. Since the gangs' finer blade cut more smoothly than a circular saw, it was also better for use without planing, which was common practice in North America.⁵²

While steam mills were portable and ran year-round independent of water levels, they had to be constantly fed, which added additional labour and expense. Many mills used waste materials as fuel, and in later years the cost saving of waterpower was offset by the requirement to burn the refuse in a kiln anyway. Most large mills were water powered, while steam tended to predominate among the small operations. Some big mills ran steam engines to power certain operations, especially in the off-season or during periods of low water.⁵³

By the 1860s and 1870s, the large sawmills no longer primarily served local markets. While they cut some bill stuff, and perhaps some custom logs, most of their

4.4 Boyd Mill Inventory, April 1, 1893 (bd ft) ⁵⁴					
	White Pine	Red Pine			
1x4 — 12 to 13	160,700	10,700			
1x4 — 14 to 16	184,200	27,300			
1x5 — 12 to 13	82,900				
1x5 — 14 to 16	76,000				
1x5 — 12 to 16		18,100			
1x6 — 12 to 13	386,300	29,200			
1x6 — 14 to 16	380,800	548,000			
1x7 — 12 to 13	112,900	16,500			
1x7 — 14 to 16	115,400	4,700			
1x8 — 12 to 13	447,100	35,700			
1x8 — 14 to 16	428,600	12,800			
1x9 — 12 to 13	52,200				
1x9 — 14 to 16	91,600				
1x10 — 12 to 13	378,800	33,700			
1x10 — 14 to 16	452,500	54,600			
1x12 — 12 to 13	197,000				
1x12 — 14 to 16	848,300				
1 x 12 — 12 to 16		50,600			
1" siding — 12 to 13	45,000				
1" siding — 14 to 16	101,700	101,200			
1 1/4" siding — 12 to 15	36,700				
1 1/2" siding — 12 to 15	54,300				
2" siding — 12 to 16	10,800	18,100			
1 inch shorts	282,100	18,500			
1x4 & up — 12 to 16		93,500			
$1\frac{1}{4}$ x4 & up — 12 to 16		12,000			
1¼ x 4 & 6 —12 to 16	15,200				
1¼ x12 — 14 to 16	83,400				
2x6 — 12 to 16		69,400			
2x8 — 12 to 16		21,900			
2x10 — 12 to 16		24,200			
TOTAL	5,354,300	707,500			

produce was wholesale, though they often had a local agent. Mossom Boyd sold lumber through Sam Walker at Lindsay. Walker operated from at least 1878 until he sold the stock and leased the property to Robert Bryans in 1887. Boyd tried auctioning off produce at his own mill, but a trial sale on February 28, 1876 was not a success. R.C. Smith also had an auction at his mill on November 25, 1885. As the village mills became big business, a host of smaller mills emerged, most steam-powered operating circular saws, cutting much more custom lumber and mostly for nearby markets. Some of their lumber was resold through wholesale, but the bulk of their business came through supplying neighbourhood requirements.55

These mills grew as frame construction came to dominate house, barn and outbuilding construction. Balloon frame houses, in later years often brick-clad, were easier to erect than log structures, allowed larger, more spacious designs, and much more choice in layout and architectural style. Still to the end of the century, most balloon frames used some round timbers, especially in place of first floor joists. Barns and outbuildings were usually timber frame, which had many of the same advantages. They required less material to build than log structures, and allowed the cathedral barns of the late nineteenth century to be constructed.

Though the barn and house timbers continued to be produced on the farm or in the neighbourhood, much of the material in these improved styles was milled. Supplying these needs was the primary produce of sawmills, whether marketing locally or in the United States. In the early years they cut many dimensions that are no longer common, including 3x4, 3x8, 4x8, and 6x8. Inch and two inch boards, as well as square timbers up to eight inches were cut, and some inch boards with rough edges. In the latter half of the century, the mills' largest product was pine siding. The studs of balloon frame houses were usually sheeted both inside and out, whether they were brick clad or not. 1", 1 1/4" and 1 1/2" were the usual thicknesses, one inch being the most common, and it came in a variety of widths, often random. But 1 x 10 became the standard—it was difficult to market narrower siding at the same price.⁵⁶ The rest of the cut was largely 1", $1 \frac{1}{4}$ " and 2" pine for general construction. Houses were framed of 2x4s, usually with 2x8s as floor joists, all installed rough, so, more often than not, they were slightly larger than their stated dimensions. A steady part of business continued to be custom work-especially in smaller mills, sawing up the logs that farmers drew or floated in. Most mills manufactured a large quantity of lath, and many also produced a quantity of pickets-1x3s, regularly cut with a lath machine. Often one employee specialized in this trade. At the Little Bob Mill, Henry Chapman usually ran the machine from 1879 until 1885, then James Powers for the rest of the century.⁵⁷

Lath had a fairly steady market, but sold locally and exported to the United States. The earliest houses in the region were quite variable in the species and sizes of lath used, reflecting its informal production at sawmills. But $\frac{1}{2} \ge 1 \frac{1}{2} \ge 1 \frac{3}{8}$ was promoted as not only reducing the costs of shipping and production, but also requiring less plaster to finish. By the end of the century this smaller lath was standard for new houses.⁵⁸

In the late nineteenth century roofs were almost universally cedar shakes or shingles, used at Bobcaygeon as early as 1834, when Thomas Need transported them in his canoe to build his store. Cedar was the material of choice because it was easy to split,

4.5 Boyd Lath Production (thousand feet) ⁵⁹							
	1 st class	2 nd or 3 rd class	Hemlock	Total			
1879	1132.5	379.6		1512.1			
1880	2200	921		3121			
1881				2242			
1882	1276.5	893.5		2170			
1883	1289.4	1107.5		2396.9			
1884	1949.6	1684.7		3634.3			
1885	1867	1674		3541			
1886	1838.1	1445.3		3283.4			
1887	1514	1400		2914			
1888	1673	1199.9		2872.9			
1889	1986	1300		3286			
1890				2591.9			
1891				2517.5			
1892				1947.2			
1893				1800.3			
1894				1786.8			
1895				986			
1896				185.3			
1898				383.8			
1899				966.4			
1901	1321	390		1711			
1902	1201.2	431.6	52.3	1685.1			

froe, but this was a tedious job, and once shingles could be purchased from mills, almost entirely disappeared. While they might be ancillary to the larger operations, small shingle mills appeared around each settlement. Some farmers produced white cedar shingle bolts by the cord in winter, though the majority came from shanties-usually dedicated to their production, but sometimes made alongside saw logs. In 1871 twenty-nine farmers in Fenelon and Verulam cut shingle bolts on their own account, producing a total of 754.5 cords. Many farmers produced just a few cords. The

light and rot resistant. Shingle bolts

could be split by hand with a fromard or

most ambitious were George Garbet with 100 cords and Mary McCormie with 90.⁶⁰

Most of the large mills produced a quantity of shingles. Mossom Boyd operated a shingle mill alongside the Little Bob Mill, though his company

usually sold most of its shingle bolts to other companies. For these large companies shingle production was not the most lucrative aspect of the business, and they were usually willing to market the smaller mills' cut. From March 21 to May 9, 1882, Henry Chapman made 800,000 shingles at Little Bob and another 3,066,000 between April and June 1884. Boyd's 1880 production was 3,402,500.⁶¹

By 1871 John Fell Sr. had a small sawmill in operation at Bury's Green, manufacturing 631,000 feet that year. That same year David G. Smith was operating a shingle mill at Fenelon Falls, with one of the McArthur Brothers, likely Alexander. The mill burned that year, and Smith was running it on his own in July 1873. By the next year Smith and Fell had partnered to operate a saw and shingle mill, but it burned on July 17, 1876, taking with it between three and four hundred thousand shingles, a total loss of about \$4,500. They rebuilt on Francis Street East near the water, with a 65-foot tall smokestack, selling locally and to American buyers. The smokestack blew down in 1882, was re-erected and had a chimney fire two years later that was contained by the bucket brigades. For the 1884 season they upgraded their steam engine, but they dissolved their partnership in January 1885, John Fell Jr. (the MPP) purchasing Smith's share. Fell had started to cut at the mill, when an arsonist destroyed it on May 24, 1886, and the ruins remained for several years. In 1890 the Napanee Paper Company bought the remaining machinery. John Fell Jr. continued to operate a sawmill at Bury's Green, rebuilding after a fire in March 1892.⁶²

By 1870, Parker Davis had a saw and shingle mill on Concession XVII Harvey, now called Mill Line, at Nogies Creek. Though he generally sold independently, he marketed some through Mossom Boyd. Davis survived having an emery wheel burst, striking him in the eye in July 1878. His business proved one of the longer-lasting manufactories, rebuilding after a fire in 1889, and partnering with Robert Kennedy around 1894. Davis continued working at Nogies Creek getting out the timber and operating the mill there. Kennedy oversaw a box, stave and heading factory in Lindsay and sold the finished products there.⁶³

William Bick operated a saw and shingle mill by 1875 on the north shore of Big Bob, at the western edge of the village, alongside his carding mill. His mill had a capacity of about 4,000,000 shingles annually. He sold locally and distributed some through Mossom Boyd, who was giving him \$4 a thousand at Port Hope—in 1883 he was getting \$3.50 for first class and \$2.50 second class exporting to the United States on his own. In September 1884 he refit his mill with new machinery from William Hamilton, Peterborough, but he was not able to use it long, for the mill burned on August 20, 1886. The fire started in the carding mill and soon engulfed all three mills, piled lumber, and

blacksmith shop on site, as well as the office across the street. Bick's total loss was about \$15,600, but he only had \$2,300 insurance on the mill. In June 1895, a stable that had survived the first fire burned, presumed to be the work of an incendiary. Bick moved to Deseronto and later Toronto where he operated general stores.⁶⁴

Over the last quarter of the nineteenth century John Dovey was one of the largest shingle producers in the Kawarthas, with mills in Lindsay and Kinmount. Though he had timber limits of his own—often acquired as cutover—he also bought large quantities of shingle bolts from the large lumber companies. His Lindsay mill burned October 24, 1878, but was rebuilt soon afterwards, as did his Kinmount mill in 1886. He exported much of his cut to the United States. By 1900 his Lindsay mill cut about 6,000,000 shingles annually.⁶⁵

Many smaller saw and shingle mills came and went over the last half of the nineteenth century. John Hunter had a sawmill in Kinmount from the founding of the village in 1859. In 1860, James Dunsford had a shingle mill in Concession VI Verulam, north of the Fenelon-Bobcaygeon Road, near the Beehive, powered by Hawker's Creek. Its capacity was said to be about 2,000,000 shingles annually. John Simpson produced 625,000 shingles at his water-powered mill in Bobcaygeon in 1861. John Henry Dunn operated a sawmill at Bobcaygeon until it collapsed under snow load in 1875. By the late 1870s, Alexander Rettie had a shingle mill at Burnt River that continued in the family for many years. In 1877 George Cluxton of Peterborough and W.H. Cottingham of Omemee took over W.H. Green's mill in Kinmount, Green having died in 1875. By 1877 Vincent Bowerman was operating a shingle mill on his farm near Cambray. F. & C. Trude built a mill at Dunsford for the 1884 season, only to have it burn in October. Paul Crego and J.W. Gilmour assembled a shingle mill for Alexander McIntosh at Kinmount in 1880. William Leach ran a shingle mill at Kinmount, which burned in 1881, prompting him to leave the vicinity. In 1884, R.J. Mills and J.B. Dixon both had shingle mills at Kinmount. Sam Parkin built a saw and shingle mill in Lindsay, which opened in July 1884.⁶⁶ Mills' facility burned the following January, less than a year after it was raised, a loss of \$3,000 covered by only \$1,000 insurance. He later bought Dixon's mill, which burned in 1890, the same year that C.J. Smith lost his mill there, built in 1888. A portable sawmill was operated north of Glenarm in 1886. About the same time Richard Mansfield was also

operating a mill at Kinmount, cutting largely hardwood. By 1887 the Callahan brothers had a sawmill near Dunsford on the south shore of Sturgeon Lake. Nearby, in 1887 Gordon & Graham erected a shingle mill at the Emily Creek Bridge in South Verulam, which burned about a month after it opened, along with 80,000 shingles. Nine years later Ed Gordon started another mill. In 1888, brothers John, James, William and Henry Junkin—the last having been book-keeper for R.C. Smith—bought Grand Island in Balsam Lake from the Smith Estate to set up a steam 45 horsepower sawmill, cutting 20,000 feet daily, using the machinery from W.J. Trounce's Port Perry mill. The venture proved unprofitable, and they sold out in 1890. G.H. Jardine had a mill at Burnt River until a fire in June 1889. Jim Nicholls had a mill in the same locale lasting many years. By 1897, William Burgoyne operated a saw and shingle mill on the shore of Cameron Lake in Fenelon Falls.⁶⁷ John Howie and his cousin of the same name built a steampowered saw and shingle mill at Bury's Green in 1892. They added a sawmill at Burnt River in 1895 and another mill at Bury's Green in 1897.⁶⁸ There were also some much smaller operations—John Willock of Powles' Corners built himself a horse-powered circular saw to cut lumber for himself and his neighbours in 1890.⁶⁹

Sawmills—built almost entirely of dried wood, surrounded by sawdust and edgings, and filled with moving parts—were extremely fire prone. Though heating parts always posed a threat, often the spark came from an external source, like a passing steamer or town firebug. Firms went to great lengths to protect themselves, employing night watchmen. During dry periods, Mossie Boyd posted men to watch the yard, with barrels of water standing ready. Lumber companies usually invested in the newest fire fighting equipment—Boyd had a fire pump by 1874 and a fire engine by 1894, to accompany water barrels and tin pails distributed throughout the mill. Nevertheless, most millers had their works burn down at least once, and some lost several times over. Boyd was one of the diligent or lucky few, as his main mills survived, though he lost a subsidiary mill, some of his workers' houses and in 1899 three piles of lumber in the yard. His men put out a small fire caused by one of the carriers in 1890.⁷⁰

The larger firms tended to carry fire insurance—usually for only a portion of their value. Insurance was most commonly on the plant, less frequently on the inventory. Smaller mills often took their chances with partial or no insurance. For small operations,

or in the early days of lumbering in the Kawarthas, the plant might be worth more than the stockpiled products, but by the end of the century, as lumber prices climbed, some mills had more than ten times the value of their machinery stacked up in the yard. When these fires came, it often spelled ruin.⁷¹

Sam Parkin had bad luck with fire. He built a steam powered saw and shingle mill on the Scugog River at the corner of Colborne and William Streets in Lindsay, opening in July 1884. In May 1886, a fire started near the shingle machine and consumed the mill. Parkin had \$3,000 insurance on the \$7,000 mill and rebuilt it for the next spring. The new mill produced 5,000,000 shingles a year, and he improved it in 1890 to include a kiln to dry the shingles. The roof of the mill caught fire in June 1892, but was extinguished, then the mill burned that September. His loss was \$27,500, insured for \$12,000. Having been burned out enough times, Parkin then built a fireproof mill, with cement floor, stone and brick walls, and an iron roof. It was separated into several fireproof compartments, each having a separate roof, including a cell for the Fred Parkin's Victoria Electric Light Company. For the security it provided, it was economical, costing about \$25,000. Sam Parkin's losses, though, had already been too much, and he was bankrupt by 1895. Parkin, did, however, manage to get back into the business, reacquiring his former mill in 1897.⁷²

Sawmills produced mountains of waste—slabs, edgings, and sawdust—and disposal was always a challenge. The slabs and some of the larger edgings were useful as fuel, and were sold by the cord to villagers or industries with wood-fired boilers—worth \$0.70 to \$1.50 from the late 1880s to the early 1900s. In 1894 a wagonload of buttings at Howry's mill was worth \$1. Mossie Boyd had his men pile slabs as supplementary support under both ends of the Little Bob Bridge. But it was very difficult to find anyone who wanted the prodigious quantities of sawdust and small off-cuts. The easiest way to get rid of them was to dump them in the adjacent waterways—one reason why mills were almost always on water.⁷³

The downside of waterborne disposal was that the wood did not disappear. For most of the nineteenth century sawdust floated all over the waterway, formed shoals, and washed up on shore. Many bays were filled with a mass of stinking refuse, slowly decaying. Even the Fenelon River—some of the fastest running water in the area—filled up with waste. Near many former mills, the lakebed remains sawdust today—and some

long-time Fenelon Falls residents fondly remember spending the summers of their childhood swimming at Sawdust Bottom. This altered aquatic habitats and modified spawning grounds. In 1873 and again in 1886, the dumping of sawdust in navigable rivers was banned, but exceptions were made and the practice continued, despite the efforts of the Board of Health, Peterborough Boating Club and the Fish and Game Protection Society to see it enforced. When courts did successfully convict, the penalties were insignificant—in one case twenty cents plus costs; a dollar and costs in another. Newspaper editors would comment on the ill effects for the health of the town, and in 1880 the Fenelon Falls *Gazette* blamed it for the ague and fever. On the Ottawa River the accumulation of sawdust was particularly bad, causing methane to accumulate as it decomposed. The methane periodically exploded. After one burst upset a boat causing a well-known Montebello farmer to drown in 1897, fewer liberties were allowed. By this point most of the large water-powered sawmills in the upper Kawarthas were on their last legs anyway.⁷⁴

The milling community was constantly trying to come up with a use for sawdust. The *Canada Lumberman* published many suggestions, including: stuffing for dolls, a form of gas lighting, livestock bedding, dyes, tire filling, filtering material, glass packing, mortar additive, steamer fuel, paper pulp, bricks, gunpowder, disinfectant, refrigerator lining, and for distillation into tar. Boyd used sawdust as bedding in his stables, to insulate his early silos and around pipes. Willie dumped large quantities as fill to create lawns at his estate, Edgewood. Larger refuse was burned in stoves, while sawdust sealed dams and paved roads, especially around Boyd's mill and farm. It was spread on trails promoted for tourists or scenic routes for an evening stroll. Sawdust roads had serious shortcomings, being spongy in wet weather and flammable when dry. Even after these attempts to find some use, surplus sawdust remained.⁷⁵

By the 1880s, most mills burned their waste. After his first brick kiln collapsed in 1882 (the year after it was built), then a second, 85-feet tall, proved unstable in 1884, R.C. Smith built one of iron plates, lapped together and covered with coal tar, that looked like a giant bottle. Over 100 feet high and 28 feet in diameter at the base, the bottom third was lined with fire brick, with square flues about five feet off the ground and an iron trough at the base for removing ashes. A carrier—chain with hardwood 'buckets'—lifted

the waste from below the mill up to a hole in the side of the kiln 30 feet off the ground. In 1884, Martin Kelly climbed up the carrier to remove an obstruction, got both feet caught, was knocked to his knees and dragged by the chain:

He struggled and shouted, and his cries were echoed by all who witnessed his predicament; and, while two or three rushed up the ascent and tried in vain to liberate him, others flew to throw off the belt which drives the elevator. For the purpose of doing this with safely, a crooked stick is kept; but as the stick hid itself and could not be found, one of the men threw his arms around the belt and pulled it from the drum which imparts motion. Another instant's delay would have been fatal to Mr. Kelly, who had reached the top of the elevator, and, having got his left foot free, had turned over and was lying on his back in the iron trough or spout above mentioned, with his head fairly in the entrance of the kiln. Had the chain moved a few inches further, his foot would have been liberated and he would have been dropped into the fiery furnace blow; and his situation was so precarious that the men who took him out tied a rope around his body before they ventured to raise the bucket that held him.

Later, while the Bank of Toronto operated the mill, W.T. Junkin recalled one night when the refuse kiln had been filled half full of waste. When lit "it burned for a couple of hours with a huge blaze coming out of the top, like a torch lighting up the whole town. The metal was red hot from base to top and many thought it might collapse, but it came through without any serious damage."

At Boyd's mill, carriers ran the sawdust to a hopper, which emptied into wagons, and a horse was continuously employed to run the refuse up a ramp to the burner. By 1887 Boyd had a railway for drawing refuse away from the mill, and another for taking out lumber. Refuse kilns were expensive to build, usually made of stone in the shape of an arched vault with chimney on top. To build such a tower that could also withstand the heat of the furnace was quite a challenge for local masons. The burner at Boyd's Little Bob Mill was 22 feet square on the exterior, supported by 12 x 12 timbers on the corners, tied together with 3 x 12s. The inside was 13 feet round and lined with fire brick, arching to a chimney on top. But it seems to have been a poor job and was constantly being repaired, especially the arches. One side of it collapsed in 1887. Occasionally, the mill even had to be closed to wait for its repair. But the greatest problem was that kilns were fire hazards. One of the most common causes of mill fires in the late nineteenth century was their refuse kilns, especially when waste was piled nearby. Even with kilns, waste

was still a problem. When the carriers broke, mill hands often saw little choice but to close the mill or let the waste fall into the water. In 1886 enough sawdust accumulated around the Little Bob Mill to mire the *Beaubocage*. Boyd's men then built a dam to hold sawdust back from the wharf. At the bottom of the jackladders, so much bark accumulated that it impeded operations, so mill hands picked it from the river. Boyd's men usually did this in the off-season, when Little Bob was scarcely above freezing.⁷⁶

Boyd's mill was in a particularly bad place for sawdust accumulation—on the canal, just above the lock. As mill waste filled the canal, it got under the lock gates and stopped their operation. Waterway officials frequently dredged the canal, but cleaning up sawdust was very difficult, because it was light enough to be swept around by dredges rather than picked up. The lock kept getting plugged up—once within ten days of being cleaned—and a rack on the tailrace did little to stop the refuse from filling the canal. The saw logs supplying the mill often stopped navigation. Withes and traverses for building rafts sank and had to be fished out of the canal.

In 1858, as the government rebuilt the Bobcaygeon locks, Boyd tried to establish that he, not the Crown, owned the use of the water there—even though Boyd's claim was actually only as Need's tenant. Boyd:

Disputes the public right to the advantage of the works, which the public money has produced. This Mr. Boyd affects to treat the Government as trespassers, and openly takes possession of all the accommodation of the canal slides and the water course, piling the lumber which is made at his mill all along the canal at its very edge, so a person cannot even walk between the canal and his lumber piles; in fact, taking up every piece of available ground for shipment, to the great inconvenience of the public, whose money made their improvements; and this is done under the assertion of right, Mr. Boyd defying the Government to dispute it with him. We find next that Mr. Boyd, by throwing slabs and edges from his mill into the race, which empties at the foot of the lock, has raised a bank, over which it is barely possible now, by the use of capstans and poles, to pass the steamboats which require to be run through, although there are two feet of water more on the sills of the lock than is necessary to float them. The working of the gates of the lock is also seriously interfered with, and will shortly be prevented, by the practice Mr. Boyd has adopted of removing the bark and other obstructions which collect in his race, and pushing them into the lock, when they sink and interrupt the free working of the gates themselves. This Mr. Boyd, it seems by the published report received from the government £200 compensation, and has his mill races completed for him in a most expensive and substantial manner.

His actions sparked outrage, the Peterborough *Examiner* called him a "petty village tyrant" and "an insolent pretender and a selfish depopulator of his locality." The public right to use the canal was re-established, and in 1864 the Crown encouraged Boyd to move his mill elsewhere. In 1867 the Fish Overseer fined him \$20 for sawdust accumulated below the mill. There were still problems with his piling lumber along the canal, and sawdust continued to be a problem as well. In 1872 he was given permission to build a mill on Little Bob. The following year, Boyd surrendered the water power on Big Bob, retaining the right to run the grist mill on surplus water from the canal. In 1874 he formally received the right to enough "surplus water" to run his sawmill on Little Bob. The old mill remained standing for some time. Much of the machinery was there until 1878, and the water wheels until 1891.⁷⁷

Boyd built a new mill that could cut 40,000 feet in 24 hours or about 7,000,000 feet annually, with machinery from Robert Hamilton in Peterborough. The new mill cost \$40,000. Boyd calculated that on a cut of 15 million board feet he could make \$20,000, and would have to give \$5,000 to the CLEC for stumpage. Having plenty of room for expansion, he completed one phase in late November 1870-before receiving formal right to the waterpower—still managing to cut 4,318,600 feet that year. At that point, the mill could cut 75,000 feet in one 9-12 hour shift. Over the next two decades he and his sons gradually expanded its productive capability to about 12,000,000 feet-20,000,000 if it ran round the clock. He laid out the east end of the island into a network of streets that was expanded in the coming years with the development of the property. Most of the names reflected their use, including Pine Street, Elm Street, Slab Street, Lime Street, and Rock Street. In 1874, his head machinist and millwright, David Gage, designed a new circular mill built adjacent to the big mill, completed the following spring, which usually ran with 57 to 66 inch blades. There were wharves at the mill and across Little Bob on 12 XIX Harvey. Boyd used Big Island as a depot for the mill-Mossie later turned it into a stock farm. But even then he still had problems disposing of his waste, and was charged in 1870 for obstructing navigation. He was tried again in 1879, but was acquitted when it was ruled that sawdust found its way into the river despite his taking every precaution that could be reasonably expected.⁷⁸

In most years, a few mill hands were employed year round, and spent late winter and early spring refitting the machinery for the coming season's operations. Boyd installed telegraph wires to the mill in November 1877. In 1878 he added more housing for the workers and improved the carriers. By 1883 the mill's supports had rotted badly. The machinery had to be removed, the floor was torn out and the timber frame of part of the lower storey replaced, secured with new rock bolts. That year they also refit the jackladder. Next winter they rebuilt the flume, and the north end of the lower storey timber frame. Early in 1885 they rebuilt the sill under the Yankee gang mill and another section of the first storey, also replanking the jackladders. In the 1887-1888 off-season they put up an addition for a new circular mill, retaining the smaller mill that Gage built in 1874-1875. Early in 1889 they tore out and rebuilt the rotten parts of the shingle mill, rebuilt the foundation under the little gang, and refit the circular mill. The next year they worked on the carriers and rollers, and rebuilt the posts under the platform on the north side of the mill. They were working on the timber frame under the mill again in 1891. Mossie had a new water wheel installed in 1892. Boyd often had his mill hands build and maintain equipment such as bobsleds, cant hooks, and saws for the shanties. In later years Boyd also had them getting out ice, helping to build steamboats, and working at the family mansions. Boyd's circular mill ran part time in the off-season.⁷⁹

Many of Boyd's limits were in Harvey Township, especially tributary to the Squaw River. Boyd had another mill near the mouth of the Squaw River on Little Bald Lake in 1861. Under the supervision of Nelson Vannier and Boyd's son-in-law, John MacDonald, it cut 2,500,000 to 3,000,000 feet annually. But the mill burned on September 16, 1876, and Boyd decided not to rebuild, the best of the nearby pine having already been cut—he had been looking to sell the mill in any case.⁸⁰

By 1879, Big John Thompson operated a portable sawmill in and around the village of Fenelon Falls. The next year, he partnered with Alexander McArthur to rent Mowry & Hilliard's sawmill at the mouth of the Fenelon River. In 1881 they built one of their own on Cameron Lake, adjacent to the Victoria Railway, and while it was under construction the old mill burned. In September 1882, a storm felled a cedar tree on the guy rods supporting the new mill's smoke stack, pulling it down on the engine room and a lean-to containing the edger, injuring three workers. They repaired the damage and

doubled the size of the mill for 1883. There they produced about three million feet of lumber and five million shingles annually. From 1886, Thompson and John A. Ellis then operated this facility largely as a shingle mill, renting R.C. Smith's Red Mill for lumber, until Thompson sold out his share after the 1888 season to prospect in mining or quarrying in Somerville and other townships to the north. They vacated Smith's mill, while continuing to operate the mill on Cameron Lake until it burned on November 14, 1890. In the 1880s, Thompson also ran a mill in British Columbia for William Mackenzie, originally from Eldon Township, who contracted for part of the Canadian Pacific Railway.⁸¹

The Gilmours were one of the largest and most prominent timber families in Canada. Pollock, Gilmour & Company of Glasgow spawned several Canadian branches, including Gilmour, Rankin & Company of Miramichi, New Brunswick and Gilmour and Company of Ottawa, both among the largest players in their regions. In 1852 David Gilmour raised a sawmill at Trent Port (incorporated as Trenton in 1853). By 1864 its capacity was about 10,000,000 feet annually, and it continued to expand until it burned in 1881. Gilmour replaced it with an even larger mill—dwarfing all others on the watershed—at its peak it also had a shingle mill, planing mill, lath mill, sash and door factory.⁸²

Almost all of the export lumber left the district on the railway, initially loading at Lindsay, but after the construction of the Victoria Railway and Toronto & Nipissing Railway, it might also be loaded in a host of secondary centres. Boyd and the Bobcaygeon mills had to float their lumber down to Lindsay on scows. While they all cut some bill stuff, most of the large companies then sold the majority of lumber to wholesalers. Boyd sold a large portion of his cut to Christie Johnson of Whitby.⁸³

The Boyds had their own wholesaling company, Boyd & Co., operating out of Albany, New York. On March 2, 1877, less than five months after the Squaw River Mill burned down, Boyd proposed sending John MacDonald to Albany to run this associated company. On the 29th, he left on the stage. Built primarily for canal shipment, secondarily for rail, Boyd & Co. handled Boyd's stock, but also sold for others, including William Bick's Bobcaygeon shingle mill, the Stricklands, as well as some of Ontario's largest companies: Peter McLaren, Bronson & Weston, J.R. Booth, and E.W. Rathbun &

Co. The Albany yard handled about 10,000,000 feet annually for Boyd. Being the largest seller of Boyd's lumber, John MacDonald kept a close eye on the markets for the company, suggesting types of lumber to cut, when to market it and serving as the final judge of quality. The Boyds also sold lumber through another associated company: Getman, Boyd & Company of Oswego, New York, whose principals were C.H. Getman, Gardiner Boyd, and J.M. Irwin—the distributing arm of Irwin & Boyd Company.⁸⁴

In shipping their lumber to the United States, Canadian firms operated at a significant disadvantage, and shipping from the upper lakes was difficult. Boyd's stock, for instance, was loaded on scows at Bobcaygeon, towed to Lindsay, repiled onto rail cars there, and shipped to Port Hope. There Boyd owned a storage yard, where the lumber was transferred to boats, and shipped by Boyd & Irwin Co.—an associated company run by Gardiner Boyd and James Irwin—across Lake Ontario and by canal to Albany. The shipping cost was a large piece of the value of the lumber. In 1889, John MacDonald estimated, per thousand feet: railroad from Lindsay to Port Hope \$1.15, Port Hope Harbour charges \$0.15, unloading cars \$0.05, lake shipment \$0.90, Oswego shipping charges \$0.15, customs, \$0.0075, canal charges to Albany \$1.45, plus \$0.125 in other expenses—a total of \$3.9825. To send direct by rail from Lindsay would cost \$4.0233, including 35 cents to cart the lumber from the nearest rail line to Boyd & Co's yard.⁸⁵

On top of these charges the import duty averaged \$1.68 per thousand feet in 1888 and \$1.88 in 1889.⁸⁶ In 1890, the McKinley Tariff threatened to entirely end the American trade. It originally proposed to place a tariff of \$1.50 per thousand feet lumber, on top of a Canadian \$2.00 export duty, which would effectively bar Canadian lumber from U.S. markets. Though lumbermen in Maine, Pennsylvania and Michigan strongly supported the tariff, lumber exporters, including the Boyds, after a great deal of campaigning, convinced Canada to remove the duty and the United States to reduce the tariff to \$1.00 that October. This allowed the trade to carry on, but the duties were one more obstacle for the companies to overcome with the ever-tighter margins of the 1890s.⁸⁷

With such a complicated system of shipment there were many bottlenecks. The steamers could only tow scows out of Bobcaygeon during the season of navigation, which meant that for five months of each year very little shipped—a considerable inconvenience

to the sale of bill stuff. Once Boyd's produce got to Lindsay, he was often held up waiting for cars—in the summer and fall of 1889, averaging only two to three per day. That year Mossie shut down the slabber side of the mill, and transferred men to loading scows, so that if cars became available, they wasted no time loading them. If he did get a good supply of cars, they were often detained several days at the switching grounds leaving the Lindsay wharf. Only ten to thirteen cars could be unloaded daily at Port Hope Harbour.⁸⁸

After he completed the Little Bob Mill, Boyd searched more intently for reliable supply to keep the saws fed. By 1862 he had expanded his range of limits north to include Monmouth, Snowden and Glamorgan, which had then become the focus of his operations. While most of his limits were acquired at public auction, he negotiated rights in the Canada Land and Emigration Company's Haliburton holdings. By 1869, the Company had sold nine concessions of Guilford to Campbell and five concessions of Dysart to Strickland, and were looking to sell a large block of very good standing timber.⁸⁹ On September 9, 1869, the Canada Land and Emigration Company allowed Boyd 100,000 standard pine logs (one standard equals 272 board feet) for the winters of 1869-70, 1870-71, and 1871-72, then 280,000 over the next seven years, retaining the option to reduce the sale over the last seven to 140,000. These logs were to be cut a minimum of 13 ft 4 inches long and 15 inches diameter at the smaller end. The logs came from lots 1-20 concessions I to IV Guilford; lots 1-10 XIII and from lot 26 to 34VII to VIII Dysart; all of Dudley except for concessions XI to XIII and a limit claimed by Bronson & Weston; and Havelock. In total this was about a third of the CLEC's holdings. It agreed that they would not sell logs to any other party until Boyd had received his. The CLEC was to supply the logs on driveable waters tributary to the Gull River, Burnt River, Drag Creek or Drag Lake, and to be paid \$1.10 per standard log. If the price of sawn lumber at Port Hope surpassed \$12.00 per 1000 board feet, the CLEC was to receive 2/5 of the difference. Boyd also agreed to purchase 1000 acres in one of the four townships that he was to improve, the idea being that it would demonstrate how suited the region was for farming.⁹⁰

Harburn Township was one of the better remaining stands of timber. Strickland had indicated to the company that he hoped to purchase it. Boyd secured permission to cut in the southwest corner of Harburn. To get the timber out he had to erect buildings

and improve the rivers. In so doing, he was gambling on getting the rights to it all, because he did not expect it to be profitable otherwise. He was allowed to exchange Dudley for Harburn in 1870, after observing that most of the timber in Dudley had burned, prompting Strickland to complain that his improvements gave him an unfair advantage. Boyd agreed to pay \$25 per cubic foot for the timber, on top of his dues for saw logs. In 1876, he again renegotiated the 1869 deal, agreeing to pay 30 cents for first class logs of 272 board feet and 15 cents for second class. In 1879, Boyd gave up Guilford and lots 1 to 25 concessions I to VI Harburn, in exchange for an extension on the rest of Harburn and Havelock until 1884.⁹¹ In later years, the CLEC's revenue was derived in large part from its timber revenues. In 1875 it realized £1,223 compared to £869 in land sales, and in 1892 Boyd's dues alone were £2,797.⁹²

In the CLEC agreement, Boyd purchased timber from the northern reaches of the Trent Watershed, at a time when supply could be had closer to hand—and while he was still acquiring nearby limits at public auction. The reason, he explained, was that it was a very reliable supply, albeit one that would incur additional expense in driving. His peers were also looking north, and from the 1870s on, most saw logs in the region came from Haliburton. The smaller mills then still relied heavily on local sources.

Part of Boyd's CLEC limits were tributary to the Muskoka watershed—the north end of Havelock and Eyre. In 1879, for instance, about 20,000 of his 90,000 logs were hauled to Muskoka waters—often the Hollow River—forcing him to make arrangements to have them sawn, and run additional drives. Negotiations to custom saw these large blocks were often difficult, as the margins seemed small to both parties. In 1883, Mossie paid A.H. Campbell of the Muskoka Mill and Lumber Company \$5.50 per thousand to mill and deliver to Buffalo, which he considered excessive, and also gave Campbell all the mill culls. The next year he managed to get him to lower his price to \$4.75—which Campbell claimed scarcely covered the usual charge of \$1 per thousand to mill.⁹³

Timber prices fell during the depression starting in 1873. By 1875 it was difficult to move anything, as prices plunged 30%. To make matters worse, the snow was too deep for much of the winter of 1874-1875 to get logs out, making this season for Boyd "the most profitless one I have experienced in my whole lumbering operation." The CLEC responded to the depression by pressuring Boyd to get out all the timber spelled out in

their agreement, which, that year at least, was close to impossible. As the depression wore on, however, it was forced to be lenient—most large Ontario lumber men, including Boyd, having agreed in 1874 to cut production to half because of the depression. But from the late 1870s on, prices rebounded, and notwithstanding another downturn in 1883-1884, were better as long as the supply held out—in early 1880 prices climbed more than 40%—though lumber men still complained about depressed conditions.⁹⁴

By 1873, Smith had increased the capacity of his mill to 15,000,000 feet annually—still the largest in the region—but his operations were not on a solid financial footing. In May 1874 his workers went on strike—during a season when many of his peers were cutting wages—and his mill closed early that fall. In November, Malcolm McDougall, who had started as an employee and rose to be Smith's partner, left Fenelon Falls and the firm, then on December 23, Smith's wife died. By the next year, he was insolvent. His assets—including the sawmill, grist mill, shingle mill, 93 square miles of timber limits, his stock of lumber, farm, boarding houses, real estate and tenant houses were then to be liquidated with offers to close on September 4, 1876. When the major assets did not sell, Smith offered to pay his secured creditors (including his mill employees) and give his unsecured creditors twenty cents on the dollar—half on July 1, 1878 and the balance a year later. His offer was accepted and Thomas Fee of Lindsay purchased his lumber stock in November. Smith considered employees who left before the insolvency unsecured creditors.⁹⁵

Smith managed to get back in the business. He hired James Ellis of Monmouth to get out a thousand pieces of timber that winter. He briefly started the mill the next spring, then cut a few custom logs at his mill in the spring of 1879, but in the meantime other companies, including Boyd, were making offers to some of his best workers. That September he started manufacturing packing boxes at the mill, but the venture was short lived. He refit the mill and had it in operation in 1880, cut 12,000,000 feet the next year, bought the plant of Harwood's Ludgate & McDougall out of bankruptcy, added the refuse kiln in 1882 (replaced in 1883) and then the operation became known as the Red Mill, for its new colour. Six turbines powered Smith's machinery by the end of his ownership. He also started buying limits on the north shore of Lake Huron. But this period was not without its disasters, as his timber raft of 1882 wrecked, and that October, his mill on

Lake St. John, near Longford was "blown almost to atoms" when four boilers exploded, instantly killing two employees and seriously injuring four others. He had not had much time to profit from his Fenelon improvements. Smith died at Port Hope on June 1, 1886 and the mill closed.⁹⁶

For many years afterwards the most valuable industrial land in Fenelon Falls was owned by the executors of Smith's Estate: J.D. Smith and George McVity, who were intent on realizing the full value of their assets. Mossie Boyd seriously thought about buying the Red Mill and moving his operations to Fenelon Falls—having just been updated, it was much larger than his mill at Bobcaygeon—but decided against it, in part because of how hard a bargain the Smith executors drove. It owned the mill site to the end of the era of great pine exporters.⁹⁷

Through the Great Depression, Boyd managed to expand his business. Having worked tirelessly since he immigrated, Mossom Boyd died just as his ambitions were being realized—his turbine-powered mill was cutting at 12,000,000 feet per year capacity, prices were up, he had a profitable wholesaling arm in the United States, and owned good limits that would keep the company cutting for another decade. He had put together a team of very competent managers, who dedicated their lives to his interests—Gidley at the mill, William Creswell on the drives, Norman Barnhart at the shanties and rafts, Frank Minns running the office and John Macdonald wholesaling.⁹⁸

Mossom Boyd had a stroke January 11, 1880, and another a month later, leaving him bed-ridden. He remained quite weak that spring, and never recovered his former strength. Control of his business passed to Mossie. Mossom had another stroke September 23, 1882, and continued in very poor health through the winter. He gradually faded away, not being able to take food by July, and died July 24, 1883. In his memory there was a foot procession of the oldest Bobcaygeon settlers: George Bick, Matthew Ingram, Edward Kelly, Alexander Ellis, William Hunter, William Thurston, W.B. Read and John Junkin. At Bobcaygeon the mill hands carried the casket to the Steamer *Victoria* and at Peterborough two old friends from his pioneer days—James Wallis and Robert Dennistoun—were pallbearers on the way to Little Lake Cemetery.⁹⁹

Boyd's will left the company equally to two of his sons, Mossie and Willie, and his son-in-law John MacDonald. It gave Boyd's widow, Letitia Cust a \$1500 annuity, paid

\$15,000 to his daughters Emma Blackwell Boyd, and Letitia Kathleen Boyd, and \$9,000 to Mary Bonnell, who also received a farm. At this time, the main company was reorganized as Mossom Boyd & Company. John continued to be primarily responsible for the wholesaling; Mossie oversaw the management of the shanties, drive and mill, while Willie looked after shipping.¹⁰⁰

While the Governor had been an orphan in his formative years, by the time his children were nearing maturity he had become affluent and ensured that they had an elite education. Run by three partners with business training, Mossom Boyd & Company was far more diligent in its paperwork than the first Mossom's venture. The days of Boyd toiling alongside his men were long gone. By the second generation, the proprietors oversaw little of the business themselves, especially the shanty and drives. Minns and the managers were then often a buffer between the Boyd brothers and their workers. With this administrative structure in place, the company had a degree of stability and consistency, no longer obeying Boyd's personal commands for its day-to-day operations. With all the cogs in the machine turning, it seemed that the firm's momentum would carry it forward for the foreseeable future.

For the lumber businesses of the Kawarthas generally, the 1880s were a relatively prosperous decade, one where the largest profits were reaped. With the economic downturn of the early 1870s seemingly behind them, many proprietors expected the coming years to bring greater profits still. It seemed that fewer companies were going bankrupt. Many new mills were being built, as the older firms appeared, like the Boyds, to be stable. They realized that supplies of the best pine were starting to become scarce, but that might be an opportunity. Most accepted the principle of supply and demand, so as pine vanished companies expected to realize a windfall on their remaining timber limits.

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Appendix 4.1 Mossom Boyd's Cut

		Lumber (ft)									
Year	Townships Cut	Pine	Basswood	Hemlock	Ash	Tamarack	Spruce	Maple	Balsam		
1873-74	Harvey, Havelock, Harburn, Snowdon	8252773									
1874-75	Snowdon, Harburn	~ 6300000									
1875-76	Snowdon, Harburn, Galway, Glamorgan, Harvey	~3800000									
1876-77	Snowdon, Glamorgan, Galway, Harvey	3054196									
1877-78	Snowdon, Glamorgan, Havelock, Ridout, Sherborne	10271581									
1878-79	Showdon, Glamorgan, Havelock, Ridout, Sherborne	14454172									
1878-79	Muskoka Watershed	281802									
1879-80	Snowdon, Glamorgan, Monmouth, Harvey, Havelock	6422586									
1880-81	Snowdon, Monmouth, Harvey, Harburn	7642806									
1881-82	Snowdon, Harvey, Galway, Verulam, Havelock, Harburn	11779307									
1881-82	Muskoka Watershed	555251									
1882-83	Snowdon, Verulam, Havelock	7049483									
1883-84	Snowdon, Monmouth, CLEC	14656800									
1883-84	Nipissing Watershed	1029786									
1884-85	Snowdon, Glamorgan, Monmouth	6018427									
1884-85	Nipissing Watershed	284348									
1885-86	Snowdon, Monmouth	7540836									
1886-87	Snowdon, Monmouth, Glamorgan	7122096									
1887-88	Snowdon, Glamorgan	22533456									
1888-89	Snowdon, Glamorgan, Monmouth	23087381									
1889-90	Snowdon, Glamorgan, Monmouth	7304152									
1890-91	Glamorgan, Snowdon, Monmouth	521788									
1891-92	Glamorgan, Verulam	834262									
1892-93	Snowdon, Glamorgan	747790									
1893-94	Snowdon, Glamorgan, Harvey	1182418	3127	7607	744	258	273	3			
1894-95	Glamorgan	4810894	0	190722	2873	25329	10336	5 0)		
1895-96	Glamorgan	2208341	4017	146299	7912	18288	6144	4 0	985		
	Glamorgan, Harvey, Verulam	2072923	20714	13359	7533	7362	2498	3 930)		
	Glamorgan, Verulam	1807950	8593	41718	17839	21071	3656	5			
	Burnt River Waters										
	Glamorgan	2011596	466		1197	8183					
1900-01	Glamorgan	2261228		33542	4387	12967	17244	1			
1901-02	Glamorgan	938584			8716	65628		1			
1902-03	Glamorgan	515043	4464	467490	12716	25553	1167	7	9678		

	Lum	ber (ft) c	ontinued	Timber (pcs)									Tan bark
Year	Birch	Elm	Total	Boom	Square	Waney	Red Pine	Ash	Elm	Dimension Shingle bolts	Shingle logs	Cedar Posts	(cords)
1873-74			8252773	0	1253	0	0	0	0	0) 0		
1874-75			~ 6300000	744	559								
1875-76			~3800000	149	3775	1356	134	1		150			
1876-77			3054196	482	3806	1078		29	1				
1877-78			10271581	473	1885	1755	3	7	1				
1878-79			14454172	674	15	160							
1878-79			281802	107									
1879-80			6422586	37	47	0				56	9 1922		
1880-81			7642806	457	210	42				227	5		
1881-82			11779307	89	0	673		3	11	263	2		
1881-82			555251	54	0	244							
1882-83			7049483	61	44								
1883-84			14656800	624									
1883-84			1029786	148									
1884-85			6018427	97									
1884-85			284348										
1885-86			7540836	1690	201								
1886-87			7122096	2415									
1887-88			22533456	4115									
1888-89			23087381	2375									
1889-90			7304152	581									
1890-91			521788	4504									
1891-92			834262	1726									
1892-93			747790	755									
1893-94			1194427	969								156	
1894-95			5040154	1015								992	
1895-96			2391986	799								1792	
1896-97			2125319	1594								347	
1897-98			1900827	1981								1265	
1898-99			~2000000	2664								1167	
1899-00	546	293	2095937	2595									
1900-01		146	2329514	1986								1212	
1901-02	271		1511518	2216								3305	237
1902-03	12714		1048825	1118								5802	

Source: General Return of Operations, BF, vol. 138.

4b. Shantymen, River Drivers and Mill Hands

In the heroic discourse that surrounded the forest industries, the shanties and drives appeared as a world distinct from the rest of nineteenth century life. With primitive, slowly modernizing technology, it was a rough, rugged, dangerous world to work in. Men laboured hour after hour in the bush, their axes ringing as they felled giant pines—in our modern era of cut over forests, it is said, we would have a hard time imagining the size of these timbers. Each spring the daredevil drivers came floating down the rivers on the season's cut. In freezing, frothing waters, they risked their lives to get the timber blocks past rapids and falls. Relying almost entirely on muscular power, these adventurers accomplished incredible feats—handling enormous trees and driving massive loads. Perhaps most impressive of all they managed to get the timber rafts all the way from the Kawarthas to Quebec City relying on their strength, ingenuity, horses, wind and currents. Iron-willed foremen drove the workers ahead. Timber barons sat at the top of this society—incalculably wealthy, a law unto themselves, having the ear of government as they efficiently managed their businesses.

Such heroic images of forestry became widely accepted because they worked for many people. Timber barons proudly imagined themselves at the pinnacle of this social structure, as the embodiment of progress in their communities. Companies embraced the notion that their fearless employees would routinely overcome daunting obstacles as they carried out their duties. Devotion, selfless bravery and the skill to perform incredible feats underpinned masculinity for many in the nineteenth century. Men aspired to be these mythic daredevils, as many foremen embraced their role in the shanties. Such harrowing tales sold newspapers, titillated readers and reassured farm families that they apparently lived in relative refinement.

This myth also endured because it was not that far from the truth. The most successful timber barons were millionaires in an era when their managers might make \$300 or \$400 per year, and were well-connected to the national elite. Many foremen were not to be crossed. It was a daunting challenge to produce millions of feet of timber and lumber, then transport it thousands of miles. Workers often were daredevils who relied on their skills day-in and day-out to see them through mortal danger. Men routinely worked

within inches of losing a finger. Crackers scrambled across heaving masses of slimy, jammed logs, raised above churning, freezing water, though most were not accustomed to swimming.

While there were many bits of truth in this heroic image, it nonetheless distorts the realities of forest life. The shanties and the rivers were not such a world apart as they might seem. Almost all of the timber in the Kawarthas was cut in the vicinity of agricultural settlement—the forest and farm frontiers advanced together. If a horse needed to be shod, its teamster could usually take it to the neighbouring blacksmith. Though scholars often portray farm and forest economies as distinct, perhaps conflicting, they were inseparable. The material culture of farm life was centred on wood, a significant part of which was produced in the shanties. The largest material input for forestry was farm produce. It would be far more expensive to produce timber in an area without farms.

Though Ian Radforth has accentuates the apparently primitive technology of the forest industries, there was little to distinguish farms and shanties. The tools they used were essentially the same, with some modifications-many of the men returned to their farms or other occupations in the summer. The shanty tool chest was familiar to agriculturalists: augers, bits, planes, spokeshaves, squares, chisels, monkey wrenches, hammers, handsaws and shovels.¹ Tools were either wooden or fashioned by blacksmiths, by common local techniques. The shanties and the rivers were not unusually isolated from technological change, rather the mechanized advances of the farm economy were mirrored in the forests and on the streams. Though contemporary observers and scholars alike commented on the primitive technology, cheap labour was not restraining the large firms from introducing technology-the firms, if anything, tended to adapt technological innovations more quickly than the rest of society. Horse-powered capstans were a necessity from the start of lumbering. As soon as they were available, railroads were used to ship supplies and produce. One of the first applications of electric lighting was on tug boats. Their managers understood that there was more to the calculations than whether a machine would pay for itself by reducing the number of workers they required. On the drive, steamers could tow larger blocks of lumber than a capstan and could cross any local expanse of open water within a few hours. A capstan could take days to navigate the larger lakes of the region. As it inched ahead, a storm could break the boom and scatter

the timber. Firms raced to get their timber to Quebec as quickly as possible, since returns tended to be higher earlier in the season. If a steamer was available, it made little sense to use a capstan. Lumber firms pushed the railroads to lay tracks to their regions. Firms switched to gang saws as soon as they had enough business to profitably employ them, then to band saws once they became practicable. Four years after the prototype alligator tug was launched, the first models reached the Upper Trent.² If there was any business in the Kawarthas that was on the cutting edge of technology, it was the large lumber firms.

Life in the shanties, on the rivers or at the mills certainly was dangerous. Most machinery of that era was designed for efficiency and expediency by people fixated on overcoming the tremendous material challenges they faced. Safety was usually a secondary concern, so it would be unusual for a saw blade or conveyor to have guards. Looking back, critics correctly observe that a little bit of care could have saved a lot of injury. But some workers from that period would not want guards because they made machines more difficult to use and maintain. Labour historians often attack businesses for their safety records, and imply that they put profits ahead of the well being of their workers, it was usually true that they were geared to profit and put their workers in all sorts of dangerous situations, while making minimal efforts to ensure their well-being. This charge is not unique to the forest industries, Richard White for one, applies it to the railways. Foremen did goad men into being daredevils. But it also should be appreciated that little of this was unique to big businesses. Work in many nineteenth century occupations was risky or debilitating. Few workers escaped serious injury at some point in their life. It would be difficult to say that working in the lumber business was more perilous than farming, working on a train, operating a carding machine, handling horses or building canals. Many walks of life relied on loaded sleighs travelling the lakes, so almost everyone got a 'ducking' at one time or another. Was it more hazardous to fell trees in a logging camp than in clearing the back 40? Was a bandsaw any more dangerous than a threshing machine or a corn cutter?

Work was hard on the people that had to perform it—handicaps could say a lot about a labourer. If an old man could hear well, he probably did not have much experience in a sawmill. For that vocation, many employers might assume that if someone was missing fingers, he was a competent miller. But the same injury would also

pass for familiarity with coupling train cars or working on a farm. It was an era when many people routinely worked within a few inches of losing a finger, and there was a social expectation that labourers would not complain about it, as farmers at a stumping bee would get on with the job even though the chains on the stumping machine often broke, and if they did, one of the operators might get hammered in the face with a heavy piece of iron. People were accustomed to situations where losing their presence of mind for a moment could leave them dead or maimed. Most worked long hours—some mill proprietors were convinced to switch to ten hour days near the end of the century, but work in shanties and on the rivers was governed by the sun, as it was for most farm families—and fatigue was a factor in accidents.

The mills, rivers and forests were masculine worlds—in each the workforce was usually exclusively male. Women were not allowed in the shanties or the camps on the drive, though some mill employees lived with their families rather than at the company barracks. For many, an important part of being a man was the courage to overcome danger and the ability not to show fear. Men took pride in their feats of strength, as they made a sport of seeing how much their horses could pull. Being a daredevil could seem like a sure path to earning the admiration of your friends, especially to teenagers trying to show that they really were fearless.

Not only was forest work perilous, labour historians also argue that workers only received a pittance in exchange for risking their well-being in the forests, mills and on the drives. Ian Radforth remarks that in the first half of the twentieth century, "there were almost always plenty of men who, desperate for winter work, snapped up logging jobs however low the pay and poor the living conditions." Since men had no choice but to enlist, "neither management, advocates of woods mechanization nor unionists could make much headway. Employers simply did not need to introduce elaborate equipment, provide comfortable accommodations, or pay wages adequate for the support of a family."³

In the nineteenth century Kawarthas, there were not as many men desperate for work as in Radforth's study area. The companies could not take for granted that they would have enough help. In the first decades after settlement waged labour was in short supply, and they had to compete with gentry, public works projects and the returns on labour from the farm and village economies. They had to tolerate their employees leaving

their service when there was more pressing or remunerative work to be done. It was difficult for the companies to operate when their hired hands could leave at any point to tend their other affairs, so the larger firms began to insist on formal contracts. They also started demanding written arrangements when they purchased farm produce. Approaching farmers in the spring or summer, they made a down payment so he would be legally bound to deliver. While in theory all male citizens had equal access to the courts, the large companies had great advantages. Many had close connections to the judges and lawyers. The lumber firms were often involved in legal proceedings—against the Crown, other firms or their employees.

The large firms and their litigious culture did not fit well with the give-and-take of neighbourhood economies. By the end of the century, the firms tended to be headed by well-educated professional gentlemen who consciously distinguished themselves from their workers, neighbouring villagers and farm families. Some locals resented their ostentatious behaviour and took their imperative to keep costs down as a miserly lack of respect for the well-being of their communities. As they sought to minimize their expenditures on labour, their wages, especially for the less specialized jobs, soon descended to the point where they could not hire enough local labourers. They then resorted to transporting in help from regions where the going rate was lower, often rural Quebec. Much time and money was invested securing these workers, but the firms believed it was more profitable than paying the going rate.

Though the shanties were not as comfortable as the large frame houses that were beginning to appear in the last decades of the nineteenth century, they were comparable to many farmers' homes. Food in the logging camps was monotonous, as it was on farms. In the bush, however, men could eat as much as they wanted, which was not always the case elsewhere. While living conditions in the shanties and on backwoods farms involved many of the same risks, similar tools, and similarly repetitive tasks, the culture of forestry set it apart. This male domain was imbued with a sense of adventure—the heroic images of the shantymen and river drivers. The mills, though they did not seem as much a world apart, still brought camaraderie as men worked together. For the farmers who ventured north, the camps provided a change of scenery for the winter and wild stories to bring home, however much the work resembled their summer occupations. For the career shantymen, it was a way of life, following the seasons of the forest. A few lived in the forest year after year, and never retired, hanging around the shanties long after they lost their ability to work, not wanting to be anywhere else.

Before acquiring a limit and again before setting up a shanty, lumbermen sent a timber cruiser to judge the stand. The best 200 acre lots had over a thousand, perhaps 1,500 pine logs on them—at the quality that lumbermen cut in the 1870s or 1880s. In the Kawarthas, townships generally averaged 400 to 800 logs per lot. As logs averaged between 80 and 150 feet each—120 being fair for a limit, though Boyd's last drive averaged only 52—a lumberman might get a million feet of lumber off 17 lots, and a 55,000 acre township probably produced between 13,000,000 and 25,000,000 feet of lumber, taking only the best trees. Once they started cutting more species, they got 3,000 more logs off some lots. The very largest sawmills, then, could cut over more than a township in a year. Cruisers combined the skills of a land surveyor with a keen eye for timber quality. They typically did their work in late fall or winter, when the leaves had fallen so they could more easily judge the trees. Covering a great deal of land daily, and sometimes working in scarcely inhabited regions, they might end up tobogganing their gear and camping alone in the forest. Cruisers recommended sites for shanties, investigated which streams might be run, planned the dams to be built and obstacles to be removed from watercourses, and laid out logging roads to minimize slope.⁴

Firms often re-ran township surveys to outline berths. Using a compass and counting his steps, a good cruiser usually knew his location within a dozen yards at all times. This was no easy task, starting with finding the corners of the lots:

A tree or trees marked or blazed with an axe, which probably has been put there twenty or thirty years previously. Often hundreds of other trees since have been blazed in a similar way near it by the lumbermen and others in marking out roads and trails, so that it is often difficult to strike the right spot, and even the best experts are frequently at fault. A tedious and long search is often made before one is sure that the right boundary has been found.

Then they could estimate, by lot and concession, the number and quality of the pine trees present. In keeping with the business, it was only in rare cases that they were interested in anything other than pine. They also often looked over the limits for fire and trespass. Accuracy became much more important as the value of lumber, and especially of limits, increased:

In the old days, when pine was cheap, the Bush Ranger would ramble around the territory long enough to make certain that there were enough trees on the territory or close to it to make sufficient square timber, the profit on which would more than repay them for the whole sum asked for the territory several times over. If it would not in their opinion do that they would not purchase it, for the trees that would only make saw logs were never taken into their calculations at all. It was dead easy to Bush Ranger in those days, especially if it turned out that he had made a wrong calculation, for all he had to do was increase the territory by cutting any timber that came handy on adjoining territory, and no one would probably be any the wiser.

By the end of the nineteenth century, however, cruising became an exact science. Once limits sold for hundreds of thousands or even millions of dollars, fortunes were won and lost on the ability to scout the best stands, and once nearly every lot of forest was claimed by one company or another, the chances of getting away with trespass diminished. Nelson Vannier of Fenelon Falls was one of the best-known cruisers of the district. One of Mossom Boyd's long serving employees from the 1870s through the 1890s, he also worked as a foreman in the shanties and mill.⁵

Having settled on where to cut, operations got underway some time between August and November, depending on how much timber the company wanted to get out and how much preparatory work was necessary. Shanties were reused whenever possible, but they had a limited lifespan because companies wanted to get one area cut and move on to the next. If a camp had to be constructed, crews were usually at work by August or September, aiming to have accommodations in place before the first snow fell—though in some cases teams were still bringing in preparatory supplies in early December. It took a dozen men about two weeks to set up camp—the workers living in tents in the meantime. It was preferable to build a creek to provide a source of water when the lakes had frozen. The logging crews started arriving in late October or November. Companies usually had stored building supplies and enough oats, hay, flour, and pork at a nearby site in late winter or spring, preparatory to opening a shanty the next year.⁶

The larger operations had a superintendent to oversee their operations, who commanded the foremen of each shanty. Boyd's long-time superintendent, Norman Barnhart—an American of German descent, from the island bearing his family name in the St. Lawrence River, near Cornwall—served from at least 1869 to 1893. Barnhart was one of the strongest, toughest, hardest driving and most feared men in the shantieswithout doubt one of the very best at his job. His friend and protégé, George Thompson described him as having:

A fearfully bad temper at all times, and was liable to 'blow off' at any time, although his bark was usually worse than his bite, for none after all had a kinder heart than he... He was of a surly disposition, but when he chose, and that was seldom, he could display amiable qualities in a huge degree. When in one of those moods he would sometimes be as playful as a young bear, but about as safe to fool with as an old one. ... Norman had a habit of visiting the depot shanty when all the crew were in, and he would take a seat on the foreman's side and remain there for hours at a time with his head down in utter silence. Not a word would he speak, nor would he take the slightest notice of any one. All the same, not a word or move escaped his attention.

Around the shanties, Barnhart's word was law, and Boyd trusted his judgement, giving him a great deal of autonomy on all operations he oversaw. For managing the shanties, driving and rafting, Barnhart was paid \$75 a month in 1881.⁷ Under the superintendent were foremen responsible for each shanty or block of timber on a drive. Usually tough disciplinarians like the superintendent, they kept the men in line, and any who caused trouble, did not work hard or efficiently enough, or did not fit in would be 'given their time.¹⁸

In large firms, the superintendents often worked out of their company's regional depot. Boyd had several, plus a storehouse at the Gelert rail station. Most depots were not farms, and had to be provisioned—such as Boyd's on the north half of lot 30 XII, Snowdon and one each in Harburn and Glamorgan. Boyd's largest was in the tract of land he was required to purchase from the CLEC to demonstrate its suitability to agriculture. The 1115 acre Havelock Farm (Lots 16-20 I to II, the north parts of 21 and 22 I, 21 II, and the southwest corner of 22 II, on the portage from Little Redstone to Kennisis Lake) became Boyd's supply depot for the area. John Arnberg oversaw it, comprising 120 cleared acres with 50 cropped in its heyday. It had a barn, granary, boarding house 24 by 36 feet, office, storehouse, stable, blacksmith shop, and root house. The Boyds went to great lengths to farm it—shipping in supplies at great cost—because cadging in produce for the shanties would be even more expensive. They purchased high quality grass, grain and vegetable seeds. To get an ox-powered threshing machine to the Havelock Farm, Boyd purchased it in Peterborough, disassembled it, sent it overland to the foot of Kashagawigamog Lake, then sent it by ice and portage trails the rest of the way. Every

year a gang of men was hired to get the hay and crops off. But within a few years their efforts were resulting in a "shocking bad yield," and they focussed more on fodder. Boyd promised Barnhart that the property would ultimately be given to him, and Barnhart insisted from his deathbed in 1893 that his widow, Caroline, receive the deed before he died—Boyd recently having tried to sell the property to Charles Mickle, of Mickle and Dyment lumber firm, Gravenhurst. By 1888, the Boyds no longer used the farm, and Barnhart was trying to find a tenant for it. After Barnhart's death, having lost its purpose, the forests began to encroach on the farm, and by 1910 all the buildings had fallen.⁹

The men's home for the winter was a camboose shanty. Structurally, it was similar to the first homes of backwoods farmers, but was substantially larger—up to forty feet square, and ten feet high to the gable—to accommodate work crews of twenty to one hundred, commonly between thirty and sixty. It was built of logs cut in the bush, shaped with axes, and chinked with moss. The floor was of logs chipped flat, which did not fit together snugly. In later years, some lumber was usually teamed in to help finish the building. Most shanties had gabled roofs, though some had a shed roof—in either case made of troughs called scoops and supported by enormous stringers. Doors were made of split shake logs, joined together, five or six feet high, and three to five feet wide. The camboose cookery was usually the centre of the building, a pit covered with a canopy tapering into a large wooden chimney leading towards, but sometimes not meeting, an opening in the roof overhead. These chimneys did not work well, and shanties were notoriously smoky, especially in damp, foggy weather. Occasionally, cookery fires got out of control, burning the shanty down.

Benches of hewn timbers sitting on blocks surrounded the camboose, where the men ate their suppers and smoked in the evening. Towards the end of the century cast iron camp stoves replaced the open fire pits, and greatly reduced wood consumption— though they were difficult to transport, weighing several hundred pounds. Adam Hall of Peterborough produced camp stoves from 1878, and he was said to be the first manufacturer in the region. George Thompson introduced a separate room in his shanties for cooking and eating. Shanties then became tighter, with chimneys instead of a hole in the roof, and easier to heat. The clerk's desk was at one end, perhaps under a window— windows in a shanty were rare—and at the other end were bunks for the men. Though

simple architecturally, the men seemed to have found them comfortable enough once they were ensconced for the winter.¹⁰

Camps usually had an outhouse, and would certainly have storehouses and stables—log buildings much like the shanty, to accommodate all the teamsters and their horses. Some camps might also have a blacksmith shop. A fair bit of work went into keeping the horses shod and all the equipment in order, but it was often not worthwhile to have a smith at each shanty. Larger companies might have a smith at one or two of their shanties, but usually had work done at the nearest settlement or by bringing in a smith for short periods. Before rail connections to Haliburton, charcoal pits kept the smiths supplied. The men sharpened their axes with grindstones kept in the shanty.¹¹

Each shanty employed a cook and an assistant—usually called a devil—who fed the men each morning and when they returned at night. They worked at the camboose, which was a bed of sand enclosed in a pen of logs, perhaps twelve feet square and a couple feet deep. There was often a roof over the camboose, and a cramier or crane was fitted to posts rising up from the four corners, employed to swing pots over the fire. The flame was the main source of light, though the clerk and cook had candles or lamps. A cord of wood lasted about sixteen hours.¹²

In early days, the diet seems to have been flour, pork, and potatoes. The standard fare soon became long clear pork—like bacon, its name reflected its fat content—and white beans, perhaps sweetened with maple syrup or molasses. This meal was customarily prepared in an iron vessel, with bread (often sourdough) on top of the pork and beans, baked in the hot sands with live coals under the shanty fire that blazed round the clock. Yeast or cream of tartar, was used for leavening, and perhaps hops for flavour. The cook retrieved the pot using an Irish-style mining shovel. For supper, the men might eat boiled potatoes and beef (perhaps an old camp ox), with turnips, onions, carrots, peas, cabbage or sauerkraut. The standard dessert was dried apples (perhaps made tart with tartaric acid) and rice and currants, seasoned with cinnamon or nutmeg. Camp foremen and clerks purchased all the fish, venison and other game they could procure from locals, and shantymen might hunt or fish on Sundays. It was said in 1877 that "deer is so plentiful that it is used to the exclusion of beef" at one of Barnhart's shanties. On rare occasions corn was served.¹³

As the century wore on there was more variety in the fare, with mutton, pickles, vinegar, lard, sugar, corn syrup, butter, eggs, fresh pork, steak, evaporated peaches, figs, raisins, sage, ginger, pepper, mustard and allspice. They also came to expect better conditions—in 1883 William Ritchie's men "refused to work without having beef" instead of pork, prompting five men to leave their jobs. The men, by and large, ate off their laps, on tin plates, using their knives for cutlery, with a dish for their green tea—brewed "strong enough to float an iron wedge" or "peel the tongue of a buffalo." Black tea was introduced at the very end of the century. Cooks were careful to see that food did not go to waste, though each man could eat all he wanted, and were even expected to salvage tainted pork as best they could. If shanties had a distinctive smell, it was the combination of sweat, wood smoke, maple syrup, green tea and tobacco.¹⁴

Pork, beans and flour, the staples of the shanty diet, were commercially available in large quantities—hard to beat as food that was cheap and easy to ship. One of the most time consuming jobs for any company was to keep their men and horses supplied. As much as possible, foremen rounded up what produce could be had in the vicinity of their shanties. They often purchased goods on futures contracts, as they endeavoured to keep costs as low as possible. When north country farmers found better deals than the lumber companies offered, many then sold their produce elsewhere. To legally bind farmers to deliver their produce as agreed, Boyd gave a down payment and produced a written agreement, specifying the size of the crop. Even with such arrangements, the bulk of the material had to be brought in from a distance. Hardly a day passed without cadge teams leaving Bobcaygeon with another shipment for the Boyd shanties. For most of the latter half of the century they could not make it to the shanties in a day, and often spent the night at Arnberg's at Eagle Lake, James Roberts' Inn, Bill Dunbar's in Kinmount, or the company boarding house in Burnt River.¹⁵

The supply challenge was somewhat alleviated when the Victoria Railway reached Kinmount in November 1876 and Haliburton in 1878. It then became far easier to ship in beef than to send a drove of cattle north. In 1873, Vannier had kept cattle and pigs at his shanty to be slaughtered, feeding them beaver hay. Hides were shipped south for tanneries. Once the railway was in place, the Boyds ordered cars of hay, oats, bran, flour, pork and beans direct from Fenelon Falls, Lindsay, Peterborough, Toronto, or even

Chicago. But the cadge teams still ferried supplies from the nearest rail stop or neighbourhood farms over the rough bush roads. Most of the more specialized supplies, and some loads of flour, oats and hay still went north with the teamsters—including what Boyd produced on his own farm.¹⁶

Men slept two to a bunk, under grey woollen blankets. Each man was usually issued a pair of covers, but some companies only granted one. Their beds were made of poles, and built in two tiers, arranged so that the men slept with their feet to the fire. They customarily slept fully dressed, except for their moccasins. For the floor of the bed, logs were flattened with axes. The men usually slept on fir boughs or hay. The foreman often had his bed set apart in a different corner of the shanty—strictly out of bounds to the shantymen.¹⁷

Early on, some consideration was given to allowing families to go to the camp, but it was soon standard practice to bar all women. Many of the shanty men were working there to support their families and sent part or all of their wages home, but they rarely got home to visit. Some who lived in the district returned for Christmas. The Boyds expected all eligble men to trek down on voting day, and of course support Boyd's preferred Conservative candidate.¹⁸ Occasionally ministers visited the camps—usually Catholics, reflecting the high proportion of French Canadians in the workforce. But, in George Thompson's experience, "there was no worshipping God in that shanty, and I of course soon became as proficient in the art of swearing as the rest. Fighting, drinking and swearing were the chief accomplishments of shantymen in those days."¹⁹

The men entertained themselves around the fire each evening, sharing songs or stories, as they sat and smoked or chewed tobacco. One popular song was the *Lumberman's Alphabet*:

A is for Ax, and that we all know, And B is for Boyd that can use it also C is for chopping we first do begin And D is for Danger we often fall in

Chorus So merry, So merry are we No mortals on earth are as happy as we T'me I dry, O derry I derry down Use shanty boys well and nothing goes wrong.

E is for Echo that through the woods rang,

And F is for Foreman, the head of our gang G is for Grindstone at night we do turn, And H is for Handle so smoothly worn

I is for Iron which we mark our pine And J is for Jovial we're always incline' K is for Keen edge our axes we keep And L is for Lice that keep us from sleep

M is for Moss with which we chink our camp And N is for Needle with which we mend our pants O is for Owl which hooted at night And P is for Pine which we always fall right Q is for Quickness we put ourselves to R is for River we haul our logs to S is for Sleds we haul the logs on T is for Team that pulls them along U is for Uses we put ourselves to, And V is for Valley we haul the logs through And W is for Woods we leave in the spring And now I have sang all I'm going to sing

Another was the Lumber Camp Song:

Now boys if you will listen, I will sing you a song It's all about the shanty boys and how they get along They are a jovial set of boys, so merry and fine They spend a pleasant winter cutting down the pine.

Some will leave their homes and friends whom they love dear

And for the lonesome pine woods their pathway they will steer

They are going to the pine woods, all winter to remain Awaiting for the springtime ere they return again.

They are farmers, and sailors, likewise mechanics too And all sorts of tradesmen, found with a lumber crew The choppers and sawyers, they lay the timber low While the swampers and skidders they haul it to and fro

Noon time rolls around, the foreman loudly screams 'Lay down your saws and axes, boys, and haste to pork and beans!

Arrived the shanty the splashing does begin There's the rattle of the water pail and the banging of the tin.

It is, 'Hurry in, my boys! you, Tom, Dick or Joe For you must take the pail and for some water go!' The cook, he haloos, 'Dinner!' they all get up and go It's not the style of a shanty boy to miss his pie you know.

Dinner being over, to their shanty they all go They all load up their pipes, and smoke till all is blue 'It's time you were out, boys,' the foreman soon will say

They all take up their hats and mitts and to the woods they haste away.

Oh, each goes out with cheerful heart, and with contented mind

For wintry winds do not blow cold among the waving pine

Loudly their axes ring, until the sun goes down 'Hurrah! my boys, the day is done, for the shanty we are bound.'

Arrived at the shanty, with wet and cold feet They off with their boots and packs, for supper they must eat

The cook, he halloos 'Supper!' they all get up and go It's not the style of a shanty boy to miss his hash you know.

The boots, the packs, the rubbers all are thrown to one side

The mitts, the socks, the rags, are all hung up and dried At nine o'clock or thereabouts, into their bunks they crawl To sleep away the few short hours until the morning call.

At four o'clock the next morning the foreman loudly shouts

'Hurrah, there! you teamsters, 'tis time you were out!' The teamsters they get up, all in a fretful way Says one, 'I've lost my boot packs, and my socks have gone astray!'

The choppers they get up, and their socks they cannot find They lay it to the teamsters, and curse them in their mind. One says, 'I've lost my socks—I don't know what to do' Another has lost his boot packs, and he is ruined too.

Springtime rolls around, the foreman he will say 'Lay down your saws and axes, boys, and haste to break the way'

And when the floating ice goes out, in business we'll thrive

Hundreds of able bodied men are wanted on the drive.¹

They might play cards or chequers, and one or two might even have a fiddle to entertain

the men. Some passed the time whittling or making wooden trinkets.²⁰

The stories shared around the fire were often of their work, families back home, or

occasionally were hair-raising tales. George Thompson recalled his first Christmas Eve:

Our foreman sat up with the crew and told us fairy and ghost stories. The crew were very superstitious (most French Canadians are) and for that matter

I am myself. That Xmas evening there was a fearful gale blowing, and towards midnight when our foreman was in the middle of one of his bloodcurdling and hair-lifting stories, the crew all gathered around him with their eyes fairly bulging out, crash, bang! down, came right amongst us, a big pine limb which the wind had broken from a huge pine tree that stood some distance from our shanty; the wind carried the limb and dropped it down our camboose chimney, and it made a fearful crash when it struck our pots and kettles. A more frightened crew I never saw, and I guess we all thought the devil had us. After we recovered a little from our fright the foreman said it was sent as a warning to someone neglecting his religious duties.²¹

The men also took pride in great feats of strength or skill. Thompson remembered one

winter when he worked for Boyd:

The foreman of the depot shanty 'Black Alick' McDonald, as he was familiarly called, was a huge fellow and also very strong. Alick thought he would put a job on Norman [Barnhart]. There were a number of barrels of pork piled up at one end of the shanty; Alick took the head out of one of the barrels and took out half the meat, then put the head back in the barrel. All the river crew, consisting of nearly 100 fine strapping fellows, were in the shanty when Norman came in, and nearly all of them were aware of the job Alick had on hand. Shortly after Norman had taken his seat Alick got up, and with a big oath, said in a loud tone of voice, that he was going to do what no other man in the camp could do. Alick said if any one thought he could, to follow his lead, at the same time picking up the barrel that had been tampered with and walked out of the shanty with it on his shoulder. Norman in an instant was on his feet. He strode over to where the barrels of pork were piled, and picking up the first he came to, should red it and followed out through the door, and took a turn around the chip yard at Alick's heels. Both laid their barrels down at the same place. A storm of applause from the crew followed as soon as Norman had laid his full barrel of pork down. He, without a word or even a look at the crew wheeled on his heel and marched out of the shanty. I may say that a barrel of pork weighs nearly 350 pounds, but the great difficulty was in getting through the doorway five feet square.²²

The same spirit of competition applied to their work, whether they were felling trees, hauling them out, driving or rafting.

In the early days, when Boyd's shanties were largely manned by farmers from the vicinity of Bobcaygeon, alcohol was permitted in the shanty, and Boyd even supplied whiskey. Drunkenness on the job, however, was not tolerated, and was punished with fines up to $\pounds 1$. By the 1860s or 1870s, alcohol bans were nearly universal, but the good old days were recalled in *The Shantyman's Life:*

A Shanty Man's life is a drearisome life Though sometimes tis free from all care Tis swinging of an ax from morning till night In the midst of the forest so drear. 'Tis swinging of an ax from morning till night In the midst of the forest so drear

We are lying in the shanty; it's bleak and it's cold While cold, wintry winds do blow The wolves and owls with their terrible growls Disturb us from our nightly dreams The wolves and owls with their terrible growls Disturb us form our nightly dreams

Transported we are from all pretty fair maids. There's no whiskey seen till it's spring' There's not a friend near to wipe away a tear While sorry a sad mind will bring There's not a friend near to wipe away a tear While sorrow a sad mind will bring

Had we ale, wine or beer our spirits to cheer, While here in the woods the long while Or a glass of anything while here all alone To cheer up our long, long exile Or a glass of anything while here all alone To cheer up our long, long exile About four o'clock our noisy little cook Cries, 'Boys it is the break of day.' With heavy sighs from slumber we rise To go with the bright morning star. With heavy sighs from the slumber we rise To go with the bright morning star

When the springtime comes in, double troubles begin For the water it is piercing cold Dripping we are our clothes and we're almost froze, And our pike poles we scarcely can hold. Dripping we are our clothes and we're almost froze And our pike poles we scarcely can hold

You can hear talk about your farms, but your shanty boy has charms They are far superior to all They will join each others hearts until death them all parts Whether they be great or small They will join each other's hearts until death them all parts Whether they be great or small.

So rafting I'll give o'er and anchored safe on shore Lead a quiet and sober life No more will I roam but contented stay at home With a smiling and charming little wife No more will I roam but contented stay at home With a smiling and charming little wife.

Over the last three decades of the nineteenth century, enforcement became more strict,

but there were always lapses, as George Thompson recalled:

Foreman and I happened to be looking through our shanty stable and accidentally found a large bottle of what looked, smelled and tasted like whiskey. We were both very dry and a good swig of liquor would just fit our case, but we were afraid to drink the contents of the bottle, for we knew it might be just a plan to catch some one, or it might contain horse medicine; so we thought of our cook, an Irishman by the name of Mat McCue, and took the bottle into the shanty and asked Mat if he felt like taking a horn of good whiskey. 'Try me and see,' replied Mat; so I poured a good sized geiser into a tea dish and handed it to him and he downed it without a blush. The foreman and I then went outside of the shanty and hid the bottle in a brush pile, the foreman remarking as we done so that we take a walk to the bush and on our return in an hour or so, if the stuff had not killed Mat, we would finish the bottle. But when we got back about dark, we could not find the bottle. We then went into the shanty and were surprised to find it in darkness, no sign of any supper ready for the crew, some of whom were just then coming in. There was an awful scuffle made by Mat and his 'devil.' The two were engaged and a deadly struggle, swearing and vowing vengeance on each other for allowing the fire to go out. We afterwards learned that the cook's devil happened to be outside when we hid the bottle, and after our departure went in and told Mat

what we had seen. That settled it. Mat and the devil were soon outside and all the contents of the bottle, and of course forgot or did not care if there ever was any supper for the crew. When we arrived they had just woke up, and blamed each other for the trouble. Both were too helpless on arrival to the scene to be able to prepare supper, so the foreman and I had to turn in and get the meal ready and did not even get a smell out of the bottle, for Mat and his devil had drank every drop.

By the latter decades of the nineteenth century, firms dismissed any men who persisted in drinking on the job for any period of time. In 1869, Boyd's foreman Charles Stewart explained his reason for not immediately firing a cook caught drinking before arriving at the shanty:

1st I had not power to discharge him. 2nd I had no one to take his place. 3rd I believe him to be a good cook & that when once in a shanty he will be sober. Last night I told him if he was not sober this morning I would kick him out of the township, and forbid the tavern keeper to give him more drink. This morning he is penitent and solemnly promises me he will not touch whiskey until next spring.

The next year Stewart would not allow a hewer with a reputation for drinking to come to the shanty.²³

Though many old timers remarked on how healthy the crews were—fairly isolated from the outside world, aside from the continual stream of cadge teams—there were occasional outbreaks in the shanties. Yet their standards of hygiene would disgust most genteel observers of the day. For washing, shanties often had a barrel of water standing beside a rudimentary sink, with a drain dripping down by the exterior of the building. Though some cleaned themselves on Sunday, many found this inconvenient or unpleasant—unless they took the time to heat it over the fire, the water would be cold, while the shanties were drafty—and rarely or never washed, aside from perhaps their face and hands. Thompson recalled:

Quite a number would never change their under-clothes or shirts until the clothes were wore out, and as to washing their feet, such a thing never came to their minds, for the old heads knew their feet would get washed often enough in the spring when the river driving commenced, and wading in the cold water in the rapids often up to their waist, and sometimes their shoulders. This would soon wash all the dirt off them. Lost socks would often be discovered that way in the spring, the dirt on the men's feet being so thick they would forget having put the socks on months before, and the first wading

in the water in the spring would bring the lost socks to light, much to the astonishment of the wearer.

The men were often infested by lice and it was said that they could be smelled half a mile away—as much for the scent of smoke as sweat. Occasionally, Boyd's foremen disinfected old shanties with carbolic acid.²⁴

A typhoid outbreak in William Creswell's shanty at Bark Lake near Irondale in October 1900 seems to have been caused by camp standards of hygiene. At first, Creswell did not realize how serious the situation was, and brought in replacements for his sick men. But soon the camp had to be abandoned. In his defence, Creswell said that he often urged the men to be cleaner, but the Glamorgan Board of Health found conditions there appalling. Many of the blankets that the men shared were badly soiled, as was the camp outhouse, and waste had accumulated around the sink's drain.²⁵

The Board of Health took charge and set about disinfecting the camp. It washed the buildings and textiles with mercuric chloride, iron sulphate and carbolic acid (all carcinogenic or toxic), set up drains to run wastewater further away from the shanties and burned the privies. It instructed Boyd to leave the iron sulphate in the tub as a disinfectant. The men were then back at work in January. Being responsible for maintaining sick workers, firms made sure that their workers had a strong incentive to remain on the job. Not only would sick or injured men not get paid, they were usually fined at least a day's wage. Boyd also pressured his men never to miss a day by paying a monthly bonus to each man if no one in the shanty missed any time at work.²⁶

Facing such collective pressure, the men worked through almost any illness or injury. But their occupations were dangerous, and when accidents did happen, they could be gruesome. Some men chopped their legs or feet with axes. A falling limb could surprise a chopper. There were occasional camp fatalities, and if the deceased left behind a family his friends often gathered donations for his widow. The companies were rarely as generous, and some only paid wages after they had covered the costs of transporting the man to the jobsite. In the worst cases, incapacitated men were considered to owe the firm money. It was often a source of resentment when the principal men of the lumber firms, who made conspicuous display of their own wealth, refused to help widows struggling to overcome the loss of their husbands. Then the connection between balance sheets and workers safety was made apparent. But it was a testament to the men's skill that accidents were unusual.²⁷

More than wages or working conditions, the public did take notice of workplace accidents. Criticism was almost without exception directed at the big firms. While the general population shared most of the dangers of forestry—felling trees, handling horses, using machinery-these risks and the accidents that ensued came to be viewed less benignly once a significant portion of the population did not regularly face the same dangers and a class of proprietors and managers emerged who did not do manual labour themselves. Early in his career, when Mossom Boyd was working his way up from being an orphan, he toiled in the camps and ran the rivers alongside his men. As they drew timbers to the lake, the Governor would be there, whipping the horses as they raced onto the ice. When they fell through, he was struggling with the rest of the men and teams. But later in life, once his company had grown to have managers overseeing each aspect of the operation, he came to see things differently. More distant from the work, he stressed to Norman Barnhart, "I do not want them to attempt the ice until it is perfectly safe. I would rather have them keep to the road a week longer than necessary than run any risk by trying the ice too soon." Travelling on ice was far from the most dangerous part of lumbering, and it is hard to imagine a younger Mossom Boyd saying the same thing.²⁸

The clamour over workplace safety tended to have a political dimension. At least in the Kawarthas, the newspaper editors who were the most diligent in observing workplace accidents were Liberals, while the lumbermen were overwhelmingly Conservative. Perhaps it is no coincidence that they were more critical of their political adversaries, commenting when workers were killed and how the apparently wealthy companies paid no compensation to the families. Ironically, the wealth of most of these companies was illusory, yet the most affluent, Boyd, had the influence to convince E.D. Hand, a Liberal newspaper editor, to leave Bobcaygeon for Fenelon Falls. Staunch Tories like Sam Hughes (future Minister of Militia and Defence in the Borden Government), editor of the *Victoria Warder*, were not so eager to find fault with their friends. Whatever the role of party politics, accidents in the large firms were treated differently than those at smaller mills or on farms. If a farmer dropped a tree on himself while logging his back forty or working for the neighbourhood mill, the newspapers tended to report on the

unfortunate accident and offer their condolences to the families. If his brother was hit while felling a tree at a large firm's camp, the company could also be held to account, and their dealings with the family opened to public scrutiny.

In nineteenth century Britain, labour was governed by the law of master and servant, which generally served to keep remuneration down and reinforce masters' authority. From the fourteenth to the late nineteenth century, terms of employment in many sectors, including agriculture, were assumed to be one year, and bound servants to obey their masters. Flight, absenteeism, rudeness and failure to complete work to the master's satisfaction were offences, liable to summary judgement by justices of the peace, and punishable by whipping, imprisonment or additional forced labour for the master. Servants were bound for the entire term of a contract, and were prevented from leaving one master for another. In earlier centuries, their bosses were bound to retain them for the term of the contract, but by the nineteenth century they had greater leeway for dismissal. Masters faced only financial penalties for failure to pay their workers. Though many assumed that master and servant legislation was in effect in Upper Canada, the high courts limited its application, and the law was not formalized until an Ontario Act of 1847. As in Britain, workers could be imprisoned, while their masters were only liable for damages. In the second half of the century, some fines were imposed for desertionmuch more commonly than imprisonment. An 1877 Ontario Act ended imprisonment for breach of employment contracts.²⁹

Though Ontario did create some of the machinery for master and servant prosecution, most employers realized, as a reformer put it during the 1847 debate that 'there was no use in endeavouring to compel an unwilling servant to perform his contract.' Employers in Upper Canada soon learned that workers had much more freedom and demanded higher wages than in Britain. There were no legislated maximum wages as then governed many trades in Britain—such impositions would have been discordant with the realities of nascent backwoods communities.³⁰ In the early years of Boyd's business most of his workers were settlers or Ojibwas from the vicinity of Bobcaygeon.³¹ Many returned year after year, but as time wore on, the proportion of local farmers among shanty employees dwindled and they were replaced with cheaper labour from elsewhere. Still, to the end of the century, some local farmers found winter work in the bush.³² In the late 1840s and early 1850s, when the workforce was primarily local farmers cutting in the vicinity of their farms, they were allowed to work inconsistent schedules. From November 22 to December 4, 1849, James Lyle was granted leave to go work at Blythe. Charles Kelly started work October 10, left November 22, returned December 1, left for 2 days that month, left for Bobcaygeon on the 29th, returning to work January 25, and taking leave March 29 to April 2.³³

It was was difficult to operate a lumber company when men were paid competitive wages, yet expected to leave their jobs when they were needed on the farm. While such arrangements were about the best that both sides could expect in the early years, the firms began requiring uninterrupted work and formal employment contracts as soon as such arrangements could be made. Boyd much preferred the stipulations of English master and servant law to the conditions that prevailed in the backwoods, and tried to recreate some parts of the legislation through contracts. Boyd was also often short of cash in those early years, so the men were not paid until he realized some returns. In 1850, his contracts stipulated that his men were "not to receive wages until the raft arrives at Quebec," even if they were discharged. They were fined 2s 6d for every day they were not at work unless stopped by the weather. They could not leave the shanty without the foreman's permission, and Boyd had the option to terminate the employment at any point. His contracts had similar terms throughout the century, though once the square timber trade declined, men were often dismissed at the shanties or as the drives reached Fenelon Falls, then they streamed to Boyd's office to be paid.³⁴

In 1848 rafting wages ranged from \$11 to \$18 monthly. In 1850, Boyd paid foreman Duncan McDonald £5 per month—most men received £2 10s, a few £3 or even £3 10s.³⁵ Wages fluctuated year to year, and perhaps within a season, often closely following international timber and lumber markets. In 1870 common wages were again \$18 to \$20, running as high as \$26, and changed little through 1873. For 1874, facing the depression, Boyd and many of his peers were uncertain whether they could profitably market their produce, and refused to pay normal wages. Many men remained in Peterborough holding out for such high wages that the firms preferred to bring workers from Quebec. While there was never much chance that the gangs would receive higher wages in good times, Boyd reduced his wages mid-season 1876: road cutters then

received only \$7 or \$8, choppers \$10 or \$11, and scorers \$12. Thompson recalled that one such pay cut prompted the men to rise against their bosses. By 1882, wages were back up to \$18 to \$20, then were between \$14 and \$22 in 1900. Some specialized workers like the hewers received a dollar or two extra, and foremen received \$30 to \$50. Wages remained fairly constant from 1880 to 1900, except in the late 1880s when wildfires forced most companies to greatly increase their workforces. In 1887 Boyd's wages for log cutters reached \$35.³⁶

Mill hands were usually offered shanty work each fall, as the two jobs had roughly complementary schedules. Men were hired in the countryside, village or district towns, while many asked for work at the mill or company office. At its peak, Boyd's operations employed more than 500 men, including some who had jobs that required specialized abilities—surveying, bookkeeping, millwrighting, filing—and paid relatively well. Many of these occupations became careers for men seeking an off-farm livelihood, especially as the agricultural economy matured in the second half of the century. But, as firms scrimped on wages, they also sought many workers at minimal cost-seasonal gangs of men to fell trees, cut roads, drive streams, operate the mills, pile and load lumber. They offered so little that they could not attract enough workers from the district. The first stop for foremen looking to hire was Peterborough, where a number of men assembled each fall. They might then try Ottawa, but bosses often toured rural Quebec to recruit—counting on paying less, even after providing their transit. Barnhart often went himself, stopping at churches to get priests to help him enrol men. Boyd at times even resorted to hiring blacksmiths in Quebec. Though paying foremen to seek out cheap labour was expensive and troublesome, firms believed it saved enough money to be worthwhile.³⁷

The practice of transporting in the cheapest available labour for less skilled jobs created some of the worst legal disputes. Having dispatched their foremen to scour rural Quebec to find men, then paid to bring the men to the mills or shanties, the companies expected to get some work done. But new arrivals saw local men being offered higher wages than they had contracted to receive. While some of the more skilled workers received better wages and might hope to have a job with the company in the future, these transient workers often resented their position. A few ran away from their employers,

often to work in another nearby shanty. However, having been required to sign formal contracts, and with the firms having invested in their transit, they were required by law to meet their obligations. When they did not, most bosses were of the the philosophy "to punish all they caught as far as the law would allow" as a deterrent.³⁸

When employees, especially transients, ran away, their employers took out warrants for their arrest. Deserters rarely had much chance of winning their cases. Five employees hired in Ottawa that Boyd had transported and clothed were arrested after fleeing to the Dickson Lumber Company in October 1874. Boyd offered them the opportunity of returning to work, but they refused, pleaded guilty, and were fined \$20 each plus costs. As they could not pay they received one month in the Lindsay gaol. In 1879, an employee of Irwin & Boyd, hired at Bobcaygeon, was transported to Kinmount, then ran away to work for Green & Ellis. He was arrested and fined \$15, costs and damages.³⁹ It often did not matter if men were not granted the working conditions they expected. In September 1883, six French employees of Thomson & McArthur were arrested, after leaving a job in the mill, having worked three or four days. The company had paid \$17 each to transport them from Ottawa, but they explained that they had agreed to work in the shanty, not the mill. The magistrate allowed them to choose whether they wanted to return to the mill until their account was cleared or do thirty days hard labour. They chose the mill.⁴⁰

In the fall of 1895, Joseph Galarneau of Montreal took a job in the woods working for J.W. Howry & Sons. He claimed that he agreed to a wage of \$18 monthly, the firm having paid \$8 for his transit. After he worked six weeks, he was "sawing a log near a skidway, when a tree was fallen which struck the skid and rolled a log onto him." Disabled by the accident, he was unable to work for sixteen days, before being discharged. Because he left early the firm allowed him only \$12 instead of \$18. It charged \$12 for his railway fare plus a dollar a day for the time he was unable to work, meaning that he left town "without a cent, disabled, and trying to get back to his family in Montreal." Though cases like this did spark outrage, there was tacit understanding between workers and their foremen of how the business worked, how much could be demanded of them, what they were to receive in exchange and the conditions they could expect. If the employer seriously transgressed in the eyes of the men, they occasionally

banded together to pressure for redress. But, with the contracts arranged as they were, walking off the job was not a very palatable option for men who did not like their working conditions.⁴¹

Strikes were not common in the mills or the shanties. In the bush, job action usually took the form of men banding together to threaten their foremen, and there is only local evidence for such events in cases where firms were in gross breach of the men's expectations—as when they dictated wage cuts. At the mills, some employees united to demand higher pay, different food or changes to their accommodation. But the protests usually involved only part of the work force—often transients walked off the job, while the more skilled workers carried on. Higher-paid permanent staff had considerably more to lose in a strike than the gangs—firms frequently brought in replacement workers—as many had worked for the companies since they were boys.

When fourteen of Boyd's mill gang walked out for an hour at noon on June 2, 1881, he had a new crew of eighteen men ready to replace them the next day. But his replacement workers then struck on July 18 demanding their wages in full up to June 30. Unpaid wages were one repeated grievance precipitating strikes-often weakening companies that were not paying because they were short of funds. On June 15, 1896-as Howry was within a few months of bankruptcy-most of his men left their stations to demand their wages, which were in arrears for two and a half months. Though some workers wanted to stay on the job, the men formed a union and "a disturbance took place in which stones were thrown and the assistant manager had to retreat to the office." Workers loyal to the company managed to keep one saw running that night but the mill closed the next day, and the Howrys were forced to accede to some demands. There were many other reasons to walk. In 1878, Boyd's eleven French employees struck, citing their dislike of boarding house meals. For most of the century, mills ran twelve-hour shifts with half an hour for lunch. There were several strikes demanding ten-hour days with one hour for lunch. The Boyds granted one hour for lunch starting July 27, 1887, then tenhour days fifteen years later. The Howrys was switched to ten-hour days in 1896. But both mills closed soon after switching to short shifts.⁴²

Observing the low wages that firms paid transients and how many logging communities on the Canadian Shield became ghost towns, Ian Radforth called shanty

work "a treadmill for reproducing rural poverty generation after generation," primarily benefitting the firms, and giving occupants of marginal farms just enough money to keep going. It has been suggested that wages were so low and deductions so common that only the most frugal shantymen would have something to show for their winter's work.⁴³ Forestry created many low paying jobs, and aided agricultural settlement on the margin of the Canadian Shield, especially by providing a ready market for oats and hay at prices above the going rate in the district towns. But the settlement of the Shield was more the result of the expectation that all land would be farmland. A few spent more than their wages in a season, but looking through Boyd's payment records, they were a very small minority. While firms exploited some workers, forestry also created many good jobs. The shanties employed many young men, and they could be a stepping stone for other careers. Albert Edward Bottom, proprietor of a successful Bobcaygeon hardware store, served as a clerk in a Boyd shanty. In early years, such off-farm income helped to establish the agricultural community. At that time, many of Boyd's employees from his home neighbourhood took payment largely in kind, but in many of these cases the goods were for use on their farms. Later in the century, farmers were most likely to find work as teamsters—coming from as far away as Emily to work in Haliburton.⁴⁴

Companies always owned some horses of their own, pasturing the majority over the summer for winter work—though Boyd worked with Sam Walker who ran his Lindsay yard, John Adams of Port Perry, and Lindsay agent George McHugh to buy animals for the start of the season and sell them in the spring. The company's horses were usually sufficient for the cadging, skidding, and other routine needs. The haul, however, required a large number of teams for a relatively short period of time, and was made up largely of local farmers and their teams. Some teamsters like Jim Powers and Dick Welsh made a career of it, but most were hired for a fixed period. They were occasionally very well paid. Boyd once offered \$2.50 per day plus board for men and horses. Many teams arrived at Boyd's sawmill looking for work, but he usually also had to canvass local farmers. Since many farmers were happy to work, and thankful for the winter feed for their team, wages tended to resemble those for the labouring men—\$0.80 to \$1.25 per day was common—with not much change from 1850 to 1900. But life in the shanties was hard on horses—every winter a few were 'used up' and went home early.⁴⁵

Hauling and drawing was a gruelling test for the horses. Mossom Martin Boyd took a particular interest in his animals. Long before the Boyds gained renown for their improved breeding, they put significant thought into the horses in their shanties and would carefully note when Napoleon (they seemed to have particular affection for that name), Invader, Flossie or Biggest Brown came or went from the shanties. By the end of the century, their beasts of burden were an interesting spectacle, as they sent renowned and valuable breeding horses to the shanties, to display their superior merits as work horses alongside the humbler teams of neighbouring farmers. Mossom Martin Boyd would send reports of how his newest Suffolk Punch or Percheron team fared in the bush to his peers among the improving breeders. Some mares laboured in the bush within six weeks of foaling.⁴⁶

Though some jobbers gained a reputation for pepetrating the worst timber thefts, most just did the honest work of getting out a stand of timber on contract. Agreements varied from a few logs to a few million feet, and could be among the most remunerative occupations in the lumber industry. Some men worked alone, while others employed a crew and built shanties similar to the larger firms. Some companies hired jobbers to clean up the remains of a stand of timber the year after their shanty crew had moved on, and allowed them to use the firm's shanty to house their own work crew. Boyd even allowed his jobbers to borrow sleighs, and might hire men on behalf of regular contractors. They also represented a cost-effective way of increasing a company's cut for one season, as after a forest fire. In 1884-1885, after flames tore through parts of his limits, Boyd hired eighteen jobbers to take out about 4,200,000 feet of lumber, including 1,300,261 by James White on Larone's Creek. Four years later another large fire prompted him to hire seventeen contractors, for 5,050,162 feet, the largest block being 1,396,652 jobbed by John Sedgewick. In such cases many contractors were told to cut only burned trees.⁴⁷

Many jobbers cut on their own farms or in their immediate neighbourhood though there were always men who took contracts across the province. Early in R.C. Smith's operations, most of his logs were got out by jobbers who lived in the vicinity of Fenelon Falls. To the end of the century there were farmers in Fenelon and Verulam taking out timbers on their farms. For some of these men, jobbing was a way to realize some income for trees that stood in the way of farm making. They usually worked on a

fixed price per log or per foot, delivered either to the mill or a driveable watercourse. In 1869 R.C. Smith and Greene & Ellis paid as high as \$1.25 per standard log (a log sufficient to make about 250 to 270 board feet). Between 1875 and 1884 Boyd gave 50c to \$1 per standard delivered in the Burnt River, depending on the distance they had to be drawn. In 1876, Boyd paid John Sedgwick \$55 per thousand feet of timber on a job with a long draw. Paul Crego who lived near Kinmount received \$76.78 for 99 logs in 1884— the equivalent of 85 bushels of wheat delivered to Lindsay. If they were cutting on company limits, jobbers were usually supervised. Sometimes Boyd offered a settler a job, while trying to purchase the remainder of the timber on his lot. A few times a year the foreman of a nearby shanty, bush superintendent, or perhaps the company's owner would visit to look over their work. Their agreements were usually quite specific about which trees they were to get out, and where they were to deliver the logs. When Boyd hired John Welsh to cut Lots 2 to 5 V & VI Snowdon, he sent Vannier to not only tell him what to cut, but also where to build his shanty. When they completed their job in the spring they were subject to the company scaler.⁴⁸

4.6 Contract Logs, 1845 (ft) ⁴⁹		
George Harkness	3520	
Cornelius Curtis	660	
Francis Best	3669	
McGee	820	
Robert Jones	8332	
George Henderson	10460	
John Mitchell	2004	
William Allen	2158	
William Jordan	100	
Dunsford Family	4018	
George Lithgow	1000	
John Lithgow	1130	

From the earliest days of Boyd's business, he had relied on cutting contracts for part of the annual supply. A large part of this trade was in local farmers bringing in logs either to saw on shares, or for exchange at the store. By 1845, many local farmers were getting out logs for sale on contract. In 1849, he purchased timber from Hartley Dunsford, Robert Kelso, Cornelius Curtis and the Curve Lake Ojibwas.⁵⁰

To the end of the nineteenth century many of Boyd's jobbers lived near Bobcaygeon—including J.A. Oliver, James Thurston, George Cosh, William, Thomas,

John and J.J. Devitt. Others came from Snowdon Township, and among these the Sedgwicks—Henry, Isaac, John, James—were Boyd's most regular. In the late 1880s,

when Boyd's operations were at their peak, jobbers got out between 608,101 and 1,636,529 feet annually. In the later years of the square timber trade, Boyd hired men living near Sturgeon Lake or tributary waters to get out floats, withes, toggles and tamarack traverses for the rafts—though they could also be purchased in towns on Lake Ontario. In 1876, George Martin's contract was for 600 to 800 traverses. In 1900-1901, William Creswell—foreman of Boyd's last remaining

	4.7 Van	Prices ⁵¹	
	1849-1850	1870	1883-1884
1 lb Tobacco	1s 3d	\$0.50	\$0.60
Gallon whiskey	2s 6d		
Undershirts			\$0.90
Shirts		\$1.75 to \$2	\$1.75 to \$2.25
Buckskins			\$1.00
Jacket			\$2.50 to \$3.00
Wool mitts (pair)		\$0.50	\$0.60
Toque			\$0.75
Socks (pair)	5s	\$0.50	\$0.60
Sashes			\$0.85
Shoes	7s 6d to 11s 3d	\$2.00	
Boots	15s	\$4.75	\$5.50 to \$6.00
Drawers		\$1.60	\$0.85 to \$1.10
Moccasins (Shoe Packs)		\$1.50 to 1.60	\$3.00 to \$3.25
Over shoes or Mud packs		\$1.00	\$1.00 to \$1.75
Pants		\$3.50	\$3.25 to \$3.65
Overalls			\$1.00 to \$1.25
Rifle		\$14.00	
Gun powder (lb)		\$0.70	
Jack knife		\$0.30	
Pail		\$0.30	

anty—had a fairly bstantial job on e side—cleaning o various stands of mber, edominantly mlock, but cluding some pine, irch and ash, talling 241,393 et. Boyd gave ost of his regular bbers other sorts work as well nging, watching ver shanties or ms, and driving.⁵² Especially in e last years of the ineteenth century, e contracts eflected the versification of arketable forest oduce. W.J.

Oliver's 1903 contract for Lot 15 XIII Harvey gave him \$3.50 for tan bark at water's edge or \$3.65 loaded on scows; \$4.25 per thousand feet for hemlock, tamarack, spruce, or basswood; and 3c to 75c for cedar logs, depending on size. The prices paid depended primarily on the location of the job—tanbark delivered on a rail car was worth 56% more than bark piled on Bark Creek near Irondale. Contracts to remove pulpwood, ties and cordwood were also common.⁵³

Around 1890, Boyd hired John Tindall to take out some logs in Glamorgan, tributary to the Burnt River. He cut and skidded them, but did not get them hauled to the lake. Barnhart hauled the logs to a small lake, to prevent them from rotting on the ground. Tindall then requested payment for the work he had done. Boyd offered to pay once he delivered the logs to the Burnt River, as per the original agreement, but Tindall did not agree and the matter dragged on. Boyd sold the limits to J.W. Howry & Sons, with the logs still sitting in the lake and Tindall pressing his claim. Boyd ended up paying \$50 with Howry contributing \$30 for his share of the claim.⁵⁴

The clerk of each shanty was responsible for correspondence and keeping track of the cut, men's time, and the van—a large locked chest of goods for sale to the workers. It stocked mostly clothes, but the most common item sold was tobacco. Most employees clothed themselves, and only bought from the van when necessary. Boyd often applied little or no mark-up, despite the distance merchandise had to be transported. Purchases were deducted from their wages. Most employers preferred not to advance money to the men before they returned from the shanty—in part because of the inconvenience of having to forward cash to their foremen, but also to discourage workers from leaving early, and to limit their ability to acquire alcohol. Boyd's secretary Robert Connell explained to Barnhart in 1872:

Of late Mr. Boyd has been finding fault with me for permitting such free advances to men. Had I carried out his wishes, the men would have had no money paid them while in the woods. On and after this notification you will please to give the men only sufficient money to come down on quitting your shanty & make no further payments to them unless absolutely necessary.

Usually the men returned from the shanty when the ice broke up in the spring having received nothing but their purchases from the van. Boyd, like most of his peers, was

willing to send money to workers' families during the season, if they arranged a payment plan before going to the shanty.⁵⁵

In earlier years, the system was less formal, just an extension of Boyd offering goods in exchange for logs and service at the store or mill. In keeping with the tendency of local gentry to act as a primitive store, making purchases on their neighbours' behalf at distant merchants, Boyd picked up goods for his men at Robert Nicholls' in Peterborough. In 1849, the price of tobacco in the shanty was the same as at Boyd's Bobcaygeon store. Many of the purchases were not intended for use in the shanty. Some took sheep or a barrel of flour or salt with them when they left the shanty as part payment for their work.⁵⁶

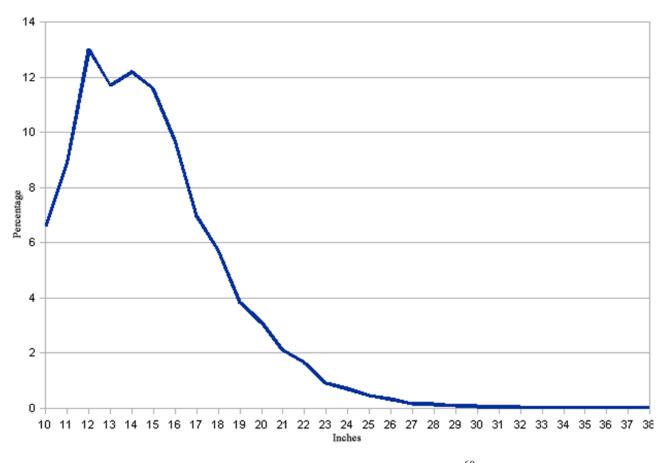
Shantymen were awakened before dawn by the cook or foreman, fed their breakfast and sent out to the woods, where they commenced work at dawn or shortly thereafter. Thompson recalled:

Before clocks were introduced into lumber shanties, I have seen the foreman mistake the bright moon light for coming day light, and wake the crew up and take breakfast, only to discover later that it was probably about the middle of the night, and it is a common occurrence for the men to walk three or four miles through the bush to their work, and then have to build a fire to keep them from freezing or being eaten up by the wolves until daylight comes, so that they could see to work; and it is strictly against rules to come to the shanty before dark night. A clock in a shanty is worse than useless as far as the crew are concerned, for the foreman usually has the clock about two hours too fast, so the crew seldom pay any attention to it.⁵⁷

In 1885, Barnhart's men fiddled with his unpopular clock, breaking it on more than one occasion. Working in the shortest months of the year, dawn to dusk meant nine to twelve hours of work per day, plus perhaps an hour walk to the site. From the other ten to fifteen hours came breakfast, supper, sleep and life at the shanties. When at work the men were expected not to wear coats: "If a man attempts to wear a coat in the bush the foreman will soon tell him to take it off and ask him if he cannot work hard enough to keep himself warm."⁵⁸

If a company made square timber it sent a crew of fellers, hewers, liners and scorers into the woods ahead of the saw log makers. A five-man crew of might make six pieces of timber in a day, averaging 400 cubic feet. For a shanty making only saw logs, early in the season, a crew of thirty to forty men might be assigned about as follows: eight

to twelve making logs (about three men felling for every two men bucking to length), nine to eleven with three teams skidding, a man and team cadging in supplies, two to eight building roads, one cook, one helper, one foreman, one clerk and two to six removing obstacles from rivers, improving dams or camp buildings. In William Creswell's December 1901 crew of 81, 18 men made saw logs, 28 men with six teams skidded, 23 cut and graded roads, and 18 had other jobs. From mid December to early January more teamsters arrived to haul the logs from dumps in the bush to the skidways by the river—a shanty might have three to twenty teams hauling at the peak of operations. By then road, dam and building construction was by and large done, cutting slowed to perhaps four men, and within a few weeks would stop altogether. About three to four men loaded logs onto the sleighs, three or four unloaded and one to three maintained roads.⁵⁹



4.8 Diameter of Boyd Saw Logs, 1871-1873.⁶⁰

Choppers felled the trees with the same design of American axes common on farms. As the men were to cut only the largest trees, controlling the direction of fall was very

4.9 Logs at Creswell's Shanty, 1895, 1898 ⁶¹		
Length (ft)	%	
10	1.10	
12	13.79	
13	7.62	
14	15.23	
15	2.25	
16	46.57	
17	1.18	
18	5.13	
19	0.31	
20	2.44	
21	0.02	
22	0.75	
23	0.01	
24	1.30	
25	0.03	
26	0.53	
27	0.03	
28	0.46	
30	0.29	
32	0.40	
34	0.08	
35	0.03	
36	0.12	
38	0.01	
40	0.06	
42	0.15	
44	0.01	
45	0.03	
46	0.01	
48	0.06	
49	0.01	
50	0.02	
52	0.01	
56	0.01	

important, for self-preservation and making the job of getting the tree out easier. Experienced choppers took pride in their ability to fell a tree to hit a stake some distance from its base. Men worked in fairly close proximity to each other, hence the custom of yelling 'timber' when one of the giants started on its way down. The trees creaked, groaned, and the chopper had a second to get out of the way. Masts were felled onto beds of smaller trees to prevent the top from breaking as the tree fell. A team of eight choppers made between one hundred and fifty and two hundred and fifty logs in a day.⁶²

Later in the century, crosscut saws were sometimes used for felling trees—but only after saws with raker teeth to remove sawdust and shavings were introduced in 1874. With one man pulling each end of the saw they cut a bit faster than the axe, but were most commonly used for bucking the fallen trees to length. As crosscut saws appeared, shanties employed a filer to keep them in good working order. In Boyd's operations, the sharpening was usually done at the sawmill—where filers had plenty of experience with the mill saws—then the saws were shipped ready to use. In early days, the logs were also butted using axes—and the men took pride in being able to cut the end as straight as if it had been done by a saw. The butts on square timbers that were to be driven were hewn to a pyramidal point, to glance off obstacles. To manipulate the logs, crews used cant hooks and handspikes.⁶³

Until the end of virgin pine was in sight in the late 1880s or early 1890s, logs were strictly culled in the bush. Foremen informed choppers and jobbers which logs to leave behind. If it showed a hollow, any sign of rot or shake, or had at least three knots in it, a log was a cull, even if it was a large butt log. Since it was not worth getting out, it would just be left to rot. These standards of culling meant that timber was wasted that would have been quite acceptable

by the end of the century.⁶⁴

When bucking logs to length in the bush, the men usually cut them to standard lengths of sawn lumber, as far as was possible given the characteristics of the tree. In the lumber markets of the nineteenth century, sixteen-foot material predominated. It was rare to cut saw logs shorter than ten feet. On occasions some material was left at thirty or even fifty feet length. Logs were usually left at least a foot longer than the recorded length to account for damage in transport and splitting as the material dried. Five logs to the tree was considered a fair average.⁶⁵

Though exceptional pine trees can exceed 180 feet in height and five feet in diameter, most of the logs taken out were between ten and sixteen inches in diameter—which was always measured at the small end of the log. The average diameter of Boyd saw logs between 1871 and 1873 was 14.8 inches. Anything over thirty was unusual, and most camps would not see any over forty. Boom timber ranged from twenty to fifty feet in length, most above thirty-five feet, with butts thirteen to twenty-one inches in diameter, tops ten to seventeen inches, and flattened on two sides.⁶⁶

The diameter of saw logs can be used to get some representation of the size of the original forest. Butt logs would average much larger in size—most were probably eighteen inches or larger, with an average of about twenty inches diameter at the top end, sixteen feet above breast height. The flare was usually removed from saw logs because it was likely to warp and this allowed choppers to fell timber at a more convenient height. This is probably not far below the median size. But the largest and best pieces would be for timber, rather than saw logs, as long as British trade carried on—until about the 1880s. Almost every tree that would make square timber would be cut that way. The very finest white pines were masts—seventy five to a hundred and twenty feet tall, twenty four to forty inches at the base and at least eighteen inches diameter at the top. A large quantity of timber was three to four feet in diameter, and a fair average was about two feet square or three feet diameter, again at the small end of a timber about twenty feet long. The best pieces of timber topped 400 cubic feet.⁶⁷

In the 1850s one mast at Quebec would be worth $\pounds 25$ or $\pounds 30$ —about the upset price of a farm at Crown auction. It was, however, no easy task to get a hundred foot long timber, weighing perhaps eighteen tons, to Quebec using only muscular and wind power. Spars were generally made from red pine or, less frequently, elm. Elm over thirteen

inches in diameter at fifty feet in length was valued for ship keels.⁶⁸ It was not worth getting out pieces for smaller ship timbers such as yards. Most timber was sold squared (minimum 12" square and 20' long), and was usually shipped with some deals (3" x 9", 12' long), deal ends (3" x 9", 6' long), and 2" planking (minimum 8" wide) prepared at a mill.⁶⁹

Once a tree was felled it was bucked to length, whether for a mast, spar, saw log or square timber—20 feet was the minimum for export square timber. The first step in squaring timber was to draw parallel chalk lines. The scaly outer bark, or ross, was removed using a hammer and rossing iron-which resembled a short hoe-or perhaps an axe. With a square and relatively smooth patch stripped down to the red inner bark, another line was drawn. The tree was then scored, creating a series of parallel groves that were used as a guide to create a flat face on the side of timber. Using a scoring axe—its edge a cold chisel-scorers knocked off the pieces in between. Once the face was roughed into shape, a hewer-one of the more highly paid workers-chopped a smooth, flat face using a broadaxe. Not only did the hewer have to plane the face of the log flat, he also had get it square. The square side was then turned down, and the process repeated, until all four sides were squared. Masts were made by a similar process, but hewn octagonally. In making square timber, about a quarter of the log would be rendered into chips. The square faces did not necessary have to meet in the corners. Logs with the four corners left round were marketed as waney timber. Waney timber allowed more of a log to be used, and square corners were more prone to damage in transport, but there was less tolerance for knots. These timbers made deck planks, bridges, docks and piers. An exceptional gang might square eleven timbers in a day, but six was more common, and a mast would take an entire day. In a season a gang would often produce about eighty thousand cubic feet, the equivalent of a raft.⁷⁰

Timber and saw logs were skidded to a central dump for each area's cut. Skidding was most easily done with a moderate amount of snow on the ground, although deep snow could be overcome by sticking to old tracks as far as practicable. In the early days oxen were used exclusively—horses being rare in the backcountry. By the 1880s, horses had almost entirely taken over, working more hours a day and pulling faster, but they were not usually as strong, harnesses cost more than yokes, and horses needed better feed

and shelter. In earlier days the front end of the logs was often drawn up over a prop and down onto the crotch of a tree (or go-devil) to facilitate its movement—called crotching. Later on bob sleighs were used, the hind end of the tree still dragged across the ground. The bark was removed from the part of the log that would be dragged through the snow, to reduce friction. A good day's work was usually between thirty and two hundred logs or timbers per team or yoke, depending on their size and the distance. Skidding was often mostly complete by the end of January, though in some crews was carried on to the end of the season.⁷¹

Before the logs could be got out, the road cutters opened a way through the bush. They developed networks of roads—small openings to skid the logs to dumps, and larger, leveller, smoother roads to run the sleighs on, perhaps ten to twelve feet wide. They also made routes to connect the shanties and depots to the outside world. If the hauling was done on ice, it was far easier than going over land, but teamsters had to know weak spots in the ice, and generally tried to stick to safe routes. Roads were not laid out in any particular pattern, only as the most convenient route to get out each stand of timber. They were "exceedingly bewildering even to old experienced bush-rangers: they cross and recross each other at every conceivable angle and direction." Making all these roads was one of the more time consuming tasks at any shanty, but it was not seen as a task requiring much skill, so road cutters were among the lowest paid workers.⁷²

Once the ground was covered with hard snow teamsters began hauling or drawing the logs and timber to skidways adjacent to the nearest driveable river or stream. In seasons like 1884-1885 a lack of snow to mid-January delayed hauling. Teams swung logs and timbers too heavy to load by hand onto sleighs using a log as a ramp—timbers commonly weighed one to three tons each, some topped five tons. A common sleigh was two sets of runners held together with chains. Men with cant hooks carefully arranged logs onto the sleigh bunks to a depth of nine feet. The largest timbers were drawn singly, and a mast required twelve horses to pull. Teams of men tramped down the roads watering them with sprinklers, to make the surface icy and slick. A yoke of oxen stood ready to assist teams ascending steep hills, and hot sand was spread on down slopes to help control speed—without enough friction there was nothing a team could do to stop a load from pushing them down hill, and accidents occasionally happened. Masts could hang or balance on the top of the hill and lift teams off their feet.⁷³

Drawing depended critically on snow conditions. If temperatures were warm enough that the roads were getting soft, loads were run in the early morning and even perhaps at night. In many years it was difficult to get all the logs drawn out before the ice roads started to disappear in spring. If there was too much snow, drawing was also very difficult. If it proved impossible to get the cut out company and jobber alike had to wait a year to realize any revenue on their expenditure.⁷⁴

On the icy roads, teams could pull incredible loads. When the road conditions were just right, their masters sometimes assembled a brag load. The men made sure that every hole was filled and peeled the bark off timbers to reduce friction. A team—assisted by men with handspikes and levers—might then pull a load topping a thousand cubic feet of timber or lumber and weighing twenty-five tons. Under ordinary circumstances it would draw fifteen to fifty logs per day, again depending on size and distance.⁷⁵

Once they arrived at the waterway the logs were either loaded on the ice—which might not be practicable over moving water—or on a skidway or rollway on a bank overlooking the river. Skidways were stacks of logs, perhaps tens of thousands in a pile, precariously balanced on a timber, designed so that when that timber was removed, the whole pile tumbled into the river. They were usually broken as soon as the ice was out of the river to commence the drive—often a treacherous job. To get them going, the logs at the base were moved, by a crew of men working together, some of them standing on the face of the pile. It was expected that a man who started it moving would yell to warn the others—failure to do so was considered tantamount to murder.⁷⁶

Hauling ended as the snow softened with the approach of spring. In March the shanties broke up and most men went to the company's headquarters to be paid off for their winter of work. Back in the villages for the first time in months, many men celebrated receiving their pay cheques with a spree, which did much to earn the shanty men's reputation as drunken rowdies—it was a cause for commentary in the local papers when they remained sober while passing through town.

Back in the woods there was a lull in activity. Once the roads were too soft, the men had to wait for ice-out on the waterway. While most of the men travelled south, a

few usually remained to close up the shanties and prepare for the drive. Some camps were entirely deserted. Most retained two or three, perhaps clerk, cook and foreman packing up for the summer. It was usually not worth moving the equipment or the van south for the summer, so a man was employed to watch it. As the camp was wound up, a few men would put together the drive rigging—the Boyd sawmill crew turned hardwood handles to assemble peavies and pike poles during the off season—and make a final check of the dam and slides before the drives began. The bulk of repairs were completed in the fall.⁷⁷

Driving relied on the spring freshet to propel logs downstream. Many of the smaller tributaries would not float logs at all, except in this season, aided by the dams to back up water. If the spring was especially dry or there was an unusual lack of meltwater, the drives might hang up, and the company would be forced to wait for another year. In 1877 much of the drive in the Trent Watershed, as in many other parts of Ontario, did not make it through. Though drives almost always commenced in the spring, there were rare exceptions, as in 1877, when Boyd put the stop logs on his dams in the summer, saving water for a fall drive out of Redstone and Marsh Lakes, hoping to reap the profits of being one of the few to get his cut through. Again in 1895, after a dry winter, many lumbermen had great difficulty getting their cut down. The Dominion Bank had half their cut hang up, and J.W. Howry & Sons had 50,000 logs stranded above Irondale.⁷⁸

Especially on the smaller streams and in the upper reaches of the Trent system, dam construction was rudimentary—usually just rounded logs, bolted to the rock, or log coffers filled with stone. Better dams were made of squared 10 or 12 inch timber that was teamed in. Fieldstone was generally employed, but some started to use dynamite to blast apart stone for fill, which was more economical for large dams. The upper side of large dams was usually filled with manure or gravel, while oakum corked or sealed them. Occasionally, firms also had to dig canals to allow the logs to avoid bends where they would hold up, as Big John Thompson did between Trout and Hawk Lakes in 1888.⁷⁹

If the drop was not too great and the lumbermen did not need to store extra water on the upper lake to drive their logs down, they built a flat dam, as between Percy and Haliburton Lakes before 1874. The larger obstacles were removed from a dam, then a frame was secured to the riverbed often using rock bolts. The backside of the frame was filled to limit the amount of water running underneath it. It was covered with small logs parellel to the current. With sufficient water running over the dam, logs passed in the same manner as a timber slide. In some cases, they got away with arranging the stones of the river bed to form a sort of slide, which could be very economical—John Sedgwick bid \$45 to make a natural stone slide above Ritchie Falls in 1887.⁸⁰

Many of the lumbermen's dams, especially on the smaller creeks, were built on the assumption that they would only serve a few seasons. Keeping their construction costs down, they were often leaky and not overly sturdy. Every year, companies looked over the dams they planned to use, and if the freshet was larger than usual, it might wash out the structure. The loss of a dam made completing the drive very difficult, as when the Hawk Lake dam gave way in 1878—apparently because the dam above it was opened without lifting its stop logs—the Miserable Creek Dam in 1886, or the Big Dam in Glamorgan two years later. The dams were also susceptible to fire, and after some of the larger forest fires several dams were rebuilt.⁸¹

Foremen engineered the lumbermen's dams, and they developed a keen eye for rivers. They had to judge how quickly logs would run, and where they would slow down. Building a dam slowed the logs above it, and if it were constructed too high it would be difficult to move the logs to the head of the dam. The head of water held back, though, could flush the logs down river, and perhaps from lakes below. As they planned each dam, they ensured that there was enough water at all points to keep the logs running.⁸²

Primitive though the construction was, when completed, the reservoirs could control water levels throughout the Trent system. As the snows melted from the countryside and drained into the lakes, thousands of acres of water was impounded. Most of the system was privately built—in Haliburton the CLEC gave assistance in the construction of larger dams, in one case three quarters of costs. Companies had watchmen oversee them so rival firms could not add or remove stop logs—as considerable advantage was to be had by using another company's water in driving. There were numerous incidents of firms removing or adding stop logs from public dams without permission. Certain firms cooperated in managing their dams. Foremen tried to minimize water use on the upper reaches, so if they had trouble further down, they could write to the dam watchmen above to release more water. By July or August this could be a delicate operation, as companies needed to conserve every drop to get over the last rapids.

With so much water held back, drives further down sometimes could not run until the logs and water came down from above.⁸³

Company watchmen had to keep a close eye to ensure that settlers did not interfere with the dams. Many of the reservoir lakes flooded several thousand acres. The government gave the companies the right to flood this land, but this did not absolve them of responsibility for property damage. It also did not stop some residents from resenting them. Parts of farms were commonly flooded. In 1884 a farmer near Bow Lake complained that Boyd's reservoir would damage his haystack. Boyd offered him the choice of being paid to move it or having Boyd hire someone to do it for him. In 1897 Bark Lake was flooded to the point that locals could "get across the bridges safely being careful." The effects were not all deleterious, as the Bark Lake dam became a popular fishing spot, but companies saw flooding as one of the many reasons to try to keep settlers away from limits.⁸⁴ The manipulation of water levels also spawned controversy when it affected mills. In 1871 Boyd built a temporary dam across the Gull River north of Norland, dramatically reducing the flow downstream. A.A. McLaughlin, who owned the Norland mills, threatened to sue unless Boyd took his temporary dam down at once.⁸⁵

Before building a dam, companies almost always purchased the surrounding land so they could claim the rights to their work. Some landowners realized the value of a dam site and drove a hard bargain. In 1894, J.W. Howry & Sons, who were then just getting into the business in central Ontario, apparently took the advice of a local that a dam was not necessary to drive a certain creek in Glamorgan. Having declined to bid on the adjacent lots, they found they needed a dam there after all, built it, then tried to purchase the land from a rival lumberman, John Dovey. Dovey refused to sell, having purchased it for shingle timber, and warned them that if Howry entered the property he "would never come back." Fortunately for Howry, Dovey had bought the land from Boyd and had paid nothing towards it. Boyd then allowed Howry to purchase for the original price of \$675, plus interest.⁸⁶

While the government of Upper Canada originally constructed most timber slides in the lower reaches of the Trent System, the dams and slides in the headwaters were mostly put together privately. The falling water that powered the mills required a slide certainly once the dam was complete. One large slide, from Kushog Lake to Boshkung

Lake, overcame a drop of 175 feet. Slides were usually constructed with stop logs so the water could be shut out of them. When they were open, the water level in the upper lake might drop quickly— twelve hours driving out of Irwin's Lake in early May 1893 lowered its level fifteen inches. This often interfered with the function of sawmills— Boyd's frequently shut or slowed down as drives passed through Little Bob. Conflicts also arose, especially over who was allowed to use privately constructed works. In 1881, the Ontario's Rivers and Streams Act provided that all companies had the right to use slides and other improvements on payment of reasonable duties. Peter McLaren of Ottawa, one of Canada's largest timber barons, was then claiming the right to prohibit others from passing timbers over his improvements. A court found for McLaren and the Canadian Government disallowed the Ontario Act three times, but in 1884 the Privy Council overturned the McLaren decision, and the Ontario Act was reinstated.⁸⁷

The regulation of timber slides in the Trent Watershed had always been a fractious topic. In 1844 the Board of Works built slides at Healey's, Middle and Ranney Falls, between Rice Lake and Lake Ontario. The government imposed tolls on passing timber. Lumbermen responded with their well worn ploy of asserting that the improvements were of no use, but after having lobbied for them this was scarcely credible, and in this case did not get them out of paying. The following year the booms at Percy Landing and Ranney Falls gave way, amidst suspicion that a lumberman had cut them. The lumbermen then refused to pay tolls. As long as the companies were paying for the system, they expected that it would be in good running order, and were not sympathetic to paying tolls just to put the works in order.⁸⁸

In 1855 the Executive Council handed over management to a group of timber merchants, headed by James Cumming, and they oversaw most of the improvements on the Upper Trent—including the Fenelon Falls and Bobcaygeon slides. By 1862 the committee had three members: Cumming, Boyd and Dennistoun. The lumbermen made the improvements themselves, and administered the collection of tolls. In 1870 the spring freshet washed away most of their improvements—requiring an estimated \$60,000 to get the system back in operation. They rebuilt the slides, although only for the running of single sticks of timber, rather than cribs, as had been the case with their predecessors. On the upper reaches there were then numerous complaints from smaller operators about how the Trent Slides Committee was administering the system. In 1873 Cumming died, Boyd resigned and Dennistoun had already left. The committee was reformed.⁸⁹

In the Upper Kawarthas, in an attempt to resolve the disputes between the companies constructing and using the slides, Mossom Boyd, backed by a number of his peers, formed the joint-stock Gull Waters Improvement Company in 1872 to oversee improvements on those waters—such companies were authorized by an 1853 Act. By that time Boyd's firm had constructed enough dams to hold back eighty square miles of water. Despite the formation of the company, the province continued to make some improvements, including a new slide at Rosedale in 1872. Other lumbermen immediately started insisting that the GWIC make improvements that would benefit them. Granted the privilege of collecting tolls to finance dam and slides, their levies were resisted by other operators, and the scheme collapsed.⁹⁰

Mossom Boyd, whose family also operated a steamboat company, understood that the dams could substantially improve navigation along the route of the Trent Canal. While his dams had been principally constructed to hold back enough water to get logs out, if the stop logs were then replaced, the reservoirs could be used to even out the periods of low water that made steamboat transportation difficult in late summer and fall. Maintaining constant water levels would also be of great benefit to the mills. Boyd wrote to his MPP, S.C. Wood, explaining how the reservoir lake system could be used to the benefit of navigation as well as driving, and he urged the Ontario Commissioner of Public Works to consider assuming responsibility for the system.⁹¹

4.10 Slide Dues, 1860 (cents) ⁹²		
Red & White Pine Timber	3	
(pc)		
Oak & Elm Timber (pc)	4.5	
Other Timber (pc)	6	
Spars (pc)	9	
Masts (pc)	15	
Saw Logs (pc)	0.25	
Sawn Lumber (M)	3	
Staves (M)	45	

The provincial government stepped into the void and took over most of the system in 1874, the lumbermen deeding their improvements to the Crown in exchange for the assurance of maintenance. That year the governemnt dedicated \$17,500 to improvements and appointed Nathaniel Shaw to oversee the slides and dams. Almost as soon as the Crown took over the system, lumbermen petitioned for better maintenance. They looked to improve the dams used for driving timber, including those on

Long Rapids and High Falls on the Burnt River. In 1875 the dam at the foot of Hall's Lake, then about six or seven years old, washed away, and the province rebuilt it, repairing the Horseshoe Lake dam the same year. Two years later, William Robinson, a long-time Boyd employee, rebuilt the 120-foot long dam at the outlet of Kennisis Lake, which raised its level six to seven feet, flooding 3405 acres-the lumbermen's dam having washed away during the previous year's spring freshet. The same year the Crown built a small dam on Hawk Lake, and rebuilt the dam at Drag Lake. At the same time the Crown made several smaller improvements on the Gull River system. Lumbermen still maintained the improvements on many of the smaller tributaries. At that time the other government dams on the Gull River were: the Horseshoe Lake Dam, 1 1/2 miles north of Minden; Elliott's Falls, two miles north of Norland; and Norland Village. The province also maintained Fenelon Falls and Burleigh slides. In 1877 it blasted rock at Three Brothers Falls on the Burnt River north of Kinmount, put in a side pier at Thompson's Falls, Lot 6 VI Glamorgan and a glance pier at the Devil's Gap, Lot 9 VI Glamorgan. The following year it dammed Stormy, Bear and Little Bear Lakes, primarily to provide water for navigation. In 1879 it built dams and slides on Devil's Creek and Crab Lake; a pier on Bear Creek; and repaired works at Otter, Grace, Redstone, Oblong, Paint, Hawk, Horseshoe, Kennisis, and Bob Lakes, as well as Eliott's Falls on the Gull River, Norland, Racketty Creek and Workman's Mills. In 1880 it rebuilt the dam at Redstone Lake. In 1884 it rebuilt the Oblong Lake dam and then the 108-foot long Kushog Lake dam five years later.93

The costs of the oversight and maintenance of the system were offset by tolls on passing logs. When the province rebuilt the dam at Kennisis, it imposed a charge of 1/10c per log. There had been fees at Fenelon since Dennistoun's company built the slide in 1860. The government continued collecting at Fenelon, then the only site on the Upper Trent system where fees were charged. The amount of revenue raised by these tolls was a small fraction of government expenditures on the system.⁹⁴

While the companies were often glad to have the government assume responsibility for parts of the system, the tolls were resented. The Fenelon Falls slide, site of the highest levies on the system, soon became the flashpoint. Wooden slides were notoriously short-lived and required constant maintenance. Not long after the Ontario government assumed responsibility for the Fenelon slide in 1874, the foreman of one of Boyd's drives did not stop his logs from running into the river quickly enough once it was full of logs, and broke the slide. The Crown fixed it then rebuilt it the next year, incorporating new flooring and new piers at the head—at a cost of \$1136. It did not take long for more problems to appear. It was rebuilt it again in 1876, then replanked the following year. In 1878 the government overhauled the slide again, replanked it and replaced the capstan used to raise its stop logs. The government repaired it again the next year, then replanked and repaired the piers and booms the following year. In 1881 it was damaged by running timber, then refit and replanked, while the government built booms leading to the slide. It received another \$1500 in repairs the next year: new sleepers, planking and the north wall. In 1883, the Department replanked the slide again with twelve-inch square tamarack, and rebuilt the river wall. The Crown replaced it again the next year with maple and repaired the boom. In 1885, it repaired the boom and replaced a pier. While replacing two stop logs in 1886, they repaired the hoisting gear. New stop logs were installed in 1888, with more repairs in 1890 and 1891.⁹⁵

Despite having completed all of this work, the Crown had a very difficult time collecting tolls from the firms, who continually tried to excuse themselves. Because the provincial government looked after most of the improvements necessary for driving timber while the federal government tried to collect dues—their most noticeable activity being the construction of a frustrating boom at Fenelon Falls—many lumbermen did not feel obliged to pay the Dominion. During drives the logs literally filled the river from one side to another, which made travel by water inconvenient or impossible. Fenelon Falls was the focal point of this dispute, as it was both a hub of the steamboat network and the Fenelon gorge was a bottleneck on the logs' route south.

Towards the end of the nineteenth century, when more steamers carried passengers and mail, they expected to run strictly on time and make it to their wharves. The obstructions that steamers had been inclined to tolerate when towing lumber was the bulk of their business, now became insufferable. In 1881, John McFadden, then captain of the *Coboconk*, who had also worked on many Boyd boats, complained to his former employer:

My boat left Fenelon Falls Tuesday morning with an excursion party for Rosedale and also to take a scow of wood to Coboconk and when I got to

Rosedale locks your men had run one block through which I avoided by going up the Burnt River channel but before I got to Rosedale Bridge towing the scow of wood they cut the other block loose when we were in the shallowest part of the river and the result was that the logs got under our scow and stuck us fast in the middle of the stream and kept us there for three hours. But worse than all when we came back to Rosedale late in the evening they told us that all was clear to the Burnt River Channel which was not true. Neither were they within a quarter of a mile of it and the river jammed full to Cameron Lake. The result was that we had to go into the logs and for want of proper assistance from your men had to remain all night in the logs with all on board, they promised to come at daylight and help us though, but they did not show till ten o'clock and even then they did not help us. We did all we could ourselves, but all we did was break our paddle wheels to pieces as we had not help enough to keep the logs out of them.

In 1894 Crandell was forced to take an excursion to Bobcaygeon instead of Rosedale because the Fenelon River was full of logs. Lumber companies could be held liable for damages if steamboats could not make their connections. In 1887 Franklin Crandell sued Hilliard, then Irwin two years later for blocking the Fenelon River. In 1901 George Crandell sued Boyd for having a boom across the Fenelon River, preventing the *Crandella* from picking up an excursion party at the falls. Boyd counterclaimed for money that Crandell owed him. The Trent Valley Navigation Company claimed damages against the Dickson Lumber Company for detaining the *Ogemah* in 1904. But legal action did little to discourage the lumbermen, because damages rarely exceeded \$60, which was "so small a sum for any lumbermen to pay for the privilege of trespassing on the rights of the rest of creation." The Boyd family, operating both a steamship company and a lumber firm, had an interest in having both work reasonably well—though lumber took precedence—but navigation was never easy enough to suit the strong opinions of Crandell.⁹⁶

The judge in Franklin Crandell's lawsuit against George Hilliard suggested that the Crown should divide the Fenelon River to end the incessant disputes. The Department of Public Works had already built piers and a 3090 foot long boom below the Fenelon Falls in 1874, costing \$20,000, to keep logs on one side, so the steamers could pass on the other. But many lumbermen despised the works, and lobbied to have their portion of the river widened. The steamers had passed on the south, while lumber ran on the north side (the canal was not yet constructed and goods were usually landed on the south side of the river, near Greene & Ellis' sawmill). Lumbermen found that an eddy made it difficult to run their logs down the north side, while the boom further constricted a channel already prone to jamming, and asked to trade sides. But Greene & Ellis opposed this because they would then be unable to ship lumber when logs were running. Crandell also objected because the south side was often too shallow for steamers, especially with mill refuse accumulating there. Lumber companies used the entire channel anyway.⁹⁷

When Boyd's drives under Wilby Sherman and William Gidley tried using it in 1874 and 1875, they had trouble getting logs into the intended channel, causing it to back up and block the steamboat channel as well. Boyd did not employ it again, and it seems that others scarcely, if ever, used it as intended, instead allowing their logs to float down both channels. Barnhart recalled that the boom started far enough downstream that the logs could block the width of the river above it anyway. By 1877, George Hilliard was not using the boom, saying it should be moved to the other side of the river, and threatened to sue the Department of Public Works over the dues. The boom fell into disrepair, and was destroyed in 1888. The next spring George Martin, Slide Master at Fenelon Falls, went looking for the missing boom timbers:

I got a canoe and went down Sturgeon Lake shore as far as Sturgeon Point, and there I found 10 pieces close to the point lying behind some rocks and there it is yet on the way coming back I found 5 pieces more on the west side of the lake, and I heard John Dovey of Lindsay took some to gather his saw logs that broke up last spring. I wrote to him to bring it back or I would put him to cost about it, he did not answer my letter at the time, I saw his son shortly after and I asked him if they had any of the Govt. boom, he said they had 6 pieces and he told me they would bring it back. I have not heard from them since. This was about a month past. There is some of it round Greene & Ellis' logs at their mill. I couldn't find how many pieces they have until they get their logs cut. I also heard Mr. Boyd had some, I saw his foreman. I asked him if they had any he said he would see, have not seen him since. I also heard Rathbun of Lindsay took some to raft some logs of theirs. I went and saw his head man Baker, by name, he said he would find out if they had any of it and if so they would surely bring it back.

When challenged whether he owed the government anything, Mossie Boyd observed that Martin, the Slide Master at Fenelon Falls, had previously made out invoices for boom dues. Once the boom disappeared and the notices ceased, he then felt that there should be nothing payable.⁹⁸

In 1890, Edward T. Smith, Federal Collector of Slide and Boom Dues, was instructed to investigate the outstanding sums for tolls in the Newcastle District— \$110,000. He then calculated a sum owing for each firm in operation—Boyd had \$2245.81 unpaid since 1882. Smith chose to go to Bobcaygeon first because Boyd had typically been the most prompt in paying. Smith alleged that Boyd complained that it was unfair for them to come after him first, because he, unlike most of the firms using the waterway, did not use any of the works below Bobcaygeon, so the others passed each log over more slides. He also said he did not want to be the indirect means of making others pay.⁹⁹

Smith returned to Ottawa and was instructed that if he could not collect, he should seize lumber for payment. He returned to Boyd on July 20, 1892, and requested payment. Boyd observed that he had sold his lumber without factoring in the cost—even though it was doubtful that Boyd would have realized more for his lumber if he had been more certain of paying dues. When Smith persisted,

Mr. Boyd got quite hot—not with me but over the subject. I asked him over and over again, What is the use of being foolish; you will incur a lot of costs and you will have to pay it in the end. He said if he had to pay a couple thousand dollars which he thought he should not pay, he did not mind having to pay \$400 or \$500 more in costs.

Smith then marked 50 piles of lumber as seized—400,000 feet, worth \$5,000 in Boyd's estimation. When Boyd still did not settle within a week, he forbade the Grand Trunk Railway from shipping any Boyd lumber, even after the Railway suggested that it merely refuse to ship any seized lumber. This prohibition almost entirely blocked Boyd's ability to market produce. Smith then seized another 130,000 feet of lumber at Lindsay, which Boyd had sold and was in the course of delivering. After two weeks, however, the GTR decided that Smith's embargo was illegal and resumed shipping lumber that had been already loaded when it began.¹⁰⁰

When the Department of Public Works refused to answer his requests to lift the embargo, Boyd then challenged the government's right to collect the duties. He sued Smith in the Court of the Exchequer, seeking to have the embargo and seizure lifted, as well as \$10,000 in damages. He had the support of other lumbermen who used the Trent improvements—Hazlitt, Ullyott, Hilliard, Strickland and Irwin. Gilmour and Rathbun

4.11 1893 Tolls (cents/piece) ¹⁰¹			
	Fenelon Falls	Buckhorn	
Square timber	3	1 1/2	
Saw Log	3/4	3/8	
Boom Timber	1 1/2	3/4	
Rail Timber	3/16	3/32	
Fence Posts, 8ft	3/32	3/64	
Cedars, 16-25 ft	3/8	3/16	

kept asking the minister for meetings to discuss their position, and pressured the Department through their MP. Boyd alleged that in 1882 the government had ceased to

> impose dues, and that from 1882 until 1891, when Smith presented the bill for outstanding dues, no account had been issued, nor any indication given that they were owing. His lawyer also claimed that none of the lumber seized had passed through the slide or boom prior to 1890, and therefore could not be seized for backed

dues—a dubious assertion.¹⁰²

The judge found in favour of Boyd, that there was nothing owing, and therefore no justification for the seizure of the lumber. He awarded Boyd \$300 damages, plus costs of \$852.16, as "the defendant's contention that he was acting under instructions of his superiors could not avail him." However, by the time the decision came down, Boyd had incurred demurrage charges on his GTR shipments, which Smith refused to pay, and the stoppage in his business would have cost him far more than the \$300 he received.¹⁰³

While the Court of the Exchequer had found that it could not collect the duties, in 1893 the federal government legislated its right to collect tolls on logs passing down the Fenelon River, without specifying any improvements, much to the lumbermen's aggravation. It also did not refund the amount already paid by other companies, including Greene & Ellis. Boyd consulted with his lawyers, and paid the fees for 1893 (\$526.25) under protest, but did not pay in subsequent years.¹⁰⁴ Soon afterwards Boyd concluded that since he had built and maintained the log slide at Bobcaygeon, which was in good working order, he too could charge tolls under the provincial legislation of 1881. The government did not challenge his right, but Gilmour, another titan of the Trent, did.

Boyd had long preferred to make the improvements on Little Bob himself, "rather than to be blocked by such companies, who often make more costly improvements than are necessary and charge exorbitantly therefore besides making troublesome regulations and generally increasing the cost of driving rather than diminishing it."¹⁰⁵ Recalling that Little Bob was a marsh before Need's mill and the lock were built, Boyd started imposing

the same rates as the government charged at Fenelon in 1895. Gilmour took him to court arguing that his work was of no particular advantage, the stream being floatable with the canal dams alone. Boyd countered that it was only intermittently floatable. The court found for the plaintiff since the Dominion owned the river, and that mill dams like his were specifically excluded under the Ontario Rivers and Streams Act, so he could not impose his own tolls.¹⁰⁶

The issue of tolls still did not die, even though the Crown built a new slide at Fenelon Falls in 1899 at the request of Boyd and other lumbermen, after the old one washed away, having been damaged during one of Boyd's drives.¹⁰⁷ Boyd, Rathbun and Gilmour, among others, resisted the dues when they were re-enacted in 1893, and E.T. Smith was again after Boyd in 1901, this time for \$1957.66. Collection was difficult because of split jurisdiction between the Department of Railways and Canals and the Department of Public Works. Gilmour and Rathbun were still responsible for the improvements on the Lower Trent-those formerly administered by the Trent Slides Committee. In that instance, Boyd banded together with Gilmour & Company, the Dickson Company and Rathbun & Company, in denying that the works had much value and demanding that the tax be removed. They also cited the fact that the timber slide was out of order for a period of time, and that they had to pay lockage on some logs. In 1902, the matter had been referred to the Department of Justice to once again go to the Exchequer Court, when Boyd settled, after the Crown allowed credits for logs that were run over the falls and for lockage already paid. Rathbun settled in 1901 at a reduced rate, while Gilmour held out, owing \$4412.64.¹⁰⁸

The annual drive began as soon as a stretch of water opened in the spring—often the day after the ice went out. The streams tended to open a few weeks before the lakes, which cleared between mid-April or early-May. Drives started as early as March 10, though the creeks were often difficult to drive in March or early April as the water levels were still rising. Companies took great interest in guessing the day on which the lakes would break up, because few wanted to have eighty or a hundred men standing around for long. Though some shanty men remained, companies usually hired gangs of men specifically for the log drive. As with shanty work, recruits from the vicinity, Ojibwa villages, Peterborough, Ottawa or Quebec, received \$16 and \$18 monthly, occasionally as

high as \$28. Terms of employment were often quite short, as men would be let go as the drive progressed. On Burnt River drives, once logs were out of the small creeks into the major branches of the Burnt River—usually within a month of the start of the drive— Boyd would release some men, and still more once the drive descended the Three Brothers where the branches of the Burnt River converged. It was dangerous work, dawn till dusk. Most of the men could not swim, though they walked on slick, rolling logs, with feet constantly wet or waded waist deep in water barely above freezing.¹⁰⁹

To help them balance on the logs, the drivers wore caulk (pronounced 'cork') boots—leather with sharp ¼ inch spike cleats, sold complete or separately. They were also useful for bar fights. In earlier years they just wore the same knee high moccasins, called shoepacks, common among shanty men. Caulk boots gripped the logs well, but it still took great skill to push logs around an obstacle using a pike pole (a long wooden pole with a sharpened spike on one end) while rolling or birling on other logs. The square timbers were no better platform, as they tended to float on an angle, with a vertex to the sky. Drifting on their logs, following the current, drivers camped in tents on shore and ate much the same fare as in the shanties. By 1889, once Boyd's men reached Cameron Lake, there was a cookery raft waiting for them, a tent for accommodation with cooking facilities, and a raft for horses. In 1897 John Carew had a portable cabin sent up for his men that was hauled the length of the drive.

They often stopped at the taverns they passed, which companies found unacceptable, especially when the foremen joined in. Barnhart wrote to Boyd from the drive of 1884 that he found the foreman "crazy drunk in Haliburton last night and today am getting his men Back. I don't know what he intends to do if he is not on hand Monday morning." John Langton thought that drivers were "a light-hearted set of dare devils and the greatest rascals and thieves that ever a peaceful country was tormented with... Hen roosts have quite disappeared from the riverside, and lambs and little pigs have to be kept under lock and key." Though it was stereotypically a sport for adventuresome young men, some braved the icy waters at a surprising age, including George Cloot, who worked for Gilmour on his 51st drive in 1894, at age 67.¹¹⁰

Despite the men's efforts building booms or using pike poles to push logs away from obstacles, sticks sometimes bound and might pile up out of the water for miles back.

Jams were most common at narrows, shallows, near rapids, islands, waterfalls, artificial bottlenecks like timber slides, sand bars or gravel banks. Many jams started because logs arrived faster than the water could flush them through, and several points on the Burnt and Gull Rivers were notorious for frequently jamming. When a company was ready to run a block through a slide, it cut loose the boom and their men helped guide the logs. But there could be problems if the logs ran too fast and backed up—which was especially likely if the wind was pushing them. Most foremen would not start to run a slide unless they felt the wind was suitable, neither pushing too hard, nor blowing contrary. There were many jams at Fenelon Falls, both above the falls as the logs fed into the slide and below as they bobbed through the churning waters at the head of the gorge, including one of forty thousand logs belonging to Gilmour & Co. in August 1894. George Thompson had a jam of about the same size there in 1886. There were a few at Bobcaygeon, but they seem to have been much less common. If a logiam was not broken, it often acted as a sort of dam, backing up water behind it. In 1876, a jam at Kinmount flooded the village, despite the villagers' efforts to break it. The next spring, the season that the drives hung up, a great logiam formed on the Burnt River, which George Thompson recalled was "the result of pure carelessness and lack of harmony among the different firms." A jam on the Burnt River between Johnson's Rapids and High Falls backed up 20,000 logs in 1881.¹¹¹

Breaking a logjam was treacherous work. A volunteer jam cracker climbed on the shuddering mass to find the key log—the one holding the pile in place. Sometimes ropes were tied around him and his comrades would stood on shore ready to pull him back if he fell in. If the key log was near shore and a team was available, it might try to pry it loose or the volunteer could chop it in half with an axe. Usually it would not take much chopping before the weight of the backed water and logs finished the job. Thompson recalled that the cracker faced:

A seething, twisting, curling mass of logs up-ending and turning in every shape, and going at terrific speed. It is in such places where a river driver's nerve and agility finds play as well as his cool, level head; he has often to spring as quickly as a squirrel in picking his way over the swiftly moving mass—often jumping ten or fifteen feet from one moving stick or log to another before he gets a chance to make his way ashore—that is if he is fortunate to get ashore. Often they get caught or struck down by a log and badly injured; or get thrown in the madly foaming rapids when a desperate battle for life commences, his comrades witnessing the terrible struggle and

often utterly impossible to help him. The sight is a thrilling one, and frequently ends fatally. Once on the Gull River I witnessed such a sight; my crew of nearly one hundred men lined the banks and rushed out on the logs on the side jams as they saw a poor fellow trying to swim as he was being tossed and thrown about like a cork. In this case the river was wide, and the mad current kept him in the middle of the stream, out of the reach of us all. On he went until he came to the brink of a straight falls of nearly thirty feet; swiftly he approached and over he went and was lost to view for a few seconds, when he bobbed up again we could see he had been badly hurt and was much exhausted, but bravely again he tried to steady himself to go over the next cataract, a couple of hundred vards below, and as he went over the last ten foot falls we saw him throw up his arms and that was the last we seen of him alive. I instantly had the dam closed at the head of the rapids and the water lowered and then we commenced our search. We found his mangled body fully three quarters of a mile below where had been thrown in by being struck by a piece of timber in a moving jam on which he was working just above the first falls. The poor fellow was only about twenty-four years of age. He was always venturesome and such scenes are of frequent occurrence.¹¹²

There were some very lucky men who lived to tell the tale of being swept downstream or through a log slide under a mass of timber. Most were badly mangled, but a few miraculously walked away unscathed. Almost immediately after dynamite was introduced to the region, the Fenelon Falls canal contractors used it to break a jam on the Burnt River—a practice that became common. It was less dangerous than chopping away the key log, but might not always be on hand, and some foremen thought its use disgraceful.¹¹³

Though breaking logjams was the most dangerous job on the river, it accounted for a minority of deaths. Most met their fate in less spectacular fashion—falling off a log, perhaps in churning water, and being unable to reach shore. A drive would not pause long if a man drowned. If the driver did not have a family, the company would probably arrange for burial. If he did have a family, it would write to explain the circumstances of the death—certainly in a manner that made the company seem blameless. For instance, J.W. Howry & Sons explained to Mary Ann Bell of Dunsford in 1895:

We are very much shocked to hear of your son's death by drowning, while on our drive. We tried to do what little we could to make it easier for the brother who had the body in charge, and thus to make it easier for you. We have just returned from the drive where he was employed and made what careful enquiries and investigations we could in regard to the accident, but we think that your son's report will cover everything fully. It seems that the companion who was with him could have saved him by reaching out his pike pole, had he not lost his presence of mind, still the distance may have been too great for this, but we sincerely wish the man made the attempt to do so. Your son was a good, faithful worker, so our foreman, Mr. Fagan, says, as he worked for him in the woods at different times, but he did not wish him to go on the drive because he was not used to that kind of work, however, your son made him promise that if he could not secure work on one of the other drives he would give him employment, and as he had given him such satisfaction in the past he did so.

As in the shanties, it would be fairly common for the deceased's friends to take up a collection to help his family, but companies would not provide assistance.¹¹⁴

While the river drivers focussed on stopping the logs from backing up, a fair number of logs bound singly, one way or another. In the latter half of the nineteenth century the main driving routes were littered with deadheads, often wedged into the bottom of the river, and bobbing just at the surface. Difficult to see, they were a hazard to wooden steamers, smashing many paddlewheels. On the more commonly travelled routes, and in more recent years, some have been reclaimed. But on backwaters many persevere to this day.¹¹⁵

Running at the time of the spring freshet, backed by the reservoir waters, the logs could be run fairly well down the streams and rivers in most years. Once they got to a lake, logs were captured in a boom and towed. For most of the century this towing was done with a capstan (or capsule). The capstan crew would drop anchor (often about 400lbs in weight) a few hundred feet ahead of the raft. On the deck of the raft horses turned the arms of a winch, which pulled or kedged the boom and raft to the anchor. On any sizeable lake they would have to drop anchor several times before they could get across. They then fastened or snubbed the boom to some solid object, and returned for another boom. There were smaller hand powered capstans as well. Ceaselessly turning the wheel made men sick and was one of the worst jobs in lumbering, perhaps exceeded only by the job of the man on the capstan who handled the slack rope, his hands always wet with freezing water. The capstan rafts were often manufactured in the woods by the shanty or driving crews. Drivers used pointers—rugged, stable row boats, drawing only four inches of water with both ends pointed upwards so they could run over logs—to move their supplies.¹¹⁶

If there were steam vessels on a lake, it was usually more economical to hire them to tow rafts—lumber firms were often closely related to steamship companies. Steamers were much faster, towed larger loads, and were more likely to get the booms across without accident. The booms often broke in storms, and it took several days to recapture tens of thousands of logs scattered over a lake. The logs might also drift into another lake, so the sooner they could be got across the better—though even when at their final destination booms were still vulnerable to wind and the currents of the spring freshet. Even with a steamer towing, the larger companies still divided their cut into three, perhaps five blocks or drives. While steamers and capstans were the usual way of crossing lakes, on one occasion, a Boyd driver on his own initiative used his tent to sail a large boom across Cameron Lake—a three-day journey.¹¹⁷

In the final years of the century, alligator tugs came into vogue for lake towing. Essentially a steam capstan, the boats carried a steam engine and a giant winch winding steel cable. They had paddle wheels to propel themselves across open water, but spent most of their time towing logs much like capstans—dropping anchor about a mile ahead of their boom, then kedging the boom forward. The boat was called an alligator because it was amphibious. It had a flat bottom, and could pull itself overland, attaching the winch to a tree, though it required logs as rollers unless the route was particularly suited to skidding the boat. They were much faster than horse-powered capstans, and were recorded towing over 65,000 logs at once. George Thompson believed they shaved a month off a drive from far reaches of the Trent Watershed.¹¹⁸

Gilmour & Co. introduced alligators to the Upper Trent—they were of particular advantage because of the length of their drives to Trenton. By 1894 they had five alligators in operation, made by West & Peachey of Simcoe, Ontario, who were the first to market the boats in 1889. Dave Gilmour was often seen operating an alligator that even had a 4000 candlepower electric searchlight—costing \$800—allowing it to run day and night. One of their boats was 20 horsepower, and geared 6:1 for towing. That May, J.W. Howry & Sons employed the *Hamilton H.*— 35 feet by 9 feet and drawing 24 inches of water—to run its logs down from Haliburton to Fenelon Falls. After they went bankrupt, it burned to the waterline on April 28, 1898, but the Bank of Ontario rebuilt it. Howrys also used the *Saginaw*, which the Bank of Ontario sold to the Dickson Lumber Company. Boyd did not have an alligator for his Bobcaygeon operations, believing—correctly it would seem—that for the amount of lumber to be had in the Kawarthas, it would not justify the expense. He did, however, have West & Peachey build a boat in 1897 for shipment to his mill at Cowichan, B.C. costing \$2300.¹¹⁹

Though historians often highlight the rivalry between firms, even telling stories of skirmishes on the drives, co-operation was more the order of the day and could save everyone a lot of money. Arrangements for one firm to drive the logs of another were very common—although occasionally leading to recriminations that one firm did not hire enough men. They commonly lent each other boom timbers and chains.¹²⁰ There were close relationships between several of the firms. Mossom Boyd hired many men for Irwin & Boyd, but also for companies like Dickson or Bigelow & Trounce.¹²¹

On most of the route down steam, logs of several companies were driven in common. Though it might ease sorting if they were run individually, they almost inevitably got mixed up with those of other firms on the way down. Firms might contract their drive to another company, as in 1890 when Sadler, Dundas & Co. agreed to pay Boyd 45 cents per thousand feet from Larone's Creek down to Cameron Lake or 40 cents from Bark Creek—quite a reasonable rate, since Boyd calculated his own cost of driving to Bobcaygeon that year to be 73.3 cents, and 101.5 cents the following year. Often firms arranged to drive together, which might lead to disagreements over whether the partners bore the responsibility of driving equally. Similar spats also occurred when one firm was stuck behind another that they felt did not have enough men to keep their drive moving efficiently. In 1884 a solicitor for McArthur & Thompson, Greene & Ellis and R.C. Smith threatened legal action against Boyd if he did not increase the size of his driving force. In 1887 Boyd's men helped run a drive belonging to Mansfield, Greene & Ellis, McArthur & Thompson, and Craig, because it was moving slowly ahead of them without enough drivers. In 1884, R.C. Smith's men removed the snub of Boyd's boom setting it free in Cameron Lake, apparently because Boyd's foremen had made the mistake of attaching it to Smith's boom, rather than to public property.¹²²

There were sorting jacks at each mill—Boyd had them at Little Bob (capacity 20,000 logs), Jones' Clearance and Jackson's Island—and a large one at the north end of Cameron Lake. At the Cameron Lake jack most of the sorting for the region took place,

4.12 Cameron Lake Sorting Jack Crews, 1884 ¹²³			
Company	Foreman	Men	
Mossom Boyd	William Creswell	7	
R.C. Smith	Merrit Oak	6	
Greene & Ellis	Gab Martin	2	
Thompson & McArthur	Samuel Barr	4	
W.J. Trounce	John Pearson	5	

each June and July. Using pike poles, the men pushed the logs into booms based on owner. This work could not be done in strong wind. There Boyd also sorted his square timber by size and length so it could be formed into rafts. The sorting

jack was at the confluence of the Burnt and Gull River drainages. Many of the logs were close to their final destination, and the balance were towed in booms by their owner—the route to Peterborough being largely lake travel from there. At the sawmills logs were again sorted in jacks by species, length, size and quality.¹²⁴

Though some specialized in running the drives, each foreman usually guided his block down the river. Creswell started out as a hand on the drives, working under Wilby Sherman in 1875. By 1884 he had risen to be the foreman of the Cameron Lake Sorting Jack. In the fall of 1888 he was made foreman of a Boyd shanty, and served to the end of Boyd operations in the Kawarthas, running their last drive in 1903—after 1896 he was Boyd's only shanty foreman. The firms also might contract with others to have their logs run, as Boyd did with James Sedgwick for a small drive in 1886 to the Three Brothers Rapids for \$700, John Sedgwick to run all logs on the Middle Branch to below Three Brothers for \$950 in 1887, and with Creswell for all the driving of 1899 at 60 cents per thousand feet. Some of these contractors had agreements simultaneously to drive for several companies.¹²⁵

Each drive tried to get down faster than all others. From company president down the ranks, most took a competitive interest in outdoing their rivals—and at times watched the crews racing down Sturgeon Lake, slow though the capstans inched ahead. Various records were remembered. William Creswell drove from Bark Creek near Irondale to below the High Falls south of Kinmount in five days. In 1893, Gilmour foreman Jerry Loucks managed to get a Galway drive via Concession Lake down Nogies Creek to Pigeon Lake by mid-May. But as interesting as the sport was, it might be tempered by economy, as in 1876 when Boyd suggested that Theo Oakes release all but his best eight to ten men, because he was in no urgent need of the logs.¹²⁶

From the 1870s to the end of the century, most drives would hit Fenelon Falls or Bobcaygeon between May and August—depending primarily on how far they had to come—often running close on the heels of another drive. George Thompson recalled that it usually took three months to get from Haliburton down to Fenelon Falls. The odd drive, however, did not come in till October. After the advent of steamers, Boyd's drives ended when they reached the Cameron Lake Jack, or Mitchell's Bridge, which was just above it on the Burnt River. The drivers were then discharged, and timber would be taken from there by steamer. The foreman of the sorting jack often took care of running Fenelon Falls. From the jack down, most companies ran their blocks in close proximity.¹²⁷

The location of limits made a great difference to the date when mills received their blocks of saw logs. At the time that Boyd agreed to take the timber of the CLEC lands, he realized that timber could be had closer to hand, but not in such reliable quantities. For the rest of Boyd's operations in the Kawarthas, he would have to run his logs a relatively long distance—though it did not appreciably increase from then on, because he was already cutting the headwaters. When the Squaw River and Nogies Creek logs arrived in Pigeon Lake in May, other drives would still be in the upper reaches of the watershed.¹²⁸

As their saw logs arrived, the Fenelon and Bobcaygeon mills sent their timber on for Quebec. In the early years, Boyd and Wallis floated logs down the Trent River to Trenton, and released many men there because they were not needed for travel on Lake Ontario and the St. Lawrence River. Boyd put his first raft together in 1848, and was accompanied by one of the Kellys, the family that took over his farm on the north shore of Sturgeon Lake. In the long journey down the Trent River his companion lost faith that they would ever reach Quebec, and returned home to get off the hay after they passed Whitla's Rapids. Boyd carried on and his raft made it to port that season. Before a rail connection was established, there were some seasons, such as 1852, when Boyd was not able to get his timber through to Lake Ontario at all. Early in the season of navigation he collected traverses and withes from around Sturgeon Lake at Lindsay. Once there was a rail connection from Lindsay to Port Hope, Boyd and Irwin & Boyd found it easiest to float timber to Kinmount or Lindsay to send it overland to Lake Ontario, because the Trent River was a winding and difficult route. Timber cut the previous season might be in Port Hope first thing in the spring. New timber from Squaw River or Nogies Creek could reach Lindsay by mid to late May, while the Gull River drives often did not arrive until September, usually to be held over for the next year. Before the Victoria Railway was built Boyd shipped lumber by train from Lindsay or Port Perry to Whitby, then assembled, or reassembled the cribs there. Afterwards, the Burnt River timber was generally sent direct from Kinmount.¹²⁹

To assemble rafts, the companies sorted the timbers by length, then selected two floats the same length, to be the length of the average timbers of the crib, perhaps fifty or sixty feet long. About a foot from the end of the timbers, their employees augered three inch holes, and fitted strong wooden pickets, about three feet long. The two cross timbers or traverses-often tamarack 25 feet long, because 26 feet was a standard slide widthwere fit onto the stakes, with their ends flush to the outside of the timbers. Starting at one end, and continuing until they reached the other, more timbers were fit under the traverses, the last being made to fit so tightly that it would have to be pounded into place. These timbers in the centre were not attached to the traverses, as with a few hardwood timbers loaded on top, the buoyancy of pine timbers underneath would produce enough friction to keep them in place. Two or three more traverses were then fit. Cribs were assembled into rafts, which might contain a hundred or even two hundred cribs, with withes—birch saplings twisted as they were to be installed, used as ropes—pinned in place with toggles. A layer of timber-often hardwoods-was loaded on top of each crib frame, secured with pins driven into the traverse on each side. On the outside, at the centre of these timbers, oarlocks were fitted, attached to take the strain of an oar twenty or twenty-five feet long.¹³⁰

The men lived on the rafts for the duration of their journey, in bunkhouses or tents. One of the cribs floated the cookery—a deep bed of sand built in the centre, with pots suspended above. Benches surrounded the fire, and it carried supplies for the cook and his devil. Each raft had a pilot or foreman, and a crew of about twenty rowers.¹³¹ When a raft arrived at a rapid, it was split apart into its constituent cribs, which were run individually. On the rapids where there were no slides, this was a dangerous, thrilling ride, and a pilot familiar with each rapid was often hired. On the smaller streams and the headwaters of the Trent system timber was often driven like saw logs, but as soon as it could be assembled into cribs, it usually was. Though a significant portion was cribbed

further up, many cribs were put together at the Cameron Lake sorting jack as the timber came down, and getting the timber assembled into rafts almost always assumed priority over sorting saw logs. In later years on the lower Trent, cribs had to be taken apart, but few would come down from the upper reaches.¹³²

At the notorious rapids on the St. Lawrence between Chateauquay and Montreal, raft inspection was mandatory before running. On Lake Ontario and the St. Lawrence, the rafts were at the mercy of the weather, and were often held up by strong or contrary winds. Despite the best efforts of the crew and pilots, the rafts wrecked from time to time, as happened to R.C. Smith's in 1882. Many of the raftsmen might be killed in a wreck, and it would often take a long time to gather and reassemble the timbers. In Smith's case, the raft did not arrive until the following June.¹³³ Boyd often contracted to have his timber towed from Whitby to Kingston and then on down the St. Lawrence. It was, however, usually accompanied by the foreman and men. The companies were always relieved to hear of its progress and safe arrival.¹³⁴

Once the rafts were on their way and the saw logs had arrived at the mill, the season's work on the streams was then complete. Workers were then given their time, and most celebrated with their friends. A lull in work followed, and many men travelled home to see their families for the first time in months. But work soon resumed, as men returned to the mills to hire on for another job. Summer having arrived, preparations would be underway to return to the bush for another year—cruisers and foremen would be turning their thoughts to camp sites, plotting out roads, and getting ready to set up camp. It would not be long before the shanties came to life once again.

The big mills were the largest employers in their towns. In the 1880s, Boyd usually employed between forty and sixty mill hands. Permanent employees did most skilled work, complemented by a gang of seasonal men. Each spring when the mills opened around the time of ice out or a little before—between the last week of March and the third week of April in most years, though in 1878 Boyd did not open until May 27—the company hired men for the summer. Many of the larger mills ran round the clock with two shifts for at least part of the year. In early years almost all of the mill workers were locals, but as the century wore on many of the mill hands were recruited from afar, including a portion from Quebec. A few of the workers lived in town with their

families—usually permanent workers—but most stayed in company barracks. At Little Bob these were located close to the mill. R.C. Smith owned the Clifton House and put up his men there. For the seasonal gang, their jobs would terminate in the fall, when it was no longer worth running the saws—either because of falling water levels (which caused the mill to run ever slower), or having cut through the season's stock of logs—often between late October and early December. Sometimes Boyd's mill closed temporarily in August or September because of low water levels.¹³⁵

In the off-season, some mill workers were employed only for short periods of time—a few days to a few weeks. They might help several concerns over the course of a year. In 1896, Robert Dundas of Fenelon Falls put in a week for John A. Ellis at the start of the year, drawing logs. After that he had some time off, fixed up his house, attended Salvation Army events, helped and visited his friends. From February 5 to 11, he made timber for J.W. Howry & Sons. He spent another couple weeks around the house, seeing friends and going downtown, before helping Ellis for a day. On the 27th he started on the foundation, raising timbers, putting in water wheels, and shingling the roof of the addition at Howry's Red Mill. On March 31, Howry transferred him to the log drives, and he went up to the Burnt River to make a boom. He sorted at the mill's jack until November 30. In the meantime, both Howry's mill and the yard had burned. He was around home again for a few days, then cut cordwood at Robert Jackett's camp from December 10 to the end of the year, having the 25th to 27th off for Christmas. That year he was paid \$288.15 for his work—\$26 to \$38 for a month of steady work. Jackett gave him \$5 of his pay on December 25, to see that he had a merry Christmas.¹³⁶

The pay in mills was usually within a few dollars of the shanties in any season. Between 1878 and 1883, most men made \$14 to \$19 a month, plus board, though skilled employees received \$22, and foremen at least \$30. At the end of the century, when Dundas was making at least \$26 per month, Boyd offered Edward Telford only \$15 to stack lumber—generally the lowest paid job—though most men made \$1.25 to \$2 a day.¹³⁷

Work in the mills resulted in more accidents than any other stage of lumber production. Losing a finger or a hand was the most common injury, and most mills had a few mishaps each year. The machinery—carriers, saws, belts, engines, and planers—was

quite capable of removing appendages, and the men continually worked a few inches from losing a finger. The safety records of the mills varied greatly. Howry & Sons seem to have been especially bad, with twenty-two accidents, two fatal, in their two and a half seasons of operation, including four accidents in one week. Accidents in other mills may not have been reported, as lumber barons often had influence over newspaper editors.

William Bick lost part of his left thumb and two fingers in his shingle mill in 1880. The emery wheel at Parker Davis' shingle mill at Nogies Creek exploded, piercing the owner's eye. In 1889 the boilers exploded in Dovey's Lindsay mill, blowing engineer Robert Powles through the roof and killing him instantly. Boyd's foreman, William Gidley, was remembered for his narrow escapes. In 1883, he walked away unscathed when the mill was struck by lightning, which jumped from a lightning rod to strike him. The next spring, while he was helping drive rock bolts to reinforce the mill foundation, a piece of the bolt broke off fracturing both his jaws. Fatalities were rare. One of the more common causes of injury was being caught in a carrier and dragged through a piece of machinery. Even when workers died, inquests rarely laid blame. For instance in 1879, Pabien Dennis, while helping to repair a broken chain at Greene & Ellis' mill:

Was placed at one of the wheels for the purpose of holding the chain in position while another link could be put in, and was told by the men fixing it that they would let him know when he could release his hold on the wheel. Unfortunately, however, for Mr. D. the necessary precaution or warning was neglected, and as soon as the repairs were completed the machine was set in motion by the men regardless of the perilous position of their companion, whose left arm, was drawn, in an angular shape, between one of the posts of the mill and the chain and was ground into a shapeless mass of flesh and bone. The space through which the arm was dragged was only large enough to admit of two fingers of a man's hand, thus showing what fearful suffering the poor man must have endured.

He died the next day, and the inquest found that it was an accident and no blame could be placed. As at the shanty, sympathetic co-workers would raise a subscription for the injured, or the family of the deceased. Work in the sawmills was also deafening—steam engines, live rollers and saws were all so loud that the men communicated with hand signals.¹³⁸

At Boyd's mill in 1868, Alex Trotter and Luke Devlin were millwrights and David Allison kept the saws sharp. Fred Wright, Thomas Graham, Irwin Simpson, and John Humphries ran the Yankee gang. William Wells and Dick Gidley ran the English Gate saw. George Cowan and George Buskey operated the edger, Thomas Smith and George Nigh the trimmer. John Moffatt and Alex Hamilton kept the logs running up the jack ladder. John Read culled, while James Read manned the boardway. William McCarrow, Frank Bowe and Michel Guay drove teams. Henry Wolfram and Thomas Robertson worked the mill floor, while John Carr, Andrew Allison, Nelson Arnberg and John Cullen were the spare hands.¹³⁹

At the larger mills from the 1860s on, once the logs were sorted by size at the jack, they would be brought down to the mill in smaller blocks for sawing. Most of the cutting was done with the gang saws, which were commonly set for a run of several days on a particular dimension of lumber, say 1×10 siding. A jackladder lifted the logs from the water, carrying them to a slabber, which squared up the sides to the ten inches, and might have three blades running down both sides of the log simultaneously. A live roller carried the timber to the butter—squaring up the ends of the log—then the gang, which had up to forty blades on it, depending on the size of the timber. The men then trimmed up the sides of each board as necessary using edgers. The saws in the gangs were essentially sash saws, but when run in combination could cut up the entire log in one pass. More moving tracks carried the produce from the saws—it was a difficult job for the men to carry the boards away as fast as the saws made them. Most of the large companies also had circular saw mills, which were the usual means of cutting construction timbers or small orders. Timber passed through much faster than with sash saws, but circular saws were much slower in processing a log, as they required multiple cuts, and produced rougher edges.¹⁴⁰

Perhaps half of the workforce piled lumber. Once cut and culled, it was hauled out to the company piling grounds—Boyd had two miles of rail track running downhill from the mill to his stacks. While the cars rolled on their own to the yard when loaded, men used cogwheels to return them. The lumber was neatly arranged in rows, each separated by sticks of a common thickness, perhaps once inch. The piles were usually made on a slight incline, so that rainwater would run off and not stain the lumber as it seasoned. One-inch pine usually dried in one summer. The piling grounds of the larger operations

usually contained several million feet. When the time came to ship, the men loaded the lumber on scows, or rail cars if the mill had a spur.¹⁴¹

Mill culls were similarly stacked, and might also be shipped for sale in distant markets, though they commanded a much lower price. Local residents bought most of them. In 1892 Boyd let farmers haul away loaded wagons for \$4. His price rose to \$5 by 1896, and J.W. Howry charged the same. The next year cull pine and elm could be had at the Fenelon Pulp Mill for \$3 per thousand feet. Local farmers made a sport of seeing who could haul the biggest load, and John Bates of Powles' Corners drew home one load of almost 4,000 feet from Howry's in 1896. Many farm buildings and fences were built with mill culls. They were also sold in large quantities for box and other rough manufacture. The Boyds built an addition on the Big House and build their lumber office by stacking culls.¹⁴²

Life in the shanties, on the rivers and in the mills had settled into a routine over the latter half of the nineteenth century. Much like farming, it had become a way of life for men who laboured year after year. The occupations had their customs, traditions and techniques, many of which proved stable for decades. But it became more unusual as the century wore on for men to remain in the employ of one company for long, as the firm's imperative to minimize expenditures on labour priced out many local workers and prompted them to resort to imported labour. As the century wore on, the work became more automated, often quickly embracing steam power were it proved practical. Living conditions in the shanties improved, the men benefited from a more varied diet, while inhabiting larger, more commodious shanties. The beasts of burden were also better housed and often better fed. Camps sometimes even were subject to health inspections. The men came to work on a larger scale, with more timber in every block and larger drives as firms put in more camps—although there was a practical limit to the size of a shanty based on the availability of timber within walking distance. The mills were outfitted to rip through more trees, more efficiently. Work in the forest industries was reflecting the evolving economy of the Kawarthas. As in so many other occupations, productivity increased as local infrastructure developed. The forest sector was an integral part of how the residents of the Upper Lakes were reaching out, developing new international and global connections. As the agricultural economy was mechanizing,

adopting more specialized inputs, the companion forest industries were destined to transform as well.

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4c. The Transforming Forest Industries

By the 1880s the lumber industries had seemed to settle into a routine. While timber exports to great Britain were on their last legs, American demand for lumber continued to increase with the settlement of the Great Plains and growing cities. A few large firms on the Upper Kawarthas had thus far managed to ride out the intermittent storms that were part and parcel of the trade. With experienced management these few successful companies seemed to be producing healthy profits. But they were actually in a terminal stage.

The following decade did not bring the golden rewards that many in the industry expected. Rather than flourishing, by the early twentieth century all the longstanding lumber exporting businesses on the Upper Lakes had disappeared. In the 1890s their business model became difficult to sustain. They had expanded in an era when stumpage fees were a very small proportion of the value of lumber. Even when companies did not pay for standing timber, they produced inconsistent returns. But by the late 1880s it was apparent to almost everyone that southern Ontario was quickly running out of pine, as production was accelerating. Once first-rate trees were becoming scarce, timber limits began to increase exponentially in cost and large-scale timber theft seems to have all but disappeared. When major limits could sell for more than a million dollars, firms that carried on with old business models soon went bankrupt as lumber prices did not keep pace with the cost of limits—there were still other regions with plenty of choice material.

Companies vastly increased their production just as supply was running out. As modern observers look back on this age, usually assuming the perspective of twentieth century forestry, the sentiment prevails that if only there had been conservation, if only the firms had been 'scientific' in the management of their resources, had considered the environmental effects of their actions, then the forests might have been saved and the industry allowed to continue indefinitely. But it was not nearly so simple in practice. The firms were not callously or foolishly disregarding the imminent end of their supply. They had a better grasp of what was really going on in the bush than the government. Most expected that if they could conserve select logs until the timber famine sure to ensue as southern Ontario's supply of prime white pine was exhausted, they would realize a windfall. But they also felt compelled to cut through their limits in relatively short order.

They had to pay ground rent, it was more economical to get out large blocks of logs, and they needed to clear the forests before migrants took up the lots. The cost of setting up camp was an incentive to cut through the entire forest in one area, then abandon that and move on to another. But the greatest factor was fire.

By the late nineteenth century the Upper Trent Watershed was far more fire prone than it had been in the 1820s, or than it is today. There were several reasons for this, but as long as the lumbermen were leaving behind the parts of the trees that could not be used economically, and settlers were chopping and burning to make clearings, the countryside would be a tinder box. Having seen fire after fire roar through their limits, lumbermen were determined to get the best trees out before conflagrations occurred. Once an area had been burned over, they had to get the trees out that same season or the logs would be ruined. After a large fire, this might entail a cut several times the usual size at greatly increased cost. For that season they would have to proportionately increase their equipment, number of camps, workforce, and find a way to saw up the logs within a year or two. It was then more difficult to dispose of the excess infrastructure because many neighbouring concerns were in precisely the same situation. Though many questioned firms for instituting massive cuts as their supplies dwindled, most felt that fire forced them to do so. As the prices of limits soared there were not many companies that could absorb the loss of large limit and remain solvent.

In the last years of the nineteenth century, firms became more interested in conservation as they, and most of society, did not want to waste precious trees on the eve of a timber famine. The Province of Ontario and the lumber companies jointly established a system of fire rangers, who it seems were reasonably effective at getting gangs of men on site to control the spread of fires—so long as the companies were operating in an area. The primary motivation for both parties was to conserve the timber long enough to be cut, rather than any concern for its long-term preservation.

The timber famine and an accompanying windfall of profit did not materialize as the companies had expected. Select pine did become scarce in southern Ontario, but prices for lumber in the United States did not increase proportionately to the value of timber limits in Ontario, since production shifted to other regions. The Boyds realized

that the locus of production was moving west, and transferred much of their operation to British Columbia. Many others were not as prescient and lost their businesses.

The disappearance of the major firms is often mistaken for the demise of forest production. It was instead the end of a business model. The forests were not destroyed, they were shorn of pine that could be profitably exported as lumber. From the beginning of resettlement, the pine export ventures represented a minority of forest production in the region. The bulk of harvesting was actually destined for local use. Instead of the end of forestry, the final years of the nineteenth century brought more diverse production and a host of new industries. Local manufacturing was then booming.

The growth of industry in villages across southern Ontario is often overlooked. Today we think of secondary production centring on major settlement or transportation nodes, if not overseas. But as the economy in the Kawarthas matured in the late nineteenth century, a large proportion of finished manufactures were almost entirely wooden. Many industrialists then saw an economy in establishing factories close to the forests.

The new factories served both local and distant markets. The manufacturing boom in the last years of the nineteenth century coincided with the period when many local farmers were at last able to afford large frame houses, commodious barns, and a host of new goods for domestic consumption. While the communal labour of neighbours and families built farms, the emerging factories brought a new prosperity within reach. Planing mills turned out the trim, doors and window sash that were essential to eliminate drafts in new frame houses at a fraction of the cost of traditional methods. While their parents could never have justified the cost of tight windows, once they were inexpensively mass-produced they became essential to the younger generation. Many families purchased a broom once local manufactories were churning them out. Newspapers attracted new readers as better methods of producing wood pulp reduced the cost of paper. Farmers bought more factory-built implements, instead of fabricating them as best they could with the help of their local blacksmith. While increased local prosperity implied demand for more consumer goods, much of the production was exported, especially from centres with a rail connection.

While villages like Fenelon Falls and Bobcaygeon were often thought of as centres to serve agricultural countryside—a large part of their *raison d'etre*—from the start of settlement they were also the centres of export. By the end of the century, the area was producing more for distant exchange, including a great variety of forest or wooden products. The expanding villages brought more diverse services, and new organizations for culture or leisure—orchestras, the Don't Give a Damn Club, mechanics institutes or libraries, swimming pools, and community halls. The first of the modern cathedral churches date from this era. These growing villages nurtured a new variety of social life, providing people with occasions to gather other than at working bees, around the kitchen table or at church.

The proprietors of the factories, like the timber barons, were the most conspicuous in displaying this new affluence. Wealth was still related to power, but the prominent gentlemen in manufacturing were not as influential individually as the timber barons at their apex. It no longer seemed that there was one man who was the lord of a village, as multiple businesses now now showed signs of prosperity and interested themselves in public affairs. The manufacturing boom reached its peak early in the twentieth century. Production slowly declined as trucks and trains provided inexpensive long-distance transportation, which, accompanied by the decline in manufactured goods that were almost entirely made of wood, negated many of the region's advantages.

As Bobcaygeon residents watched the procession the area's earliest settlers to mourn the loss of Mossom Boyd, it was apparent that his passing was a momentous occasion. It was perhaps not yet evident that an era was nearing its end—the rush to export pine lumber. Like most ventures of its type, Boyd's company represented the fulfilment of his labouring life—driven to succeed, it was the obsession he pursued with "boiling" blood, as his friends would put it. Boyd had needed good fortune along the way—the countless times that his creditors did not call when he was in no position to pay, that his main mill never burned to the ground, nor did he have a major yard fire. He had grown the company to have a complex administrative structure, but it was the manifestation of his ambition, and without its creator it never had the same imperative to grow and thrive. At Fenelon Falls, the largest mill closed after the death of its proprietor R.C. Smith, in 1886. Mossom Boyd & Company carried on much as it had under the Governor, his son Mossie filling his shoes as the face of the company, his managers cutting the limits he had acquired and using the shipping that he had established. Though the structure held together fairly well until the early 1890s, as the pieces came apart they were not replaced. When their father died, Mossie and Willie were 29 and 25 years old, respectively, incredibly wealthy, and well schooled. Whereas their father as a young man had eschewed most of the gatherings of high society while he personally chopped a farm from the bush, ran the sawmill, and drove timber down the waterway, his children embodied high culture in the village. They were multi-millionaires and indulged in leisurely pursuits: cigar smoking, travel, gambling, curling, ice boating, and hunting. Mossie and Willie were competent managers of the business, and understood the lumber trade as well as anyone else in Ontario. But they did not have the burning determination of their father, and as the empire slowly melted away, were happy to live off its residuals.

Around the time of the Governor's decline and death, the Boyds entered into a number of other ventures—diversions that their father would never have tolerated. While there was no quibbling with their achievements in each, it was manifest that Mossie's and Willie's minds were not fixed on the continuing expansion of the company. Under the Trent Valley Navigation Company, the firm's shipping arm began to concern itself with tourism, and was largely responsible for branding the Kawarthas as a holiday destination. Big Island Stock Farm assumed a place among Canada's best-known Aberdeen Angus breeders and was the Canadian originator of the Polled Hereford and the Cattalo. The sawmill men soon became conspicuously good at curling. They travelled around Ontario, winning many championships. Willie Boyd's hunting parties were legendary.

Square timber survived the end of colonial preference on timber for about two decades, was less important than lumber by 1880, and by 1885 had almost entirely disappeared, though exporting deals to Britain remained profitable until the end of the century.¹ This was the end of the British timber trade, but not of timber generally. For about fifty years, a large proportion of locally produced timber had gone to the British market, but there had always been local demand—largely met on farm. In the last decades of the century, the mills cut many timber bills—they were commonly used for barn, bridge and lock construction. A portion of this was exported to the United States.²

Starting in the late 1880s, everyone involved in the large lumber companies knew that they were running out of first rate pine trees. By then, virtually all limits tributary to the Trent River had been divided up, and most of them were cut over. To make matters worse, pine bark borers passed through the region, though companies did what they could to control their spread. But there was little public interest. The invasion of tent caterpillars in the late 1890s spawned greater popular outrage due to the unsightly webs and destruction of foliage—especially when they targeted orchards or landscape trees.³

As the supply of logs dwindled, companies adopted different strategies. From the mid 1880s many firms were mixing logs from cutover—averaging smaller and poorer quality—with virgin logs. Mossie Boyd carefully supervised how the Monmouth logs were felled, as they were quite valuable. He decided to hold one reserve of his best timber in Glamorgan, hoping to profit from the inevitable spike in prices. But he explained to Johnnie Mac in 1886:

What hurts me is to think that our pine will become exhausted just at the same time as all the others, and just when prices will jump up beyond all calculations both for good & rough grades & mill culls. If we could only hold out so as to have 3 or 4 years of the famine with our fine Monmouth logs; big (& clear) enough to make any size required.

He was very careful to set up this tract on the south side of the Burnt River, hoping to use it as a shield against fire, and trying to keep all settlers out. But the returns did not turn out as golden as he had hoped.⁴

In its natural state the Trent Watershed was not particularly fire prone. Setting aside exceptional features like the Rice Lake Plains, presettlement fires are often estimated to have occurred perhaps once every thousand years for any given location. There were some townships that had significant forest fires described in their original surveys, including Belmont and Cavendish, but these areas were unusual. Though the cedar and tamarack swamps contained combustible material, a source of ignition was usually lacking. In the northern reaches, the region became more pyrophillic as the proportion of softwoods increased.⁵

As the lumbermen cut over the forests, they left behind an enormous quantity of kindling. In making square timber, about a third of each log became chips and slabs, which were left in the bush. The branches and tops of all trees were left behind. The

canopy was opened and the surface allowed to dry out—in many places this was a mat of pine needles. Once all of this—millions of feet—dried for a summer, it was some of the finest kindling around. Then a spark could set townships ablaze. Firms have been criticized for leaving the slash behind—a common practice to this day—but disposal would have been quite costly and would have meant burning it on the spot.⁶

By the 1880s there were many potential sources of ignition. Steamboats plied the Haliburton waters and, despite requirements for spark arresters on their smokestacks, cinders occasionally found their way ashore. The region's railroads posed the same threat, as no one was appointed to inspect their arresters. Camping was also becoming popular in the region, and visitors often packed up leaving a campfire blazing. In 1881 berry pickers burned Mitchell's Bridge across the Burnt River when they cooked their dinners too close to its timbers. Settlers were also pouring into the region, and were often careless in the use of fire—if one of their blazes ran into the forest it was generally seen as no loss.⁷

While they were usually grateful to buy farm produce, the lumber companies strongly opposed having settlers in the immediate vicinity of their own limits, unless they had some rapport. Settlers built houses, barns and fences on lots while the lumber companies held the rights to get out timber, but firms feared they might start fires, cut timber, or claim damages for the flooding associated with driving. With timber rights to most of Haliburton distributed to one company or another, this raised the bar for settlers trying to acquire Crown Land-though it does not seem to have affected CLEC land as much. Boyd warned settlers to be careful with their fires, but he also kept close tabs on any infractions of government settlement regulations. Before patent, located settlers had the right to cut timber on their lots for building and fence construction, but not for sale, under the 1849 regulations. In 1860, the Crown Lands Department made it policy to cancel the locations of any 'pretending settler' taking timber. In practice, a much greater range of indiscretions was punishable with cancellation. Boyd was strict with squatters, forbidding them from cutting trees of any sort in his limits and often did not answer requests from settlers to cut timber for their own use. With any evidence of failure to occupy or improve valuable timbered holdings, Boyd would write to the Crown Lands Department suggesting that it cancel locations in the interest of maintaining the timber. He petitioned to preserve lots that were near valuable pineries from location. He also gave lists of lots that he wanted them to remove from those eligible for location. The Crown often did just as he wanted, and wrote to Boyd before locating a lot in his limits.⁸

According to one estimate 620,000 acres of the Upper Trent waterway burned at least once between 1870 and 1912, more than half of this burning at least twice, and some locations eight times. According to C.D. Howe's Report on fires in this region, no significant pinery escaped.⁹ By 1870 much of the pine in Dudley had been destroyed by fire. Major blazes in 1872 claimed parts of Glamorgan, Guilford, Harvey and Verulam, including the Eagle Lake Dam. Greene & Ellis lost their shanties in 1874. There was a large fire around Nogies' Creek the next year and another claimed several bridges between Gooderham and the Burleigh road the following year. In 1877 two large fires hit Glamorgan, and another Monmouth in 1879. Parts of Glamorgan and Monmouth burned in 1882. An 1888 blaze destroyed the Bow Creek dam and an area of Snowdon and Glamorgan. A major fire hit the same townships again in 1894, following one in Monmouth and Glamorgan two years earlier.

In this period there were three especially large conflagrations. In 1881, parts of Snowdon, Somerville, and Chandos burned, in a season when there were numerous brush fires. Fire also levelled part of Minden. The smoke made for hazy days as far away as Lindsay. In the summer and fall of 1887 an inferno again darkened the skies of Lindsay and Bobcaygeon, tearing through Anson, Hindon, Stanhope, Sherburne, Ridout, Snowdon, and Glamorgan. It razed Furnace Falls, then a small but promising mining centre, consuming the St. Lawrence Foundry Company's mills, and Parry & Mills smelting works. In 1891 a very large fire started in T.A. Hazlitt's Cavendish limits (Hazlitt took over as manager of Samuel Dickson's company after his death), and burned through much of the district's pineries, reaching Glamorgan, Monmouth and Harvey.¹⁰

In response to these disasters, the companies helped the government organize fire rangers, half of their pay from the province, the balance from the firm holding the limit. The going wage was \$2 a day, or rarely \$3 in the 1890s. Boyd appointed his first joint rangers in 1886, the year after the program was established—though he had employed men on his own account for at least the previous fourteen years. Fire rangers were usually appointed at the firms' suggestion, and most often were company shanty bosses or jobbers. Boyd's rangers were Nelson Vannier, James Sedgwick and William Robinson

from 1887 to 1889; William Creswell, Nelson Vannier and James Sedgwick in 1890; John Sedgwick, James Sedgwick, William Creswell, Joseph Hadley and John Pearson for 1891. Creswell continued to serve in 1901. This arrangement seems to have worked fairly well for all concerned—the companies had some of their best managers preventing and stamping out fires; foremen got summer work; and the government benefited from the strong interest that companies took in preventing fire. In 1906, Boyd required his fire ranger to make one trip a week through the limits to check for fire, spending the rest of the time in close proximity to the limits, keeping watch for smoke. They worked from the ground, with no watchtowers in the region during the nineteenth century. The contracts were usually short term and were flexible to ensure that the rangers would be at work during dry spells, but not when there was little prospect of fire. In 1891 Boyd had his rangers working by May 18 on account of dry weather, but the following wet spring had none by mid June. In the hot and droughty season of 1895, there were so many rangers employed that the provincial government ran out of funds appropriated to pay their share.¹¹

These rangers checked most fires. Their first priority was usually to protect improvements like dams, slides and useful camps. With hired men helping him, Joseph Hadley fought a fire in Glamorgan and Monmouth from mid-June to mid-July 1891. In August 1894, William Creswell limited the damage to Boyd's last good stand of timber near Bark Lake in Glamorgan. Then he watched three separate fires—one that started on the east side of Bark Lake, where they had a dump of logs from the last season. Another was east of the Buckhorn Road, and a third coming in from the west. By the time Creswell found the fire it had ruined the log dump. To save Boyd's timber and improvements in the area, he mobilized all the men he could, and fought through the night of August 28 to stop the fire from getting into a block of timber. Having contained the blaze for eleven days, a rain on September 4 suppressed it. In 1895, one Boyd ranger spent three days putting out a fire in his limits, which originated with a campfire, while John Maxwell put out two small fires. But some fires were too hot, in seasons too dry to be controlled, as in the 1887 Snowdon and Glamorgan fire—Barnhart said, even "if the British army was there they could not stop it without rain."¹² In 1878 Ontario passed an act to prevent forest fires. It prohibited fires in the woods north of a line running from the north end of Lake Couchiching to a point thirty miles north of Kingston, between April 1 and November 1, with the exception of those for "clearing land, cooking, obtaining warmth or some industrial purpose," requiring those setting the fire to clear "all dead vegetation for a space of ten feet around" and extinguish it before leaving the site. With no enforcement officers, the law only mattered when parties brought private suit. From 1885 Crown land campers required licences.¹³

In practice, this system depended on the interest of these firms in the limits. Once big firms abandoned an area, it was vulnerable to fire, as happened to much of the Upper Trent Watershed in the early twentieth century. The Great Fire of 1913 tore through 175,840 acres, including parts of Anstruther, Burleigh, Cavendish, Glamorgan, Harvey, Monmouth, Methuen, Snowden, Dysart, Lutterworth, Anson, Cardiff, Guilford, Stanhope and Eyre townships—once among the finest pineries tributary to the Trent. This fire burned a substantial acreage in other watersheds as well. Communities could do little but flee, leaving their homes to such conflagrations, though men were assigned to protect the bridges. By comparison, the 1948 Chapleau-Mississagi Fire consumed 645,340 acres.¹⁴

Once a fire tore through a region, a portion of the timber would be ruined and the rest would have to be got out quickly. Most of the trees that were killed were still worth harvesting until they were perforated with borers—lumbermen usually figured they had one season. The Snowdon fire of 1887 forced Boyd to get out 100,000 extra logs—more than doubling his usual cut. The following year he ran ten shanties. This meant multiplying most of the infrastructure dedicated to getting logs out—cadge teams, shanties, bob sleds, river drivers, capstan cribs, and so on. The fires often affected many companies at the same time, and when they were all trying to multiply their shanty workforces, wages spiked. These massive cuts then produced a glut of saw logs, far more than the mills could process in a season. The following winter most wanted a small cut. After a series of fires increased his cut in the previous years, in 1890 Boyd ran only two camps—and it was difficult to dispose of the productive infrastructure when many companies were scaling back simultaneously.¹⁵

While the firms struggled to protect their standing timber, they started making more efficient use of the logs—and there was great room for improvement. Knotty pine

was then a difficult sale, as were boards with blue stains. There was very little market for smaller or odd shaped pieces. In the 1890s, saw logs were sent to the mill that would have been culls a few years before. Boyd and some of his peers even started reclaiming timber that had been sitting in wetlands for years—though they were rotten on the outside, the borers did not seem to penetrate this layer. Resawing machines cut lumber from mill slabs—Boyd bought one in 1888 after seeing Gilmour's. They also cut smaller pieces out of what would have been culls.¹⁶

Bandsaws, which had a thinner kerf, started taking the place of the gang and circular saws. Sash and circular saws turned five-sixteenths of an inch of lumber into sawdust with each pass, and, given the irregularity of the cut, an extra three eights of an inch of timber had to be allowed per board. With the introduction of band saws, millers could get as much as ten percent more lumber per log. Making inch lumber from a thousand feet of timber, a circular blade would turn 312 feet into sawdust, a band saw only 83 feet—a reduction of 73 percent. Band saws were very good at carrying the sawdust out of the line of cut, and produced boards of a more consistent thickness and with a smoother surface, but early blades were more prone to breaking than circular saws. Boyd used a band saw from 1896, yet to the end of the century, the gang and circular saws carried on alongside band mills, as gangs were faster.¹⁷

Through the 1880s and 1890s the price of standing timber increased sharply. In 1884, farmers around Fenelon and Verulam sold single standing trees for \$13 to \$14 each, prompting the Fenelon Falls *Gazette* to observe that this was "enough to make old settlers wish that they had been content to let their timber stand." Three years later the executors of R.C. Smith's estate got serious about selling off his limits. On Easter Monday his executors offered Boyd Sherborne for \$20,000, Stanhope for \$65,000, Glamorgan for \$85,000, and what they had left in Monmouth, Digby and Somerville for \$5,000. Boyd could take the whole for \$165,000 and for another \$25,000 could have the Red Mill. He accepted Glamorgan, which was better than any of his other limits. Boyd continued to pursue Stanhope and, to a lesser degree, Sherborne, believing it to be one of the last good stands of timber tributary to the Trent. But he was uninclined to pay when the executors offered Stanhope to him in the spring of 1888 for \$50,000. By that fall he had changed his mind and offered \$50,000 for Stanhope, and \$2000 a year to rent the Big Mill if he

bought the limits, but they then turned him down. The Smith estate put Stanhope up for auction the next year. Boyd bid, but the berth was withdrawn. By then, firms drove a much harder bargain with small mills looking to buy a few logs, standing or cut.¹⁸ The 1892 provincial timber limit auction brought astronomical prices, totalling \$2,300,000. Gilmour & Co. paid \$703,875 for 225 square kilometres in Peck, Hunter, and McLaughlin Townships, in what soon became Algonquin Park.¹⁹

By the early to mid 1890s, most of the lumber companies had a difficult decision to make. The model that had underpinned their businesses for the last generation had come to an end. They had formerly acquired trees at little or no cost, but now paid staggering prices. There was still some nice standing pine, but it was too scarce and valuable for general purposes. Saw logs were becoming more difficult to transport to the existing large mills. With protectionists ascendant in both Canada and the United States, the combination of import and export tariffs was becoming prohibitive. The large companies generally saw four options: invest huge sums of capital to vastly expand the scale of their operations, move, diversify, or get out of the business.

As the Boyds faced this decision, the business structure that the first Mossom had built disintegrated. From 1886, not long after he took over the business, Mossie saw the business as being in a terminal stage—and was "loath to spend any more money on improvements to the mill than is absolutely necessary, knowing how soon the whole thing will be worth about nothing." In 1890, the Albany wholesaling arm made only \$12,570.06, then lost somewhere between \$12,000 and \$15,000 the next year—more than \$10,000 of which was from bad debts. There had been slow years before, making only \$6614 in 1885, but in the 1890s the losses came at a very difficult time. By 1891, Mossom Martin Boyd had concluded that the mill would not operate much longer—and thought his firm needed to reconsider the continuation of "the Albany business.... in view of the fact that the supply of lumber from this mill in the future is likely to be such a small item."²⁰

Christie Johnson died September 2, 1891, and John MacDonald on March 27, 1892—the two men who marketed most of Boyd's lumber. MacDonald held one third of the company's capital, and his brothers-in-law had to raise that sum to pay off his estate divided between his brother Donald, wife Caroline (Boyd) and children. Their family

having played the high stakes game of lumbering for half a century, Mossie and Willie decided after a long talk on May 16 to walk away with their fortune intact. The Boyds seemed happy enough to accept that an era was coming to an end—Willie was busy the next morning planting shrubs at Edgewood. As events turned out, there was not much doubt that it was the right decision—especially after Norman Barnhart died of consumption at his home in Gelert on April 12, 1893.²¹

Almost immediately after John's death the liquidation began. By May, Donald had disposed of all the lumber in Albany, and was working on stocks at Oswego. On June 30, Mossie and Willie auctioned about 6,600,000 feet of lumber at Lindsay, and tried to sell property in Lindsay, Bobcaygeon, Verulam, Harvey, Somerville, Havelock, and Sherborne. That fall the Boyds auctioned off most of their timber limits. They sold the best limits in Toronto on November 23, including a large block tributary to the Burnt and Gull Rivers to J.W. Howry & Sons. At this auction they sold limits in the Nipissing District tributary to the French River. They also offered the Little Bob Mill, all of their lumbering equipment, the steamer Beaubocage and eleven lumber scows, which did not sell. By that time, the sawmill had three gang gates (Yankee, Irish and a small gang), a circular saw, a planing mill, lath and shingle machines, but much of the machinery was getting old and had been superseded by more efficient models. These sales raised close to a million dollars. On December 28, 1892 at Lindsay's Benson House, Boyd auctioned his remaining limits in Snowden, Glamorgan, Monmouth and Harvey, almost all of them cut over. Parkins bought the Monmouth limits for \$2400, McNab bought one Glamorgan block for \$800, and Rathbun, Craig & Austin, and John A. Ellis bought the Snowdon limits for a total of \$5,225, in addition to several other small sales. Several parcels did not sell, leaving Boyd with limits principally in Glamorgan and Harvey. At these auctions the Boyds did better than they had expected.²² From 1891, Boyd sold small timber limits to local cutters, often one or a few lots each, reflecting the shift to smaller operations. Most lots went for between \$15 and \$100, though a couple in Harvey reached \$600, and Boyd refused \$1500 for 16 VII Verulam, a good stand of cedar for shingles. Early in the new century he sold several small blocks to John Carew.²³

In April 1893, Boyd tried to sell the sawmill to J.W. Howry & Sons, but they were more interested in R.C. Smith's Red Mill, which was larger, and had a rail connection.

That year the Boyds were looking to sell lumber quickly, "even at a considerable sacrifice" and on July 21, auctioned off 5,630 shingle logs. On September 6, 1893, Boyd tried to auction his lands in Bobcaygeon, Verulam, Harvey, Snowden, and Glamorgan, including the quarry and Big Island. Few lots sold, raising only \$2,910. They had also tried to dispose of their Aberdeen Angus Cattle, many horses, farm implements, and lumbering tools. But their company ended up the winning bidder on most sales that day.²⁴

Having not entirely extricated themselves from the business at these sales, Mossie and Willie reorganized the company as Mossom Boyd Company, a shadow of the old firm. After the death of Barnhart, Mossom Boyd Company operated a second shanty in only one season. Otherwise, Creswell ran the shanty and brought the lumber down to Bobcaygeon. The drive for production of former years was no longer there—most winters the shanty crew went in late, and only in 1894 to 1895—the year they had two shanties did any produce the usual return for a crew's winter work.

Once it used the glut of logs on hand from fires of recent years in 1891 the mill never again approached its capacity. Working day and night was largely a thing of the past. The mill often started late—in 1895 not until June 24. Even when it was running, many of the saws were idle. Often the mill crew was working on just about anything but cutting lumber—improving the Boyd mansions, making a dog sled for Willie, training horses, painting wagons, helping with the company yacht, building roads, cleaning, getting out scrap iron, working for the steamboat company, fixing up the shop, threshing, picking stones on the farm or even doing nothing. When they were at the mill, the men spent much of their time loading and repiling. Though they still did some maintenance, they were decidedly not as ambitious as in the days of the old company. The mill also started cutting a larger proportion of custom lumber—which they would not have bothered with for many years past.²⁵

Christie Johnson and the Albany distributing arm was never replaced. Even though the annual cut was way down—there were only four years after MacDonald's death when it even reached a tenth of capacity—the Boyds still had a huge stockpile of lumber. Mossie and Willie tried wholesaling some lumber themselves, placing ads in the *Globe & Empire* and *Mail* soliciting orders, but the project never consumed much of their attention as they focused on a host of other ventures. Their larger customers included the Sylvester Brothers, Kennedy & Davis, the Rathbun Company of Lindsay, J.F. Lillicrap of Lakefield, Gilmour, and George Cormack of Whitby, a long-standing associate. In 1895, they still exported 75% of their produce to the United States, but sales had noticeably

fallen off. They had 13,885,900 feet of

4.13 Boyd Lumber Prices, August 1897, per thousand feet ²⁶	
1x4	\$10
1x5	\$11
1x6	\$11.50
1x7	\$11
1x8	\$11.50
1x9	\$11.50
1x10	\$12
1x12	\$13
Inch siding	\$13
Inch shorts	\$9
5/4	\$17
Select 6/4	\$40

white pine and 1,250,100 of red pine in January 1896, and 13,088,700 feet of white pine on hand in January 1897, plus probably over one million of red pine. Some of this lumber had been sitting around from the days of the old company. Mossie and Willie were relieved when they sold six million feet to the Standard Oil Company in August 1898. By the next January they reduced stocks to 7,464,400 of white and 1,074,700 of red pine, but by 1901 were short of piling room again. Without John MacDonald, it seemed the mill had little reason for existence.²⁷

As operations at the Little Bob Mill petered out, Mossie decided that the future of the industry lay on the west coast. Even before John MacDonald's death, Mossie travelled the country looking at limits. He purchased a substantial tract around Romineau West, Gaspe, Quebec—though he was reluctant to believe that Spruce was as merchantable as pine.

Turing his attention west, he spent six weeks exploring there in 1890 and sent Nelson Vannier to look over timber berths on the coast the next year. Mossie was so eager to conceal his findings from potential rivals that he developed ciphers for communication. He purchased a mill and limits at Nitinat in 1893, but continued his search. Gidley visited the west coast in 1893 and Vannier returned to look over more limits in 1894, including some between Calgary and Edmonton. By that fall he had decided that the best prospect was at Cowichan, near Duncan Station, on Vancouver Island. There a mill with 55,750,000 feet of Douglas fir and western red cedar limits had fallen into the hands of creditors, and was offered for sale. He purchased the property in the autumn of 1895, establishing the joint stock Cowichan Lumber Company, shareholders Mossie, Willie, Gardie, their cousin and lawyer H.J. Wickham, along with Lindsay business associates J.D. Flavelle and J.G. Edwards, valued at \$150,000. Mossie dispatched Nelson Vannier to overhaul the mill with all new machinery from William Hamilton of Peterborough. William Gidley was transferred from managing the Little Bob mill to running the Cowichan Lumber Company in 1895. He took with him many skilled employees, and briefly, in 1897, Mossie had also planned to dispatch Creswell. It ran its first drive in the winter of 1898-1899, having purchased timber from jobbers the previous year.²⁸

In the east his mills slowly petered out, under the supervision of Thomas Van Norman—who had long been a millwright and mill hand. From 1890, and particularly from 1897, many logs were faulty, rough and rotten. New standards were continually being established for what constituted a passable saw log. The millers were careful to select the parts of a log that could be used for lumber. Shanty operations started very late in the year. Some years nothing was done until the end of November or early December, and in 1896, Creswell was still looking to hire the logging gang after Christmas. The reasons for keeping the mill open were increasingly debatable, and in 1897 there was talk that the mill would not run at all. Boyd briefly thought about entering the wood alcohol business, but decided against it when the Standard Chemical Company told him "there is not room for any more works of this kind in this country in fact we feel we have overdone it somewhat." On September 25, 1900, Bob Connell, their long-time office manager, died. The Boyd's last drive took place in the spring of 1903, after the Bark Lake Shanty had found "No good pine left here, cleaning out everything that will float." The following year the mill operated intermittently cutting custom logs, the mill's boom timber, rough pine logs, hemlock, various hardwoods, and made a small cut in the spring of 1905 under James Powers. The last order was a custom job for W.C. Moore. On April 26, the men cut up sunken logs they scrounged out of Little Bob, and for the next two days they took the belts off the mill, never to reopen. They continued to sell off what was left of the lumber-the last load going to Kennedy & Davis of Lindsay in 1906-machinery and lumbering implements, including the right to scavenge logs out of Sturgeon Lake. They lifted the rails around the mill in 1906, and by 1908 all of the machinery had been taken out. The mill was torn down over the winter.²⁹

An exodus of the Boyd's remaining skilled workers ensued. Many, like Creswell and Powers, had worked for Boyd since they were boys—when the mill closed it left a void in the local economy. Powers had worked as a teamster in the woods in winter, as a

culler and filer at the mill in summer. They both got jobs for the Turner Lumber Company of Midland for 1903-1904, and Creswell moved on to the Dickson Company of Peterborough. Villagers employed in the lumber industry took jobs further afield. By 1891, Bobcaygeonites journeyed to the north shore of Lake Huron for work, and by the early twentieth century some went as far as the Wanapitei River, north of Sudbury.³⁰

With the sawmills closed, few of the Boyds remained in Bobcaygeon for long. Mossie died at a private hospital in a Philadelphia hotel on June 8, 1914. His son Cust left to oversee the Cowichan Lumber Company. His other sons Mossom deGrassi Boyd, Laurence (Laurie) and Winnett (Brownie) served in the war, as did Willie's sons Herbert and Thornton. Herbert and Thornton were killed in action, and Willie's youngest son drowned in Pigeon Lake. Of Willie's eight children, only three daughters survived. Willie died in 1919, it is said of a broken heart. His cousin, Dr. Harry Boyd, Bobcaygeon physician, also lost both his sons in the war. After the war, only Mossie's widow, Lillian de Grassi, daughter Sheila, and son Mossom de Grassi remained in the Big House. Mossom de Grassi spent much of his time in Toronto, overseeing the company's affairs. All three of Willie's daughters married and had homes in Bobcaygeon.³¹

After her mother died in 1942, then brother Mossom de Grassi Boyd in 1948, Sheila lived on her own at the Big House. An avid artist, carver, gardener and philanthropist, she kept much to herself. She was an anglophile and had a strong sense of propriety. The few who knew her appreciated Miss Sheila, but many locals were jealous. She lived in a mansion, behind a stone wall at the heart of Bobcaygeon. Few were allowed inside the gates while she was alive, and many imagined her living a life of incredible prosperity—M.M. Boyd's estate was extremely large to the end of the twentieth century. Despite her family's affluence, Miss Sheila actually lived a humble life, in a small corner of the mansion she maintained.³²

Following Sheila's death in 1982, the family considered working together with the Ontario Heritage Foundation and local politicians who rallied behind restoring the Big House to its former grandeur, but this amounted to little tangible assistance. Ann Neilson, of Caledon East, purchased the building, hoping to turn it into a luxury bed and breakfast, but grew frustrated with the retrofits that would be required to open it to the public, and applied to have it demolished, prompting a public campaign to save the Big House.

Neilson sold to it Bobcaygeon Vita Care, run by the village doctors, hoping to create seniors' housing. The building sat empty and was abused by trespassers, even as villagers campaigned to save it. It caught fire October 2, 1994—suspected arson—and the remains were demolished the next spring.

Greene & Ellis gradually disappeared following a difficult period. Their mill burned on November 14, 1890 when a lamp exploded in the engine room. After failing to secure the Red Mill from the Smith Estate, Ellis hired Thompson to rebuild a larger mill, complete for the 1892 season. But by 1894 they doubted their prospects in the trade their profits were dwindling because of low prices and barriers protecting American markets—and they put their mill machinery up for sale. When it failed to sell they continued to cut. Greene died on September 9, and the second mill burned September 27—by then property of the Ontario Bank. Ellis retained title to the shingle mill, which he leased to W.H. Stevenson. Ellis again decided to rebuild and had a new mill operational on Cameron Lake for 1895, complete with planing mill and matching machine. On October 2, 1897, a fire tore through the lumberyard, office, stables, blacksmith shop, 1,250,000 feet of lumber and 550 cords of hardwood, but villagers managed to save the mill. His loss was between \$10,050 and \$13,000, insured for \$7,050. He resumed cutting and got a drive out the next winter. But having been disinclined to raise the capital to buy new limits, he was rapidly running out of pine, and rented the mill to the Rathbun Company in 1899. On May 24, 1899, the old Greene & Ellis mill on the point overlooking Sturgeon Lake burned, having last been operated by the Rathbun Company from 1894 to 1896. Ellis operated shanties again in the winter of 1900-1901, but retired from business not long afterwards.³³ Ellis always had many other interests. Having grown up a farmer in Verulam Township, he bred horses, and captained George Crandell's Vanderbilt in 1877. He ran a general store in Fenelon Falls from 1880 to 1884 and an ice business in 1890. He was elected to county council in 1898, served as reeve of Fenelon Falls, warden of the county and also sat on the school board. He died March 14, 1907.³⁴

Some large companies continued to cut mostly virgin pine in the face of increasing costs and rising American duties. By the time of the 1892 Crown timber auction when Gilmour purchased the Algonquin Limits, his mill had ripped through most of the virgin pine that they could get their hands on that was tributary to the Trent.

Gilmour's was then the watershed's largest mill, cutting 78,000,000 feet of lumber in 1889. Though these limits were connected to the Muskoka River and Georgian Bay, Gilmour had no intention of moving his mill.³⁵ Instead, he planned to float his logs from the Algonquin highlands to Trenton—overland part of the way. From his limits around Canoe, Joe and Bear (Tom Thomson) Lakes he would float the logs down to Lake of Bays. This part was fairly straightforward for lumbermen, though it involved many expensive improvements to the watercourse. There the logs were carried by a two kilometre long tramway over a height of land to Raven Lake, which was raised enough to flood a valley angling towards Lake of Bays. This valley was dammed at the other end to contain the water, and became known as the Tramway Pond. At Lake of Bays Gilmour built jackladders to carry the logs up over a hill, then a slide to convey them down over a relatively level stretch, then up a series of jackladders 762 metres long to the top of the tramway dam. A steam powerhouse generated 2,450 horsepower, and pumped 20,000 gallons of water per minute to the top of the slide. The slide was a giant trough supported by trestles, and required a 4 metre deep rock cut in one part. Raven Lake naturally drained down the Black River, via Lake Couchiching and the Severn River to Port Severn on Georgian Bay. To make it drain down the Trent, Gilmour dammed the Black River so that Raven Lake flowed south through St. Nora's Lake and the Gull River. The cost of all the improvements was over \$200,000, which was more than enough to build a large modern sawmill.36

To the amazement of many, the tramway actually worked, and 150,000 logs floated overland in the spring of 1894. Yet, when Gilmour's men were backing up enough water to reverse the drainage of Raven Lake, they also flooded the Bobcaygeon Road (modern Highway 35) to a depth that would allow canoes or saw logs to pass. Though they used alligator tugs equipped with electric searchlights, and two crews working round the clock, it usually took two years to reach Trenton. The drives hit the Kawarthas around late August or September, and generally hung up somewhere on the Otonabee or Trent until the next spring. In 1895, his last drive made it to Lakefield in the first year of the run. About one fifth of the logs were lost along their way. Gilmour realized his mistake, and in February 1895 laid off his entire lumbering crew. Then the following spring, he hired David Gage, Boyd's long-time millwright, to build him a mill on the northwest

corner of Canoe Lake. With the help of James Junkin and Thomas Purdy, Gage had the mill operational by July and it produced 60,000,000 feet in 1899. The Trenton mill continued cutting on a reduced scale. But the following year the banks took control of Gilmour's operation and the mill closed in 1901.³⁷

At the Boyd auction in 1892, John W. Howry & Sons of Saginaw, Michigan acquired their best limits-the founder was reputedly worth nearly a million dollars. The firm was then cutting about 10,000,000 feet annually around Whitefish, Ontario, and towing the material to their mill at Saginaw. John W. and his sons John H. and Kirk bought Hazlitt's limits the next year for \$400,000 and had 200 men getting out timber in the fall of 1893. They had yet to secure a mill, but settled on an eight-year lease of the Red Mill in Fenelon Falls, still held by the R.C. Smith Estate. They had Big John Thompson, one of the most respected millwrights in the district, refit and expand the mill, making it the largest and best-equipped in the region. When it reopened in July 1894 it ran with band saws instead of slabbers and gates, and a capacity of 100,000 daily. Refit that winter to run faster on a combination of steam and water power, it reopened in May 1895 with a capacity of 190,000 feet of lumber daily-which would equal about 35,000,000 feet annually—plus 75,000 shingles and 45,000 laths. They also operated two shingle machines purchased from Parkins, a planing mill and box factory. That year they cut about 25,000,000 feet. They added another water wheel and put up a 2000 square foot addition for 1896, increasing capacity above 50,000,000 feet, having enough logs on hand to make 40,000,000 feet. At their peak they employed 350 men-many specialists came from Saginaw for the mill season, returning home for winter. To run round the clock, they had water-powered electric light, as did the homes of John H. Howry (Braeside Hall) and manager L.H. Swan. They retained John Thompson to run the mill, and had a small locomotive hauling their lumber from it to the piling ground, situated alongside the Victoria Railway. George Thompson estimated that the cost of their mill improvements and limits was almost \$2,000,000.³⁸

Though the Red Mill was by far the largest in the region, equipped with the most modern equipment, its operations did not always run smoothly. The Howrys were constantly borrowing boom chains—in 1897 Boyd repossessed 444 from their creditors. It was said that there was a competition between the head sawyers of the day and night

shifts over who could cut the most, resulting in lumber of uneven thickness, that reduced its value—this was a common defect with early bandsaws. They were also finding that the 25% duty on finished lumber—defined as planed on the sides or tongue and groove—imported to the United States, imposed in 1895, was prohibitive.³⁹

In 1894 they had a small fire in their yard, extinguished at a loss of only one pile. John Howry and his neighbours extinguished a fire at his house on February 18, 1896. They had a narrow escape from catastrophe on March 17, when the bucket brigade extinguished a blaze in the planing mill started by a portable steam engine in use while they upgraded their waterpower. In early June a thunderstorm knocked out their electric dynamo, which was soon repaired. On June 19 a fire started in Paul Sova's stable around 8 pm, and soon spread into the mill yard, quickly becoming "the largest blaze ever witnessed in Fenelon Falls," as it leaped from pile to pile. That night, the light could be seen twenty miles away and W.T. Junkin recalled "you could see to read a newspaper on the Church Hill [across town] at midnight as plainly as in daylight." By 10 pm Lindsay's fire brigade and volunteer citizens had arrived by special train, and an hour later the Peterborough engine and fire brigade had joined the struggle. Boyd dispatched Bobcaygeon's firemen and engine by the Esturion. L.H. Swan collapsed during the struggle: accounts differed as to the cause—either exhaustion or a falling plank. The fire engines and villagers managed to contain the fire to the property, save the mill and about half the lumber in the yard. A loaded locomotive was pulled out of the yard, saving it from destruction. The men formed a break in the yard by taking down piles of lumber and throwing them in the river. But they also ignited—part was consumed, the balance so badly charred that it was useless. All told, the loss was between ten and twelve million feet of lumber, almost five million shingles, three million laths, three thousand cords of wood, several small rail cars, and some loaded Grand Trunk flats-all told worth between \$220,000 and \$250,000, only partly insured. On July 6, one of the wheels in the mill caught fire, but the bucket brigade managed to put it out before it caused too much damage. Then about 4 am on September 9, a fire started in the upper part of the mill presumed to be a spark from the refuse kiln. That night a pinion had broken in the water wheel, so all the men but thirty had gone home about midnight. The remaining employees fought as best they could, getting the pump stored in the basement running in less than

two minutes and villagers rushed to help. But the fire spread so fast and burned so hot that they had to flee. Two men had their shirts burned off and skin blistered. Within two hours the destruction was complete. The loss valued at \$42,000 was offset by \$22,000 insurance. Having at least 27,000,000 in orders at the time, it also cost them hundreds of thousands in sales.⁴⁰

Before the mill fire there had been rumours that the Howrys were insolvent, though a local paper refuted the claims. As the smoke cleared from the ruins, many villagers worried about whether they would rebuild, but creditors had already taken control in July. Howry had continued to operate the mill under their supervision until the mill fire. On September 15, almost immediately after the latest disaster, Mossie Boyd applied to the Bank of Toronto to saw Howry's remaining logs on contract. He also approached an American wholesaler dealing the lumber of both firms to explain the advantages of sawing through him, but by then, having had little invested in it for a decade, the Little Bob Mill was considered out of date. By January 1897 the box factory was running again beside the ruins of the Red Mill. Soon thereafter, the village learned that the Howrys had gone under and John H. Howry slipped out of town on a special train at 2 am on Sunday, April 4, never to be seen again. In 1902, his father committed suicide in Kansas City, Missouri, swallowing a glass of morphine. His note explained that he was ending his life because of his financial troubles.⁴¹

The bank took over the property and began clearing the rubble on April 9, 1897 six days before it sold off the Howrys' other belongings—preparing to erect a new mill, much to the surprise of many observers, who wondered whether there was enough pine or strong enough markets to justify the expense. It probably decided to build this mill because the Smith estate was offering the insurance money towards its erection, and the cost to the bank was minimal. It hired Big John Thompson to build it about the size of the Red Mill before Howry's expansion—it was once again painted mineral brown, or what would now be called barn red. Thompson was operating the mill with its two band saws, a lath machine and three shingle machines by late July. It upgraded the electric dynamo to 20 horsepower in March 1898. Though it sold the firm's alligator in May, it continued cutting day and night, and survived a small fire on October 29. By September it had amassed a stockpile of 25,000,000 feet—more than the Howrys ever had, but also a sign of its troubles in marketing lumber. By the following September it managed to get the inventory below a million feet, having closed the mill and sold the machinery, including the refuse burner, for a mill at Victoria Harbour.⁴²

With Smith, Boyd, Howry, Greene & Ellis, and Gilmour gone, the era of the timber barons had largely passed, though Rathbun carried on at Lindsay. This was, however, by no means the end of forest industries in the region. While the large pine exporting firms were disappearing, there was significant growth in other sectors. The demand for forest produce was growing, and in response many mills opened. Although some saw logs were shipped from as far away as Algonquin Park to feed local saws, most of their material came from cutover lands.

The large firms' mentality influenced their disappearance. For a generation, many economies had pressured firms to clean up a limit and move on, from the costs of shanty construction and operation, ground rent on limits, to the imperative to get out timber before settlers or fire encroached. The idea of cutting and then leaving was engrained in everyone's mind, having been the *modus operandi* for so long. When only rough pine logs, hemlock, and hardwoods remained, they saw their job as done, and paid little attention to the good timber that remained. This perception of the forest was reflected, and perhaps exaggerated, in the Trent Watershed Survey (1913), which produced gloomy charts of the culled forests and predicted that within five years the last pine tree would be cut. Certainly, the finest pines had been cut. But, generations later, pine trees are still harvested in the same area.⁴³

Although the destruction of the forests has tended to be exaggerated, some lumbermen wondered about their business model. In 1881 Johnnie Mac explained to Mossie:

I cannot help but think that the unsystematic slashing of bygone days must have left spots yet unexplored that the growing scarcity of the (pine) wood will someday reveal, it seems too large a tract of country to have been denuded in the space of comparatively few years; the pine is very faulty no doubt and some parts have been thoroughly skimmed, but there is always left some trees standing for the next comer. There is a large amount of very valuable wood standing, Elm, maple, black birch &c, the latter especially valuable and will be the wood to take the place of black walnut no doubt. The Boyds realized that an opportunity remained, and cut small amounts of hardwoods, but lost many logs in 1897 when they tried to float them to their mill. The following two years they drove pine, hemlock, spruce, ash, tamarack, cherry, cedar, and basswood. They had often produced quantities of hardwood lumber for specific projects, such as the construction of their steamers and government contracts for lock materials. Oak roots were milled to produce sleigh runners. But the focus of their operations remained "cleaning out everything that will float"—or in other words leaving behind many hardwoods.⁴⁴

4.14 Forests from the Trent Watershed Survey, 1913 ⁴⁵		
	Harvey	Somerville
Cleared (% of Township)	14.0	27.3
Hardwood (% of Township)	22	4.37
Virgin or Moderately Culled (% of Hardwoods)	2.8	0
Severely Culled (% of Hardwoods)	92.2	94.71
Second Growth (% of Hardwoods)	2.4	0
Young Growth (% of Hardwoods)	2.6	5.3
Mixed (% of Township)	1.7	5.1
Virgin or Moderately Culled (% of Mixed)	3.0	0
Severely Culled (% of Mixed)	78.9	83.82
Second Growth (% of Mixed)	10.7	0
Young Growth (% of Mixed)	7.4	16.18
Conifers (% of Township)	1.4	1.4
Virgin or Moderately Culled (% of Conifers)	0	0
Severely Culled (% of Conifers)	98.1	56.9
Second Growth (% of Conifers)	0	0
Young Growth (% of Conifers)	1.91	43.07
Poplar Type Forest (% of Township)	50.8	61.7
1-15 Years (% Poplars)	18.6	0.7
15-30 Years (% Poplars)	80.7	97.29
30-50 Years (% Poplars)	0.7	2.04
Recently Burned (% of Township)	1.4	0

Barrens (% of Township)8.60.2	arrens (% of Township)	8.6	0.2
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The forests of the early 1900s had changed substantially from those of the 1830s. In the farming townships, large tracts of forests had disappeared almost entirely. But most farmers still maintained a woodlot, and on many farms these remained uncleared from the beginning of their habitation. A few of these stands remain to this day. The species composition of these forests looked much the same as those seventy years before, though white pine had declined precipitously. Sugar maples, basswoods and cedars were still found in abundance.

To the north, white pines were likewise becoming scarce. Surrounding pockets of agricultural settlement, virtually all of the forest had been cut or burned over. Most areas had experienced both fire and axe. The fires disproportionately ran through the former pineries, the most fire-susceptible part of the landscape. The north country was still largely forested, but large, straight pines were almost unknown. The prime beneficiaries were poplars and paper birch, both adapted to colonizing open land. In 1905, many lots contained several hundred potentially merchantable hemlock, basswood and hardwood logs—some had over a thousand. Among hardwoods, birch was often the most easily merchantable, but even it was difficult to sell in any quantity. Sugar maple was the most common tree in the Kawarthas, but few had a use for it, except as cordwood. Hemlock lumber was easier to market as a cheap pine substitute.⁴⁶

John Carew seized the opportunity presented by the decline of so many large exporting operations. He had worked in Sam Parkin's mill for many years, and when it burned he purchased the site in 1893, on the Scugog River at the intersection of Colborne and William Streets, Lindsay. Parkin moved to a different lot. Carew acquired cutover limits tributary to the Burnt River, Squaw River and Nogies' Creek, which most of the large companies thought had little worth. Soon his operation was among the largest in the region, as the cut of many of his peers was dropping off. The next year he added a lath mill, and in 1895 he expanded to 3,000,000 feet capacity. By 1897 he ran round the clock, and in 1900 produced 5,000,000 feet of lumber, 8,000,000 shingles, 60,000 rail ties, and a large quantity of lath. Much of his lumber was hemlock—in 1898 only 400,000 of the 3,000,000 feet he cut was pine. Carew handled large quantities of hemlock, though it had a low profit margin, selling at that time for \$5 to \$10 per thousand feet, compared with \$4

to \$35 for pine. In 1900 he purchased the steamers *Myrtle* (renamed *Beaver*) and *Dawn* to tow his logs. Gradually expanding his capacity to 20,000,000 feet, Carew produced lumber until about 1965.⁴⁷

In 1888, the Rathbun Company established a branch plant in Lindsay. Founded by Edward Wilkes Rathbun and incorporated in 1884, the Deseronto Company was among Ontario's largest—having operated mills at one time or another in Gravenhurst, Campbellford, Tweed, Bancroft, Fenelon Falls and Manitoulin Island. By 1888 it had other agencies at Oswego, Brockville, Belleville, Picton, Peterborough, Gananoque, Kingston, Orillia, Napanee, Toronto, Campbellford, Albany, Charlotte, North Carolina and London, England. The company also manufactured doors, charcoal and cement. Managed in Lindsay by G.H.M. Baker, it sold a variety of household and building products, including lumber, lath, shingles, pickets, doors, mouldings, sash, posts, cement, burnt cellar flooring (a lime based concrete), plaster, salt, charcoal, coal, wood and household woodenwares. By 1894 it had a 3,000 square foot warehouse, with electric lighting, surrounded by numerous storage sheds—a precursor of twentieth century

4.15 Select Clear Prices, 1881, per thousand feet ⁴⁸		
Cherry	\$22	
Butternut	\$22	
White Oak	\$17	
White Ash	\$17	
Rock Elm	\$13	
Balsam Fir	\$12	
Birch	\$11	
Black Ash	\$11	
Basswood	\$10	
Hard Maple	\$10	
Beech	\$10	
Soft Elm	\$9	

building centres. This warehouse burned in 1896, and the Rathbun Company moved to Lindsay Street. The output of its mill was moderate, but diverse. In 1900 it included 2,433,929 feet of lumber, 9,793,000 shingles, 86,115 rail ties, 3,147 cords of wood, 51,120 posts and 129,000 bunches of lath. Manufacturing everything from barn timber to broom handles, contemporary observers concluded their motto was "let nothing go to waste." It operated on a variety of long-since cutover limits, including a camp in North Verulam in 1900, drove Nogies' Creek and Squaw River, as well as camps around Janetville and Manvers.⁴⁹

Some of the region's moderately large mills adjusted well to the changing business climate. At Kinmount, Cluxton & Co. was operating a mill by 1879 supplying hardwoods to the Upper Canada Furniture Company of Bowmanville. Later on, W.T. Craig and John Austin diversified their production to meet the emerging

markets, built a strong wholesale base, and had a profitable retail operation. By 1891

Austin had a capacity of 4,000,000 feet, shingle and planing mills, and cut a variety of woods, including pine, hemlock, cedar, ash, and elm. In 1900, he produced 3,000,000 feet of lumber, 15,000 rail ties, 5,000,000 shingles, and a large quantity of tan bark. Much of his cut was hardwood, largely maple and ash, part of which he exported to the United States. Austin's descendants continue to run the Kinmount lumberyard to this day.⁵⁰

Many of the other mills that carried on were similarly diverse in their operations. Most concerns that took over cutover lands were much smaller than the firms they replaced and focused more on local markets. Markets were emerging for hardwoods their advantages as flooring were apparent to many, as they superseded red pine. An everincreasing segment of the population had the time and money to invest in woodwork. Mills stood a better chance of marketing hardwoods as tool, carriage and implement manufacture became more industrialized. Sam Parkin primarily produced shingles, but also pine, cedar and hardwoods. Mickle & Dyment—originally Charles Mickle and Nathaniel Dyment—one of Ontario's largest firms, based in Barrie, who had operated large mills at Gravenhurst and Severn Bridge, built a mill at Fenelon Falls in 1912, near the present site of the Fenelon Falls Marina.⁵¹

Even as virgin pine was disappearing, limits retained much of their value. The CLEC asked \$250,000 for cutover land in Harcourt and Brunton, or \$70,000 for what pine remained there. Reflecting this valuation, from the 1890s on, the proportion of other species cut, especially hemlock, steadily increased. In 1902 the CLEC was enumerating pine, hemlock, basswood, elm, black ash, cedar, tamarack, birch, maple, beech, ash, and balsam fir on their limits for sale. In this period many farmers were also selling hardwoods off their lots.⁵² Where they found a market, many other species were as or more valuable than pine. In 1898 Robert Kennedy sold 300,000 feet of basswood and a total of 200,000 of elm and hemlock.⁵³

The last two decades of the nineteenth century saw a great diversification of the forest industries, especially in manufacturing. For decades there had been many small shops throughout the region building wagons, sleighs, cutters and carriages. By 1865, E. Nicholls was operating at Bobcaygeon. In the latter years of the century there were several long-established builders—including W.C. Moore at Bobcaygeon from at least 1887; James Bell at Dunsford, 1871; William Cooper at Dunsford, 1883; and Samuel

Nicholson at Glenarm, 1885. At Fenelon Falls, Frank Sandford set up a wagon shop in 1870, with Henry Puley as blacksmith, which grew into one of the largest in the region. By 1882, Sandford sold farm implements as well, and had a planing mill turning out tongue and groove lumber and mouldings the following year. He then advertised cutters for \$25, market sleighs \$30, wagons \$60 and buggies \$75. By 1901 he manufactured washing machines, rocking churns, wheelbarrows, screen doors, windows, doors, sashes and various other woodenwares. He operated until shortly after his new woodenware factory (opened in 1903) burned on March 12, 1906. One of Sandford's employees, Sidney S. Gainor, went into business on his own in 1892, partnering briefly with James Knox. Branching out into furniture, he continued in this line to the 1920s. In Lindsay, William R. Skitch built wagons, cutters, sleighs and carriages at William and Wellington Streets from the 1860s.⁵⁴

There were several planing mills on the Upper Lakes, aside from those at the larger mills, making a variety of trim, doors and sash. John Kennedy ran a planing mill on John Street in Bobcaygeon from 1875 until the late 1880s, when he leased it out. In 1880 he sold doors for \$1.25 each. It burned March 16, 1889. Joseph McArthur had a planing mill in Fenelon Falls from 1878 until it burned in 1880. George Ingle ran one in Lindsay in the 1870s and 1880s. Page and Patterson built another in Bobcaygeon in 1889. Peter Grant and Ed Arnbery machined lumber at the Bobcaygeon Planing Mill in the final years of the century.⁵⁵

Barrel staves were manufactured in the region almost since the start of resettlement. Farmers could make them part time, and there were many small cooper shops. But as the century wore on, larger establishments gradually took over the trade. Barrels to store fluids were made of white oak, while red oak—or more commonly elm and basswood—were substituted for dry or slack cooperage. Staves were a secondary product at many mills, cut with a stave machine. Operating from April 18, 1878, Boyd's apparatus turned out just shy of 2000 staves a day, though there was not enough business to keep it running continuously. At the same time as he installed the stave machinery, Boyd had a cooper shop erected on site.⁵⁶

A few stave factories opened in the region, including one operating in Kinmount by 1883. In April 1898, Charles J. Thornton opened a stave factory near Redner's Point

on the outskirts of Fenelon Falls. Though he had a capacity of about a million staves annually, and sold brick and lime as well, his business only lasted until that December, when he sold to T.H. DeCew & Sons, who manufactured sugar, flour, apple and salt barrel staves—or, in other words, staves for dry cooperage. DeCew immediately enlarged the facility—one day in 1900 it managed to turn out 45,000 staves—and ran a small steam sawmill with the stave mill attached, both in buildings 24×60 . He travelled through the district buying mostly elm, but also some basswood logs, relying on shipping and lumber companies to get them to his mill. He also operated lumber camps, including one on Ben Burchall's farm near Coboconk in Somerville Township. Once the logs arrived at the mill, horses hauled them from the water, a drag saw cut them into blocks, then a circular saw sliced them into bolts. The bolts ran on a conveyor into one of thirteen steam boxes, each holding three cords, where they were steamed overnight. Conveyed to the circular mill, they were cut to length, then cut into staves with a stave knife—which, at least in Thornton's time, was foot powered. They were then loaded on wagons for shipment.⁵⁷

As Boyd set himself up to manufacture barrels, he also went into the lime business. Kawartha Lakes limestone was well suited to such manufacture, and this often complemented lumber operations as the mill waste could be used to fuel lime kilns, though they more commonly ran on cordwood. Boyd was fortunate to have a quarry near his mill, and operated a lime kiln by 1874, hauling the necessary sand from Nogies' Creek. He opened a much larger and more substantial kiln on September 14, 1877, on the north side of the island, adjoining his mill and piling grounds. It was not as bad as the refuse kiln, but the masons had difficulty with its durable arches, so it frequently required repair. At the kilns the limestone was burned for about three days, producing quicklime. When water was added to this it became slaked lime and when mixed with sand formed mortar. Lime was also an ingredient of whitewash, mixed in with recipes such as: 1 lb lime, ¹/₄ lb salt and 1/8 lb alum to a gallon of water. Much of the produce of these kilns was for export from the region or sale in villages or towns. In the late 1870s and 1880s lime sold for 15 to 20 cents per bushel, or barrels for 50 to 70 cents. The Napanee Paper Company operated a kiln—eighteen feet square and eighteen feet high—at Fenelon Falls from 1883, and guarryied their stone on Francis Street East. There were several renowned

kilns at Coboconk, including that of the Callon Brothers. In the countryside, as at Curve Lake village, most neighbourhoods had a small lime kiln that was fired up whenever they needed mortar for construction. Hauling the limestone on carts or wagons, it would be burned constantly for about twelve hours, producing lime that was not as white as the commercial operations.⁵⁸

Lime mortar was not as rigid as cement, but adhered better to stones, and gave a wall more flexibility. This was crucial in a country where frost would put stone walls to the test, especially those that did not extend below the frost line. Over time, lime mortar absorbs carbon dioxide from the air, turning itself back into limestone, and has the ability to heal hairline cracks—more often, however, it erodes from weather or crumbles from movement. But from the 1880s on, cement became more commonly used as mortar, especially for brick walls. Portland cement, patented in England in 1824, set more quickly and was stronger, and was initially an additive to make lime mortars accelerate curing. Cement was produced at Raven Lake and Lakefield in the 1890s. Portland-lime mixes soon became standard for masonry, and Portland emerged as the bonding agent in concrete.⁵⁹

Though excellent limestone was abundant in the Kawarthas, solid stone buildings—with the exception of outbuildings like root cellars where the stone carried inherent advantages—were unusual. Stone was a material of choice for pretentious buildings like county buildings in Lindsay, a few churches, and cottages built for the second generation of Boyds. But stone was rarely the most practical building material, being extremely labour intensive, especially if the limestone was neatly dressed into square blocks. Fashionable as they were, many of the resulting buildings were almost impossible to heat. Quarried stone, however, was marketed in large quantities for lock and bridge construction, when such projects were undertaken. There were many small pits throughout the region in addition to Boyd's, including Samuel Suddaby's in Burnt River that supplied the material for the Lindsay gaol and Toronto post office.⁶⁰

By the final decades of the nineteenth century hemlock bark was one of the most readily saleable forest products. Though several other species of bark were used for tanning—oak was traditional in Britain and produced the best leather—hemlock bark was the standard material in the Kawarthas, its liquid extract containing 25% tannin and producing dark red leather. To fetch the best prices, hemlock bark was harvested as soon as the trees were felled, so that the tannin was not leached away. The bark was peeled off in patches four feet long, stacked and sold as cordwood, with a cord weighing about 2,240 lbs. Bark peeling was often done in summer, when it was easiest to separate it from the trunk—though some was done as saw logs were got out in the winter. Lumber companies often let jobs to strip the bark on their limits—and by 1903 it was worth \$6.50 to \$7.00 a cord at Lindsay, jobbers commonly getting \$0.40 to 0.50 a cord. Especially before hemlock timber had much value, trees were often stripped of their bark and left to rot—one 1881 estimate suggested that 61,320,000 feet of hemlock timber was felled, primarily for bark, and less than a million feet of this was got out for lumber.⁶¹

Because hemlock bark was heavy and often disintegrated during shipment, tanneries were usually close to their source of supply. Leather was of such import that tanneries were among the first industries in the district. William McDonnell had one on William Street in Lindsay in 1838 and George Lamb opened another in Omemee in 1852—though farmers could produce their own leather with a tanning trough. At Fenelon Falls, George Manning operated a tannery from about 1871 until 1880 when he sold it to William Fielding and became a grocer. Fielding operated the business until it burned in 1886. William Armstrong and John McNeil operated a large tannery in the 1870s, and William Snowdon ran a tannery by 1880, which burned in 1883.⁶²

Pulp and paper became another major sector of the forest economy in the final decades of the nineteenth century. In Europe paper was traditionally made from old rags, which were often in short supply. To produce cellulose for paper from wood, two chemical methods were patented in Germany in the 1870s to separate it from the lignin—the soda process in 1874 and the sulphite process ten years later. By 1882 a sulphite mill was in operation in Pennsylvania. John Thomson introduced the soda process to Canada, and helped the Napanee Paper Company establish itself at Napanee Mills (Strathcona). In 1882 a short-lived paper mill was in operation in Lindsay, but the company went under within two years, allowed the mill to fall into disrepair and it burned in 1886. ⁶³

The Napanee Mills Paper Company built a mill in Fenelon Falls, after president Alexander Henry and managing director John R. Scott secured concessions from the town to locate there. Opening in February 1884 on the shore of Cameron Lake, the mill was 150 x 50 feet and 24 feet tall, with a 90-foot tall smokestack. A 30 x 80 tank house was raised partially over the lake. The company erected workers' housing in the nearby market square and had a stable on site. It brought William Burgoyne from Napanee to superintend the mill. It ran the same season as the sawmills and employed about thirty to seventy-five men. Though it acquired all the mill slabs from the nearby Thompson & McArthur mill, it also purchased large amounts of cordwood from local farmers to fire the plant. The company created markets for basswood and poplar timber that were otherwise scarcely marketable—small quantities had previously been shipped from the region to Napanee. Although it hired a lot of towing from the lumber and steamship companies, it launched the steamer *Myrtle* on May 3, 1888 to get logs to the mill, after using the steamer *Nobby* for three seasons. It also bought a portion of its logs from companies like Mossom Boyd.⁶⁴

The Napanee Mills Paper Company produced #2 and #3 white and coloured printing paper. The Fenelon Falls plant produced half a carload of pulp daily that was shipped on to their mill at Newburgh to produce paper. When it first opened, the mill operated on the soda process. The wood was first cut up into small chips, then fed into a boiler containing lime and soda dissolved in hot water. The soda ash was imported from Liverpool, England, while the lime was made on site. After boiling at high pressure for about eight hours, it was passed into a revolving tank to separate the cellulose fibres and rinsed with water. Wastewater was then dumped back in the lake. The pulp was rolled into bales for shipment. With the soda process only non-resinous woods could be used. Poplar and basswood were preferable because of their long fibres. Different species of wood produced paper that tended to colour differently as it aged—poplar was the best for retaining a white colour, while basswood tended to take on a reddish tinge. Many stacks of cordwood were burned to fuel the pulp mill, and the company sold the ashes to a Napanee man, who exported them to Florida as fertilizer.⁶⁵

After adding a 40 x 60 foot engine room in 1887, the mill converted to the sulphite process for the 1890 season and added a saw and shingle mill the following summer. In this process sulphate of soda was used instead of soda ash or soda carbonate, which was more expensive. Though changing the process allowed them to manufacture paper from pine and other resinous woods, it required more careful removal of bark and

knots and produced a stench. When it became a public issue the company and its sympathizers explained that the new process was only on trial, that they did not realize the smell it would cause, and that they were trying to make it "harmless and inoffensive." Even after the conversion, the company still imported chemicals from Britain, and operations were often delayed waiting for shipments to arrive.⁶⁶

By 1893 the Napanee Mills Paper Company was insolvent and liquidating its assets. It sold the Fenelon Falls mill to John Pugsley of the Toronto firm Pugsley, Dingman & Co., who improved and expanded the mill to include a bleaching house, completing one more step in the paper making process before shipping the pulp to Napanee. In the bleaching house, a revolving roller passed the brown pulp through a vat of chemicals. He operated the mill for a couple of years, but under his watch it often sat idle. He did not buy any wood for the 1895 season. He passed it on to John Christie, a former assistant manager, and Charles S. Crabtree who wanted to manufacture wallpaper. They, however, did not get the mill back into operation. The company announced that it was giving up business January 1, 1897.⁶⁷

That February Arthur Godfrey Peuchen's Standard Chemical Company of Toronto leased the facility and re-equipped the mill to produce 20,000 gallons of wood alcohol annually, 350 tons of acetate of lime yearly, 500 bushels of charcoal daily, and other products. By 1898 manager J.H. McNally was distilling about ten cords of hardwood daily—mostly sugar maple, but including some birch and beech—using eight cords of softwood for fuel. Buying from farmers as far away as Deer Bay, he had firms like the Trent Valley Navigation Company towing. Some of their material was contracted through lumber firms like John Carew. Nathan Day from Powles' Corners cut 1,000 cords for the company in 1897. While it also operated lumber camps, the company employed twentyfive men by 1904, who would burn the wood to produce charcoal and capture the gasses emitted, which were concentrated in the still to produce alcohol and acetate of lime. William Burgoyne, the former manager of the pulp mill, stayed on as an employee of the Standard Chemical Company. Two years earlier it received 40 cents per gallon for export wood alcohol, while making six gallons from a cord of wood. It found that it could net a cent on a pound of acetate of lime, making 150 pounds per cord. In 1899, there was a substantial leak of wood alcohol from one of their holding tanks, losing \$1,500 worth,

which would have been a few thousand gallons. The still closed sometime around the fall of 1912, after Peuchen survived the maiden voyage of R.M.S. *Titanic*.⁶⁸

In later years the site became the village water treatment plant and beach, in Garnet Graham Park. As the years passed its history was forgotten, though some older residents remembered that the green grass in the beach park concealed buried wood tar. In 2006, the recently amalgamated City of Kawartha Lakes unearthed the mess while trying to build a beach volleyball court. After a lengthy park closure and expert consultations, about 250 tons of material was cleaned up from the site, allowing the park to reopen.⁶⁹

The last years of the nineteenth century were also a period of growth for on-farm forest production, which remained a principal winter employment for farmers. Throughout the century wood production by farmers was for fuel. Though almost every species was used at one time or another, sugar maple was usually thought the best for fuel. The most common tree in the area, it produced more heat than any other large tree per cord, split reasonably easily and burned better than most other hardwoods when green. Beech was also excellent fuel, and the other heavy hardwoods were popular, though many disliked hard elm because it was difficult to split. In pioneer days, shanties kept their fires going with a large backlog that was often hauled into place with horses or oxen. Wood stoves made heating with wood far more efficient—perhaps quadrupling the heat generated—but this gain was more than offset when families exchanged their shanties for large frame houses.⁷⁰

In 1871, farmers owning at least one hundred acres produced an average of 30.6 cords, with a median of 20 cords, and 73% of farms between 10 and 30 cords. On acreages between ten and one hundred, the situation was not much different, with an average of 30.34, a median of 16, and 74% producing 10 to 30 cords, which likely represented domestic consumption. Farms had no trouble sustaining that level of production. Some farmers cut large amounts of wood for market. In 1871, William Richardson, who lived on 10 I Fenelon, produced 1,000 cords, thirty-four others split at least 100 and sixty-three between fifty and ninety-nine. While some men claimed to chop four cords in a day, one or two was the norm.⁷¹

Those who produced a surplus found a ready market. Lumber companies occasionally operated cordwood shanties too, but most contracted for it. Mossom Boyd's

1875 agreement with Henry Abbott paid \$1.50 each for 100 cords. Companies often insisted on formal contracts, which meant the farmers had no choice but to deliver. In seasons when there was little snow, many who would probably rather have been relieved of the obligation ended up delivering by wagon. In seasons where there was too much snow, teams could not draw a full load. If they showed up at market with a part load, it would be disproportionately discounted, so they commonly left piles near town to top up. Most villagers needed to purchase wood to heat their homes and shops.⁷²

With the growth of the villages there was often a paucity of fuel wood. In some years, Fenelon Falls was importing mill slabs from Haliburton to heat its houses. Wood powered most steam engines, though many establishments burned the wooden by-products of their operations. The Whitby and Lindsay Railway bought 1,000 cords in 1878 and was soliciting 6,000 cords at Bobcaygeon in 1880. The railways and steamboat companies bought most of their wood along their lines and often had their own crews of choppers as well. Cordwood as a fuel had its disadvantages, since even with spark arresters, passengers' clothing was occasionally melted or ignited.⁷³

In the last years of the century, coal began to replace wood as fuel, where facilitated by rail and steam transport. A good cord of hardwood produced between 80 and 100% of the heat of a ton of coal, but weighed twice as much and was much bulkier. Coal fires burned longer and required less attention. But coal was more expensive, even in the early twentieth century—\$4.40 to \$5.50 per ton in 1906, down from \$6.25 to \$6.50 in the early 1890s, \$7 in 1885 and \$7.20 in 1882—and was a dusty, dirty fuel. Even with rail and steam connections, it would have to be hauled long distances by wagon for use anywhere other than in villages or near wharves. Heating coal was available at George Betram's Lindsay store, and became fairly common among wealthy villagers by the end of the century. Mossom Martin Boyd purchased 18,390 lbs of coal in 1902 for his own use, and 36,865 lbs for the company. In 1883 the Midland Railway (formerly Victoria) switched to coal. Steamers ran almost entirely on wood until the decline of the major passenger and excursion companies in the first decade of the twentieth century, though the tug Ajax usually ran on coal.⁷⁴

The rail companies also bought rail ties from farmers, especially those who could easily get their produce to the tracks. From the 1870s, as secondary railways branched

across the region, rail ties became one of the largest sectors of forest commerce. Farmers usually hewed a single tie from a log—the toughness of heartwood made it preferable to sapwood. Companies demanded ties eight feet long, five to eight inches wide, and six to seven inches thick. Tamarack—rot resistant, stronger and more resilient than cedar—was the most common timber, though cedar and hemlock were used as well. Farmers selected their trees carefully to minimize the amount of hewing necessary. One North Verulam man claimed he hewed eighteen ties in an hour, and Richard James of Cambray hired a hewer who processed 1,040 in 9 ½ days. Getting out ties paid well—the price in 1878 was 10 to 14 cents each. By 1880 the price had risen to between 14 and 17 cents. Occasionally, businessmen set up shanties to get out ties and cordwood, as William Margach did in the cutover around Kinmount in the late 1870s. While rail construction fuelled a local boom, ties only lasted eight to ten years, so the market continued to a lesser extent for track maintenance. Initially used untreated, towards the end of the century, preservatives were introduced—companies also promoted creosote to reduce ties' susceptibility to fire.⁷⁵

From the outset of the rail boom of the late 1870s, Samuel Swanton was the region's largest buyer of rail ties, cordwood and telegraph poles. Born in Albion Township west of Toronto, he was raised on the farm of his father, William Swanton, on the west shore of Cameron Lake. Operating out of Fenelon Falls, he wanted to purchase 40,000 ties for the 1880 season. He had piling grounds at several points along the Victoria Railway, including Fenelon Falls, Fell's Station and Kinmount, with a crew of six at Fenelon Falls to handle the ties. He also did some cutting on his own, and was in the market to purchase cutover land with good stands of tamarack and cedar. After serving as reeve in 1888, he moved his business to 52 Victor Avenue, Toronto, the next year, after his Fenelon Falls piling ground burned—losing 8,000 cords of wood, 3,500 ties, 900 telegraph poles, 17,000 cedar posts, 100 cedar spiles, and ten cords of shingle bolts. He began to drink heavily, lost the fortune he had accumulated—said to have been \$50,000—and shot himself at Pattie's Hotel in Coboconk in 1896.⁷⁶

At about the same time as the secondary railways were being put through, the villages in the Kawarthas were connected by telegraph—reaching Fenelon Falls in July 1876. That created a market for poles between 25 and 60 feet long and about sixteen

inches diameter at the butt, preferably tamarack or cedar, though hemlock was also acceptable. Like rail ties, they provided many farmers with winter work, and were taken out by shanty crews. After Swanton's demise, George Martin was the major telegraph pole operator at Fenelon Falls, supplying the Great North Western Telegraph Company. H.D. McCaffrey of Oswego, New York, also bought large quantities around Fenelon Falls in the 1890s, J.H. Harvey serving as agent in Coboconk.⁷⁷

Rail connections reached the region coincidental with the settlement of the prairies. Many cars of cedar rails, and especially posts, were then exported for fencing. Cedar posts for market were to be five or six inches diameter at the small end, and eight to ten feet long. Large companies like the Iowa Barbed Wire Company looked to purchase hundreds of thousands of posts annually in the 1880s, often operating through lumber firms like Mossom Boyd and Company or Sam Swanton. Locally, many villagers purchased cedar posts.⁷⁸

With the region's forest industries producing a greater quantity and variety of consumer goods, the region's waterpower followed suit. As the mills disappeared, both Fenelon Falls and the Little Bob Rapids were harnessed for electric power. During the 1890s, many industrial establishments installed steam powered electric lights to help them run round the clock, as did the most up-to-date stores. In 1892, Bobcaygeon decided that the cost of electric light was excessive, but Fenelon Falls made it a priority and received its first five streetlights in 1894, installed by Fred Parkin's Victoria Electric Light Company. The system was substantially expanded in 1897. But these early power generating dynamos were prone to breakdown.⁷⁹

In 1899, Fenelon Falls permitted the Light, Heat and Power Company of Lindsay to service the village. It purchased the Ontario Bank mill property (formerly R.C. Smith & Howry) and demolished the mill that the bank had built two years earlier. On January 10, 1904, it put a powerhouse in operation, servicing the village and transmitting power to Lindsay. At Bobcaygeon, the village acquired the right to the water power in 1906. The Little Bob mills were demolished in 1908 to make way for a power plant.⁸⁰

With Fenelon Falls and Little Bob both generating hydro, surrounded by a host of wood manufacturing industries, forestry in the Kawarthas had come full circle. Seventy years earlier, production had been geared primarily to local use, most of the production

was done on farm, and a very small proportion of produce was exported from the district. Through the era of shipping pine timber and lumber thousands of miles, home manufacture had continued. As the large exporting firms were disappearing, an increasing number of manufactories for domestic goods arose. They did not attract the same attention, did not rely on gangs of transient workers brought in from afar, nor did they require such massive capital inputs. But, in their breadth, they employed a much larger number of workers, generally permanent residents, on a much more consistent basis. With the era of pine over, forest industries in the Kawarthas, paralleling local agriculture, had matured to meet most local consumer demands. Together these productive economies produced almost the full gamut of what communities needed from their own resources. Yet this meant that households were engaging in more exchange, as industrial goods replaced some of their own manufactures.

Though the lumber baron's prominence was always disproportionate to their share of local forest production, their passing was the end of an era. And while the factories that replaced them produced a greater variety of goods for local consumption and were the locus of off-farm forest production, they turned out to be another step towards the centralization of production. Much as mechanization led to the organization of land around machine production, so centralization and mechanization of forest production in the factories led towards further concentration around transportation nodes. The Kawarthas were to be marginalized as manufacturing moved to larger centres. The Kawarthas no longer had firms of national standing—which now concentrated in cities and at transportation hubs—as the position of forestry, or primary production generally, diminished among Canada's business elite. In time the outcome began to seem natural, as fewer people saw the Kawarthas as a potential industrial centre.

As the large export lumber firms were disappearing, farmers were watching more of their sons and daughters move on to villages and cities. Whereas houses and farms had been the signs of progress in the 1830s, by the turn of the century, boosters dreamed of more efficient, specialized, capitalist production. As the largest manufacturing concerns were now concentrating in cities, ambitious young men started to move on as well. Though publicly revered, industrial capitalism was by no means embraced by all. Up and down each concession line, the family farms continued to follow the seasonal rhythms of

their operations, cooperating with their neighbours to tend to their houses, farms and woodlots. To the emerging economy of the early twentieth century, the Kawarthas were no longer representative of the advance of the British Empire. Instead the region was becoming a quaint reflection of the British countryside, which many Canadians nostalgically recalled—rolling hills divided by sparkling lakes, close-knit communities where everyone knew each other, a peaceful farm existence, a place that city-dwelllers visited to get away from the hustle of urban life.

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5a. A Speculative Waterway

As colonial officials and elites envisaged the development of the Kawarthas in the 1830s, the Trent waterway was the advantage that set the region apart from the rest of Upper Canada. John Langton was not interested in settling more fertile districts in western Ontario because "the great distance of land carriage, the high price of labour and the want of water, more than compensate for the quality of the land."¹ Most of his gentrified peers could agree that a waterway uniting the Trent and Severn watersheds was the key to the region's development. Their speculative ventures were in large part a gamble that the waterway would be canalized.

Almost everyone in the immigrating society expected the Kawarthas to become Britain transplanted. In terms of transportation this entailed railways, canals, steamships and road networks crisscrossing the countryside. While their thoughts never strayed far from the familiar landscapes of their childhood, the colonies represented a chance to start fresh and create a more efficient and rational system. As this had been reflected in the rectilinear grid of the land survey system, elites expected to organize longer distance transportation networks. Though common roads stood to carry the most traffic, rapid long-distance transport captivated public men—it was an unmistakable symbol of progress. Because railways were not practicable until the 1850s, political discourse focussed on canals in the first years of settlement. Though almost everyone stood to benefit from rapid transit, the gentlemen dominating the political arena were doubly interested in the grandiose plans they dreamed up. They and their associates would oversee the projects and receive the construction contracts. Many were also land speculators and expected to profit as the infrastructure attracted settlers and increased real estate values.

Work on the Trent Waterway began long before there was enough traffic or even population in the region to justify its completion. Though its boosters never failed to notice the potential benefits for local development, they publicly advocated improving the Trent and Severn Waterways as the shortest and most expedient route from Lake Huron to the St. Lawrence River and hence to Atlantic ports. They trumpeted the economic developments that were sure to follow, and argued that it was the best method of ensuring that western commerce would pass through Canada, rather than the United States.

From the 1820s until it was finally completed a century later, its advocates insisted time and again that the Trent-Severn Waterway was the best through route for western commerce—by printing pamphlets, writing in newspapers, meeting capitalists and especially petitioning government. Dignitaries could not visit the region without receiving yet another recitation of the urgent necessity to complete the through waterway. Yet even as they repeated the same arguments over and over, the boosters ought to have known that their case was largely fallacious. While the linear distance from Port Severn to Trenton was shorter than the route through Lake Erie, once its winding course was taken into account it was actually much longer. The lakes were shallow enough that most could agree that it was not practicable to build a waterway for ships drawing much more than five feet of water. Any vessels that could travel the Trent-Severn would be perilously small for the Great Lakes. The through route was completed in the early twentieth century based on outdated specifications to allow commercial vessels of the early nineteenth century to pass. By the mid nineteenth century, when the most difficult and expensive sections had not yet been started, it was already clear that it would not accommodate the long distance shipping of the day. This reality was even acknowledged by the proponents of the scheme, but they suggested that new and supposedly more efficient transportation methods could be developed using smaller vessels towing barges. Even if this had been practical, it still would have required transhipment at both ends. When it was finally completed in 1920, 45 changes of level separated Port Severn and Trenton, each one slowing transit and increasing costs. Once the railways were complete, it was obsolete even for shipping goods to the front. Who would spend days, paying tolls at dozens of locks on the way down, when the iron horse could deliver the same goods in a few hours at a lower cost? Few boosters were foolish enough to waste their own money on such a boondoggle.

Yet prominent local land speculators convinced themselves that the government would complete the through waterway in the near future. After all, the Rideau Canal had just been built. But the cost of canalizing the Trent-Severn was more than enough to bankrupt Upper Canada. Not only was there little population in the district to justify its construction, building canals was a very ambitious undertaking considering the available technology. It was one thing to construct an engineering marvel in Britain, but in the

backwoods of Upper Canada there was a shortage of labour, much of the route was miles distant from the nearest store and was not even served with roads. Bulky building materials had to be produced in the adjacent forests, and everything from picks to beasts of burden had to be paddled up the waterway in scows or canoes. But in the fantastically optimistic 1830s, almost anything was possible.

In the Upper Canadian political arena, development was taken for granted—too many powerful men were interested in canals for them not to be built. But since speculators focussed their ventures on certain sites or districts, the political debates pitted regional interests against each other. Not only did they wrangle over which routes to build, if a different terminus for a route was remotely conceivable, it probably had a lobby. The principal rivals of the Trent-Severn Waterway for public funds were the St. Lawrence Seaway and especially the Welland Canal—also marketed as a through route to the west. Both had stronger political allies and could carry western commerce without transhipment. But this did not mean that the Trent-Severn would not be built as well after all, it was the local political issue that could move mountains.

Historians like Peter Baskerville, Douglas McCalla and James Angus have viewed development through the lens of national or colonial policy. Not surprisingly many of these projects seem paradoxical. It was often questionable whether the administrators even believed in their merits. The Trent-Severn Waterway was constructed because of its place in local politics. Though the gentry, and later on merchants, lumber and transportation companies had tangible financial interests in its completion, it held the promise, however illusory, of benefiting everybody in the district. Would it not be convenient to have a steamship connection with Lake Ontario? Farmers were told to expect better markets for their goods. Families were to anticipate purchasing household goods more economically. The Trent-Severn Waterway seemed to be the most direct way that distant government could improve the lives of almost everybody in the district. With such a powerful local lobby constantly trumpeting its advantages, time and again politicians overlooked their reservations about the scheme and delivered another link along the route as the meat of pork-barrel politics.

Before any settlers migrated to the Upper Lakes, many prominent Upper Canadians were already imagining how a system of canals might link Lake Ontario and

Georgian Bay via the inland lakes. John Collins' exploratory survey in 1790-1792 alerted the colonial elite to the Trent system, and shortly thereafter a few started to consider its practicality as a waterway. In 1787 Loyalists around Quinte petitioned for this route to be improved, no doubt in part because they expected it to become an economic hinterland to their settlements. Many speculators were deeply interested in canals at that time, after the remarkably successful Erie Canal, completed in 1819, attracted so much traffic before it was even complete that its tolls helped finance the balance of the construction. Shrewd business minds could see how exceptional the Erie Canal was—with the potential to carry the traffic of a vast region, a considerable portion already settled, to the principal market of the continent. Yet many dreamed that other canals could be just as successful. With the completion of the Welland Canal in 1829, shipping could pass from the Upper Great Lakes to Lake Ontario. But this did not stop promoters from demanding an inland route.²

In 1820 J.W. Bannister, a prominent settler on the north shore of Rice Lake, petitioned Lieutenant Governor Peregrine Maitland to complete the inland waterway. The scheme's promoters became much more sanguine when they heard that the Duke of Wellington, the British Prime Minister, favoured the construction of the canal, in part for military use. With the Rideau Canal underway, many expected construction of the Trent Canal to begin promptly—especially as Wellington wrote that a route from Kingston or Quinte to Lake Simcoe was "of the greatest importance" and that "until this shall be effected, we shall have completed only half our business." In 1827 Thomas A. Stewart organized another petition for its completion. Some of the early gentry, like John Langton, initially spoke as if construction was a certainty, expecting it to be completed soon. But official interest was tempered by the staggering costs of the Rideau Canal.³

In the mania that surrounded canal promotion in the 1820s and 1830s, it seems that many of the boosters did not appreciate the enormity of building a waterway from the Bay of Quinte to Georgian Bay. It involved linking two watersheds, both of which were shallow for through navigation—seasonal water fluctuations affected potential routes even after canals were built—and had many rapids and waterfalls. The drainage of the Trent Watershed, in particular, was tortuous. The Upper Trent from Balsam to Chemong Lake was once a series of valleys flowing south through Lake Scugog to Lake Ontario— Balsam Lake once drained via McLaren's Creek; Cameron and Sturgeon drained together;

Emily Creek, Chemong and Pigeon all emptied to the southwest. But the southern outlet was closed by glaciation, forcing the lakes to flow to the east instead, along a much longer, winding route to Rice Lake and the Lower Trent. The water carved passages through uplands to connect valleys that were once parallel drainages. These were often scarcely deep enough to allow the water to pass—most were shallow in dry seasons and flooded during the spring freshet. Many of the early advocates had business reasons to promote the canal, and paid little attention to how difficult the route was to construct.⁴

Before work began and in its early stages, there were many interested parties from other locales who thought that other inland routes might be better. Some wanted to link York to Lake Huron via Lake Simcoe, and others wondered if there was a route to the north, until the Catty Survey of 1819 demonstrated that the Trent-Severn connection was the most advantageous for inland navigation. But, with the Trent Watershed draining along such a long and difficult route, many wondered if it would be better to cut across land to connect the upper Kawarthas and Lake Ontario. Soon three different routes had support from prominent colonists-following the natural drainage of Rice Lake and the Lower Trent, straight from Rice Lake to Lake Ontario, or connecting Lake Scugog to Whitby. The latter two options would drastically shorten the distance from the upper Kawarthas to Lake Ontario—the Whitby route had the added advantage of avoiding the difficult connection of the Otonabee River to either Chemong or Clear Lake. Jameson and Wallis, developers of Fenelon Falls, bet on the Whitby route, speculating around Fenelon Falls-the largest obstruction to navigation on the Upper Trent-and the harbour at Whitby. In 1834 Upper Canada chartered a company to build a canal from Port Hope to Rice Lake.⁵

Neither of these alternatives were suitable for canals because they crossed the Oak Ridges Moraine. Though the Upper Lakes once drained south from Lake Scugog, the cost of hiring labourers with shovels and picks to excavate through the moraine would have been astronomical. Robert Jameson held a public meeting at Fenelon Falls in 1836, then wrote the Civil Secretary suggesting something far more practical—that the inland waters should be improved to connect the Upper Lakes to Lake Scugog, with transportation overland to Whitby. Rice Lake and Lake Simcoe could be similarly connected by land to Lake Ontario. He suggested a railway for the land transport, which was premature. But he

was correct that these routes, with overland as well as water transportation, were shorter, faster, and less expensive to construct, maintain and use than the Trent Route. From the Upper Lakes the principal transportation route to the front was via Lake Scugog until the railway reached Lindsay.⁶

Being the least outrageous of the through canal schemes and possessing powerful advocates, the Trent-Severn route prevailed. In February 1833, prompted by George Strange Boulton's lobbying, the Upper Canadian government commissioned Nichol Hugh Baird to survey the Trent River for 134 by 33 foot locks, with five feet draught. Born in Glasgow in 1796, Baird's father was superintendent of the Forth and Clyde Canal. After apprenticing with his father, he came to Canada to serve as Clerk of Works to Colonel John By on the Rideau Canal. Baird commenced surveying September 7.⁷

Since most prominent gentlemen of the early nineteenth century understood that commerce and population centres tended to form around transhipment points, gentlemen interested in other centres were incensed to hear that the canal's outlet was to be Trenton. Port Hope interests hired their own surveyor to demonstrate the superiority of a ten-mile canal over the winding river. In 1834, some even started digging, but gave up when the Crown did not come to their aid. In 1835 Cobourg promoters had Baird survey a railway to Rice Lake. Kingston and Belleville interests supported the Quinte outlet. The influential Welland Canal lobby opposed the entire project.⁸

As Baird was preparing to survey the potential canal route, James G. Bethune, already one of the district's most prominent businessmen, looked to assume control of its transportation as well. Representing the Canada Company and the Bank of Upper Canada at Cobourg, he also hoarded land in Asphodel, Cartwright, Hamilton, Haldimand, Monaghan, Mariposa, Manvers, Otonabee, Percy and Smith. Betting on the district's development, Bethune hoped to doubly profit by running a Cobourg to Rice Lake stage, a steamer on Rice Lake, another stage to Bridgenorth then a steamer to Lindsay and Cameron's Falls (later Fenelon Falls). Often mixing his personal and company affairs, he ensured that the Canada Company spent \$3000 in 1827 to improve the road from Cobourg to Sully on the shore of Rice Lake. Bethune led a group petitioning to charter a railway from Cobourg to Rice Lake. By 1832 he had invested £150 to remove boulders in the Otonabee River, and built one steamer that ran on Rice Lake, with another under construction for use on Pigeon and Buckhorn Lakes. In June 1832 Bethune began operating the *Pem-e-dash-cou-tay-ang*—after the Ojibwa name, soon shortened to *Pemedash*—on Rice Lake. A side-wheeled steamer with a weak engine, she also used a sail. Leaving Peterborough at 8 am Monday to Saturday, she ran to Sully, where she met his stages and heavy wagons from Cobourg. He then anticipated the Bobcaygeon lock, launching the *Sturgeon* at Bridgenorth on September 5, 1833. John Langton went on the maiden voyage to Bobcaygeon and found:

She is built like a scow... much after the shape of a washtub, a small draught being the principal object. Her accommodations for passengers are by no means bad; she carried sixty tons of goods and can go at six or seven knots an hour. All this sounds very well, but unfortunately her steam is exhausted directly, and I am afraid she will never do much good till she gets new boilers.

They got stuck in the mud for an hour, broke a pump, then had to stop occasionally to pump the boilers full by hand. Because they were trying to burn green wood, they had trouble keeping the fire going, stopped to cut down some cedars, and had to wait an hour for more steam. But they did celebrate on board with port and brandy. The *Sturgeon* was slow for a steamer, reputedly outstripped by a rowboat the next spring. That summer Bethune advertised in the Cobourg *Star* that readers could anticipate the steamer running to Cottingham's Mill (Omemee), King's Wharf, and Cameron's Falls in the near future—showing his confidence in imminent construction at Bobcaygeon.⁹

In addition to his transportation company, Bethune aspired to run a private company that would oversee improving navigation in the Newcastle District. He approached the Government of Upper Canada offering to invest much more into improving the waterway if he was authorized to charge tolls. In keeping with their policy of maintaining public navigation, the Assembly instead approved £2000 in debentures for improvements—£1600 for a lock at Bobcaygeon and the balance for Whitla's Rapids. The debentures were redeemable only in tolls, not from the general revenues of the province, but Bethune bought them all, and thus underwrote the project.¹⁰

To administer the funds, the legislature appointed a commission to improve the Inland Waters of the Newcastle District, authorizing them to borrow up to $\pounds 2,500$. Its members were Bethune; Thomas Need; Colonel Robert Brown, a gentleman farmer and landholder from Peterborough; John Hall, who owned the Buckhorn waterpower, where

he was about to build a mill; Alexander McDonell, Crown Land Agent at Peterborough, soon-to-be member of the legislature; William Whitla, whose brother owned the land surrounding the rapids below Peterborough; and John Huston, surveyor and magistrate from Cavan. Most members of the committee had a financial interest in the work, though none had a particular stake in improving the Trent River. Boulton speculated heavily on land in the Newcastle District.¹¹

The commission planned locks at Bobcaygeon and Purdy's Mills; to clear obstructions on the Otonabee River at Dangerfield, Robinson's Island and the Yankee Bonnet Shallows; to deepen the mouth of the Otonabee at Rice Lake; to deepen the river and build piers at Whitla's Rapids, and to make Cavan Creek navigable as far as its namesake village. It only received bids on the work at Bobcaygeon, hiring John Pearse, William Dumble and William Hoare of Cobourg on June 1, 1833. Bethune appointed his friend John Heard to dredge the shoals below Whitla's Rapids. It had land surveyor Frederick P. Rubidge design the Bobcaygeon Lock in consultation with the contractors— 120 feet long, 28 feet wide, to accommodate a boat drawing 4 feet 9 inches of waterslightly smaller in all dimensions than those in Baird's instructions. John Smith took the levels for the lock in October 1833, an unusually wet year. Rubidge estimated that the lift was 10 feet more or less-a startlingly imprecise measurement-and called for oak and pine timber walls, with gates of oak timber covered with pine plank. Two upper valves were to open into the bottom of the lock "from the outside in a safe and substantial manner," while the two lower valves were to be in the gate. The canal was to hold four feet of water.¹²

Lock construction was extremely laborious and a risky venture for contractors even in longer established colonies, let alone the backwoods of Upper Canada. Almost all of the tools and materials were either produced from scratch in the bush or hauled considerable distances up the waterway and along forest trails. Labour was generally scarce in Upper Canada, and the workers left en masse during harvest season. After building cofferdams to divert the water, the men used sledgehammers and bits to bore holes in the rock, then filled them with black powder for blasting. The workers hauled the stone away with wheelbarrows and handcarts. Having only horses or scows to move the stone and timber, they tried to find supplies as close at hand as possible. They burned their own lime for cement. The timber had to be got out of the forest and hewed to shape, but it was difficult to find good hewers in the backcountry, when they were not offering a full season of specialized work. Hewing was difficult for novices to get square and straight, yet the contractors needed the timbers to fit tightly together. In 1838 William Hartwell spent £8 15 s per thousand feet to get out timber—most of his supply came from the perimeter of Sturgeon Lake. He paid 9 d per cubic foot to draw stone to the job site, and an additional 1 s 3 d to quarry and manually dress it. While he had the water diverted, he also cleared stones and boulders from the channels. Some were so large that their horses or oxen could not budge them and they had to be blasted apart first. He had to continually pump water from the lock pit.¹³

Pearse, Dumble and Hoare began work August 2. Thomas Need did much of the supervision for the Commissioners, and was pleased that they decided to run the 973-foot long canal through the island, as it increased his property value. That summer the contractors excavated the canal, and prepared the materials, while their men made money on the side charging \$16 to pull scows up the rapids. In the spring of 1834, before they completed the work, Bethune was unable to pay his accounts. Erstwhile friends condemned him as "a most sanguine but most reckless and unprincipled speculator." Because he had mortgaged his land to the Bank of Upper Canada to secure the funds for the debentures, he personally, and not the Commissioners, had controlled them. He still owed Pearse, Dumble and Hoare £722 for work at Bobcaygeon. They could not compel the government to honour Bethune's agreement and begged for two years before the Crown made good their losses. Bethune's downfall may have been somewhat political, as he was owed considerable money at the time, both public and private. By one estimate his assets were three or four times his liabilities—though much of his capital was tied up in real estate, which was very difficult to move. He later straightened out his accounts, and moved to Rochester, where he died in 1841.¹⁴

The commission carried on the work until it was completed in mid October 1834. As the workers packed up, Need and the commissioners apparently believed that all was well with the lock. Others had their doubts. John Langton wrote, "the whole plan in my opinion, is so radically bad that until it is altered entirely, the steamer will never get up into Sturgeon Lake." When the commissioners let the water in on November 4, they were

shocked to find that it did not work because the fissured rock at the bottom of the lock pit did not hold water. Need wrote in his diary, "misfortune on misfortune, the canal gives in several places and leaks so bad that the water will not rise." For the rest of the month they tried various schemes to fix the lock, convincing themselves a few times that they had it working, before giving up. It seems that Rubidge had planned the lock at high water, so that the lower sill was roughly at the low water level, preventing boats from entering the lock. Because the dam was not high enough to drown out the rapids above, they could not get out either.¹⁵

John Langton was among the many who condemned "the apology for a lock, which the stupidity (if in some cases it be not worse) of the commissioners had imposed upon us." Small vessels could use it at high water, "but for scows it is decidedly worse than it used to be." He recalled:

Formerly we used to unload at McConnell's, drag the scow up the shoot, load again, and by dint of rowing, poling, warping, wading and lifting her over occasional obstacles with handspikes we got her up somehow. But now the main channel is dammed and the side channel, though up to the neck in most parts, has a bar at the top which a loaded scow will not pass; we have therefore to take the scow first in the lock and there unload her, then take her back to McConnell's, and, getting her first over the shoot, wade up to Sawers's house and then drop down again to the lock to load. Boats that can be lifted bodily out of the water we can lift out at the lock and carry them over to the canal, but large boats must come up... where it is a very deep and a tremendous stream running and where I have generally had the satisfaction of going over head. Indeed wading is hardly the proper name for our operations, for a short man like me generally contrives to get up to the neck if not over head at once. Upon the present occasion we were nearly all day and it was very cold weather but we managed to get all our three crafts over the rapids.

The Bobcaygeon lock had to be rebuilt before it would be functional. The channel was of some use, but needed to be wider and deeper to accommodate boats of the sizes that the government anticipated. The lock needed a floor to stop the outflow of water. The dam on Big Bob was too low, and another was necessary on Little Bob, which acted as a spillway.¹⁶

With Bethune's transportation business collapsing and the Bobcaygeon lock dysfunctional, the *Sturgeon* disappeared, having never passed into the lake that was her namesake—she was last seen at Bobcaygeon on November 9, 1834. The *Pemedash* also sank a few months after being renamed the *Otonabee*. She is thought to have resurfaced

as the *Sir Francis Bond Head* in 1837, making trips from Peterborough to the ports of Rice Lake six days a week. While George May launched another steamer in 1840—the *Pollywog*, running two times a week from Peterborough to Harwood—transportation on the Upper Lakes languished. Members of the gentry tried numerous times in the 1830s and 1840s to raise a subscription to commission another steamer, but all their schemes proved abortive. Later in the decade and again in the 1840s the gentry of the upper lakes tried unsuccessfully to revive the scheme.¹⁷

The genteel lobby for more improvements carried on throughout the 1830s. In November 1833, the Commissioners petitioned the Lieutenant Governor to grant the funds to overcome Cameron's Falls, and render the Scugog and Pigeon Rivers navigable. Thomas Need wrote that no public work was of "higher importance than the navigation of the Trent River." He saw it as the means of moving wheat and timber from the district and from Lake Superior. In 1836, Dobbs, Fraser, Need, Langton and Wallis held a public meeting, where they resolved that the Trent Severn Waterway was "of utmost importance.... connecting the extreme points of Upper Canada by the best, nearest and cheapest internal communication, and thereby opening up the interior of the country." They claimed it was "almost essential to the proper defence of the country," with "innumberable" mercantile benefits, capturing trade from the United States, and stimulating agricultural development.¹⁸

The Upper Canadian government responded in the summer of 1835, commissioning Baird to survey the Trent and Severn Watersheds, from Rice Lake to Lake Simcoe. He was also to inspect the Severn and Nottawasaga Rivers to determine the most advantageous route from Simcoe to Georgian Bay, but was not able to complete that work before winter. The old portage route to Matchedash Bay had been surveyed the year before and not found very suitable. Between Balsam Lake and Lake Simcoe Baird observed "long vexatious portages and continued shallows, rapids, etc. together with about 7 miles (if not more) obstructed by flood wood." He found that Balsam Lake was 119 feet 6 inches higher than Lake Simcoe, much greater than had been expected. Between October 1834 and January 1835, John Smith had surveyed a road between these lakes.¹⁹

Baird conservatively estimated the cost of opening the navigation from the Bay of Quinte to Lake Simcoe at £495,515 3s 3¹/₂ d. This was not far off Upper Canada's total debt as of January 1, 1837—£587,671. One of the worst stretches was between Peterborough and Katchewanooka Lake or Chemong Lake. There were two portages, one leading to each lake—Chemong Lake was 189 feet higher than the river. While working on the first survey, Baird had wondered if the government would not find the cost excessive and suggested that they could build a combination of railways and canals for £195,565 6s 6d, though this would increase the time it would take for a steamer to pass from the Bay of Quinte to Lake Simcoe from 18 hours to three days—the price and the travel times were again likely underestimates. He proposed railways from Percy Landing to the top of Healey Falls, from Peterborough to Chemong Lake and from Balsam Lake to the Talbot River.²⁰ He suggested that some of the delay and cost of transhipment could be overcome with steamers designed to carry rail cars. When Baird's thoughts became public, he felt obliged to explain in the Cobourg *Star* that this was not intended as a permanent solution, just "in the mean time' until the business of the country, and the tide of the Western trade should require greater facilities of transport in bulk, such as lockage will engage."21

In 1836 the Standing Committee for Canals reporting to the Legislative Assembly recommended £16,000 for work between Healey Falls and Peterborough; at Hall's Mills (Buckhorn) and Purdy's Mills (Lindsay). These stretches promised to open the greatest length of navigation at the least expense—and would allow travel from Port Perry to Cameron's Falls to Healey's Rapids interrupted only by the six mile Chemong Portage. A public meeting at Fenelon Falls then petitioned the governor to approve these expenditures, and in 1837 two committees were appointed to supervise works, one on the Trent and the other for the Inland Waters.²²

In 1837, the Commission for the Improvement of the Inland Waters undertook locks at Lindsay, Chisholm's Rapids and Meyers' Island, as well as dams at Crook's Rapids and Buckhorn. It decided to repair, rather than rebuild, the Bobcaygeon lock, hoping to come back and reconstruct it within five years. It accepted that the refit lock would be 101 feet 6 inches long, 26 feet 6 inches wide, with 3 feet 6 inches or 4 feet of water over the sills. George Hall received the contract at £660 for Buckhorn, Homer

Hecox £2500 for Lindsay, and William Hartwell £2717 16s 6d for Bobcaygeon as well as \pounds 4113 9s 1½ d for Whitla's Rapids.²³

Soon after they began letting contracts in 1837, the Commissioners learned that the Upper Canadian government was not giving them the promised funding. A financial panic in North America began that year, with the State Bank of Illinois ceasing to meet its obligations. The Commercial Bank was the only institution willing to purchase the Commissioners' debentures on security of future tolls, but it discouraged them from spending the money in the immediate term because of uncertainty over the bank's finances. In September it suspended payments, while holding considerable money for public works. The commissioners then had to wait until arrangements were made to transfer the funds back to the Crown, who then administered them out of the Bank of Upper Canada. But even after these arrangements were made, the Crown still struggled to make its payments and used money intended for the Trent to cover other expenses. In 1838 Commissioners employed their own credit to finance improvements. In 1839 Arthur acknowledged the "financial difficulties of this province" to the home government, while many American states were having trouble raising funds for their public works. By 1839 the Commissioners were still barely receiving enough money to keep operating, "at the great risk of the embarrassment to the public service." The continued shortage of money slowed progress, as they were apprehensive about pushing contractors to get the work done for fear they could not pay them, and contractors were in no rush to work when they were not being paid regularly.²⁴

Hartwell began at Bobcaygeon on July 6, 1837. To hold water, the walls and floor were covered with deals, oakum and pitch were applied to the seams, and the whole coated with tar. The new dam on Big Bob was between six and eight feet high, while a five-foot dam closed off Little Bob. Though he hired Boyd to get the timber out for him, Hartwell was slower in completing the work than the commissioners expected, while he complained about his irregular pay. Baird took over supervision of the contract in July 1838 and hired day workers to finish the job. Hartwell also gave up Whitla's Rapids, as did the contractor at Crook's Rapids, and was paid for work complete at both sites. Baird's workers struck on August 1 demanding backed wages. Then at the end of August a foreman wrote to the commissioners threatening that he and his workers would walk off the job if they were not paid. At that point they were owed between $\pounds 4$ and $\pounds 28$ each.²⁵

On November 4, 1838, water was let into the Bobcaygeon lock to test it, but it still leaked and could only be filled to within three feet of its top. Though the walls and floor were watertight, wedges that supported the sills "had rot nearly through" since they were installed in 1834, allowing the floor to sink and water to pass under the gate. Two days later the wedges had been replaced, and the lock chamber relined, but it still leaked, and the water remained a foot lower than hoped. Nevertheless, that day the workers hauled the barge *Sir George Arthur* through, carrying James Hartley Dunsford's family—other boats had passed through the lock prior to its reconstruction but were not charged because it was not working properly. By the time the weather forced them to stop in December they had virtually completed the job. Though Baird accepted the structure, he ordered that it could only be used under the supervision of a lockmaster, and that pressure was not to be kept on the lower gates for longer than five minutes at a time. The next year, the Commissioners found that they needed to plank more of the lock's interior, and requested another £2394 17s 10d. In the spring of 1839 they had to repair a breach in the canal.²⁶

George Hall, owner of the mill at Buckhorn that his father had built, combined several projects with the job of making the lock. He was to build a dam that would raise Buckhorn and Pigeon Lakes enough to put five feet of water over the lower sill at Bobcaygeon at low water, correcting the mistake that Bethune made while building it. The Buckhorn dam served his mill as well, and since he had already received the job to build a bridge, he proposed incorporating that into the structure. At the same time he upgraded the sluice and wall of the mill. He also had the contract to supply the timbers for Bobcaygeon. Though a 90-foot section of the dam washed away in the autumn of 1837, Hall progressed quickly enough that the commissioners were not pushing the work along, fearing instead that they would not be able to pay—there was also little reason to have the Buckhorn works done before Bobcaygeon. By early 1839, with Bobcaygeon substantially complete, Baird was more anxious to see Buckhorn done, and started musing about taking over the balance of the contract, but Hall completed it that fall.²⁷

At Purdy's Mills a resolution had to be reached regarding the flooding that Purdy's mill dam caused around Lake Scugog before a lock was constructed. When Baird had

surveyed the property in 1835 he suggested moving the dam to the bottom of the rapids at Lindsay, which would allow most of the flooded land to drain. A reformer who was unpopular with his neighbours, Purdy did not get along well with the staunch Tories on the Commission. They decided to expropriate his property, offering instead to build a new dam and keep it in repair, granting him and his heirs permission to power his mill with whatever water was not needed for navigation. But while his settlement for his expropriated property was still to be determined, McDonell arrested Purdy and sent him to jail in Cobourg in 1837 on the groundless suspicion that he was harbouring William Lyon Mackenzie—one of many cases where the Family Compact abused their positions to harass political opponents. Once the furor cooled down, Purdy received \$2,000.²⁸

Though Hecox received the contract in August 1837, he had to wait for the settlement with Purdy. By the next summer he had the job underway, but he struggled to pay his workers regularly—as he was probably not being paid on time either. He persuaded them to continue working, but fled the country the following November, having signed over all of his personal property and the material at the job site to his guarantor. Some men were owed half a season of wages, others had received nothing. The workers had feared as early as 1838 that Hecox would abscond, and spoke to Commissioner A.S. Fraser. They claimed that Fraser said he doubted the contractor would disappear, and assured them "that even if Mr. Hecox did leave the province the probability was that there was materials sufficient in value to remunerate us." They complained that the Crown paid Hecox five shillings a yard for material that they had excavated, while he gave them nothing, putting them in a position where they might lose their homes and farms on which they had been "toiling several years." The Crown had advanced Hecox £81 4s 1 $\frac{1}{2}$ d so that the workers could be paid—he owed them about £120—but he took the money and ran. As they seized the materials, citing the fact that his employees made no claims against the Crown while Hecox was still on the job, the Commissioners claimed they "had no power themselves to pay workmen who had been hired by the contractor," and Lieutenant Governor Sir George Arthur ruled "that it is not in his power to interfere." Work could not be resumed until the colony's finances were stabilized with the reorganization as Canada West-Lower Canada was on much more stable financial footing than the upper colony, in part because it received the revenue

from tariffs at its exporting ports. As the United Canadas had much more money to invest in infrastructure, they soon undertook new projects, and completed the work at Lindsay. Baird and Thomas Wilson managed its completion themselves by 1844, salvaging some of the materials that Hecox had assembled. They overcame a malaria outbreak that killed nine workers and the washing away of part of Purdy's Dam, which flooded the lock pit in the spring of 1843.²⁹

The Bobcaygeon Lock began formal operation on May 24, 1839, with Mossom Boyd collecting tolls as Need's employee. By November 4, when the lock closed for the season, 142 boats and scows had locked through. The following season ran from April 20 to November 19 accommodating 157 trips. Between May 10 and November 12, 1841, 130 boats passed. Loaded scows were charged 5s, large boats or empty scows 2s 6d and small boats 1s 3d—all three types were common. The traffic was overwhelmingly local, and though the local gentry locked through more frequently, a large proportion of Fenelon and Verulam residents appeared in the records. It included proprietors of village businesses, farmers, even some who had come over a few years earlier to work for the gentry or were still working to acquire farms.³⁰

With the completion of these works the campaign to improve navigation in the Kawarthas ground to a halt. The works that would bring the greatest advantages to local transportation on the upper lakes at the least cost had been completed. Between Bridgenorth or Buckhorn and Balsam Lake, the only obstacles to navigation were Fenelon Falls and Balsam Rapids at Rosedale. Locks at Fenelon Falls would be a costly undertaking, while Balsam Rapids was still relatively remote and could be navigated by small craft. With the work complete that promised the greatest return on investment, it was harder to justify the balance. Though the campaign continued, with gentry threatening that they "will be compelled to abandon their property" if the through waterway was not built, the new chair of the Board of Works did not look favourably upon the scheme. Hamilton H. Killaly believed that Baird's estimates were low and suspected that the true cost of the Trent Waterway would be comparable to that of opening the Saint Lawrence—perhaps £820,000 to £920,000. It could not accommodate boats drawing more than five feet of water without a great increase in expense because of the small, relatively shallow lakes in the system. He realized that boats small enough to

pass through the Trent-Severn Waterway could not survive the Great Lakes, and the additional cost of transhipment would negate any advantages the route had over the Welland Canal. The local lobby was also disappearing by the 1840s—most of the gentry had left the area already, and those who remained behind knew that they could not rely on income from development schemes. Work already underway might be completed, but even McDonell conceded in 1844 that "some time will elapse before our Trent improvements on our once much cherished scale will again be brought up."³¹

The early locks did not result in consistent navigation. With wooden chambers, imperfect workmanship and serious design flaws, they were often dysfunctional and required constant maintenance. Without enough lockage fees to offset the cost, nor the gentry to lobby, upkeep was often neglected. In 1842 Thomas Wilson concluded that the Bobcaygeon Lock was "in very bad repair," though Need and Thomas English told him that it had never worked so well "as formerly it required six or eight men to open them but now two can open them with ease." Wilson found that when the lock filled, "a heavy current escapes under the embankment." He thought that the sleepers under the lock moved from the weight of the water. Baird blamed the problem on the public being allowed to operate it. Four years later the dam was leaking badly, which some thought a layer of clay could staunch. In 1852 Mossom Boyd notified the Department of Public Works that the lock gate "is in such a state of decay that it will not stand another spring flood and should it be carried away in the spring or at any other time the great discharge of water from so large a lake would do incalculable damage." He said the previous year he had to stop the water from overflowing the canal banks. By 1852, the lock had rotted to the point that "it would be impracticable to attempt any repairs to it."³²

The early improvements were also controversial. While land speculators promoted the waterway in hopes that their holdings would become more valuable with better connections to the Front Townships, many settlers were more concerned with the flooding of their farms. While none of the locks produced damages on the scale of Purdy's mill dam, they substantially changed the lake boundaries. Buckhorn Lake had been low and swampy, and the Buckhorn dam made more of it smooth water and expanded its boundaries. Pigeon Lake was significantly widened, especially at the south end, much of which had been a continuation of the Pigeon River. A large area was

flooded on the west shore of the north arm of Sturgeon Lake, as well at the southern end around McLaren's Creek, on the shores of Emily Creek and part of Bobcaygeon. Lake Scugog was lowered, reclaiming some land previously flooded by Purdy's Works. While most of the submerged land affected few settlers-the waterfront gentry tending to prefer higher situations— some improved land was flooded. George Cowan of Emily Township wrote to Boulton asking for compensation. He explained that because of the new Bobcaygeon dam "there is 50 acres covered now and 2 inches more will immutably destroy my farm." Other Emily residents complained of flooding from the Pigeon River. By raising the water enough to cover the lower sill of the lock at Bobcaygeon, the Buckhorn dam made it difficult to run Need's mills. Because he was "compelled to erect machinery on a new principle," he expected "ample remuneration." The Commission agreed to appoint arbitrators. Need also complained about the sluice being closed on the Buckhorn dam, so Hall was ordered to open it. The Buckhorn dam stopped Cottingham's mills at Omemee and destroyed a bridge over the Pigeon River in Emily Township. Wallis' mill at Fenelon Falls ran off a dam built across the river above the fall, which raised Cameron Lake five or six feet.³³

Many found drowned land offensive—not only were dead standing trees unsighly, they were also a hazard to navigation. The flooding soon killed trees around the lakes, and within a few decades they rotted off at the waterline and fell. Wherever these fallen trees—many still attached to their roots—littered the waters, navigation was all but impossible. On the lakes, this mostly impeded reaching shore, as vessels tried to stay outside the drowned land. But on rivers, the dead timbers usually blocked the navigable passage. The Scugog River, from Lindsay to Sturgeon Lake, raised in 1833, was very difficult to pass because of fallen trees by 1857, even though it was one of the most travelled watercourses in the area. Even once obstructing logs were removed, the stumps remained, and scarcely rotted below the waterline. Lurking stumps caused small craft to upset and could break paddle-wheels or propellers on larger craft. They were particularly hazardous around the mouth of the Scugog River, where boats were winding along what had been a narrow river through a maze of drowned land—prompting the construction of the lighthouse in 1880. To this day, most of the waters in the Kawarthas are ringed with stumps—though on inhabited shorelines they have since been removed. Flooding made

the construction of bridges much more difficult, as at McLaren's Creek, where about 3,500 feet of drowned lands were added to the sides of what had been a narrow watercourse. The roots and fallen trees might also might entangle cattle who waded out for water.³⁴

Dams also concentrated sediment on their upper sides, which might prove an impediment to navigation and interfered with fish runs. William Purdy saw an opportunity in this, put traps in his mill dam and virtually monopolized the Scugog River fishery. He sold his catch at 2d per pound, but his neighbours were outraged. The Department of Public Works put an end to the practice when it rebuilt his dam in 1844— by then greater efforts were made to preserve fish. Starting in 1828 all dams on a river that had salmon, pickerel or timber drives were to have an apron at least 18 feet wide, with an incline of no more than 6 feet fall over 24 feet 8 inches. In 1869 William Kennedy built a fishway at the Bobcaygeon dam, and Lindsay received one two years later. The Falls at Fenelon were enough of a natural barrier that one was not consdered necessary even after the lock was built. In the 1890s, they were required on all dams.³⁵

By the 1840s it was difficult to make a credible case for more canals. The gentry land speculators spearheading the lobby were learning that their ventures did not pay and emigrating in search of a livelihood capable of financing their ambitions. There was no hiding the fact that there were no boats on the upper lakes large enough to preclude carrying or dragging them up or around rapids. By that time the easiest sections had been completed, at considerable expense, and it was hard to enumerate much tangible benefit accruing to local residents or the province. Any further works would be prohibitively costly and the lumbermen, who were then becoming much more influential, would prefer to see money invested in timber slides—the Lindsay lock was converted in 1858. Much of the development in the Kawarthas in the 1830s had been the result of fantastic optimism about the potential of the region and the ease with which it could be transformed into a land of prosperity. Much as in agriculture, where the hopefully grand genteel estates melted into the countryside of family farms, the speculative waterway of the first years of settlement was destined to slowly decay as it was underused. Whereas the boosters had tried to capture transcontinental commercial traffic to a region that had scarcely any improved transportation of its own and little capital to build it, the

generation that followed settled into the humbler job of developing a practical

transportation network to serve their growing communities.

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5b. Practical Roads and Transformative Railroads

In the 1840s as its genteel boosters were scattered, the fantastic scheme to link Lake Huron and Lake Ontario momentarily slipped from political debates. In the immediate term, this meant that the provincial government was scarcely involved in improving transportation in the Kawarthas. While fairly generous sums had been secured for the unrealistic prospect of through canalization—largely because the powerful gentlemen of the district thought they would profit from it-the work of meeting the region's transportation needs was for many years left to municipal government and the collective labour of neighbourhoods. Though there were many details to work out and many mistakes and problems with the original surveys to correct, little controversy surrounded the design of local road networks—a testament to one success of the survey system. Creating the road network entailed a tremendous amount of labour on the part of local residents-felling trees along the route, chopping stumps low enough that carts could pass, filling swamps, crosswaying (laying cedar rails in wet spots to build a rudimentary sort of causeway) and bridging creeks. But to the farming community it was a job that was obviously necessary, as much a part of settling the region as building houses, fences and barns. Overseeing the creation of this transportation network was one of the most important roles that government fulfilled in recreating the landscape, yet many aspects of it are overlooked—there was no political debate, and it was not treated as a matter of national concern. While attention often focused on interest groups battling for government money to be spent on grand projects, in this quiet corner of the public arena, nascent communities created indispensable infrastructure of lasting benefit—practically every major road of the Kawarthas was built in this period, and almost all of their routes endured.

The work of creating roads was, like farms, the collective work of neighbourhoods. It was also a long, drawn-out process that lasted generations. Improved road building techniques, like plank, cobblestone, or slabs, were employed in other regions, but their costs were not justifiable for most roads on the Upper Lakes—although some villages used planks for the main street. The roads were maintained by their principal users, from what was at hand. As on farms much of the work had to be performed time and again. Crossways had to be fixed frequently and in the early years travellers took an axe with them, knowing they would probably have to do some road work. Gradually stumps were worn down and pulled out, and bit by bit persistent labour produced more passable roads. The advent of macadamization, an unthinkably laborious task for early settlers preoccupied with so many pressing jobs, made travel far easier, and became ubiquitous for township roads once stone crushers were common. As the agricultural countryside came together towards the end of the century, so too did the network of roads, an essential part of the comfortable life that then came within reach.

While local roads were rarely controversial, long distance transportation spawned persistent public debate until the end of the century, and beyond. Lobbyists debated the relative merits of railways and canals, including much propaganda to justify demands for public money. They pushed the interests of their own settlements and opposed competing schemes. At times the debates were detached from reality—ludicrous schemes were seriously considered, as if the work of moving a mountain of fill could be passed off as a small obstacle. From the 1860s on, all levels of government were on a better financial footing to undertake ambitious projects. With viable business partners, not just speculators asking government to underwrite prohibitively expensive improvements to support their gambles, transportation attracted much larger public investments. Though there was a genuine need for improved infrastructure, the transactions were often seedy, and plenty of individuals made fortunes as it seemed that few officials treated public money as they would their own. Many critics were disgusted by the process.

While William Cronon explained the central place of railways in the growth of Chicago, Richard White explains how the transcontinentals were built too early, causing waste, suffering, environmental degradation and "catastrophic economic busts." The first railroads that came to the Kawarthas had immediate and profitable use, as the requisite technology spread across Canada West at about the same time that communities and ventures developed in the Kawarthas to employ them. The first branches reaching the region from main transportation networks of the province fared very well—they captured much of the district's commerce. The feeder or competing routes constructed later were less certain propositions, and were often quickly amalgamated into larger rail networks. In the Kawarthas, efficient long-distance transportation was transformative, though certainly controversial. Two strips of steel from Lindsay to Port Hope opened a world of

possibilities—for a time they were the principal connection of the Kawarthas to the cities of the front and international trade. It was no coincidence that the American lumber trade, soon the largest source of off-farm employment in the region, began when this link was complete. The line was also a tremendous advantage to the export of square timber.

Almost overnight the benefits of the railway were felt in countless ways by families throughout the region-many goods were shipped before the lines were even completed. Locomotives provided rapid, inexpensive means of exporting the produce the region had in abundance like lumber, rails, cheese, flour, lime and ice, and acquiring things that had little prospect of being produced locally: salt, metals, sugar, manufactured goods, tea, paper, paint, wire, nails and ceramics. Everybody used products that came on by rail, and the iron horse made shipment so much easier than oxcarts. It would be hard to imagine such numbers of commodious, brick clad frame houses if the bricks could not be shipped on the railway or steamers from Fox's brickyard in Lindsay to Fenelon Falls or Bobcaygeon. Would as many families have a washing machine, if it was not so easy to import metals? Would farmers have so many metal implements? It was very convenient for those transporting dense commodities like sand, gravel and dressed stone that they could use rail or barges rather than horse and waggon. Without these connections would buildings in Toronto have been erected with Kawartha Lakes dressed stone? Would there have been factories producing wood pulp, barrel staves or cheese? Would there have been as many roller mills or large lime kilns? Though families and neighbourhoods made most of their material world with their own hands, many irreplaceable components came through distant trade. The exchange they carried was essential to the transformation of domestic and farm life in the late nineteenth century, alleviating some of the tedious manual labour that underpinned so many productive activities.

The railway and steamships reduced the isolation of these communities. In the last decades of the century a letter could be sent from Bobcaygeon—which was still yet to receive a rail link, then connecting by steamer to Lindsay—to Toronto in time to receive a reply the following day. Yet, by present-day standards most families in the Kawarthas were still quite isolated—people more often acquired goods from afar than travelled themselves. Travelling by foot or horse, most rarely ventured more than a few miles from home. But when the occasion arose they might take the railway to Lindsay or go on a

steam excursion to another town. The railways and canals allowed the Kawartha Lakes to become a major tourist destination. Without them life would have been different indeed. It may be, in contrasting the results of railways and canals in the Kawarthas with White's study of the transcontinentals, that the Port Hope, Lindsay and Beaverton Railway was built at the right time.

Though they brought such far-reaching change, railways had rabid critics spawning perhaps the most heated debates of municipal politics in the nineteenth century. Many citizens opposed voting public money to support a private, for profit venture. But they also turned into regional political debates on a microscale. Generally, a majority from one locale would vote a bonus to achieve a rail connection. But if a community was already served by rail, it would probably oppose a bonus that would improve another community's connection, and if it was perceived that a project might confer a relative advantage on one settlement over another, it was almost certain to have vociferous opponents. Yet railroad debates could have tremendous grassroots support—as when farmers in the northwest corner of Verulam clamoured to be taxed in support of the Victoria Railway, a project that was opposed by most other Verulam residents who hoped for a line to Bobcaygeon instead of Fenelon Falls. Similar disputes led Fenelon Falls incorporate as a village and separate from Fenelon Township.

As the momentum to build the Trent-Severn waterway dissipated in the 1840s, much of the early work was underused and fell into disrepair, while at Lindsay the lock was converted to a timber slide. But once long-distance transportation to the region became practical, the provincial and federal governments rehabilitated some of the older works and began adding new links. Especially from the late 1860s, the campaign renewed to construct a through waterway, rehashing many of the same nonsensical arguments that had been used decades earlier. The waterway was ultimately completed as both Conservative and Liberal governments found it an effective way to purchase votes with public money.

Before the through waterway was completed it was apparent that fluctuating water levels impeded navigation in summer and autumn, so the Department of Railways and Canals undertook to precisely manage lake levels. To do this, they employed reservoirs on tributary waters to retain the spring freshet and released it as the season progressed,

similar to the way lumber companies floated their logs. The through route linked two watersheds, including many water bodies that natural barriers had previously isolated even from parts of their own drainage system. It brought a host of lasting environmental changes, including altered sedimentation patterns and new species like walleye and carp. The flooding drowned out farms, village lots, islands, and some rice beds, prompting a multitude of damage claims.

In the early years of resettlement, many important routes were just blazed trails through the bush. If a road was travelling east to west, the trees would be marked with an axe on the east and west sides. A north turn was indicated with marks on the north and south sides. A road often meant nothing more than a cleared strip through the bush with the tree stumps cut short enough that an ox cart could pass. Settlement duties required farmers to clear and seed their half of the road allowance adjacent to their property, but it is doubtful that most invested in the seed. Ploughing or turnpiking the roads could help to level them out. The best pioneer roads were corduroy-paved with logs laid perpendicular to the direction of travel—though they usually heaved with frost. In the first days of resettlement corduroy was usually mainly for crossing swamps or creeks. These stretches were often later improved by adding further layers on top of the corduroy-dried logs would float, so stone helped hold them down, while making them more passable. Traill recalled feeling "jolt, jolt, jolt, till every bone in your body feels as if it were going to be dislocated," as wooden carts did little to dampen the shock of the wheels dropping between the logs. Upsets were fairly common and horses broke their legs in the gaps. As horses pushed their way through the bush, travellers had to dodge low hanging branches whipping backwards. Many complained about the deplorable state of the roads, since they were far rougher than those back in Britain.

McIllwraith dismissed the clamour over bad roads as genteel sensibilities, implying that they were adequate for settlers' needs since they could transport most of their goods in winter anyway. These rough roads certainly were far more passable when the ground was frozen and snow levelled out the stumps, rocks, fallen trees, and mud holes. Upper Canadians typically did their heavy hauling in winter, as draft animals could pull twice the load. With travel becoming so much easier around Christmas or New Year's, many families enjoyed a festive season visiting friends and family, especially

those at a distance that summer work and difficult transportation had precluded seeing. By late winter, however, snow often became so deep, especially in drifts, as to make travel difficult again. Though the roads were good enough for survival in the pioneer era, drastic improvements were necessary for the kind of agricultural progress that settlers expected. The early roads were like much of the pioneer material culture—makeshift, good enough to get by until they had the time to do a decent job.¹

As the snow and ice melted, travel was nearly impossible, other than on foot. Thomas Need recalled an eleven and a half hour, six mile trip on one of the highest traffic roads in the region, the portage from Peterborough to Chemong Lake:

I very much doubted whether we should ever get there. Set off at nine o'clock. Stuck in a mud hole at eleven 3 miles from Peterboro. With the assistance of two men with good strong rails got out again at half past twelve. Foundered again at two, ³/₄ of a mile from Man's on the lake. Obliged to unyoke the ponies & take the things on their backs. Came back and found the wagon nearly up to the axle trees. Continued to fasten the ponies to the back of the wagon & dragged it after much trouble onto a piece of corduroy road. With still greater trouble turned the wagon but again foundered almost immediately & were absolutely obliged to take out the ponies & ride bare backed to Peterboro, where we at length arrived at ¹/₂ after 8 o'clock.

Others had horses sink past their knees in mud. When they were travelling by land most carried an axe in case they had to make road repairs—typically clearing brush or by throwing log and branches into mud holes. During the spring melt, many avoided travel if at all possible, and year round most used the waterway as much as possible.²

Winter travel on the waterway was much faster than across land, though settlers had to be careful to avoid cracks. Every lake had spots where the current ensured that the ice remained thin. Some of the treacherous spots were easy to identify, as at the mouths of rivers. But others were not, and were discovered through hard experience—early settlers often learned about them from their Ojibwa friends. John Langton recalled during his first winter at Blythe that Scugog Lake and River formed the route south from Purdy's Mills to the front, "but the river below his dams is very treacherous; I fell in 7 or 8 times in attempting it the other day." In time, inhabitants knew, for instance, to cross Diehl's Point on Cameron Lake rather than rounding it. The safest course was to follow the ice roads that formed, as travellers tended to use the same routes. Nevertheless, a few pedestrians or teams went through the ice each winter. Horses were less likely to survive the plunge than their drivers.

Traffic on the ice began almost immediately after freeze up, perhaps within a week of when boats stopped travelling, and continued to within a couple of weeks, perhaps even a couple of days, of ice out for pedestrians—usually someone went through before the trips ended for the year. Well into the twentieth century ice roads formed part of the usual winter route from Bobcaygeon to Peterborough, and greatly expedited the trip. But these also claimed their casualties, including Bill Dunbar, the well-known Kinmount hotelkeeper, originally from Bridgenorth, who had also been a Boyd shanty foreman. In 1894 Dunbar upset his cutter into open water in the Narrows coming into Pigeon Lake while returning from Peterborough—memorialized in the local folk song *The Drowning of Bill Dunbar*.³

Travel on the waterway in summer could also be dangerous and there were many fatal accidents. One of the most notorious involved Anglican Rev. Thomas Fidler, Fenelon Falls' first minister, and two brothers named Sinclair assisting him on May 15, 1847. Though the waters were high with the spring run off, they paddled across above the falls to a landing and grabbed some branches. Wanting to land at a point further downstream, they let go. Swept out into the current, facing the wrong direction, they tumbled over the milldam and falls, all three perishing.⁴

The land distribution system was designed so that settlers were responsible for creating the township roads following the concession lines. Farmers were to clear the front of their properties, but since many lots took decades to settle, it often fell to the neighbourhood to clear them. These obligatory roads were just linear clearings, which were not very passable, so each year residents improved them to fulfil their statute labour, regulated by a 1793 Act of Upper Canada and the 1849 Municipal Act. The townships were divided into beats of a few miles length, with a pathmaster overseeing each. In 1850 Verulam Township defined a day of statute labour as "eight hours faithful work exclusion of time going and coming," with an extra day's credit for bringing a team of horses or oxen. The following year it increased the requirement to ten hours. As part of their duty to the township, male heads of household assisted with all aspects of road building—clearing, draining, installing wooden culverts, filling in holes, placing corduroy logs to

span wet spots (crosswaying) and building simple bridges. Crossways were often covered with earth or gravel, because the logs on their own would float, making the road impassable. Beginning in 1855 Verulam residents could commute their obligation, paying between 2s 6d and 5s. Bobcaygeon set its rate at \$1 per day in 1877. Though some thought the quality of work for the township was little better than "statute laziness," and a few votes were called for its abolition, it continued into the twentieth century.⁵

While statute labour roads improved the concession and side lines, from the mid nineteenth century several more costly designs were employed on heavily travelled routes. A good plank road allowed traffic to pass faster and easier—a stage might run at eight miles per hour. They were usually constructed with scantling running parallel to the direction of travel, and planks of at least three inches attached perpendicular, with grade limited at 1 to 20. Sand was then spread on the roads, until it had filled the space under the planks, then one inch of sand was placed on top. Specifications usually required a ditch on both sides at least two feet lower than the road to help with drainage. But major repairs were often necessary within three years as planks and stringers rotted. They also floated, could heave as they expanded from water saturation, and were flammable. In the early 1840s, the new Board of Works invested £40,000 on two planks roads—one from Lake Scugog to Whitby, the other from Rice Lake to Port Hope. The Port Hope-Rice Lake road was sixteen feet wide on the level at the top, with a six-foot strip falling an inch to the foot on either side and then ditches on the outside. In 1851 Wallis had the main street of Fenelon Falls planked.⁶

Gravel or Macadamized roads started to appear soon after plank roads. Gravel had long been used in Europe, with mixed results, prompting theorists to devise better construction techniques—the best known was John Louden McAdam. He observed that the composition of the gravel was essential to building a good road—clay was a poor choice, while broken limestone was an excellent material. He recommended using a bed of large stones as a base. Whereas older roads often used larger stone, he recommended nothing larger than an inch and urged the road to be graded so that it sloped downwards from the centre to facilitate drainage—an inch to ten feet was sufficient. This stone was to be mixed with finer material so that it would consolidate (essentially, he called for modern A-gravel), forming a smooth surface. On roads in Canada West, stones up to 1 ¹/₂ inches were accepted, the base of large stones was often omitted, and it was necessary to rake the surface to fill in ruts.⁷

Though the Kawarthas had an abundance of good limestone, breaking it with hammers was a monotonous job. By 1864, not long after the facility opened, prisoners at the Lindsay jail were made to break stone to be spread on the town streets. The same year the county raised debentures to Macadamize the roads from Lindsay to Fenelon Falls and Bobcaygeon. After Lindsay purchased stone in 1877 to give work to the unemployed, a local Ladies' Aid believed the social benefits so great that it petitioned Council to continue the program the next year. From the 1860s gravel roads became a common political promise, though they were expensive. As stone roads became more common in villages during the 1880s, workers also often broke stone. In 1883, when Colborne Street, Fenelon Falls was being paved with stones taken from the canal excavation, some fragments flew "with great force and fury in all directions, occasionally breaking a store window or giving some one a stinging blow in the face." Serious eye injuries occasionally resulted. Three years later, Robert Jackett was nearly blinded when hit in the eye by a shard. Gravel of variable quality was harvested from pits, and the Boyds used large quantities to pave the roads around their properties and mills at the end of the century. Often just a veneer of broken stone was spread, to be packed by traffic into the material below. Stone crushers—invented in 1852—started to appear in the area around 1899. They revolutionized stone breaking and once they were common, gravel roads became ubiquitous in the countryside.⁸ As gravel roads were introduced, stumping machines were brought in to remove the remaining stumps-a frequent cause of damage to carts and sleigh runners.⁹

Tolls offset the cost of plank or gravel roads. It was, however, fairly common practice to run the tolls—even one Lieutenant-Governor evaded payment. Disagreements at the tollgates led to regulations against swearing on the roads. Regulations were also introduced requiring horses to wear sleigh bells on their harnesses to reduce the number of accidents in poor visibility. At that time it became common practice for drivers to keep to the right, and pass on the left. Especially in towns, youths often made a winter sport of grabbing hold of passing vehicles to be towed down the street, and some were

adventuresome enough to do so with horses trotting at full speed in the country. This game continued into the age of automobiles.¹⁰

With a few exceptions, village streets were dirt or mud for most of the century. Until the 1880s, no special accommodation was made for pedestrians. Sidewalks were then introduced, which were usually built of fairly high grade two-inch pine planks. With the boards running parallel to the street, sidewalks were measured by the number of planks width. Ten inch planks were the common material and many were ten courses wide. But much like wooden roads they rotted quickly, and continually needed repair. Before they were replaced, the boards had usually started breaking. Laid upon the ground, the sidewalk could sink in wet spots. In 1880 the *Gazette* commented that "slight accidents to toes or shoe leather often occur," while some tripped over projecting planks. In 1889, Michael Berkeley of Cambray experimented with cedar logs cut in short lengths, laid with the flat sides on top and bottom as sidewalk pavement.¹¹

Settlers' first bridges were often trees felled across a creek—slippery and only accommodating one person at a time. Larger rivers could only be spanned with proper construction techniques, and crossings were one of the first priorities for political leaders. In 1834, Thomas Need secured a £128 grant to build a bridge at Bobcaygeon. Two piers supporting that bridge washed away during the spring freshet of 1836. A bridge across Little Bob was built by statute labour in 1837, and by the 1840s there were bridges across all three channels. The early bridges were, however, often of poor design and workmanship—Baird considered one at Bobcaygeon "a miserable fabric." Since its piers had been only partly filled with stone, it started to lean after the water was raised at Buckhorn in 1843. In 1845 it was replaced by a three truss bridge, and many other early bridges in the region soon had to be replaced. The Big Bob bridge then crossed near the east end of the island created by the canal. The bridge over the canal was upgraded to incorporate a swing when the lock was rebuilt in 1857 and about that time the Big Bob bridge was moved to the west end of the island. The swing bridge required four men to operate and it was such a struggle that "though you might catch a man at it once it was extremely difficult to catch him at it a second time." It was reconstructed in 1867, then replaced with an iron bridge in 1880. After another refit in 1883, the lockmaster could operate it with a key, but it had to be substantially repaired in 1887, and replaced again in

1892. In 1893 the Department of Railways and Canals added a chain at the north end to block off the road when the bridge was opened, and a red lamp for warning at the other. In 1877 Mossom Boyd rebuilt the Little Bob Bridge with a swing to facilitate his shipping of lumber.¹²

By 1842 a bridge spanned the Fenelon River, just above the falls, supported by four piers. In 1867 a new bridge that cost \$4000 was built with stone piers and abutments. In 1882 the Toronto Iron Bridge Company erected a new structure for \$4931.85—that still employed wood for flooring. It noticed while construction was under way that the iron bridge sat seventeen inches lower on the piers than its predecessor, so it had to be subsequently raised. When the lock was built at Rosedale, a swing replaced the wooden bridge over the Rosedale River, reconstructed of steel in 1897.¹³ Later in the century a few floating bridges were built in the region—at Gannon's Narrows, Chemong Lake (said to be the longest in Canada), Burnt River, and one over Pigeon Creek that was rebuilt as early as 1877. Surviving the pressure of ice and wind, the Gannon's Narrows Bridge served until 1952.¹⁴

The bridges constructed in the nineteenth century all required constant maintenance, and at times their neglect was alarming. In 1858 a prominent Lindsay resident wrote to the Board of Works "that the swing bridge across the Scugog River at the locks in this place is now unsafe for loaded teams to cross and liable at any moment to break through from its decayed and worn state." By 1879 there was speculation that the bridge over the Fenelon River—"that crazy structure, which creaks and bends worse than ever when a heavy load is driven over it"—might succumb to the snow load. Three years later the Queen Street bridge in Fenelon Falls was so decayed that "it yields in a most alarming manner beneath a light load, and it was only a few weeks ago that a span of spirited horses became so frightened when crossing it that they threw themselves and the buggy into the creek below." In 1900, when Fred Dettman of Kinmount was driving a herd of 100 cattle across his village's bridge to ship them, the structure broke, plunging thirty-six head into the river—"wildly exciting for a time, the bellowing of frightened cattle and shouts of bystanders causing the remainder of the herd to stampede in all directions." Six cattle drowned and several were injured.¹⁵ By mid-century the county and township roads were becoming more passable, but public attention focused on rapid long-distance transportation. While many of the early gentry expected transit to follow the waterway, by mid-century the advantages of rail were apparent to most. For long distance travel, it was faster and carried larger loads at less expense than any other contemporary transportation option. With so many advantages, it became the principal focus of development promoters and every settlement feared being left behind. Once the iron horse reached Lindsay, few would send freight down Lake Scugog to haul across land to Whitby. It also made canals for long-distance transportation obsolete—no one would spend days, paying lockage at each station, shipping goods to the front on small barges, when the railroad would deliver at a lower cost in a few hours. But the waterway remained important for shipping commodities to the nearest rail line.

The first railway in Upper Canada was operational in 1839, but only 66 miles of track was complete by 1850. Six years later, the Grand Trunk Railway connected Toronto and Montreal, and almost immediately lines branched into the backcountry. In 1846 Port Hope interests secured a charter to build a railway to Peterborough, but the town declined to purchase their stock. So they amended the charter in 1854 into the Port Hope, Lindsay and Beaverton Railway. Built to five feet six inches gauge, construction began in 1855, reached Reaboro the following year, and opened to Lindsay on December 1, 1857. A branch line connected Peterborough to Millbrook in 1858. As with many railroads, they did not initially plan to complete the entire route suggested by the name—an ambitious title helped to garner financial commitments. In 1864, trains left Lindsay at 9:40 AM, arrived at Port Hope at 1:10 PM, with the 3:00 return train arriving at 7:00 PM.¹⁶

The route was profitable even before it was properly ballasted, as it carried most of the region's imports and exports. The emerging sawn lumber industry of the Upper Trent Watershed contributed much of its freight. In 1870 its revenues were \$242,157, against \$113,227 in operational expenses. It opened to Beaverton January 1, 1871, then Orillia two years later. In 1869 George Cox of Peterborough purchased the line and renamed it the Midland Railway of Canada. In 1874 it converted to the British standard gauge of 4 feet 8 ¹/₂ inches—recently accepted in Canada. In 1882 another junction was

made connecting Omemee to Peterborough, so traffic could travel direct from Lindsay to Peterborough, instead of via Millbrook.¹⁷

In 1852 and 1853, the idea of a railway connecting the Bay of Quinte with Georgian Bay attracted the attention of politicians and railway promoters from as far away as New York State. The United Counties of Peterborough and Victoria subscribed $\pm 100,000$, plus another $\pm 125,000$ to the Grand Trunk Railway linked to the project. But as the Grand Junction promised to be a principal feeder line for the Grand Trunk, they amalgamated and the counties' subscriptions were repealed and considered lapsed. During the Crimean War, the railway found it difficult to raise the necessary funds, and the concept lost traction as other routes were completed.¹⁸

Promoters had been working towards the construction of a railway from Cobourg to Rice Lake since 1833 and charted a company the following year, but it proved impractical until the 1850s. The 1852 to 1853 session of Parliament chartered another railway from Cobourg to Peterborough, amended to extend the line to Chemong Lake. Enjoying the support of Peterborough it soon began construction and had the line open for traffic in the autumn of 1854. The route ran through the Hiawatha Reserve, so the band was asked to cede land, and received a settlement based on the values of two arbiters—as claims for expropriation were then settled. The daring route crossed Rice Lake on what was said to be the longest rail bridge on the continent at the time. Hiawatha to Tic Island, a span of 6,727 feet was bridged with piles, supported by a crib every fifty feet, then for 2,760 feet a series of wooden cribs supported the track. From Tic Island to the south shore, for 3,754 feet piles held the bridge up. In the centre a 20x40 pier supporting a turntable created two fifty-foot openings for boat traffic. Installing the piles was a difficult task—driven with a ram weighing 1800 lbs, they moved no more than two inches per blow. The company settled for having them driven ten feet into the sand on the bottom of the lake. Over its first winter the ice drew out some of the timbers, raising the section by Hiawatha "some six or eight inches, except where it was held down by the cribs, sunk every five hundred feet. This gave it a rather undulating surface." They fixed this problem by raising the track over the cribs. By 1855 the bridge was noticeably dislocated again, and service was suspended until part was underfilled with gravel to make it a solid embankment. When it reopened, the bridge swayed as trains crossed,

terrifying many passengers. In 1860, when the Prince of Wales visited, it was not thought advisable to send him across the bridge, so he came by rail to Harwood, then was ferried across Rice Lake on a steamer, as the train cautiously crossed the swaying bridge to pick him up at Hiawatha. On September 7, 1860, the bridge was permanently condemned, and collapsed over the winter of 1861 to 1862.¹⁹

As the first railroads reached the region, steamers started to ply the upper lakes. Initially freight, especially lumber, formed the bulk of their business—hence the name of the first steamer on these waters, the *Woodman*. But with rail connections providing rapid long-distance travel, passengers soon became another important part of the traffic on the Upper Lakes. The Whitby partnership of Rowe & Cotton launched the *Woodman* at Port Perry on August 29, 1850, and she made her maiden voyage on April 25 of the next year. 110 feet long, 30 feet wide and powered by a 25 horsepower engine, she had cabins and bunks, though much of her time was spent towing. In her first year, passengers sailed from Fenelon Falls to Lindsay for 2s 5d. Two years later some of her boiler flues broke, replacements had to be brought from New York, and then she caught fire. Rowe & Cotton sold the vessel to George Crandell in 1854, who had served on her and worked in the crew that built her. After the railway reached Lindsay in 1857, the *Woodman* rarely served above that village, the bulk of her work being on Sturgeon, Pigeon and Buckhorn Lakes.²⁰

George Crandell was a larger-than-life character and soon became the best-known steamboat captain on the Upper Lakes. His father, Reuben, was the first European to take up land in Reach Township, at Manchester, near present-day Port Perry in 1821. During the 1840s the Crandell family were members of the Markham Gang, a group that committed burglary, forgery, larceny, assault and murder—in one case the weapon was a hammer. Though they had arranged to serve as one another's alibis, local magistrates realized that the evidence pointed to the same group of people for a rash of crimes. In 1843 George's brother Benjamin was convicted of larceny, and received five years in the Kingston Penitentiary, while another brother, Stephen Elmore Crandell, was acquitted. The next year Stephen Elmore was arrested and again acquitted. His sisters, Lucy Ann and Eleanor, were also acquitted of thefts. George was convicted of stealing a gun in 1846—in part on the evidence of his brother-in-law, a fellow gangster—and sentenced to

five years, as was Stephen Elmore. Released in 1850, George took a job at Port Perry for boat builder Hugh Chisholm on the *Woodman*. In 1855, his father, Stephen Elmore and Benjamin were acquitted of murdering a pedlar fourteen years earlier, despite the damning testimony of an alleged gang member, and another witness who had seen Stephen Elmore wearing the victim's clothing afterwards.²¹

Crandell served on Lindsay town council for 32 of the 33 years beginning in 1866, but he remained a notorious character. In 1876 he and a Lindsay lockmaster had a disagreement over whether the locks should be operational after sunset, that resulted in both Crandell's lawyer and the lockmaster complaining to the Department of Public Works about the other's abusive language. In 1877 four steamers arrived at the Lindsay lock at about the same time. Crandell demanded that his *Champion* go through immediately. After the lockmaster asked him to wait half an hour, Crandell got in a fight with crew members from the *Novelty*. While the lockmaster was trying to get the upper gate closed:

Crandell knocked me down, got his scow partly in the lock and set the valves open the whole four scows were running at once, he swore he was on his own property he would do as he liked. He knocked my assistant down, put his knee on his breast, tore his shirt and vest. I had to leave him in possession. I first sent for a constable and if I had not done so I should have been badly used as he said he would leave me in a bed for a week.

In 1884 he got into a street fight with "two or three roughs." Angered at an 1889 council meeting, he vowed "that if the council wanted to be insulting towards him, he was not going to put up with it, but would make it hot for the most of them."²²

In 1853 James Wallis launched the *Ogemah* at Fenelon Falls—the name derived from his Ojibwa appellation, as *ogima* or civil leader of that village. She grossed 79 tons, was 103 feet long, and had a rounded stern, with two decks. While initially captained by W.C. Church, once Wallis was becoming hard-pressed financially, he often commanded the ship personally. Though this vessel towed timber and scows of sawn lumber, including some work for Wallis' friend Mossom Boyd, the *Ogemah* ran regular passenger service and excursions—her 1866 route was between Lindsay, Bobcaygeon and Bridgenorth, connecting with the stage conveying passengers from the Port Hope to the Peterborough rail line. In 1873, Wallis sold the ship to Captain George Rose and Clement Davies for \$2,700. They ran her from Lindsay to Port Perry to connect with the new rail line, as well as the *Victoria*, which plied the northern waters. After catching fire November 6, 1876, the *Ogemah* was scrapped the next year.²³

Railway promoters could see many imperfections in the emerging network of locomotives and steamers that might be solved by judicious investment. The Port Hope Railway had opened one of the two natural outlets from the Kawarthas to Lake Ontario, but the Whitby-Port Perry route remained a conventional road. North of Lindsay, the Upper Lakes did not have rail connections, meaning that cargo was usually transhipped at least twice before reaching the front. By the 1870s there was enough potential traffic in the north country to justify a rail connection. Toronto was well established as the largest city and market in the province, but the connection from the Upper Watershed was circuitous—overland to the waterway, by water to Lindsay, perhaps with some portages, southeast by rail to Port Hope, then back west to towards Toronto.

The Whitby and Port Perry Railway, chartered 1868, promised to expedite shipments from Lake Scugog to the front, and also aspired to capture some commerce of the Upper Lakes as well. After two contractors gave up the job, the company had to finish the work itself, with the line winding around ridges because of their limited ability to move fill. In 1872 a twenty-mile track opened, though construction was not complete, and it rechartered as the Whitby and Port Perry Extension Railway, with authority to build almost anywhere. After receiving bonuses from local governments totalling \$85,000, it settled for Lindsay, with the first train passing July 31, 1877. Travellers on the mail train could leave Toronto at 7 AM, arrive at Whitby at 8:45, Port Perry at 10:10 and Lindsay at 11:45. By 1881, when it merged with the Midland Railway, eight trains ran daily from Lindsay to Whitby.²⁴

Many promoters of a connection from the Upper Lakes to Toronto were taken by the idea of a narrow gauge railway, a fad of the 1870s. George Laidlaw, who settled on the north shore of Balsam Lake, was one of the most prominent advocates of narrow gauge railways in Ontario, publishing reports claiming that they could reduce construction expenses by 37% and lower maintenance costs, while reducing friction and fuel consumption. He partnered with William Gooderham, the wealthy Toronto distiller, who had employed Laidlaw to buy barley when he immigrated in 1855. Prominent lumbermen A.P. Cockrane of Kirkfield, Alexander A. McLaughlin of Norland and

Duncan McRae of Bolsover backed them, as did John Shedden, a prominent rail contractor and operator of a cartage firm. They secured bonuses of \$386,500, including \$150,000 from Toronto, \$50,000 from Uxbridge and \$44,000 from Eldon Township. Settling on a gauge of 3 feet 6 inches, they began constructing the Toronto & Nipissing Railway in 1869, about the same time as another narrow gauge track, the Toronto, Grey & Bruce extended across western Ontario. As far as Scarborough they laid a third rail to use the existing GTR track. In 1870, they tried unsuccessfully to raise enough funds from Mariposa and Lindsay to connect to Lindsay, which they hoped would deter the Whitby and Port Perry Railway from that town.

On July 1, 1871 the tracks opened to Uxbridge, then after a lengthy trestle spanned the North West Bay of Balsam Lake, it was complete to Coboconk on November 26, 1872. The Toronto & Nippising intersected the Midland Railway at Midland Junction or Lorneville. In 1877, the mail train left Toronto at 8:20 AM, arriving at Cannington at 10:52, Woodville at 12:05 and Coboconk at 1:30 PM. The road employed a Fairlie locomotive named Shedden, with two power bogies, smoke boxes and stacks, connected by a central firebox. Though unsuited to high speeds and limited in the amount of fuel and water carried, the lower centre of gravity allowed it to turn sharper corners and climb tougher grades. The Shedden did not serve long before her boiler exploded at Stouffville. Moreover, the disadvantages of the narrow gauge soon became apparent. The cars could not handle the same volume of traffic, the railway was often not able to keep up with the demand for cars, and goods had to be transferred between cars to complete the journey. All new railways in Canada were built to the standard gauge from 1872, which allowed cars to run any line, eliminating the need to reload cargo. In 1881 the line merged with the Midland Railway, employing a third track as far as Lorneville. By 1883 it had converted the entire line to standard gauge and removed the third rail. The same year it was connected to the Whitby-Lindsay line at Blackwater.²⁵

Before the Toronto & Nipissing Railway was complete, George Laidlaw was already promoting another line through the Kawarthas. In 1872 he led the incorporation of the Lindsay, Fenelon Falls and Ottawa River Railway, promoted as a route to connect via Opeongo Lake with the proposed Canadian Pacific Railway at Mattawa. Though he initially conceived it as another narrow gauge railway, it employed standard gauge. That spring and summer surveyors including James Dickson of Fenelon Falls laid out the route. Its course was divisive, as municipalities allied along their commercial interests. The immediate political issue was to choose which centres could capture the commerce of Haliburton, which was then becoming one of Ontario's principal lumbering centres. Peterborough and the southern townships of Peterborough County were opposed to the railway, as the route promised to attract northern commerce to Lindsay. Lindsay supported the project, as did the northern Townships of Peterborough, who stood to gain better rail access. The western end of Fenelon Township was already fairly well served by the Toronto & Nipissing, while Fenelon Falls would gain better connections both with the market towns and the north country. Fenelon Falls incorporated as a village in 1874 so it could vote a \$15,000 railway bonus, while its separation ensured that the township would give no subsidy. Stephen Billet put together a petition asking that the northwest corner of Verulam grant a bonus, and concessions I to V north of Sturgeon Lake contributed \$7156.90.²⁶

Work began on the rechristened Victoria Railway on August 5, 1874, backed by \$140,000 from the province to reach Kinmount and \$85,000 from Lindsay for a road to Mattawa. On August 6, 1876, the workers tried running the locomotive across the bridge at Fenelon Falls, but it broke a timber in one of the piers. They pressed on with the construction, and it opened as far as Kinmount on November 9, 1876. The company bought two engines—*Lindsay* and *S.C. Wood*—fifty freight cars and four or five coaches to commence regular service in 1877. That year the company received permission to extend its line from the head of William Street in Lindsay down Victoria Avenue to Russell Street, where it contributed to a union station with the Lindsay & Whitby Railway. William and Alexander Mackenzie built the Kinmount station and engine house, as well as some bridges—William Mackenzie's first job in his notable railway construction career.

With \$8,000 per mile from the Crown and a \$100,000 bonus from the Canada Land and Emigration Company, the Victoria Railway pushed on to Haliburton. As the locomotive pulled into Haliburton for the grand opening gala on November 26, 1878, it passed through an arch pronouncing that it brought "National Prosperity" and "Progress." Even before that event, the line was already shipping considerable freight into Haliburton,

especially to supply the logging camps—almost overnight the railway became the carrier of most of this freight. The Midland Railway took over the line in 1880, then built a station at Fenelon Falls in 1882—though some complained that it was so close to Lindsay Street that the trains would block traffic as they stopped. The next year the company started converting to coal.²⁷

While the Victoria Railway initially advertised locally for labourers, it quickly resorted to bringing in 365 Icelanders, along with a few Swedes who started work soon after the onset of construction. Though many were ill with dysentery when they arrived (over 100 died, especially children) and only one of the party spoke English, they persevered, living around Kinmount while they laboured on the track. Missionary John Taylor petitioned the government to grant them aid, and a number relocated in 1875 to settle at Gimli, Manitoba.²⁸

Constructing the southern end of the Victoria Railway was fairly straightforward, as it followed the Scugog River and northwest shore of Sturgeon Lake much of the way to Fenelon Falls. Though it required a few rock cuts, filling a stretch three thousand feet long at McLaren's Creek, and a \$20,000 bridge at Fenelon Falls, much of the land was relatively level, and the grades were often easily achieved just by skimming off the topsoil. To ballast the road, the company used a steam shovel named the Steam Irishman that moved 600 to 800 yards of gravel daily. But north of Kinmount, the route was far more challenging. Many rock cuts and trestle bridges were necessary, and a sink hole about four miles north of Kinmount continually surprised planners with the quantity of fill that disappeared. Crews resorted to driving piles into the mire to keep the track up. Since the rock cuts and the sink hole slowed construction, it became clear that reaching the Mattawa would prove very expensive. The government reserved ten miles on each side of the track from Eyre and Clyde townships to the CPR to subsidize construction, but the quality of this land made the returns questionable. Nevertheless, boosters continued to promote the scheme, though they were unable to generate anywhere near the necessary funds.²⁹

Like much that was constructed in the nineteenth century, the railway required continual maintenance, much of the expense coming from the repeated replacement of rail ties. Despite the piles, the Haliburton sink hole once again swallowed the track. In

1889, the company filled in under the track with earth and gravel, but the fill pushed the piles aside, causing the track to collapse. The hole continued to absorb carloads of fill, so the railway tried dumping between fifty and sixty loads of old ties. By 1890, the track of the Victoria Railway had sunk in many places, causing the rails to roll up and down, forcing trains to go no faster than the best horses. The company relevelled it by lifting the track and filling the gaps with gravel.³⁰

The railways created many jobs—clerks, freight handlers, maintenance, engineers, crew, and yard hands. As was often the case in the nineteenth century many of the jobs were dangerous. Until air brakes were employed, men manually clubbed the brake wheels to stop trains. To do this, and to switch cars, labourers were expected to climb on, off or between moving cars. In the 1880s, it was estimated that a thousand men died each year working on railways in the United States. The most common cause of death was falling from a moving car. Most cars were coupled with simple drawbars, requiring the yard worker to stand between the cars and drop a pin through them as they came together—many workers lost fingers or had their hands crushed this way.³¹

Once completed the railways became indispensable to local commerce. Being such an important publicly subsidized monopoly, the public expected near perfection in their operation. There were vociferous complaints when the railway did not run regularly. Others were angered that the railways negotiated different rates with two parties to ship identical articles—often through rebates designed to overcome legislation stipulating that rates should be equal for all. By the end of the century, there were complex rate books for all sorts of commodities, which did not always reflect the cost of shipping. Some goods, such as gravel, might be shipped below cost, because they would not bear high rates and it was better for railways to have the additional business, so long as it met the marginal operating cost. They could make their profits off other shipments. Despite all of the complaints, not only was it the fastest and most economical means of long-distance transport, it was also more reliable than horse-drawn carts or the waterway. Rail lines were occasionally blocked by snow in winter, until locomotives were outfitted with snow plows. The Victoria Railway was so equipped in the 1890s, about the same time that roads were first plowed as well—1893 for Fenelon Township.³²

Businesses in communities like Bobcaygeon that lacked a rail connection operated at a great disadvantage. Ventures there had seasons when all means of transportation were difficult, and most tried to plan their shipping around these periods. Whereas in 1876 R.C. Smith at Fenelon Falls could ship lumber year-round at less expense via the railway, Mossom Boyd could only sell while navigation was open—he had to load lumber on scows, tow them to Lindsay, then repile the boards onto rail cars. Most Bobcaygeon stores tried to have sufficient inventory by the time navigation closed to operate until winter, when the lakes opened again to traffic, and similarly stockpiled prior to the spring melt.

Bobcaygeon's civic leaders worked hard to secure a rail connection, but their efforts were frustrated for decades. In 1852, as arrangements were being made to connect the Kawarthas to the Grand Trunk Railway, then under construction, Bobcaygeon council tried to attract one of these new lines. But the priority at that time was to connect regional centres. By the 1870s, when the secondary railways were built, Bobcaygeon representatives pursued several different railway schemes. In the early 1870s, the Midland Railway considered building an branch line to Bobcaygeon, but the scheme collapsed when the depression began in 1873. Municipalities in the Bobcaygeon area offered bonuses for the Bowmanville, Lindsay and Bobcaygeon Railway in 1872, the Omemee, Bobcaygeon and North Peterborough Junction Railway in 1873, the Cobourg and Peterborough Railway in 1874, and the Whitby and Bobcaygeon Railway Extension Company in 1878. In 1880 they spoke to the Grand Junction again about a proposed link with Cobourg, Peterborugh, Marmora and Chemong Lake. But none of these schemes amounted to anything, and in the case of the Cobourg and Peterborough, many wondered if the company had any serious intention of building the road, as they demanded \$250,000 in bonuses, the right of way, and tax exemption.³³

With many villagers frustrated at Peterborough's apparent lack of interest in securing a rail connection, in the 1890s the village focused on Lindsay. As the Grand Trunk Railway already served much of the region, promoters argued that a competing line was necessary. They planned a route via Lindsay from Burketon Junction on the Canadian Pacific Railway track from Toronto to Peterborough—even though this was longer than the other proposal to connect Bobcaygeon to Omemee on the Grand Trunk

Railway. Mossom M. Boyd, W.T.C. Boyd, John A. Barron, Charles Fairbairn, H.J. Wickham, John D. Flavelle, William Needler, George Bick, John Petrie, John L. Read, John Kennedy, and John Dobson were the key figures in the Lindsay, Bobcaygeon and Pontypool Railway Company—essentially the Boyds and their associates. The Boyds took a great personal interest in ensuring that the railway would be built, arranging for the charter, urging residents to attend votes on the bonuses, and even personally negotiating to purchase some parts of the right of way. In the late 1890s there was also an unsuccessful campaign to build an electric railway to Bobcaygeon.³⁴

It must have been apparent to the Boyds that they would not be the prime beneficiaries of the railroad's completion, since they were concurrently trying to sell the Little Bob Mill, liquidating many of their best timber limits, and planning to move their lumber operations to British Columbia. The survey for the railroad was completed in 1900 and the tracks reached Lindsay on May 30, 1903. The first train left Bobcaygeon on April 25, 1904, and Willie Boyd retired as President of the Company three days later at the official opening. By then Boyd's sawmill was scarcely operating, and it closed the following year. The new rail line also competed with their Trent Valley Navigation Company for traffic between Lindsay and Bobcaygeon.³⁵

Though the emerging rail networks rendered the arguments for a through waterway to serve the western trade ever more remote, the increased steamboat traffic connecting with the rail lines helped justify the construction or re-construction of canals. This helped mollify the Trent Canal lobby, which could interpret these works as links towards the through route. Yet when it took over responsibility for the waterway at the time of Confederation, the Dominion Government recognized that the locks were "so entirely local in their objects" that it attempted to transfer them to the province. On March 15, 1870, an order-in-council authorized the Dominion to transfer responsibility, and much of its operation was practically passed down. The Canadian Government tried to transfer the works entirely, on the condition that Ontario maintain them, but the province understood that the system was expensive and generated little revenue to offset the cost, so refused. Once John A. Macdonald's government fell, the initiative ceased.³⁶

Even while the rail networks were expanding to the Kawarthas, work continued on the maintenance and expansion of the water routes. Many public figures of the period,

subsequently echoed by historians, tended to see railways and canals primarily as competitors for public revenues, but the rail network actually made canalization more attractive. Although there never was any real prospect of canals providing rapid through navigation, the railways connected the waterway to the cities on Lake Ontario, and hence to centres across North America. The railways spawned growth in long-distance transport almost instantly, especially in the forest industries. With more connecting traffic, the waterway became a much more justifiable investment.

By the 1850s the wooden lock at Bobcaygeon was so rotten that the province rebuilt it of stone. It was completed in 1857 at the standard size of the Trent-Severn (134 feet by 33 feet) to accommodate the 32-foot wide *Woodman*, which to that point had operated only on Lake Scugog and Sturgeon Lake. During the work, the contractors had intended to lower the level of Pigeon Lake, but protests expressing fears of ague forced them to instead build cofferdams around the lock. Soon after Confederation, the province responded to demands for better local transportation by rebuilding the Lindsay lock, while adding new locks at Young's Point and Rosedale. These were the three easiest potential lock sites that remained in the Kawarthas. Residents around Coboconk and Moore's Falls petitioned for a lock, observing that it would open a route from Norland to Fenelon Falls, and lessen the difficulty of water transportation to Minden, but the Province did not act on their suggestions.³⁷

The reconstruction of the Lindsay lock, which had been converted into a timber slide due to the lack of traffic, was undertaken largely because the Whitby and Port Perry Railway proposed resuming navigation to Bobcaygeon. It understood that a functional lock would improve its ability to secure the necessary grants for railway construction. Thomas Walters won the contract for dredging at \$2,250 as well as the lock and a swing bridge at \$14,400 in February, promising to have it complete on July 15—at a lower than anticipated cost and in less time than the tender had required. He rebuilt the lock on its old foundations, so it remained the same size—131 feet by 32 ½ feet, with a lift of 7 feet 8 inches. Though he was behind schedule on the initial contract, he was hired to repair the dam, do more dredging and build another swing bridge in 1871. Just as the province took the completed works off his hands that April, it was observed "that the lock recently built at Lindsay is leaking so bad underneath that the Lake... is rapidly falling and that if it is

not looked to at once the results to navigation will be serious in the extreme." The plank flooring had shrunk, so the engineer recommended battens and gravel to staunch it. In 1872 the Scugog River was dredged between Lindsay and Lake Scugog, then from Lindsay to Sturgeon Lake the next year.³⁸

The Rosedale lock was built to complement the Toronto & Nipissing Railway. Though the Balsam River was already navigable to small craft much of the year, once the rail line was in place the province agreed to open the river to steamers. The lock was specified at 100 feet by 30 feet, thought suitable for local needs—on the assumption that a through waterway would not be built—with a 350 foot long dam raising Balsam Lake five feet, which would drown out most of the obstructions on the river. William Whiteside received the contract for \$19,800 on September 14, 1869, with a completion date of September 1, 1870. The water level on Cameron Lake was high enough that autumn that he did not begin work until the following spring. By then he found that he could no longer secure the materials and labour at the cost he anticipated. His cofferdam was not very effective, as the gravelly bottom allowed water to flow under it, requiring an excessive amount of pumping. By 1872, having spent \$27,132.82, with his pumping engine worn out and his funds exhausted, the supervising engineer, T.N. Molesworth, took over the work. Whiteside received \$19,280, and after persisting with claims, received a further \$850 in 1885 to help cover his losses. Molesworth completed the lock, but as there was no traffic, it was not placed in order with a lockmaster to oversee it until the Coboconk was launched in 1876. With the Ontario locks complete, navigation was open from Port Perry and Balsam Lake through to Buckhorn or Bridgenorth, with the exception of Fenelon Falls.³⁹

With three more links in place, the campaign to complete the through waterway regained momentum. Mossom Boyd organized the Huron Trent Valley Canal Company at Peterborough. With Boyd as chair and C.R. Stewart as secretary, it obtained a charter in May 1874. The next winter Boyd travelled to Britain to attract investors, suggesting that as a route for barges it might realize \$4,500,000 annually in tolls, but explained to Mossie in February 1875, "Today I made the last effort in re: canal & find it useless to attempt to float the scheme. Will try no further." Supporters reorganized into the Trent Valley Canal Association in September 1879. This lobby coordinated interested individuals, businesses,

steamboat owners, and municipal governments, demonstrating the district's eagerness to have the works complete. Many dignitaries found that they could not visit without hearing about all the benefits the canal would bring. Macdonald's Conservative government, like Wilfrid Laurier's after him, recognized the Trent-Severn Waterway as a way of solidifying their support in the district. Few in a position of power believed the arguments advocating the canal, but almost all saw the political merits.⁴⁰

During the 1878 election, Macdonald raised the possibility of further canal construction, and won seats along the waterway, on his way to power. The next August the government had David Stark report on the feasibility of the canal. Just before the election was called in 1882, Tom Rubidge was commissioned to make surveys at Burleigh Falls, Buckhorn and Fenelon Falls for works. On the eve of voting day tenders were posted, then once the Conservatives were returned contracts were let on October 27. Alexander Manning of Toronto and his American brother-in-law Angus McDonald received the job at Fenelon Falls for \$105,701, while George Goodwin of Greenville, Quebec got Burleigh and Buckhorn. Though work began at Buckhorn and Burleigh almost immediately, Buckhorn proved more difficult than expected—these were the first cuts made through the gneiss of the Canadian Shield on the route. The iron drill bits then in use were found inadequate, and Goodwin found repairing drills often took as much labour as excavation. Both locks were completed in the autumn of 1887.⁴¹

Two locks were needed to bypass Fenelon Falls, built at the standard size, along with a canal one third of a mile long, 60 feet wide and 12 feet deep. The canal cut across the former Wallis mill sites and the grounds at Maryboro Lodge, then owned by R.C. Smith, requiring 50 trees from the village's oak grove to be removed. Oak was specified for the mitre sills and gates, while pine served as the remaining timber. The company also had to build a new millrace and dredge the approaches to the canal. Two days after being hired, Angus McDonald was on site arranging for construction. He assembled a crew that soon reached 103 men, plus teamsters, and began blasting within nine days. Fenelon Falls was one of the first blasts sent rocks raining down on the village, smashing through stores. Though more showers of stone periodically fell—in one blast several stores were hit, including a 57 ½ pound rock that broke through a rafter in a lean-to attached to

William Campbell's store, another 50 pound stone broke the telegraph line, a 26 pound rock put a 2 foot long hole in the sidewalk 150 yards from the canal, and another hit the hind end of a canal horse, sending it frantically galloping through town—fortunately no one was injured, though one boy was pulled from the path of a flying rock.

Unable to find enough labourers locally, the company brought in French Canadians, Greeks and Italians. McDonald hired a diver to work underwater, especially on the cofferdam. There were several injuries during the construction, including one man who had his hands and arms badly burned in an explosion while drilling to enlarge a hole in which dualin had misfired. John Brandon was struck in the head when a derrick dropped the empty box used to lift stone out of the canal—his life was likely saved by the box first striking the drill shaft he held above his head. A worker and a horse survived being pulled into the canal pit, though two horses died falling into the lock pit.⁴²

McDonald had trouble keeping the lock pit dry as water flowed through a seam in the rock, until he had the diver staunch it, even though he employed a fifteen horsepower engine for pumping. He had enough of the excavation done to begin constructing the lock walls in the fall of 1883, buying stone from Boyd's quarry at Bobcaygeon. He acquired much of the timber for the locks from McArthur & Thompson. The masonry was complete in September 1885, when work began on piers above the lock for the railway bridge. But it was not until May 1887 that the lock gates were installed—after an inexplicable delay of more than a season. Because its contract included a provision for pay based on the quantity and texture of rock excavated, the company claimed an additional \$34,000 of which it received \$7,855, bringing the total contract to \$108,642.84.⁴³

Though the lock was complete, it was not functional because a ridge of stone at the head of the canal and the fixed railway bridge blocked traffic. William MacArthur was appointed lockmaster on November 26, 1887 with an annual salary of \$250, even though there was no through traffic—although the pulp mill, located just above the falls, used the locks to bring in wood from below. In 1889, R.B. Rogers, the Superintending Engineer of the Trent Waterway, hired William Kennedy of Bobcaygeon to blast the stone obstruction out of the river bed. A strip 200 feet long and 60 feet wide was cleared that October. But the Midland Railway Company and the Federal Government fought

over who was responsible for building the new swing bridge. It was understood that if the bridge impeded a navigable waterway, the Railway Company was responsible for installing a swing. The Crown argued that the river had previously been navigable to the head of the falls and therefore the bridge rendered part of the river unnavigable. The company disagreed because there was scarcely any distance between the head of the rapids above the falls and the rail bridge. The swing finally opened to traffic on December 26, 1893, and A.W. Parkin's *Water Witch* passed through the locks on May 12, 1894. In the meantime, the *Anglo Saxon* had sat at the locks waiting to lock through, and by the time the works were operational, was "a spectacle of ruin and decay," so after removing the machinery, she was scuttled in Cameron Lake.⁴⁴

Even after locks at Fenelon Falls, Buckhorn Rapids and Burleigh Falls were complete, Macdonald's government maintained its interest in the waterway at election time. Lobbyists recognized that the through waterway was inching towards completion. During the 1891 campaign Macdonald wrote, "Trent Valley Canal commission have reported favourably on the completion of the scheme. Parliament will be asked next session for a grant for the purpose." Aside from the problems with the Fenelon lock, navigation was open from the head of Balsam Lake and Lake Scugog through to Katchewanooka Lake. His successors promised to complete the work, "as soon as the resources of the country permit"-craftily phrased to avoid a specific commitment. With this heightened expectation for a through waterway, businessmen and municipal governments began an unsuccessful campaign to enlarge the Rosedale lock to match the others and William Kennedy blasted a new channel there in 1896-1897. In 1895 a canal was completed through drowned land at the entrance to the Scugog River from Sturgeon Lake. That same year, as an election was expected, the Conservatives under Mackenzie Bowell began construction on the two most expensive sections—to connect the watersheds between Balsam Lake and Lake Simcoe; and the link from Peterborough to Lakefield. Both involved dramatic changes in elevation, so R.B. Rogers visited Germany to see newly invented lift locks in 1896. He designed one each for Peterborough and Kirkfield—completed in 1904 and 1907, respectively. Compromising with two costsaving marine railways at the Big Chute and Swift Rapids, the route was finally

completed in 1920, eighty-seven years after the first lock was built at Bobcaygeon. By then, however, the advent of concrete had rendered wood and stone locks obsolete.⁴⁵

The work and expense by no means ended when a link was completed, as wooden locks and dams built in the nineteenth century required continual maintenance. At most stations the works leaked continuously, often badly, and few years went by when some repair or reconstruction work was not required, though in some cases problems were not addressed promptly. In 1844 John Langton observed that the Bobcaygeon locks "are in such a miserable state that until they are thoroughly repaired I would not risk a boat." Five years after they were rebuilt in 1857, another \$986.50 was spent stopping leaks. Ten years later the spring freshet, carrying driftwood, washed away part of the dam. There was a substantial leak in the bottom of the lock in 1878. Many villagers feared in 1880 that the dam would wash away, and again in 1883, when they petitioned for repairs fearing it would not survive the spring freshet. On the afternoon of April 18, the canal wall broke, sending men racing from their jobs to repair it. Boyd's mill foreman William Gidley and a crew then began a twenty-four hour watch. Though the government reinforced the dam in 1884, the locks gave way the next September. The dam was repaired in 1886, then two years later a new one was built, along with more lock repairs. By 1893 the masonry had collapsed in several places "and the large blocks of stone are a menace to steamers." In 1895 Mossom M. Boyd thought that the "total leakage" in the dam "is probably equal to what would run though any one of the sluice ways with a couple of the logs out." Some other stations deteriorated to the point that the amount leaking was greater than the total flow into the lakes that they were damming, so they could not keep water levels up even if they cut off all water use. In 1903 the Bobcaygeon works were in such bad shape that the Trent Valley Navigation Company undertook repairs on their own, then wrote to the Superintendent of the Trent Valley Canal asking if it might be reimbursed. In 1904 the leaks there created such a strong current that it was difficult to open the upper gates. The rivers and canals often had to be dredged, to clear mill waste, garbage and sediment-often damaging the water intake pipes of those fortunate enough to have running water. Large triburtary watercourses like the Pigeon River were also dredged—\$5,000 was spent straightening and deepening that river between 1871 and 1873.46

Though a significant proportion of the region's long-distance commerce passed through the locks, to the end of the century the tolls collected were far from adequate to maintain the system. The most common commodities shipped were firewood, sawn lumber, saw logs, shingles, tan bark, posts, railway ties, square timber, stone, brick and flour. In 1900, the Trent Valley Navigation Company paid 25 cents to run a boat through the Bobcaygeon locks, 25 cents for a scow and 1c for each passenger on board. In 1898 the swing bridge at Fenelon Falls was opened 943 times, roughly reflecting the number of lockages. Total revenues were often a few hundred dollars.⁴⁷

The period from the 1860s to 1906, when much of the waterway was completed, coincided with the peak of steamboat navigation in the Kawarthas. This development came as the Kawarthas were at long last starting to resemble an agricultural landscape. Villages and towns were growing and steam service was often the most efficient and costeffective means of moving goods where there were not already rail connections. With these customers and growing demand for passenger service, companies soon began offering regular daily trips.

In 1861 Crandell launched the *Lady Ida.* Three years later he sold her to W.J. Trounce of Port Perry and had Thomas Walters build the 80 foot long, 14 foot beam, 28 horsepower *Ranger*—used mostly for towing sawlogs for the Paxton Brothers of Port Perry, along with R.C. Smith, Mossom Boyd, Jabez Thurston, and Greene & Ellis. He then commissioned the *Commodore* from Walters in 1867, a 96 foot long paddlewheeler well outfitted for passenger travel. Expanding his steamboat venture, Crandell dreamed of following in the footsteps of Cornelius Vanderbilt, the renowned New York steamship and railway developer. The *Commodore* announced that Crandell, too, was commodore of his fleet. Walters built the *Champion* for him in 1869. Three years later he bought the *Samson*, which had been built at Coboconk, and managed to get her around Fenelon Falls, for use as a tug. The next year he commissioned from this builder the finest ship yet known on the Upper Lakes, the *Vanderbilt*—112 feet long and displacing 180 tons. The *Van*, as she was popularly known, ran the Sturgeon Lake passenger route, captained by a Mr. Deacon, then John A. Ellis and later George's son, Frank. With the *Vanderbilt* in service, the *Commodore* was relegated to towing.⁴⁸

After launching the *Vanderbilt*, Crandell decommissioned the *Ranger* in 1876. The Commodore and Champion were stripped of their machinery and left to rot in Lake Scugog three years later. He replaced them with the Stranger, his first screw-propelled ship—60 feet long, 19 tons with a 35 horsepower engine. On September 23, 1881, the *Vanderbilt* burned at her Lindsay dock, apparently struck by lightning. After the machinery was removed, she was left to rot in the Scugog River until William Kennedy raised and towed her into a nearby bay in 1884. To make up for the loss of the Vanderbilt, Frank and his brother Fremont bought the Eva from Elijah Bottum of Bobcaygeon in 1885, adding a lounge for 75 passengers. She then ran from Lindsay to Fenelon Falls. In 1888 they purchased the *Dominion* and its palace scow *Paragon*. By 1890, the brothers partnered with W.E. Ellis of Fenelon Falls, but sold the Dominion, Eva, and Paragon to a Toronto company, which retained Fremont as a captain. Since none of these ships filled the role of the *Vanderbilt* as Crandell's flagship, he commissioned Walters to build a fine vessel, that he initially planned to name the Crandellbilt. After local newspapers reported it would be the *Lindsay Chief*, reflecting his prominence, he settled on the appelation *Crandella* when she entered service in 1891. Firing the 120 horsepower engine previously used in the *Commodore* with a new boiler, she was 115 feet long, with a 21 foot beam, drawing 3 feet, giving a deck 120 by 31 feet, and carrying 450 passengers. When she was first launched the upper deck was uncovered, but ladies complained when sparks from the steam engine burned holes in their hats. He added a roof or hurricane deck, a new dining room and larger cabins for the next season, then electric lighting and a search light for night navigation in 1894. Crandell ran his steamship lines until 1901, when he retired. He sold the Crandella the next year to the Kawartha Lakes Navigation Company, who renamed her the Kenosha—Ojibwa for pike. Headed by John Carew, Joseph Parkin, T.H. Hamilton and A.E. Gregory, the company also operated the *Alexandra*. Crandell died at Lindsay on January 21, 1904 and the Crandella burned eight months later, taking the Kawartha Lakes Navigation Company down with her. The Eva burned at Lindsay in 1896, after Mrs. R.D. Thexton purchased her.⁴⁹

As Crandell expanded his steamboat lines, several businesses started to run one or two steamers, often associated with other ventures. In 1867 the *Victoria*, an 83-ton, 32 horsepower side wheeler capable of both towing and carrying passengers, was built at Bald Lake to run between Bridgenorth and Lindsay. On June 24, 1871 she burned at her Lindsay lock, but was replaced for the next season. George W. Rose piloted her from Lindsay to Fenelon Falls and Bobcaygeon to connect with the *Ogemah* and ultimately the Whitby and Port Perry Railway. She operated in conjunction with the railway (extended to Lindsay in 1877) until 1883, when the Trent Valley Navigation Company acquired her. In 1868 the freighter *Mary Ellen* was launched and would serve Needler & Sadler and later Sadler & Dundas flour mills until 1890.⁵⁰

Soon after Elijah Bottum migrated from Ogdensburgh, New York to Bobcaygeon, he started a steamboat company. In 1873 Bottum enlarged the Ontario-a 21-ton passenger steamer launched at Lindsay in 1868-to 49 tons, and put her on a route down the Pigeon River to Omemee. The bridge at Cowan's Landing had a section that was to be rolled up to allow a steamer to pass. On one trip it would not move, and since Bottom believed that "navigation can't be held up," he had his men chop it apart. The Ontario gave up this route in 1875, and switched to the run from Bridgenorth to Fenelon Falls. Bottom built a dance hall at Oak Orchard, which was also a very popular picnic stop on his trips, even after he sold the property in 1880. In 1878 he purchased the Maple Leafbuilt at Port Hoover three years earlier to run on the Lindsay to Port Perry route. She was a small vessel 43.15 feet long, weighing 13 1/3 tons, but proved very durable, running thirty-six years despite burning in 1883 and sinking several times. He operated the Maple Leaf through the 1880 season, then decided to sell her and build a better passenger steamer. John McFadden constructed for him the screw-propelled passenger steamer Eva, named for his daughter at the May 21, 1881 launch. Seventy-two feet long, with a thirty horsepower engine, she ran to Lindsay before connecting to Bridgenorth in 1883. In 1883 the Ontario was refit to run between Lindsay, Sturgeon Point and Bobcaygeon, commanded by Alfred Thurston, son of prominent farmer and lumberman Jabez. That same year, Bottum resigned as reeve of Bobcaygeon, bought the village's Forrest House and had a major surgery at Toronto. On October 25, 1887, the rebuilt Maple Leaf, caught in a squall, was leaking badly, so her crew decided to run her aground. Hitting a rock and capsizing instead, the crew escaped. After Boyd's Beaubocage raised her, Parker Davis, her owner, then sold her back to Bottum. As Elijah was then retired, W.H. Bottum often captained the ship. Elijah Bottum died at Bobcaygeon on July 11, 1895, aged 62, after a

long illness. John Varcoe took over ownership of the *Maple Leaf*, retaining W.H. Bottum as her captain, to run the Lindsay to Coboconk route. He sold her to the Trent Valley Navigation Company in 1900, who passed her to the Kennedy & Davis Milling Company that same spring, but continued to operate her for a season, under Maurice Lane. J.P and W.A. Davis bought her in 1908, and she served Randolph McDonald's lumber company until she was scrapped in 1911.⁵¹

John McFadden built the *Coboconk* in 1876, which he operated between that village and Fenelon Falls. He did not find the route profitable, as the Toronto & Nipissing Railway stopped shipping freight for Fenelon via Coboconk when it merged with the Midland Railway. In 1882, she hit a snag while approaching Rosedale and sank in the lock chamber. McFadden raised and repaired her, but he was looking to get out of the business, and return to boat building. He sold her in 1883 for \$105—probably below her scrap value. The next year, Joseph McArthur, then reeve of Fenelon Falls, bought her to resume her old route, which she continued until 1887, when she caught fire below the Rosedale locks. As there was not enough help on hand, she was pushed out into the river to prevent the fire from spreading to the locks.⁵²

Dr. William McCamus of Bobcaygeon launched the *Columbian* in 1892, which specialized in running excursions, but the boat burned on September 15, 1895. In 1896, Thomas Sadler's *Greyhound* ran regular trips from Fenelon Falls to Lindsay, stopping at Sturgeon Point. In 1897, John A. Ellis purchased the *Dawn* to run from Coboconk to Lindsay. In 1900 he leased her to John Carew. That same year, William Burgoyne had the 46-foot screw steamer *Kawartha* built, which carried 30 passengers and was also used as a tug. Several other companies had tugs: the Napanee Paper Company had John McFadden build the 78-foot paddlewheeler *Myrtle* in 1888, sold to John Carew in 1896, then renamed the *Beaver;* Carew also had the *Arthur C*. and later the *Elsie M*.; the Rathbun Company had the *Dominion* and launched the *Nora* in 1893; in 1894 Michael and Donald Dovey of Lindsay launched the *Nellie T*. to tow their company's lumber; the *Marie Louise* operated from at least 1883, and was rebuilt by Joseph Parkin in 1893; and in 1894 Joseph and A.W. Parkins' tug *Water Witch* burned. A few companies had steam punts—a steam engine mounted on a flat-bottomed boat, propelled with sidewheels that drew only a few inches of water.⁵³

In 1861 Mossom Boyd had the *Novelty* built at Bald Lake to tow timber and saw logs, though she also hosted occasional excursions. Serving sixteen years, she had a new engine and boiler installed in 1866. She was not overly powerful, unable to make headway with a load against a strong wind. In 1870 she was caught by a tornado while approaching Bobcaygeon and thrown on her side, and five years later she survived an attempted arson. After 1874 she blew off her boiler several times, and sprung leaks, prompting Boyd to have John McFadden rebuild her over the winter of 1877-1878. Boyd sawmill hands got out the necessary oak that winter, which was apparently used green. The new ship was 94 feet long, 26 feet wide, with two decks, and was built of pine, tamarack, with oak stem, stern, piece and keel. On April 10 she was relaunched, rechristened later that month as *Beaubocage*, which Boyd apparently believed to be the origin of the name Bobcaygeon, derived from Champlain. The Beaubocage then served as a passenger steamer, and, after the Vanderbilt burned, was briefly the only ship on Sturgeon Lake licensed to carry passengers. But as the Boyds expanded their fleet, she was soon relegated to towing, and she remained the company workhorse as long as the sawmill operated. In 1887 she was fitted with an ice plough to extend her operating season. Although she was sold at auction to Kennedy & Davis in 1900, they renegotiated to take the *Maple Leaf* instead.⁵⁴

In 1883 the Trent Valley Navigation Company was incorporated with Mossom M. Boyd, W.T.C. Boyd and John Macdonald as the largest stakeholders. Initially, Mossie served as the president, while John A. Barron was manager. For their first year, it operated the *Beaubocage*, on lease from Boyd, to carry passengers from Lindsay to Bobcaygeon, while Boyd ran the *Victoria* as a tug, separate from the company. The *Victoria* caught fire on March 25, 1884, presumed to be arson, but the steamboat inspector found that the charring of the timbers "is rather an improvement than otherwise, the hardening of the surface rendering it impervious to the wet." She was rebuilt, the mill hands again getting out some of the necessary timber over the winter. On August 7, 1884 she sailed as the *Esturion*, becoming the Trent Valley Navigation Company's flagship, while the *Beaubocage* became Boyd's tug—though she still carried passengers on occasion. The *Esturion* was slightly unstable so had false sides fit the next summer. For the rest of the decade, the *Esturion* was clearly the fanciest passenger steamer on the Upper Lakes—sporting black ash and bird's eye maple interior, with red plush upholstery. She ran between Lindsay and Bobcaygeon daily, and twice daily from about the start of June to the end of September. In 1902 she left Bobcaygeon at 8:00 am, went to Lindsay and returned by 1:15 pm, left again at 3:10 and returned by 8:10, stopping at Sturgeon Point both ways on both trips. Return fare from Lindsay to Bobcaygeon was \$1, and a family of up to six could buy a season ticket for \$10. On August 14, 1885 the company launched the *Paloma*, a 750-passenger palace scow used to run excursions and transport the Boyd's livestock. In time for the 1895 season, the Trent Valley Navigation Company had the Royal Electric Company outfit her with incandescent lamps and a search light—but it had a great deal of trouble getting the lights running properly. The *Esturion* received a new engine, hull, and rebuilt boiler for 1897, and the old hull was scuttled four years later. The new design drew less water, allowing the boat to more consistently reach the wharf at Bobcaygeon.⁵⁵

In September 1899 Willie Boyd took over the management of the Trent Valley Navigation Company, while Mossie agreed not to withdraw his capital from the business. In 1900 it purchased the Alice Ethel-which James M. Knowlson had operated carrying passengers and hauling freight—along with the excursion barge *Lindsay* and nine scows for \$8000. It refit Alice Ethel, renamed her the Ogemah, and ran her from Bobcaygeon to Burleigh Falls. In June 1900 the Davis Dry Dock Company of Kingston delivered to the Trent Valley Navigation Company a new screw steamer, the Manita-with a 66-foot keel and 40 horsepower engine, licensed to carry 150 passengers, and guaranteed to run at 11 miles per hour. That same year it also acquired the Maple Leaf and the Sunbeam. In 1900 the Manita left Coboconk at 6:15 am, arriving at Lindsay by 10:30. Departing at 3:30, she was back in Coboconk by 7:45 pm, having stopped at Rosedale, Fenelon Falls and Sturgeon Point both ways, with breakfast and tea at Fenelon Falls. She connected with the morning train from Fenelon Falls to Toronto. In 1903 Willie purchased the *Empress* for \$700 to replace the Sunbeam on the run between Burleigh Falls and Lakefield.⁵⁶ In 1900 the Trent Valley Navigation Company built a marine railway, at The Ways, in Bobcaygeon, where it had kept boats over winter as early as 1873. Used for repairing boats and winter storage, it was an improvement over the dry dock that the Department of

Railways and Canals added to the Bobcaygeon dam in 1890. The locks had formerly been used over the winter to repair boats.⁵⁷

Though it branded itself as a passenger line, towing remained a share of Trent Valley Navigation Company business into the new century—it had, after all, grown out of doing the towing for Boyd's lumber company. Most bulky freight was carried on scows, which were typically stored for the winter by sinking them. In the spring teams of men raised and pumped them out, which often took half to a full a day each. The Boyds constructed their scows largely of joists and cull lumber. They commissioned A.E. Kennedy to build the screw tug *Ajax* in 1902, their first coal-powered boat—54 feet long, with a 50 horsepower engine. But with the lumber business winding down, they soon found they did not have enough work to keep her busy, even though they occasionally had her towing excursion scows. They were looking to sell her from 1904, and leased her to John Carew at what they considered cost—the crew's wages, cost of coal, and 5% depreciation on the value of the steamer.⁵⁸

The company often carried parcels, and had the mail contract from Lindsay to Sturgeon Point and Bobcaygeon from 1892 for \$75 a year—Mossom Boyd had been appointed postmaster for Bobcaygeon in 1853. Bottum's steamers had carried the mail for a period, but gave up the contract, causing the postal service to revert to roads. In the winter William Germyn took the mail by road. Both mail and passenger traffic required steamers in order to make their connections—letters and passengers from Bobcaygeon were to arrive in Toronto the same day. Though these other jobs helped cover the costs of running the steamers, in the early twentieth century passengers formed the bulk of the traffic.⁵⁹

The steamboat companies relied on cordwood, or occasionally mill slabs, as fuel—not beginning to switch over to coal until two decades or more after the railways. Since wood was bulkier, and passenger ships did not want to stop on route to wood up, ships often were designed to carry a few cords of wood—the *Manita* took little more than two cords, while Boyd's *Ogemah* held up to five cords at a time. Refilling the holds was a daily job. Crew members spent much of their time handling wood, and devoted several days each spring to arranging piles of wood near locks or wharves where the steamboat stopped. With several companies piling wood at the same spots, disputes occasionally

broke out when they suspected that their stocks had been raided. In 1898 Boyd's yacht *Calumet* burned 342 cords. Two years later the *Ogemah* burned 323 cords, *Esturion* 535 cords, *Beaubocage* 194 cords, *Manita* 87 cords and *Maple Leaf* 55 cords. To complete its daily run, the *Manita* averaged 1.04 cords per day, while the *Ogemah* required 2.35.⁶⁰

5.1 Trent Valley Navigation Company Cordwood Consumption ⁶¹				
	Season (1900)	10 hours (1903)		
Ogemah	323.1	3.1		
Esturion	535.1	4		
Beaubocage	194.8			
Manita	87.1	1.4		
Maple Leaf	55.8			
Ajax		2		
Empress		2.8		

The wood-fired boilers on steamships were notorious for spewing sparks—in the Kawarthas they were responsible for the ruin of several sawmills, lumberyards, factories and bridges. Vessels were to have spark arresters on their smokestacks, but they were imperfect. In 1882 one passenger on the *Beaubocage* claimed \$3.00 when her brown silk umbrella burned. Sixteen years later a spark from the *Undine* burned the awning on the *Calumet*. When catering to an elite clientele, falling sparks were unacceptable, so companies fit roofs or hurricane decks. At the

same time they were taking measures to ensure the safety of their crew and patrons. From the 1870s inspectors ensured that vessels had life buoys, a lifeboat, oars and some life preservers, though usually not enough to provide one for everyone on board. Boats over 100 tons gross had to carry a fire extinguisher. Captains and engineers required certificates.⁶²

While public attention and historical accounts have often focussed on steamship companies, the locks they used, and grand projects to complete through navigation, the institution of systematic water level management was at least as significant ecologically and to navigation, yet is often overlooked. The first mill and lock dams along the waterway allowed levels to be manipulated locally in the interests of industry and navigation. Individual dams could mitigate seasonal fluctuations in water levels and reduce the damage from floods, but by late summer or autumn mills often ground to a halt because of a lack of water. The precision of their management was limited by natural fluctuations, even rain and wind. A heavy rain or a strong wind blowing towards one end of the lake could result in a few inches difference in water level—in 1893 Cameron Lake rose 7 ½ inches during a two-day downpour. At the Little Bob Mill, workers measured the water levels relative to high water. It was very difficult to run the mill once the level had dropped more than two feet, and operations often shut down if it was twenty-seven or thirty inches below. In 1878 the water level in Sturgeon Lake was low enough to interrupt navigation, because the dam leaked at Bobcaygeon—despite the year having been fairly wet. To provide more water in Sturgeon Lake, the federal government let down Balsam Lake. Nevertheless, the Little Bob shingle mill had to close on August 5 from a lack of water. Ten years later the main mill shut down on September 3. In spring, the high water levels might reach within a few inches of the mill's floor. In seasons of low water steamboats might not be able to make it to locks, canals or wharves. For part of each season, they were also forced to run with scows half-loaded.

As many businesses relied on water levels, their management soon became quite controversial. Steamboat companies often kept a close eye on the dams, and lobbied the government to let water down when necessary, or save it for use later. Mill owners, however, demanded that water below them be kept low enough to allow them a good head of water. They often refused to let anyone interfere with their management of the stop logs, especially if they had built the dam themselves. Such conflicting interests led Mossom and Mossie Boyd to feud with George Crandell from the 1870s until the latter's death. Crandell repeatedly threatened or sued Boyd for continuing to use water for his mill when Crandell wanted it in Sturgeon Lake for his steamers. After scores of complaints, Crandell forced Superintending Engineer T.D. Belcher to ask Boyd to shut down his mill in September 1881. Some wealthy residents even complained when the water got high enough to flood their boat houses and docks—a few even claimed damages. By the 1870s railway and steamship companies claimed damages from the government when traffic was stopped before freeze-up.⁶³

Kinmount sawmiller John Austin regularly disagreed with waterway officials over the level of Balsam Lake, which was used as a reservoir to maintain navigation on Sturgeon Lake in the 1880s. Securing timber and cordwood tributary to the Gull and Burnt Rivers, he wanted to get steamers as far up the Gull River as possible. In October 1881, he complained that his shipments would soon be stopped if Balsam Lake was not kept up and that it was unfair that the water was being let out "for the sole benefit of R.C. Smith." He accused Smith's employees of taking the stop logs out of the Rosedale dam, and, although they claimed that they had government authorization, Austin believed they were "bluffing us out of the water." The Crown had ordered the stoplogs removed, but while lockmaster William Brokenshire was ill, Austin had the logs put in, causing Balsam Lake to rise 4 ½ to 5 ½ inches above the top of the dam, and Sturgeon Lake to drop two inches. Ignoring repeated warnings, "Austin & his men" were putting down the logs at "almost every opportunity... by day and night as soon as the lockmaster was out of sight, and on several occasions the logs were turned wrong side up to prevent the lockmaster taking them out." When Brokenshire could not lift them himself, Smith sent his men to help. To put a stop to the interference, Austin was hauled before a magistrate. Many other steamboat operators and lumbermen felt justified using government works for their own advantage. In 1877 a group of farmers living around Lake Scugog knocked the brackets off the Lindsay dam to lower the lake a foot.⁶⁴

Some old settlers also noticed that floods were becoming more common as the landscape was cleared, threatening buildings along the waterway that had once been thought safe. As the forest canopy was opened to create farms, the increase in sunlight accelerated the spring melt and runoff. Water levels then tended to rise sharply as a result, increasing the prospect of flooding, but also dropped more quickly in late spring and summer. As farms were cleared in the upper reaches of the watershed these effects were amplified. With all the controversy and legal action over water levels, the Crown perceived the need to regulate them, though it denied liability for related losses.⁶⁵

Lumber companies' experience in driving offered techniques to allow more precise management. Each spring they held back large quantities of water to create torrents to flush their timber over rapids and shallows, and carefully marshalled supplies to ensure they would not be hung up. Mossom Boyd recognized that water could also be retained to keep lake levels higher throughout the year, and that government assistance in creating reservoir lakes would decrease the cost of driving timber. In the 1870s, largely at Boyd's prodding, the provincial government started to co-ordinate the reservoir lakes system. The lumber companies had already made substantial headway through their private works to get out timber, and Boyd chartered the Gull Waters Improvement Company in 1872, with authority to charge tolls at its slides. But smaller operators

successfully lobbied for restrictions on his power, which convinced the Company to abandon the scheme. Twenty-eight millers, lumbermen and steamship proprietors then asked the government to take over management. On September 10, 1873, the lumber companies turned over their dams and agreed to pay tolls to the Crown, which promised to maintain them. The province operated the reservoirs until transferred to the Federal Government in 1906, as the number of large lumber companies dwindled.⁶⁶

While Balsam Lake functioned as a reservoir into the 1880s, as the system improved to the north, the province retained enough water to artificially maintain its level as well. When Ontario took over in 1873, there were already dams at Kennisis, Crab, Hall's, Hawk, Twelve Mile, Horseshoe, Kushog, Mud (in Dysart Township), Redstone, Eagle, and Oblong Lakes, as well as Elliott's Falls and the Minden Mill Site. Once White Lake was made into a reservoir in 1891, Mud Turtle, Moore's, Otter, Gull, Kashagawigamog, Boshkung, Beech, Maple and Sonora Lakes were also in service.⁶⁷

5.2 Existing Dams, 1873 ⁶⁸				
Lake	Dam	Head of	Reserve	
	Length (ft)	Dam (ft)	area (acres)	
Kennisis	60	4.5	4480	
Nummekanning	50	6	1150	
Halls	70	4	1330	
Hawk	90	6	3635	
Twelve Mile	70	4.5	4741	
Horseshoe	100	9	1317	
Minden mill site		16		
Kushog	100	3	400	
Mud Lake		6	2100	
Redstone	60	10	2840	
Eagle	70	6	1190	
Cranberry			190	
Oblong	60	14	3800	
Gull	250	4	2641	
Elliott's Falls	100			

The reservoirs created a ghastly landscape. By flooding thousands of acres, they displaced most of the settlers and squatters surrounding the lakes lumber companies had already discouraged settlement to ensure that they could flood as much land as necessary without having to pay damages. The trees whose roots were seasonally

submerged soon died. But as the waters subsided annually, the dead trees were left standing on dry ground, and they soon started to fall. Being submerged for much of the summer, and covered in snow for the winter, these trees decomposed slowly, and many remain to the present day. The mess of slimy, fallen, slowly decomposing trees around the perimeter of these lakes rendered much of the shoreline inaccessable. Drastic changes in water levels, especially on the reservoir lakes, created serious challenges for fish and wildlife. Some trappers claimed that frog and fur bearer populations declined once the water levels were managed. Usually the reservoirs were brought down for autumn and winter to allow them to store part of the spring freshet, reducing the surge in water levels further down. In the twentieth century, fish biologists urged the Department of Railways and Canals to maintain the lake levels during trout spawning season, October and November. Even lower in the system, where the fluctuations were not nearly as dramatic, the Department received complaints that the reservoirs were destroying muskellunge and bass spawning grounds. As it dropped the water levels, it also often drained out beaver lodges and muskrat burrows, forcing them to abandon their homes. Trappers noted that deprived of their lairs immediately before winter, the animals often died.⁶⁹

The construction of the Trent-Severn Waterway also significantly affected fish populations by linking previously isolated watercourses. Formerly, Fenelon Falls had separated Cameron Lake, Balsam Lake, as well as the Gull and Burnt River drainages from the lower part of the Trent Watershed. They were also separate from the Severn and its tributaries. The Waterway combined these waters, allowing fish to migrate into lakes where their species had not previously existed. In the latter half of the nineteenth century it was fashionable among fish culturists to raise carp, or release them to reproduce. Carp brought from Europe escaped into the Holland River in 1896, and then migrated into Lake Simcoe, and through the waterway into the Trent Watershed. They became common in the Kawarthas in the 1930s and 1940s. Though carp were initially popular, they were soon generally despised for uprooting vegetation, creating murky water, and competing with more popular species. Fishers observed the introduction of pickerel into the Kawarthas at about the same time. Though they competed with bass, they were popular with sport fishers. Northern pike also invaded many lakes inhabited by muskellunge, apparently coming from the Severn Watershed, and tend to displace them.⁷⁰

Since carp uprooted wild rice they are often blamed for the grain's collapse in the twentieth century. The construction of dams, particularly the larger dams for navigation, had already caused declines in wild rice populations. The species grows in shallow waters with a slow moving current over a muddy bottom. Growing up to eight feet tall, it

inhabits water four to six feet deep. As the lakes were dammed for navigation, most were raised about five feet, flooding out wild rice beds. Annual plants that reproduced by seed, the beds might not survive this inundation, and the drowned land on the perimeter of the lake was rarely suitable habitat immediately after it was flooded. Many of the best ricing lakes—Rice, Scugog, Chemong, Buckhorn, Pigeon, Sturgeon—had large areas transformed from being muddy shallows to waters more suitable for navigation. Though the flooding was harmful to wild rice, significant beds persisted into the twentieth century.⁷¹

In the second half of the nineteenth century, Ojibwas complained about the destruction of their rice beds, citing their belief either that the lake had never been surrendered or that they had an assurance from Sir John Colborne that it was their property. There was, however, an 1856 Treaty that assigned the islands in Rice Lake to the Crown in trust, to be sold for their benefit. The Indian Department interpreted this to mean that it held the rice fields in trust for them. By 1871 rice was a significant source of income, in addition to its domestic use. Twenty-five Hiawatha families made close to \$1200, selling it at \$3 per bushel. Ojibwas considered the wild rice their property and expected the Crown to help maintain their access to it. In 1875 complained that the fishery overseer at Harwood had gathered rice in Rice Lake. Though claiming that he had gathered one bushel for his own use, he was ordered to stop, as the government feared that "other white men will follow his example." The Indian Department agreed that "these rice beds should be preserved for the use of the Indians." Ojibwas also expected that the Indian Department would stop a Lindsay company from cutting the rice straw to make paper. In 1876, when one settler wanted to propagate wild rice, he had to apply to the Indian Department to gather seed on Rice Lake. They called a council at Hiawatha, where he was granted permission, but the Department was warned, "we cannot be satisfied if we see a lot of white men gathering rice, besides they would spoil the crop." In 1884 they asked to have the Hastings dam lowered while their wild rice was growing. In 1899, they lowered it again. That year, one Harwood resident who was hiring Ojibwas to harvest wild rice for him to sell, was ordered to stop by the Indian Department. Further away from the Ojibwa villages, settlers harvested wild rice with greater freedom, as at Goose Lake and Cranberry Bay on Cameron Lake.⁷²

In addition to damaging wild rice stands, thousands of acres were flooded when the lakes were raised and maintained for milling and navigation. The Rosedale lock inundated an extensive area, predominately on the south shore of Balsam Lake. Many residents on the perimeter of Balsam Lake lost a significant proportion of their land. In Fenelon Township, James Cunningham (30 & 31 I) lost 21 acres, Thomas Ray (27 II) 87 acres, Edward Lytle (31 II) 141 acres, Henry Perdue (29 VII) 15.5 acres and Thomas Smith (30 VII) 23 acres, in addition to many smaller parcels. On Northwest Bay Peter Cameron had 18 acres flooded and the Grandys on Indian Point lost 83 acres. A few lots in Coboconk and Rosedale were also submerged. Less land was submerged around Cameron Lake because of its relatively steep shores, but its perimeter was fairly densely settled.⁷³

While much of the flooding caused by the first dams was of uninhabited or newly settled lands, those built in the late nineteenth century led to far greater damage claims. In 1847 the dam at Buckhorn was staunched, causing Buckhorn and Pigeon Lakes to rise. Because this decreased the head at Bobcaygeon and made it difficult for Boyd to operate his mill, he claimed compensation for the costs to alter the machinery. The Crown also paid damages to mills for time lost when the water was cut off during construction. For the time that the Fenelon River was blocked to blast the ridge from the head of the canal in 1889, W.H. Walsh received \$75 and Frank Sandford \$150. They had MP Sam Hughes complain about the valuation on their behalf and received another \$50.⁷⁴

Though the government received a smattering of claims soon after the construction of new locks, most property owners did not initially realize that they were eligible for compensation. During the 1890s, claims started pouring in. In 1897 the Crown settled with seventeen farmers around Cameron Lake, granting between \$30 and \$300 each. One Rosedale man claimed \$100 for the flooding of his cellar, grape vines, fruit and ornamental trees. He was offered \$65. In 1891 the estate of R.C. Smith received \$100 for damage to its water power by the construction of the Fenelon Lock. Henry Daniel, through whose property the Rosedale Canal was cut, was offered \$950.00 for the land he ceded—in 1910, long after it was built. In 1919 the Village of Bobcaygeon submitted a claim for the flooding of Front Street, near Anne Street, caused by the Buckhorn Dam. This road was low enough that it had been regularly submerged spring and fall, but with

Pigeon Lake raised, it was flooded longer and remained impassable. The Department of Railways and Canals initially claimed it had the right to flood that parcel of Bobcaygeon without paying compensation. Charles E. Stewart, the village's clerk and treasurer wrote to them that Bobcaygeon "admitted they have the right to flood lands for which they have paid compensation, but if granted that they have the right to flood all property to a level of 8 ft, they may with equal raise the level by 18 ft and so put our entire village under water." He observed they had the right to expropriate, but not without paying compensation. In the 1920s they received numerous complaints from proprietors throughout the Kawarthas.⁷⁵

By 1897 the Department of Railways and Canals had settled all claims around Cameron Lake that it acknowledged, except William Jordan's. He operated a brickyard on 22 VIII Fenelon, which was flooded by the construction of the Fenelon Lock. Despite this venture, opened shortly before the lock, it valued his property simply as farmland and offered him \$100, one fifth of what he asked, and alleged his bricks had been a failure. In 1901 the Department ordered a survey of the damage, but in the meantime, Jordan had sold the property. Though the purchaser argued that he was offered far less than the land would sell for, the government would not go above \$125, and he accepted their offer. Most valuations were below market value.⁷⁶

When the settlements were made in the 1890s with residents around Cameron Lake for damages due to flooding, they were based on the acreage flooded when the water was six feet above the upper sill at Fenelon Falls. As the Crown gave such a precise measurement, and strictly limited claims to lands flooded at that water level, residents expected the lake not to exceed that height. A clause in their compensation agreements provided that the water would be kept "at all times other than during the spring and other freshets, to an average maximum height of six feet in depth on the upper stop log sill." With this commitment, the Department of Railways and Canals had then created for itself a delicate legal situation. Steamboat owners demanded that the water be kept up, while others checked water levels at the lock when their property was inundated. By the end of the century, the Department was expected to limit fluctuations to a few inches during the season of navigation. In 1901 Lindsay lawyers McLaughlin, McDiarmid & Peel represented some Fenelon residents when water levels were sitting at 6 feet 2 inches

above the sill and had gone as high as 6 foot 7. Though the seasonal average was 5 feet 11.8 inches, many weeks passed that summer with the water consistently above six feet—the Department blamed unusually heavy rains. Property owners complained again in 1902. One farmer and cottage developer even claimed damages for a steer that had become mired and drowned along a swollen creek. Though he received a settlement of \$40 in 1908, he persisted in his claims, and obtained another \$40 in 1928.⁷⁷

In 1909 the Hiawatha Band complained that 200 acres on their reserve, largely pasture and timber, had been flooded. It was offered \$8 per acre on the 158.5 acres that the valuator believed had been flooded. This rate was at the higher end of what farmers in the vicinity received, and after its request for \$10 per acre was refused, was accepted. At the low-lying Curve Lake reserve, 600 acres was flooded. Chief Joseph Whetung and the council passed a resolution in 1909 asking for compensation. Because part of the land had been held in trust for them by the New England Company and title was not transferred to the Department of Indian Affairs until 1898, in 1917 the Crown decided that since they did not own the land at the time the flooding occurred, they were not owed anything.⁷⁸

Through all the cases for damages due to flooding the public became well aware that the Crown was assuming responsibility for water levels. With the assurance of careful management, waterfront residents began to take constant lake elevations for granted. Large parts of many villages were then constructed on land that had historically flooded during spring freshets, while the shores were lined with docks and boat houses that also assumed the surface would keep to a constant height. In what had been sold publicly as a way of securing through transportation, the Crown did not get the revenues of significant commercial traffic, but ended up responsible for maintaining navigation and protecting waterfront property in perpetuity. Yet while the Trent-Severn Waterway fell far short of being part of the major transcontinental route that had justifed its construction, it and the railways were pivotal in the Kawartha Lakes becoming a major tourist destination.

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5c. A Waterway of Leisure

The powerful gentlemen who oversaw landscape recreation in Upper Canada tended to accept certain common theories of development. They expected commercial development to occur at locations with waterpower, which also would likely be points of transhipment. These nodes in a transportation system would develop relative to the amount of commerce that was in the economic hinterland relying on that route. Following the British experience they thought canals to be a critical component of improved transportation networks, and land values depended on public works. Investors, many of whom were the same prominent gentlemen dominating the region's politics, then scoured the colony looking for locations with unusual potential, hoping that they could be the ones to reap the profits of development. In the speculative frenzy that accompanied the first years of development, many read an opportunity into the Trent Watershed that was illusory-that it could become the most efficient way of getting from Lake Huron to Lake Ontario. This led to the lobby to create the Trent-Severn Waterway, which persisted long after its boosters should have realized the flaws in their arguments. It endured in part because they then had a financial interest in its completion and hoped to manipulate government into investing, which might make their ventures profitable.

For much of the nineteenth century developmental theory was utilitarian. Government and investors alike concerned themselves with creating and profiting from improvements that seemed obviously necessary, that would tend to increase material prosperity over the longer term—at times even to the point of developing infrastructure that had little prospect of being used. This public discourse where almost everything was justified by practical necessity—how some advancement would be a cog in the agricultural economy or create some rational commercial advantage—blinded many of its adherents to the region's potential. Many observers appreciated the beauty of the Kawarthas—from early gentry like Thomas Need and the Langtons, to travellers. But few saw this as a potential economic prospect while the work of recreating the region as farm country was beginning. Instead, many sentimentally mourned the aesthetic costs of progress.

By the last decades of the century, the colony had become a prosperous province in a new dominion. After a generation or more of hard labour some farmers were

beginning to live comfortable lives. They began to acquire a few luxuries and many labour saving devices. Villages in the Kawarthas were growing alongside a more prosperous farming economy and some new industries. More people then had time for organized recreation, and with the advent of efficient long-distance transportation, numerous visitors could come to the area to spend their free time. Then the Kawarthas became a region of leisure, where people could enjoy outdoor life. Thousands of visitors made the trek every summer, built cottages and established seasonal waterfront communities like Sturgeon Point. Now many people seized the opportunity, as the gentry had before them, and constructed a beautiful waterfront vista.

Companies realized there was money to be made from leisure, travel and tourism, so they marketed recreation. Inspired by the Muskokas' success as a tourist destination, the Boyds' Trent Valley Navigation Company, along with their business associates, decided they needed a similar handle for the region. To take advantage of the current fascination with native cultures, they wanted an Ojibwa name, and their friend Martha Whetung suggested naming the area after shining water—which the promoters transformed into "bright waters and happy lands." They then set the printing presses in motion to broadcast the best reasons they could think of to visit the newly branded Kawarthas.

Their publicity campaigns reflected romantic ideals of the day. In much of the early promotional material, the Kawarthas was portrayed as a rugged wilderness. Publications referred to lonely, windswept pines on granite cliffs, pristine sparking lakes and all of the health-giving effects of spending time in the northern forests. Nature was sensualized as a female lover. At that time many regions of Canada were promoted with similar hyperbole. But it must have seemed strange to some that they were promoting natural charms that the region did not possess. Why sell people on how wonderful the landscape of the Muskokas, or Lake Superior country was when you are trying to convince them to come to the Kawarthas? Had writer actually seen the place? What did they expect would happen when people were sold a rugged, rocky wilderness, then showed up and found farms in limestone country? As part of a well established genre of promotional material across North America, much of the content had nothing to do with

the region and often little relation to its audience, but contained many abstract ideals expected to resonate.

The businesses were in part capitalizing on popular fantasies of First Nations. Ojibwa villages usually received disproportionate attention in promotional materials, which helped establish them as tourist destinations. For a visitor coming to see the rugged wilderness of the Kawarthas-homeland of the Ojibwas-who would be better to guide them or teach them how to fish than an Ojibwa? People wanted to witness Ojibwa culture, and have a souvenir of the encounter they could take home to show their friends. Having lived alongside settler communities for generations, Ojibwas had much in common with their neighbours-housing, clothing, diet, even many forms of recreation. They were not the exotic people that tourists were coming to see, and before long they found that part of the business was to pander to their customer's expectations. It was not just that people did not want to see the ways that Ojibwas and their neighbours had developed cultural similarities, few would have wanted to see how their ancestors had lived centuries before. Not many came to see people catch frogs, drown beavers and grub tubers from the bush. They wanted to see a romanticized culture of 'the American Indian'-aristocratic buffalo hunts, coloured headdresses, artistic quillwork and fine beaver pelts. They might be interested in a wigwam, but many would want it to be pretty, and certainly not smoky inside. Over time some Ojibwas felt that they should play the part of an 'Indian' as part of the tourist trade, and locals began to produce and market 'Indian' culture. But there were always genuine elements of their culture underlaying this veneer. While some were attracted by the standardized promotional material, many visitors did get to know the real Ojibwas, became friends and returned year after year. Events like duck dinners attracted large audiences, many from neighbouring communities. By the end of the nineteenth century, catering to visitors was a very important part of the local economy.

Despite their wild inaccuracies, the advertising campaigns established the Kawartha Lakes as a tourist destination for visitors from the United States and across Canada, especially from nearby cities. While misleading aspects of the message doubtless produced traffic, many then returned year after year. Some apparently found that they liked the Kawarthas they found better than the wilderness that was being sold to them otherwise they might have gone elsewhere to find a more desolate landscape. Many

nineteenth century travellers wanted a cottage near a small town, waterfront life with amenities, steamships, railways, farmers to buy produce from, roads to cycle on and workers to repair their boats. They wanted an attractive place, with the benefits of community.

The Kawartha Lakes did become a major tourist destination, but the developments were not just catering to visitors. Much of the clientele was local, and many surely realized that the promotional material was rubbish. Many locals also travelled to other regions to hunt, fish, camp, canoe, and enjoy waterfront life, while some found time to visit other villages or cities. But with newfound prospects for recreation, the Kawarthas could become a region of leisure, where residents and visitors alike could enjoy swimming pools, skating rinks, hunting and camping. Scholars interested in tourism and the promotion of the great outdoors, have often treated it as middle-class, urban phenomenon. It was much more than that, it was something that could bring people together from many walks of life—Ojibwas, farmers, mill workers, office managers, children, parents and professionals could all enjoy regattas, steamboat excursions, fishing or curling. Most could find something in the culture and lore that they could identify with.

While it could help bring communities together, emerging forms of recreation also spawned bitter political battles. One of the most heated grew out of the campaign against pot hunting and fishing. Much has been made of how it adversely affected Ojibwas, but its impact on others who relied on the chase for part of their subsistence is often overlooked. Many sport enthusiasts came to believe that pot hunting and fishing were responsible for the decline of many species, and tried to establish rules to protect wildlife and ensure fair play. They supported limits on the amount that any person could harvest, and tried to crack down on practices like catching spawning fish or using dogs to run deer into lakes where they could be shot. Many of the techniques they decried were very efficient ways to kill—precisely the reason lobbyists wanted them banned, but certain to seed resentment among those harvesting. Some observers interpreted this as city values being imposed on the countryside. While settlers had no legal claim that might supersede legislation, Ojibwas could cite the understanding that surrounded their treaties. For the natives, this soon became one of the most important political issues, leading to the Williams Treaties of 1923, and eventually the Supreme Court of Canada decision in R. v. Howard (1994).

The tendency of historians interested in hunting and fishing rights to focus on the political and legal aspects has tended to obscure broader developments. Ojibwas and settlers alike found ways to continue hunting and fishing, regardless of parliamentary edicts. But Canadian society as a whole came to value the preservation of fish and wildlife. Despite legal inequalities and persisting political irritants, all the communities were an intrinsic part of this development. Few lived in isolation from people who believed that something needed to be done to protect nature, whether they were a guiding customer, neighbour, relative, employer, minister, government official or friend. Whether hunters or fishers adopted the same values, their society stopped them from transgressing too blatantly contrary to public sentiment. In time, despite vociferous opposition, some conservation measures became the norm.

By the end of the century, recreation was one of the most important sectors of economic activity in Ojibwa and settler villages alike. People worked on the steamers, on improving trails for an evening stroll, for the railways, erecting rinks, as guides, building canoes, or selling confections and souvenirs. Many hotels and inns appeared, while stores stood ready to outfit locals and visitors alike for outdoor recreation. These communities, having spent so long developing the infrastructure to work, now had time and resources to play.

For much of the century, leisure was closely related to the productive activities of daily life. For Ojibwas and settlers alike, hunting and fishing could be both pleasure and a way to put food on the table. Many in the immigrant society enjoyed the bees that helped relieve the tedium of making farms, along with the dinners and dances that accompanied them. Shantymen shared many happy moments around the fires that cooked their dinners. Many enjoyed attending church, the Orange Lodge, or Grange meetings because they were occasions to see friends that they did not work alongside. Not many could look far beyond their daily struggles to create much in the way of formal recreation.

Throughout the century, hunting and fishing were both a popular form of outdoor recreation and very important to local subsistence economies. When the first Ojibwa men began writing accounts of their culture in the mid nineteenth century, they often showed

the greatest excitement in recounting their stories of the chase. Soon after they arrived, settlers began joining in these adventures, especially the local gentry, who had the time to befriend natives and learn their techniques. While Europeans had long traditions of still fishing, most immigrants did not find it nearly as thrilling or effective as spearing fish from a canoe at night with a jacklight. Usually one person paddled the craft as the other stood in the front, spear in hand. Jacklights burned pine knots and perhaps some birch bark. It took some practice to master the art, as one of the emigrants' guides explained:

It is curious to see an inexperienced person trying to spear a fish at the bottom of deep water: not allowing for the refraction of the rays of light, he strikes at the fish where he thinks it is, and finds his spear perhaps a foot or two before or behind it, and when pulling up the spear by its long handle, he is jerked in, over head and ears.

Once converted to night spearing, many lost interest in still fishing. When John Langton's family sent him tackle soon after his arrival in 1833, he explained, "it will be of little use to me." Langton also felt that trolling was a good technique: "tie a line, baited with a piece of red cloth, round your wrist and proceed on your journey, and it is ten to one that, before you have got a quarter of a mile, you will feel your prize." He also tried netting fish. Thomas Need was an avid sportsman and spent many nights spearing, sometimes bringing along an Ojibwa to assist him. One night two of them caught six muskellunge and four bass. He also on occasion speared suckers. Still fishing was a more common technique for bass, perch, and sunfish. Settlers also often netted or speared herring and suckers during their spawning runs. They might also ice fish in the Ojibwa fashion, spearing through a hole in the ice.¹

Hunting could also be an enjoyable way to meet daily needs. Early settlers hunted from their canoes, like Ojibwas, with dogs chasing the deer into the water—though effective, some gentry considered this "a very unsportsmanlike method." Hounds were the common hunting dog, an essential companion for many sport hunters less troubled by notions of fair play. Langton explained, "imagine our living on salt pork at 6d. per pound with the knowledge that 200 pounds of fat venison is running about close to, if you had but a hound to drive him into the Lake." Need spent much of his time hunting—more, it seems, than he spent at the mill, sometimes even with his employees helping flush deer out of the bush. He often travelled with Ojibwas, and in the summer and autumn of 1835

he kept track of his kills: 23 deer, then another 19 the next year. Deer furnished pioneer families with meat, and they often made clothing from the skins, similar to native custom. At the start of resettlement, deer hunting was legal from July to February, but Need found that the closed season "serves as a moral restraint upon the gentleman: the mere backwoodsman regards it lightly enough, and the Indian not at all." Bears provided meat and grease, while their skins were used as blankets. Rabbits were eaten as well, while porcupine flesh was compared to suckling pig. Some gentlemen, accustomed to sport back home, hunted several species of birds, including partridge, snipe and woodcocks. There were no quail in the Kawarthas, but some sportsmen travelled to hunt them elsewhere, as in Western Ontario.²

Ducks and geese were among the most popular species for hunters and never seemed to be in short supply. During the open season there was "a tremendous fusillade every evening along the Fenelon River." For those leaving the village to hunt, patches of wild rice were popular grounds—John Langton observed ducks "in thousands and tens of thousands" in the stand at the mouth of the Scugog River on Sturgeon Lake—as at Cranberry Bay on Cameron Lake and Goose Lake. Skilled hunters might bag a handful at a time, and Garner Hunter of Bobcaygeon got 34 one day. Geese also made good sport, but some did not enjoy the flesh as much, calling it "fishy and oily." The feathers were of value as well as the meat, and goose down was particularly sought after for making pillows. Ojibwas often killed large numbers of ducks to trade at local stores. Duck hunting was popular with many tourists, and Curve Lake hosted duck dinners, a tradition which lasted until after the First World War.³ Partridge (as ruffed grouse were commonly called), quail, snipe and woodcock were also popular game.⁴ Wild Turkeys seem to have been rare, though Thomas Need recalled dining "on a Verulam turkey."⁵

Travelling in flocks that might number in the millions and take several days to fly over a particular location, passenger pigeons presented easy targets when they landed and were considered a pest when they devastated grain crops. Langton observed that they did not "spread generally over the field, but commence at one end & work their way regularly to the other, they do not cause as much mischief as they otherwise would, where they have been there is not a vestige of vegetation & we can sow something else, but the rest of the field is uninjured." Great flocks were occasionally spotted in the Kawarthas between April and August, and could be slaughtered in the thousands, because they were not wary, and rarely fled even when shots started ringing. Sometimes they flew low enough to be brought down with sticks, which could also be used to knock them out of trees. Pigeons were roasted, or baked: "line the bake-kettle with a good pie crust; lay in your birds, with a little butter put on the breast of each, and a little pepper shaken over them, and pour in a tea-cupful of water—do not fill your pan too full; lay in a crust, about half an inch thick, cover your lid with hot embers, and put a few below."⁶

Trapping continued to be a very important productive activity throughout the century and was dominated by Ojibwas, though some settlers sold pelts as well. Curve Lake residents still set traps across the Kawarthas, in most of the areas they had used at the start of the century. The Whetungs continued to work along Emily Creek and the Pigeon River well into the twentieth century, while others camped on the outskirts of Cameron and Fenelon Falls as the area was being converted into farms. In 1883, Dan Whetung's Sturgeon Lake camp burned, and he lost his winter's catch of furs, including two hundred muskrat skins. Muskrat was the most commonly traded fur by the late nineteenth century, followed by beaver and marten, which commanded a premium rate. Lynx and silver fox hides were valuable as well. Over the last quarter of the century, beaver declined in volume, while ermine increased. After the specialized resident traders

5.3 Goods acquired for fur trade at William Cottingham's Store, 1857-1862 ⁷			
James Bigman	Cash, 2 bulls, stove, trousers, pork, flour		
Billy McCue Jr.	Cash, flour		
James McCue	Shawls, suspenders, red flannel, flour,		
	combs		
Peter Nogee	Material for trousers, jack knife, flour		
James Taylor	Cloth, shirt, tea, flour		
Joseph Whetung	Cash, material, flour, knife, tea		
George Johnston	Pair of rubbers, powder, shot, flour, soap		
Charles Taylor	2 pairs rubbers		
William Taylor	Tea, flour, double barrel gun (£5), cloth,		
	powder, shot, caps, pork, tobacco		
George Taylor	Flour, jackknife, tobacco, tea		
John Taylor	Flour, tea		
John Knott	Sugar, tea		

such as Billy McCue and Charles Anderson died, much of the trade went through general stores, like William Cottingham's at Omemee and J.W. Read's at Bobcaygeon. William Lech of Peterborough and Fairweather & Company also had

agents buying pelts in the Kawarthas and Haliburton. Trappers continued to use

furbearers for food as well, and many considered roasted muskrat a delicacy, especially the brain.⁸

Between 1857 and 1862, William Cottingham's fur trade customers were overwhelmingly from Curve Lake, and they sold mostly muskrat or beaver, with the occasional duck. Beaver pelts fetched about 5s to 6 s 3 d a pound, while muskrat ranged from 10 d to 1 s 3 d each. In exchange, the most common items dealt were flour, tea, hunting supplies, cloth and clothing. A one-pound pelt could be exchanged for a shirt, while 100 lbs of flour sold for 15 shillings. Alcohol—illegal to sell to natives—was not listed in this account book, but that does not mean that Ojibwas did not trade for it.⁹

From the 1880s millions of frogs were exported packed in ice to New York for restaurants and sale as frog's legs. The going rate was thirty cents a pound skinned in 1880, but by 1895 had dropped to twenty cents—with about four frogs to the pound. They could be captured using fishing poles baited with red cloth or grasshoppers, but the most popular method was grabbing them from a canoe at night, with a bright light. Roy Pomeroy recalled, "you could see frogs for a great distance with that because their white throats would show up in the light. Now the light was in a frog's eyes and you could paddle right up to him and you just picked him up. That's all there was to it." Some used a long rod with a sharp hook or hooks on it, perhaps spring mounted, called a frog gig, to snatch them. In 1882, Isaac Johnson of Curve Lake said he sometimes caught 1,000 frogs in a week and had them forwarded to New York. In 1890 one frogger reported taking 2,023 pounds in three weeks. ¹⁰

Though fishing in the Kawarthas was overwhelmingly for sport or domestic use, there was a small and short-lived commercial fishery. The Nichols of Bobcaygeon—who later became well known as guides—caught large quantities of bass and muskellunge that they sold through F.W. Read. On a good day Read acquired 350 lbs. Many local Ojibwas sold fish to merchants as well, and one was recorded making \$3.25 for his work one day. Others apparently made \$5 or \$6 a day on bass. Around Fenelon Falls, E.W. Glaspell and William O'Brien secured much of their livelihood through fishing. In 1892, a large muskie sold for \$1.25 at Fenelon Falls. Eels, which were then common, were also caught for sale or domestic consumption.¹¹

Most of the other early pleasurable pursuits were similarly linked to productive economies. Many farmers used their sleighs to haul part of the season's produce to market once there was enough snow to cover the myriad of stumps, stones and mudholes obstructing transportation, then found they had some time for recreation after Christmas. They then might sleigh or even skate to see their friends and relatives. Many children skated on the lake or farm ponds. In summer, those who lived near the waterway often spent many hours in a canoe and youngsters learned to be "capital sailors." From the start of resettlement Curve Lake dominated the canoe trade, though Tom Gordon of Lakefield and John Stephenson of Peterborough made cedar canoes from about 1858, their manufacture being taken over by the Ontario Canoe Company by 1879. Four years later, John McDermott was making cedar strip and butternut canoes at his Bobcaygeon boat shop. The Lakefield Canoe Company entered business soon afterwards. Some affluent residents, following the example of John Langton, kept skiffs, which McDermott later specialized in as well.¹²

Whilst out on the water in summer, many canoeists stopped to pick berries on the banks of the lakes and rivers. Parties also travelled by land to the rocky regions at the north end of the county to harvest raspberries, strawberries, huckleberries and blueberries. They often celebrated the festive occasion by blowing tin horns as they went. Returning with pails of berries, many families preserved a store for winter. Wild strawberry leaves were also of medicinal use and many kept a supply, while one company gathered 5,000 pounds in 1880 for a Toronto firm.¹³

As the century wore on more people had time and resources to invest in formal leisure organizations. Skating rinks were among the first recreational institutions in Fenelon Falls and Bobcaygeon. Before they were constructed many villagers skated on the lakes or canals—the Fenelon channel was in use from 1885, before the lock was even complete. But the ice on lakes was often snow covered and rough. Many juveniles eagerly ventured on the ice very early in the season, "trusting to luck to get out of the water if they got into it." In the first weeks of 1890 six Fenelon Falls residents "got a ducking." Many parents were relieved when the villages built rinks. Fenelon Falls had an outdoor rink on Bond Street as early as 1883, and in December 1892, an indoor rink, complete with electric lights, opened at the market square. In Bobcaygeon a company formed with

villagers subscribing \$5 a share to build an enclosed rink. The Boyds and their associates oversaw the project. John Kennedy completed the rink for the 1884-1885 season. Smaller communities like Islay built open-air rinks. But even after the rinks opened, children continued to skate on the lakes and farmers on their ponds.¹⁴

Once villages had rinks, curling quickly became a popular sport. Mossom Martin Boyd led the formation of the Bobcaygeon club in January 1885. Elijah Bottum was vice president, and Willie was soon active on the executive as well. The Boyds and their mill hands travelled to compete in curling tournaments across the province, often led by foreman William Gidley. The Fenelon Falls Curling Club likewise formed almost immediately after the indoor rink opened.¹⁵

During the 1890s, cycling became all the rage in elite circles. Bicycles could be purchased in large cities from the early 1880s, and in Lindsay within the decade. At this time, the safety bicycle appeared—with brakes, steering, a diamond shaped frame, chain drive and pneumatic tires—making the ride much smoother and easier than earlier solid iron velocipedes or boneshakers. Joseph Pritchard of Fenelon Falls was among the first locals to purchase a bicycle in 1889, and set about practising for a ride to Peterborough. Within a few years, Bobcaygeon had a bicycle club, with brown, yellow, red and black uniforms that took spins on Tuesdays and Fridays. Many tourists took outings on scenic sawdust roads around Bobcaygeon and Sturgeon Point. Sturgeon Point removed stumps and stones from its roads to improve cycling in 1896. Mossie and Willie Boyd enjoyed riding and even had seats specially imported from England. In 1894 Fenelon Falls merchant Charles Burgoyne bought a \$100 bicycle, complete with pneumatic tires—far superior to the \$125 model he acquired a few years earlier. By 1895 Lindsay had a specialized bike shop and three years later there were more than fifty bicycles in Fenelon Falls. By then Joseph Heard was selling models complete with Dunlop tires for \$33.¹⁶

Beginning in the 1870s, some of the more affluent residents spent their winters traveling the lakes using iceboats—including Mossie and Willie Boyd, John A. Barron, George McNeill and George Cunningham. Fitted up with large sails, and with very little to slow them down on glare ice, they were among the fastest vehicles of their era, often driven in excess of sixty miles an hour. Difficult to control or turn at those speeds, they routinely upset when they hit large cracks. Many ice boaters, or their employees, spent

more time repairing their boats than they did sailing. Yet for those who had the time and money, it was one of the most exciting sports.¹⁷

A few wealthy locals owned yachts. Adam Hudspeth's *Seaborn* (1878) and James W. Dunsford's *Water Witch* (1880) were probably the first yachts on the Upper Lakes. Mossom Boyd bought the yacht *Katie* in 1881. Six years later his son Willie launched the *Sontag*, which operated into the mid-1890s. He then launched the 54-foot *Calumet* in 1895, which also served as a tug. She was a fast steamer, able to reach Buckhorn in one hour, forty-five minutes. While she was used as a pleasure craft, the *Calumet* had plenty of work ferrying the Boyds' business associates around the lakes, until Willie sold her in 1911.¹⁸ By the end of the century several others¹⁹ had yachts as well.²⁰

While ice boating and yachting were exclusive pursuits, almost everyone had the chance to travel by steamer, especially on chartered excursions for community organizations-Sunday schools, Orange Lodges, Sons of England, the Fenelon Falls Orchestra—or holidays and events like fairs or the Sturgeon Point Regatta. Excursions were very popular at Curve Lake as well. Dan Whetung frequently arranged with the Boyds-who were family friends-for excursions on their steamers. Curve Lake residents supplied their own cordwood for fuel to reduce costs. They were given special rates on regular steamship fares. The standard rate was twenty-five cents per ticket, with the organization rarely allowed to keep five cents per ticket if they guaranteed 200 sales. Trips usually went to a picnic area or to see another village. Many settlers enjoyed a trip to Curve Lake, while its residents frequently chose to visit the other villages. Special trips also might be chartered to see new attractions, like the Kirkfield lift lock in 1906. But excursionists could not expect the same level of service as regular passengers. They usually travelled on a palace scow towed behind the steamers, which were not nearly so finely finished, did not have meals served, and carried far more passengers. Boyds used the same scows for transporting livestock and excursions.²¹

Both the Trent Valley Navigation Company and George Crandell, though much of their steamship business was towing, invested plenty of resources in catering to passenger traffic. By the end of the century, their patrons had come to expect excellent service on the finer steamboats. The *Ogemah* and *Esturion* both served meals, including the best cuts of lamb, beef, veal, bacon and pork. They had cakes, eggs, bread, buns, bananas,

Weston's cookies, Ginger snaps, tapioca, cherries, apples and beer. They even used Sunlight brand soap. Companies went to great lengths to keep these boats in top condition—many were painted every year with white lead. On the summer service, their clientele included tourists and wealthy Lindsay business owners who had cottages at Sturgeon Point. For many ladies in fine white dresses and gentlemen in their best suits, these steamers represented the pinnacle of Victorian consumption.²²

While the steamers toured thousands of locals through the lakes every year—if only on a palace scow—they also drew many people to the region. By the 1870s, regular rail service could bring passengers from Toronto to the Kawarthas in a morning, which made steaming the waterway a convenient holiday. Thousands flocked to the region, from centres across North America, but especially from the cities on Lake Ontario. Many businesses in the region stood to benefit from the influx of visitors, few more than the transportation companies.

Near the end of the century, the Boyds' Trent Valley Navigation Company realized the importance of tourist traffic, and undertook a concerted promotional campaign. Many other ventures quickly bought into their program, including newspapers, especially the Bobcaygeon *Independent*, edited by the Charles Stewart, a close friend of the Boyds. By the 1890s, the Muskokas had gained renown as a tourist destination, and local promoters wanted to create a similar image for the lakes tributary to the Trent. Recognizing that a Ojibwa name would help market the region to those seeking natural beauty and capitalize on popular fascination with native cultures, Bobcaygeon Reeve W.H. Bottom, a steamboat captain, and Stewart, also village clerk, travelled to Curve Lake to ask Martha Whetung to suggest a name. They left with the name Kawatha *kawaatebiishing* means to reflect on the water. For her contribution, the Trent Valley Navigation Company gave Whetung free passage for life on their steamers. When she died Willie Boyd made a donation towards purchasing a gravestone.²³

While Stewart and Bottum travelled to other municipalities like Lakefield, Fenelon Falls and Coboconk to convince them to adopt the name as well, the Boyds undertook to aggressively market the 'Kawatha Lakes.' They hired Edward Miller to write promotional material for the district and he employed the romantic genre then commonly used to sell tourist destinations across North America. He invited potential visitors to see

"the limpid waters sparkle invitingly as the steamer glides swiftly along; the shores rise from the lake in all the green glory of early summer; nature is at her feet, having awakened, radiant from her winter's sleep, and water and shore alike present a picture of unrivalled splendour." Here "one drinks in the balsam-scented air that has come from the wilderness of the north and every sense responds to the pure joy of living." Readers were assured that breathing this "wholesome balsamic odour" that was even "charged with the vitalizing ozone and argon" was "health giving." In addition to sportsmen they targeted natural science enthusiasts, hyping the district's geological interest, while suggesting that adventurers could follow in the footsteps of Champlain. Visitors could enjoy berry picking, beautiful vistas, hunting, and fishing. This "sportsman's paradise" combined "the wildest primeval granite mountain and forest scenery with lovely grassy, shrub- and vineclad shores." Since they were seen to embody the wild, primeval life image common in that period's romantic tourist literature, native cultures, myths and legends—real or invented—loomed large. The Boyds took Fenelon photographer James H. Stanton on a tour of the lakes to capture the region's beauty-and in the process produced what would become classic historic photographs of the area. They produced annual brochures that were widely distributed throughout northeastern North America, and helped create the region's reputation for outdoor recreation. But by the time the drafts reached printer Desbarats & Company in Montreal and steamboat tickets were printed, they had added an 'r' to the name.²⁴

Though many others produced similar hyperbole,²⁵ promoting the Kawarthas in 1900 as a pristine region where the shores were "still clothed with the primeval woods" was an exaggeration, and many of the idyllic images would make locals wonder if the writer had ever seen the district. Such a description would have been more justifiable in the 1830s, to canoeists travelling up from the settlements near Lake Ontario. But after generations of agricultural and industrial progress, many visitors would find it hard to see the region as wild. One tourist expected to receive a "simple rustic whole-souled welcome" in a boarding house by the lake, only to find "a saw mill rasping the pass word of commercialism from which I was trying to get away." He accused the promoters of employing writers who "are incompetent, careless or are misinformed." But there was little doubt that the campaigns were successful in attracting visitors.²⁶

Tourists travelled hundreds or thousands of miles to camp, hunt, fish, paddle and travel on the steamers. Many tourists looked to hire guides, a remunerative occupation at \$1.50 to \$2.00 per day. Each village had several guides available for hire. The Nichols family at Bobcaygeon offered their services for several decades leading into the twentieth century. But many visitors wanted a native guide, so they went to Curve Lake to hire one. George Goose, from Scugog Island, ran a successful service on Sturgeon Lake. Many congregated to swim along the shores of the lake, so Bobcaygeon erected a bathhouse in 1898, while some of the most affluent built their own. Having spent the day along the waterway, many visitors then camped along the shores of the lakes, usually on private property—where they were generally welcomed. Pleasant Point, Sturgeon Point, Big Island, Birch Point, Indian Point, Rosedale, Jacob's Island, Long Point and Ball Island were all popular sites. Yet, at several of these locations, livestock might walk through camps for water.²⁷

Since native cultures loomed so large in the romantic promotional material, it was especially effective in attracting visitors to their villages—this suited the transportation companies behind the campaign, because the most efficient way from Toronto to Curve Lake required passage on both the Grand Trunk Railway and Trent Valley Navigation Company steamers. The long-standing stereotype of natives as wild, part of nature, suited these campaigns well and their villages soon became one of the most notable tourist attractions. But these images were a long way from reality. By the end of the century, Ojibwas had been the object of repeated 'civilization' schemes for three quarters of a century. They lived in European style houses, their clothing differed little from colonists, many kept gardens and a few farm animals. But with thousands of brochures circulating around North America inviting tourists to come see their native culture, visitors expected to see them live up to all the stereotypes. Tourism created lasting economic opportunities-at Curve Lake selling artifacts of native culture was important from the start. Though they started by selling pieces of their own material culture, they soon branched out into many genres of native art. Since it all depended on the Ojibwas pandering to the expectations of these visitors, in time many of the goods they sold reflected national stereotypes of 'Indians'-headdresses, depictions of buffalo hunts, trinkets, exotic jewellery. Despite the similarities they had with their hosts, visitors to

Curve Lake were there for an exotic experience—perhaps as distinct from traditional Ojibwa society as city life.²⁸

All of these visitors spawned a boom in accommodations. While taverns or inns were among the first buildings in Fenelon and Bobcaygeon and some farmers operated them out of their homes, in the last third of the nineteenth century they became much larger, more spacious and elegant. Jameson and Wallis had a tavern at Fenelon Falls by 1835, which Baird found "of unusual extent and accommodation for a new country." William Martin opened the Clifton House in 1854, on Francis Street at the present site of the seniors' residence. In the 1870s R.C. Smith used the building to house his labourers. After falling into disrepair, renovations began in 1902 transforming it into the Hotel Kawartha, complete with new verandahs and ornate stairs from Sandford's factory. It later operated as the Alpine Inn and the Anchorage House, before burning in 1970.²⁹

Daniel Comstock operated a small hotel and tavern on the northwest corner of Colborne and Water Streets, overlooking the river, for a few years starting in 1854. Blacksmith Jeremiah Twomey bought the southeast corner of Colborne and Francis Streets, and soon built the Dominion Hotel, while keeping his blacksmith shop behind it. Both burned in 1877, prompting him to rebuild as the Mansion House. Though Twomey retired in 1892, his son Jeremiah Jr. operated the hotel well into the twentieth century. Andrew Brandon kept a hotel on Louisa Street near Colborne by 1861, and his wife briefly continued the business after his death in 1870. William Bell hosted guests at the Astor Hotel on Francis Street, where "the best liquors and cigars may always be had at the bar," from as early as 1869 until it caught fire in April 1874. By 1869, Joseph McArthur operated a tavern and ran the Quebec and Ottawa House on the site of Comstock's hotel, which burned in the same 1874 fire. He rebuilt as the McArthur House, initially operated by his brother, Alexander, then several others until 1947, including John Aldous from 1893 to 1936. A beautiful building, it survived a fire in 1894, and was appointed with four sitting rooms, a striking stair railing brought from Toronto, and a piano. William Margach ran the Royal Hotel on Lindsay Street, which had 40 rooms over three storeys, from 1874 until it burned two years later. George Crandell leased the block southwest of Bond and Colborne Streets from Daniel Scully and built a hotel in 1883, but it only lasted until the Great Fire of Fenelon started in its kitchen on April 21, 1884. In

1882 William Routley built the North American Hotel, which Aaron and Henry Brooks ran, having previously been in charge of the Mansion House. After briefly returning to the Mansion House, Henry took over the European Hotel shortly after Joseph McArthur built it in 1886. It was commonly known as the Brooks House, until he sold the business in 1934.³⁰

James McConnell's inn was among the first buildings erected at Bobcaygeon, in operation by 1833. With the rock of the south shore of Big Bob serving as its floor it was always prone to flooding. On May 1, 1836, Thomas Need observed, "the water is 18 inches deep in McConnell's rooms." By 1851 John McIntyre and Thomas Knox had inns at Bobcaygeon. In 1865 Samuel Crabtree and Alexander Orr kept hotels. Orr's Temperance House was neatly constructed, but "for some time he encountered violent opposition, because of his decided views in regard to temperance." After his death in 1886, his family leased out the hotel until the twentieth century. Elijah Bottum managed the Forrest House by 1871, but sold the business to operate his steamboats. In 1881 Jackson Reid bought it from J.E. Dunham. When he retired in 1883, Bottum resumed the business and renovated its bowling alley. After more changes in management, it burned on November 19, 1891, but work soon began on rebuilding it. Jackson and John Reid operated the tastefully constructed Royal Hotel, also known as the Reid House, by 1873, which they subsequently sold. It burned January 12, 1905. Jackson Reid also owned the Rokeby Hotel, under tenant management, which burned December 22, 1889. Though he rebuilt by December 1890, he moved on to Huntsville where he operated another Reid House. Joseph Goulais and his wife opened the Rockland House, on the southeast corner of Bolton and Canal Streets, overlooking the waterway on June 1, 1882. Though Joseph died the following year, his wife carried on the business, later leasing it to Harvey Thompson, who eventually purchased the property. The finely finished limestone building burned April 12, 1904, and was rebuilt on a smaller scale. Margaret Falls operated Stonyhurst overlooking the rapids on Big Bob, with "ice cream, fruit pies & cakes always ready." By the 1890s, Dr. William and Thomas McCamus also had cottages on Pigeon Lake for rent, about three and a half miles from the village.³¹

There were well known hotels in the other villages as well. The Albion House hosted guests at Cambray until it burned in 1877, the Tompkins' House operated in 1887,

and William Routley also had a hotel there in the 1890s. E.D. Orde built the University Hotel at Coboconk about 1880, which burned in 1882, but the best known were Queen's, Key's and Pattie's Hotels. W.A. Brown had a hotel at Rosedale in 1864 that was still operating in 1887. The well-known Snowball House also hosted guests there in the 1880s. In 1887 John Campbell and Mrs. Gillies both kept hotels at Glenarm; Mrs. Brown and William Richardson at Rosedale; and Mrs. Dewell at Cameron.³²

Of all the sites on the Upper Lakes, Sturgeon Point became most strongly identified with leisure on the waterway. A beautiful open oak grove at the confluence of the three arms of Sturgeon Lake, it had long been a stopping point for hunters, fishers and boaters. In 1876 George Crandell's Sturgeon Point Hotel Company built there, and in 1883 he had James Dickson survey it into cottage lots. It was also one of the most popular destinations for excursions. Both developments were very successful, attracting wealthy visitors and cottagers. Built at a cost of about \$8,000 the elegant three-story Sturgeon Point Hotel had a two-story verandah overlooking the lake, 40 rooms, billiard tables, a bowling alley, dance hall, croquet, tennis, a sandy beach, canoes and rowboats. For 1877, Crandell arranged to have a tenant operate the hotel, but they could not agree on whether Crandell would receive a share of the profits. He then tried to get his tenant to leave the hotel, "refused to call there with the steamer Vanderbilt, and removed all the furniture." The hotel was soon forced to close temporarily, until J.E. and his son E.H. Dunham took over. By 1879, Frank and Fremont Crandell were managing it. In 1883, Crandell sold it to the Dunhams. William Simpson then ran the hotel from 1886 until it burned June 15, 1896.33

Not long after Crandell built the hotel, the Sturgeon Point Regatta became a major tourist draw. The Langtons had hosted a regatta in 1838, although "on account of some noisy, rough work in the crowd the party broke up prematurely." The next year they held a second regatta, which ended with a drowning. The Dunhams revived the regatta for 1878. Securing subscriptions from rail and steamboat companies, they offered \$1200 in prizes for a variety of events. First prize for the single scull was \$350. The purses attracted some of the finest rowers in North America, including Ned Hanlan, Frenchy Johnson, Jake Gandaur, Evan Morris, and Charles Courtney. In the canoe race, August and Samson Yellowhead of Rama defeated Dan Whetung and his partner Toboco from

Curve Lake and several other competing boats. To accommodate the 2,000 visitors who attended, the *Vanderbilt*, *Victoria* and *Sampson* all brought parties to the point. Three years later, the Oddfellows ran an excursion to the regatta, and attendance reached 3,000. With the crowds came some complaints about rowdy behaviour, including drunkenness and gambling. Becoming an annual attraction, by the end of the century medals and trophies had been donated for many contests. In 1905 the events included dinghy, sailing, canoe sailing, gunwhale, upset, two gasoline launch, and several canoe races; a water polo game of Sturgeon Point vs. the world; a tilting tournament; and a tug of war with four to a canoe.³⁴

In 1881, several avid canoeists from the Kawarthas attended the American Canoe Association meeting at Lake George, and E.B. Edwards, a Peterborough lawyer and one of the best known paddlers in the area, was made Commodore the next year. He invited the group to Stoney Lake in 1883—he and his law partner purchased Juniper and Otter Islands to host the association. The two-week event allowed plenty of time for canoeists to meet, hunt, fish, relax around campfires, and compete in regattas. It returned to Stoney Lake in 1887, Horse Island in Lake Couchiching the next year, then the Boyds hosted the meeting on Big Island in 1891. To get ready, they held a bee to clear camping sites, only to have them made unsuitable when a fire ran over them a few days later. By the mid 1880s, Bobcaygeon, Sturgeon Point and Lindsay all had canoe clubs.³⁵

While hunting, fishing and trapping continued to be an important part of many locals' livelihoods, wealthy residents travelled north to hunt or fish as part of a camping expedition. Though they ventured into the bush in part to get away from civilization, these parties could be extremely well provisioned. Willie Boyd, for instance, often had a rail car or cadge team deliver his supplies, though in 1900, he used the *Calumet* to tow a scow load of gear to his Bald Lake Camp. His brother-in-law, Dr. Charles Bonnell, often accompanied him, as did R.B. Rogers, William J. Robinson, Jim Edwards, D.B. Simpson, Albert E. Bottum, W.T. Comber, and John Sedgwick. He enjoyed staying at the logging camps on the shore of Bass Lake and Bark Lake, and several others took advantage of them as well. In 1895 he captured a fawn for a pet.³⁶

At Fenelon Falls George Cunningham, Richard Smith, W.H. Simpson, E.R. Edwards, Charles Edwards, George Whissile, William Heaslip, John Aldous, Thomas

Robson, John A. Ellis, F.R. Bailey, and Hugh McDougall went on well chronicled hunting trips in the upper reaches of the Trent, as well as the Muskoka and Madawaska watersheds. The evening trains in early November were regularly filled with hunters and their canoes going north, returning in a week or two with carcasses of fresh venison. Many farmers hunted in nearer townships that remained largely forested, like Galway and North Harvey.³⁷

Some of the gentlemen who repaired to old logging camps or tented around lakes in Haliburton and the Muskokas started to envisage the north country as a region devoted to outdoor recreation. Lumber companies had great political sway and most opposed having any significant number of campers in the region. But as they cut through the last stands of virgin pine, their resistance to campers diminished. With the success of Yellowstone National Park (1872) and Rocky Mountain Park (Banff-1887), Alexander Kirkwood, a clerk in the Crown Lands Office thought something similar would work in Ontario. By the late 1880s there had been little agricultural settlement in the Algonquin highlands that were the headwaters of many of Central Ontario's watersheds. Commissioner of Crown Lands J.B. Pardee asked Fenelon Falls land surveyor James Dickson, who had laid out many of the townships in the region, for his opinion. Dickson, an avid hunter and north country traveller, was enthusiastic, suggesting a guidebook, maps and marked trails. He proposed a ban on hunting in the park, a reduction of the wolf population to increase the number of deer, and stocking animals such as beavers. After Dickson submitted a favourable report, the lieutenant-governor appointed him to the commission that oversaw the creation of Algonquin Park in 1893.³⁸

With so many interested in hunting and fishing, close attention was paid to the most commonly harvested species. In the late nineteenth century several species were becoming less common because of harvesting pressure and habitat changes that came with agricultural development and forestry. A few disappeared, including passenger pigeons. Once numbering in the billions, they were becoming rare by the 1880s, and were all but extinct by the end of the century. Clearing forests where they fed on nuts and fruit, along with over-hunting are usually blamed for their demise, though some believe it may have been disease introduced by the domesticated pigeon. In some regions professional harvesters followed flocks, some killing more than a million birds at a time, or netting

them for trap shooting, but pigeon hunting in the Kawarthas seems to have been noncommercial, and usually involved only a few birds at a time. There were several records of large nestings during the settlement period—in Douro, Bexley, Laxton, Somerville, Fenelon and Verulam—and hunting in the Kawarthas was recorded as late as 1880. The last recorded wild pigeon in Ontario was seen at Penetanguishene in 1902.³⁹

Though many contemporaries spoke of declining deer populations, some in alarming tones, their numbers were difficult to gauge with any reliability. The opening of woods associated with forestry and the first stages of agricultural development improved deer habitat, as did the campaign against wolves, but this was probably more than offset by the great increase in hunting. Nonetheless, deer remained prevalent in the region to the end of the century.⁴⁰ Though there were published reports of their scarcity, bear also continued to be regular game.⁴¹

Some observers felt that the best way to counter these declines was to stock fish and game. In 1884 some deer were brought south on trains and released in order to improve the hunting near Fenelon Falls. By 1889, deer were kept in a village park. From the mid 1870s there were numerous attempts to increase the diversity of game fish in the Kawarthas. The native population of Atlantic salmon in Lake Ontario was noticeably declining in the mid nineteenth century, prompting Samuel Wilmot of Newcastle to set up a hatchery in 1866 to rebuild the population. Receiving federal funding commencing the following year, he was soon appointed an overseer of pisciculture. While initially inspired by the decline of salmon in Lake Ontario, the Crown soon began seeding other lakes too. In 1877 it released 10,000 salmon fry in Balsam Lake, another 20,000 in Stoney Lake the following year, along with whitefish in Cameron Lake. In 1881 15,000 salmon were dropped in Lake Simcoe. But all of these releases failed. In 1883 the Fenelon Falls *Gazette* reported that the only one of the salmon that had ever been seen afterwards was about three or four inches long when it was found dead. But this did not end the stocking: 50,000 salmon were set free in Cameron Lake in 1886, then 250,000 more in Sturgeon Lake in 1892. In 1893 one whitefish was caught. Three years later, an attempt was made to capture live bass for use at an Uxbridge hatchery, but all died.⁴²

With stocking providing little or no return for the funds invested, it seemed to those concerned about the decline of fish and wildlife that conservation or preservation

was the only option. Most could agree that the harvesting techniques that had been acceptable when a few hundred Ojibwas inhabited the region would devastate populations when practised by tens of thousands, especially if some were operating on a commercial scale. Conservationists looked back on British experience for guidance, and thought that if they could enforce closed seasons, and eliminate poaching or pot hunting in favour of good sportsmanship, fish and game would have more of a chance to survive. As John Reiger has noted, the conservation lobby was dominated by sportsmen. Being generally well-connected, affluent gentlemen, they invented 'rational,' scientific arguments to defend their positions—usually assuming that hunting and fishing was sport, while they demeaned people who relied on the chase for their livelihoods. Many were particularly outraged to see commercial hunters exporting deer carcases to the United States—a practice that assumed a place in the debate out of proportion to its prevalence. Though sometimes employed recreationally, the practices they condemned were more closely associated with those who hunted and fished as part of their livelihood, including Ojibwas. They were, after all, some of the most effective techniques: killing fish while they were spawning or on their spawning runs, hunting animals who were about to reproduce, fishing with explosives, using lights to attract them at night, and having dogs to drive deer into the lakes to be shot. One member of the Canadian assembly was even lobbying for a ban on native people hunting and fishing. Many believed that predatory animals, especially wolves, could be worse than pot hunters and should be controlled or eliminated.43

Legislation to protect wildlife was in place before the first settlers arrived in the Kawarthas. In 1762 General Thomas Gage, Governor of Canada, established a closed season on partridge or ruffed grouse. Then in 1821 deer were protected with a closed season.⁴⁴ By 1892 most controversial practices had been outlawed, while closed seasons

5.4 Closed Seasons, 1892 ⁴⁵			
Species	Start	End	
Deer, Elk, Moose, Caribou	November 15	November 1	
Beaver, Mink, Muskrat, Sable, Marten, Otter, Fisher	April 1	November 1	
Grouse, Pheasants, Prairie Fowl, Partridge,	December 15	September 15	
Woodcock, Snipe, Rail, Plover and other water fowl			
Bass, Muskellunge	April 15	June 15	

and bag limits had been established for many species-theoretically preventing commercial hunters from sending large quantities of game to market. If a dog was seen running deer during the closed season-from November 15 to November 1 of the following year—it could be shot on the spot with impunity. Fawns could not be killed. No hunter could take more than two deer during the hunting season, and was given two tags with each hunting license to be attached to his kills. To transport deer the tags had to be signed in front of the shipping agent, and the signature on the tag had to match that on the license. The exportation of deer carcases was banned. Birds could not be shot between sunset and sunrise. Night lining, commonly used for fishing eels, and snares for catching fish through ice, were banned, while it was illegal even to possess a fish spear. The fine for fishing with poison or dynamite was \$100—the same penalty for releasing drugs, poisons, dead fish or mill waste into the water. It was illegal to possess fish and game during the closed season, and a \$10 wolf bounty remained. For most game other than deer, the bag limits were not much of an inconvenience—for ducks it was 400 in 1893, and few hunters would shoot anywhere near that number. The 1896 Game Act stated that hunting deer from water was illegal, deeming that any person with a gun in a boat where deer might be found was hunting, punishable by fines from \$20 to \$50. That year hunters were required to pay \$2 for a hunting licence, which "excited a good deal of indignation," even hints "that the shedding of human blood may result from an attempt to enforce the amendment in the back country." Defenders of pot hunting said that the Act would "not take a solitary sportsman from the host from towns and cities who are chiefly responsible for the useless slaughter of deer," but was an unjust imposition on poor people trying to make a living. In 1897 the fee was reduced to 25 cents. By 1898 it was illegal to hunt on Sunday. Specific exemptions were made to the hunting regulations to allow the harvest of undesirable species like rabbits, crows, hawks, blackbirds and English sparrows.⁴⁶

The conservationist lobby tended to focus on fish and game harvested recreationally—deer, bear, bass, muskellunge and fowl. Little attention was paid to other species like frogs, eels, snakes, herring and suckers. Ojibwas and settlers alike continued to capture herring and suckers on their spawning runs. They often gathered to harvest them on the creeks and rivers, or on the dams along the waterway. When the herring ran in November many village boys spent their days standing on the dam pulling them out with nets. Boys congregated again in May to net or jig suckers, taking them home for salting. In May 1879, a man at Fenelon Falls, "rolled up his trousers and took up his position at the foot of the waterfall and for two hours kept a couple of boys busy stringing the fish that he caught with his hands and threw up on the bank. His success encouraged others to follow his example and soon all the fishing rods were discarded." Few fought to protect turtle eggs from collection, or worried that the suckers or herring might one day disappear. Sport species, however, had very powerful defenders.⁴⁷

Enforcement of game laws was problematic. There had been closed seasons on deer from the time the first settlers arrived in the region, but they were frequently ignored. By the 1870s the Federal and Provincial governments took enforcement more seriously, and there were fishery inspectors in the Kawarthas, who initially worked part time. In 1882 Fremont Crandell was in charge from Fenelon to Lindsay, Patrick Leonard of Buckhorn oversaw Chemong and Pigeon Lakes, William Falls from Bobcaygeon to Sturgeon Point, and Timothy Corbett on Pigeon Lake and the Pigeon River. In 1892, Gerald Murphy (Bobcaygeon), J.H. Brandon (Fenelon Falls), Thomas Johnston (Cameron Lake), James O'Brien (Sturgeon Lake) and John A. Carnegie were fishery guardians. By 1877 they could impose fines of \$10 or 30 days in jail, though they might also choose just to break up the fishing operation and seize violators' sporting goods. Occasionally poachers were brought to trial as a result of a private individual making a complaint. There were, however, numerous complaints that the fishing laws were broken with impunity. In 1892 one man managed to jacklight and spear twenty-eight muskellunge on Balsam Lake. The Fenelon Falls *Gazette* wrote in 1896:

The attempt to restrict hunters to two deer per season will be an utter failure unless the woods are literally full of spies; for it is almost impossible to enforce a law which practically everybody is opposed; and it is not to be supposed that even a member of a party of 'city men' who happened to shoot the prescribed two deer the first or second day he got into the woods would go home at once, or hang up his rifle and look quietly on while his companions were trying to secure their legal allowance of venison.

In 1886 two farmers were caught spearing muskellunge, but "begged hard to be let off, one of them declaring his mother was sick and the doctor had prescribed fish, and as it was (they said) their first offence and they solemnly promised not to repeat it." They were spared with a warning. It was observed that "it is illegal to shoot ducks at this time of the year, but it is not illegal to fire at them and miss." Spearing fish remained common in certain circles well into the twentieth century.⁴⁸

Though there were many who sympathized with the laws, others were not so concerned about maintaining game populations:

Thirty or forty years ago the woods of Ontario were full of wild pigeons, and there are none now; but you don't see young men—or old ones, either—going around with tears in their eyes pining for pigeons; and when partridges and deer shall have become things of the past, as they will, sooner or later, there will be plenty of amusements beyond shooting. We don't by any means, advocate the indiscriminate destruction of game, but we think it rather unreasonable that the present generation, who chance to live in a game age, should be hampered by vexatious restrictions for the benefit of a generation yet unborn.

Many critics believed that the laws were framed to suit the interests of wealthy recreational hunters, which was partially true.⁴⁹

While other pot hunters had no legal justification for their actions, Ojibwas "claim an inalienable right to fish in any of the Lakes or Rivers or other waters within the district originally ceded by them to the Crown." The minutes of the 1818 treaty council recorded them asking "that we shall not be prevented from the right of Fishing, the use of the waters & hunting where we can find game" and the Crown recorded their reply as the "rivers are open to all & you have an equal right to fish and hunt on them," which would have been communicated to the Ojibwas in translation. There were thus grounds to suspect that they had not understood themselves to be surrendering jurisdiction over hunting and fishing to the Crown. They often afterwards made reference to an assurance that Sir John Colborne gave them that they were allowed to continue hunting and fishing. From the 1830s into the twentieth century, the Indian Department tried to convince Ojibwas to farm instead—but the duration of this campaign belied the fact that they continued to derive a large part of their livelihood from hunting, trapping and fishing. To the end of the century Ojibwas continued to camp at Hickory Beach, Pleasant Point, Distillery Creek, Bobcaygeon, and on Cameron Lake (especially Andrew Stabler's farm, 26 X Fenelon).⁵⁰

In 1896, Dan Whetung had H.J. Wickham, a prominent Toronto lawyer that he knew through his friend Mossom M. Boyd, write to the Deputy Superintendent General of Indian Affairs, saying that since his father and grandfather "possessed the exclusive right of hunting and fishing" on Emily Creek, that he should be granted it. Though his family had traditionally hunted there, the thought of granting Ojibwa hunting privileges seemed nonsensical to the Crown, and they wrote back informing Wickham that Whetung was subject to the province's hunting and fishing regulations like everyone else.⁵¹

Many conservationists and bureaucrats—especially in the Departments of the Attorney General, Marine and Fisheries, the Crown Lands Department and its successor the Department of Land and Forests—believed that everyone bore an equal responsibility for preserving game. It was difficult to convince one group that they were being justly fined when another was allowed to do the same thing with impunity. In 1866, acting Attorney General James Cockburn asserted that "my opinion is that [native peoples] have no other or larger rights over the public waters of this province than those which belong at Common Law to Her Majesty's Subjects in general." Others believed that Ojibwas had special rights. They were often treated leniently by law enforcers, not prosecuted as often as settlers, and even when they were, some jurors were hesitant to convict. At other times overseers were appalled by the practices they saw—being the epitome of what they were trying to stamp out. In 1875 the Rice Lake Fishery Overseer fined Ojibwas who "shoot the fish in the shallow water where they go to spawn, a thing very easy to do as the fish may be seen in hundreds with their backs out of the water." But having harvested spawning fish since time immemorial, most Ojibwas saw nothing wrong with the practice and resented the meddling of the fishery overseer when they understood that they had retained their rights to fish. Towards the end of the century disputes over hunting and fishing rights became far more heated—one man from Rama who has "for some years been very defiant and has openly stated that he would fish in spite of all laws" was arrested at gunpoint in 1895 while hunting.⁵²

By the mid nineteenth century, the Crown's actions were becoming increasingly difficult to reconcile with the treaty proceedings—even as officials asserted that it was the written terms, signed by Ojibwas who could not read English, not the oral proceedings that were binding. The Ojibwas understood that they had not surrendered the Islands at the 1818 treaty. Under John Colborne this was acknowledged, but subsequently forgotten and the Crown began to sell them. When the Pennefather Report recognized the claim in 1856, the Crown immediately had residents of Curve, Rice and Scugog Lakes sign a

treaty surrendering the islands not contained in their reserves "in trust, to be sold or otherwise disposed of to the best advantage for ourselves and our descendants forever." By the 1860s squatters were occupying islands around Curve Lake, and Ojibwas were asking the Crown what could be done about it. Having secured the new treaty, the Crown would sell them for their benefit—for instance, granting Big Island to Mossom Boyd for \$520 in 1873. But the Crown assumed that the islands would be sold, not kept for their benefit. Ojibwas were expected to ask permission even to cut trees on the islands held in trust.⁵³

In 1887, Curve Lake Ojibwas "were refused permission to land on the islands in that section of Stoney Lake in which they were fishing for the purpose of camping and cooking dinner & were obliged to go and get permission from a farmer on the mainland to strike camp & cook their meals." The following February they sent an urgent petition to the Crown to sell no more islands before they chose which ones they needed to hunt and fish. By 1892 the Ojibwas and the Indian Department had agreed that they could keep six in Stoney Lake, seven in Smith Township, one in Ennismore, one in Burleigh, and seven in Harvey. One of these, Nogies Island in Pigeon Lake, was already leased to A.E. Bottom and J.T. Robinson, who were building a house upon it. The partners agreed to surrender the house to the Crown, but when the Ojibwas took possession in 1894, they allowed them to continue using it, on condition that Ojibwas could also camp there.⁵⁴

10,719 square miles of land north of the 45th parallel was not included in any treaty, while the northern boundary of the 1818 treaty did not close and several townships lay between its western boundary and the nearest cession. In 1865 some residents of Curve and Rice Lakes, led by Isaac Irons, petitioned the Indian Department asking for the Township of Glamorgan as a new residence. Deputy Superintendent William Spragge replied to them that they could not have that block of land because it was already surveyed, but sent them a map of the Huron and Ottawa tract, "in order that you may mark upon it some other tract of unsurveyed land to which you might desire to remove and the proposition will be brought before government"—the land was not surrendered, but the Crown still expected Ojibwas to obtain government permission before moving there. In 1866 Paul de la Ronde of Rama claimed ownership of hunting grounds to the north of those described in the 1818 treaty. Three years later, the councils of Rice, Curve

and Scugog Lakes petitioned Spragge asserting their rights north of the 45th parallel. In 1870 Secretary of State Joseph Howe acknowledged in writing to the Ontario Commissioner of Crown Lands that this land seemed to be the property of the Ojibwas. Spragge wrote to the bands explaining that their Aboriginal title had not been extinguished, and suggested they might receive "some adequate annuity," then wrote to the Province asking them to propose a way to settle the matter. But the province did nothing, in part because both levels of government were trying to push financial responsibility onto the other. In 1874 the Indian Department received an enquiry "whether it is likely the government will add to the present annuity by buying the unsettled land to the north of us, beyond the boundary specified in the former treaty with the Indians." In 1882 George Paudash was reassured, "this important matter has received and will continue to engage the attention of the Department until a solution of the question is arrived at." The same year, a delegation representing Ojibwas from Rice Lake through to Christian Island travelled to Ottawa to present their case, but was not able to meet Sir John A. Macdonald. In 1893 the Ontario Government issued a written denial of the claim, asserting that they had already been compensated for their land, and that because of the success of their agricultural conversion they did not need the hunting and fishing grounds. In the 1890s the Indian Department became inconsistent in their support of the land claim. In 1903 it ruled that upon further review it was "not the hunting ground of those claiming," and then the Federal Government declared that "the Department has never admitted any claim on the part of the Indians."55

By the start of the twentieth century Ojibwas were frustrated with the Federal and Provincial Governments and decided to hire lawyers to pursue their case. The Indian Department, however, ruled that since the courts would not find in favour of their claims, they could not hire legal representation out of the funds it administered—"the Department cannot admit in any way that the Indians have the right of themselves by even a unanimous vote without the consent of the Crown to dispose of either personalty or the proceeds of realty." This did not stop the Ojibwas from talking to lawyers, but it prompted the Indian Department to re-examine their position. The Minister of the Interior, Clifford Sifton, ordered the Ojibwas and their lawyers to surrender all their evidence to the Crown, while the Indian Department refused to allow the Ojibwas to see

the Department's files relating to the matter. The bureaucrats sensed "the danger" if their lawyers ever saw the contents. One of the lawyers objected as "the courts of the land are open to the Indians equally with all other of His Majesty's Canadian subjects." In the years that followed they continued to have lawyers write to the Department to press their case. In reply, the Crown often disputed the bands' right to hire a lawyer from the band account.⁵⁶

In 1916, R.V. Sinclair completed a report for the Department of Indian Affairs, concluding that the lands in question were never surrendered and advised compensating the six bands concerned. The Canadian Government asked Ontario to join them in a Treaty Commission in December 1921, and by April 1923 they had agreed on a threeperson committee. Though several government officials sympathized with them, they did not believe that the Ojibwas' understanding was the most effective way of advancing their interests. They instead sought to establish that the Ojibwas had traditionally hunted and fished several days journey north of where their villages were and that they continued to do so-in part to refute the arguments of bureaucrats who claimed that they did not use the land and too much time had passed since the treaty to file a claim. To collect evidence for this they travelled to the Ojibwa villages and conducted interviews. Many Ojibwas "were very suspicious of the attitude which would be assumed by the commision towards their claims, having unfortunately become imbued with the idea that the object of the Commission was to minimize the claims." The commission's chair A.S. Williams explained "what you need to establish is that the territory in question was formerly the Hunting Ground of this tribe." They were asked to identify where in the northern territory they went to hunt, and though many answered that they had not been further than the upper end of the Trent Watershed, a few answered that they or their ancestors had been as far as the Muskokas, Ottawa River or Madawaska River. Many were also asked if they recognized English place names from those areas. At one point the examiner got frustrated, observed that seventy families were claiming over 10,000 square miles of hunting territory and demanded, "then the theory is that just because you were here before the white people, you ought to be compensated for the whole of North America, provided you were the only bands here?" Dan Whetung replied, "Yes sir, that's it. Why not?"⁵⁷

The Commission concluded that the land north of the 45th parallel was the "ancient hunting grounds of the ancestors of the claimaints" and suggested that since the 1787-1788 treaty did not include a description of the lands, that block should be included in any new treaty as well. The Province had capped the amount they were willing to pay at \$500,000—a small fraction of the value of the lands involved. The Federal Government then decided to offer the Ojibwas that amount, which they accepted, formalized as the Williams Treaties of November 1923. As the Crown dealt with them in two districts, Rice, Curve and Scugog Lakes received \$250,000, while the balance went to Rama, Georgina Island and Christian Island. Each band member received \$25 (a total of \$16,575 at Rice, Curve and Scugog Lakes), and the Indian Department took over the administration of the rest. Fifty-three years after the Federal Government had acknowledged the band council's claim, the two levels of government finally did something about it. But the only choice they gave the Ojibwas was to surrender the land.⁵⁸

Though the commissioners had assured the Ojibwas that the treaty did not concern their ability to hunt and fish, this was not specifically addressed in its terms. But it contained the clause that they transferred:

All the right, title, interest, claim, demand and privileges whatsoever of the said Indians, in, to, upon or in respect of all other lands situate in the Province of Ontario to which they ever had, now have or now claim to have any right, title, interest, claim, demand or privileges, except such reserves as have heretofore been set apart for them by His Majesty the King.

It remains a point of contention whether even those who drafted the treaty had intended this to refer to hunting and fishing rights—or just unceded land. Following the treaties the province assumed it had the right to enforce hunting and fishing regulations, making Ojibwas' continuing hunting and fishing much more controversial, especially from the 1930s and 1940s than it had been during the period of this study. In other regions of Ontario with a significant commercial fishery, legal disputes over First Nations hunting and fishing rights were brought to the fore much earlier. Eventually, disputes over local hunting and fishing found their way to the Supreme Court in the 1994. During the *R. v. Howard* proceedings, a former chief said that he knew seven of the treaties' signatories personally, "that three or four of them were businessmen, that three or four were at some

time also Chiefs of the Hiawatha Band and that two men, Hanlon Howard and Johnson Paudash, were 'almost as smart as any lawyer regarding Indian treaties or legal paper.'" Paudash had on many occasions showed the Crown the fallacies of their arguments as they stonewalled in the lead-up to the treaty. The court found no grounds to doubt that the Ojibwas understood the Williams Treaties and that "the basket clause was a conveyance in the broadest terms,"—meaning that they "surrendered any remaining special rights to hunt and fish." In 1992 the Ojibwas along the Trent-Severn sued the Crown claiming additional compensation was due for the lands ceded in the Williams Treaties because their ancestors had not understood the proceedings. The case is presently before the Federal Court, with Leonard Mandamin, an Anishanabe judge, presiding.⁵⁹

Yet while the political battles over hunting raged, abstracting legal positions from the lives of residents of the Kawarthas, they tended to overlook local communities' common interests. Although sport was pitted against subsistence hunting, many tourists wanted to hire guides when they came to the region and most guides were people who otherwise derived a large portion of their livelihood from hunting and fishing. By the time these cases were working their way through the courts and the Williams Treaties were signed, tourism was one of the most important economic sectors for Ojibwas and settlers alike. Hunting and fishing were two of the greatest draws to the region, and wealthy visitors who travelled from Toronto, New York or Ohio overwhelmingly believed in proper sportsmanship. Whether Ojibwa or settler, people could not be seen shooting spawning fish and then expect to get a job as a guide or serving guests on one of the steamboats. As tourism created jobs, many locals would not tolerate seeing others disregard visitors' sensibilities. A large portion of the local population believed in the necessity of conservation, and many enjoyed outdoor sports themselves. Since popular opinion decried certain hunting and fishing techniques as unacceptable, they became less common even as people debated whether poor pot hunters were entitled to make a living or Ojibwas had special rights.

Throughout the twentieth century, tourism continued to grow in the Kawarthas, even as the means of transportation that had allowed its creation were declining. It did not take long for the steamers and railways to be eclipsed once motor launches and cars appeared in the twentieth century, bringing ever larger numbers of enthusiasts, both locals

and visitors, to the fishing grounds and hunting camps. Though the company posted modest profits in the early years of the twentieth century, the expanded Trent Valley Navigation Company did not produce the returns that Willie Boyd had hoped. Most of its traffic was still on Sturgeon Lake—in 1903 the *Esturion* carried 15,992 passengers, *Ogemah* 2,835, *Manita* 3,938, and *Empress* 3,307. In 1907 the company lost \$295.28. On June 15, 1906, the *Manita* burned, and though she was repaired enough by the end of the month to resume service, the Boyds were already thinking of selling her and many of their other boats. John Fitzgerald of Peterborough bought the Ajax in 1907. The next year, operating only the Manita and Esturion, the Trent Valley Navigation Company turned a profit of \$193.80—but the Boyds were still determined to shut it down. They approached many local steamboat operators trying to convince them to purchase their boats, including Calcutt, John Carew, Joe Parkins, C.W. Burgoyne and Charles Gray, who then operated out of Lakefield. In 1909 the Otonabee Navigation company purchased the *Manita*, and the Trent Valley Navigation Company did not offer passenger service that year. The *Esturion* was difficult to sell, as many suspected that she would need a new boiler, which had not been replaced when she was rebuilt in 1897. Willie finally sold her to Peterborough barrister George Hatton in 1914 for \$2000, and she was scrapped the following year. By 1912 the Ogemah had been sitting in water for several years with her boiler still in her and Willie was looking for "some junk man" who might give him \$100. The Trent Valley Navigation Company surrendered their charter in 1915.⁶⁰

With the end of Crandell's line in 1901 and then the Trent Valley Navigation Company, the age of steamboats was all but over. Charles W. Burgoyne still operated the *Wacouta*, built in 1909, until 1918 between Lindsay and Fenelon Falls. Charles Gray moved to Sturgeon Point in 1914 and captained the 82-foot *Lintonia* on Sturgeon Lake, from her launch in 1910 through the 1920s. The Carew Lumber Company also used steam tugs into the 1930s, and the *Stoney Lake* occasionally carried excursions. Though their outings still represented the height of Edwardian genteel leisure to many, their profitability declined once motorboats started to appear in the first years of the twentieth century. When John Carew debated purchasing the *Esturion* in 1909, he observed that "so many of the Cottagers at the Point have gasoline launches of their own, in fact, nearly every second person has a Boat of some kind, and it makes it rather discouraging for a steam boat man to try to make money plying between Lindsay and Sturgeon Point.³⁶¹

Motorboats and automobiles ushered in a new era of leisure on the Kawarthas. Many locals still enjoyed hunting and fishing around the lakes, and visitors continued to flock to the region, but with the motorboats families enjoyed the waterway on their own. While yachts had been exclusive to the end of the nineteenth century, gas launches became common over the first half of the twentieth century, and there was much less demand for the grand public outings on the steamers. They brought personal motorized travel on the waterway within the reach of more people, while making it far easier to navigate every corner of the Kawarthas.

In the 1830s promoters expected the region to develop around the waterway, which was seen as its natural advantage over other parts of Ontario for commercial transport. By the early twentieth century, outside observers would identify the Kawarthas with the waterway. But it did not function as a through transportation network. In some ways it was still the Ojibwas' 'happy hunting ground'—as natives, settlers and tourists all used it in a way that combined the customs of all three groups. Tourism and recreation which had become one of the most important parts of the region's economy as steamships and the railways facilitated rapid long-distance transportation—continued to grow over the twentieth century. For many, the Kawarthas had become a region for leisure and recreation.

Though tourism continued to grow, the transportation companies' campaigns to brand the region as another Muskoka Lakes were not very successful. By the turn of the century the Kawartha Lakes had forged its own identity. Seventy years before it was not as much of an exaggeration to portray the lakes as pristine, rugged and wild when the only settlement was the Ojibwa villages at Hiawatha, Curve Lake, Lake Scugog and Rama. By the end of the century, most returning visitors were coming to enjoy the achievements of local residents as much as the natural beauty of the countryside. They came to stay at hotels or cottages, watch the countryside of farms pass as they steamed the lakes, compete in regattas, or picnic in one of the villages. People travelled to the area to imbibe the cultures and explore their fascination with native peoples. They enjoyed visiting the rolling hills dotted with family farms, that reflected the British countryside so many nostalgically recalled.

Though migrants had not forgotten their old homes as they set out to find a new place in the world, the Kawarthas assumed a distinctive character. Starting out in a new continent without many of the technological advancements taken for granted back home, immigrants soon learned that traditional ways of doing things had to be adjusted. In time the Kawarthas embodied the 50, 100 and 200 acre farms envisaged in the survey system. There farm families devoted their lives to mixed agriculture, working together with their neighbours to meet most of their own needs. These families came to embody the hardworking, honest, steady, upstanding lives that many city dwellers associated with the old countryside in Britain. Yet they relied on new varieties of plants and animals that had been developed to thrive in their new settings. The rolling hills of the Kawarthas were dotted with the large frame houses and barns that became the dominant Ontario vernacular—and reflected the grand gentry estates of the 1830s. Following two generations of labour, by the end of the century it was starting to seem natural that the Kawarthas Lakes comprised homesteads in the hills and villages at milling sites, traversed by the Trent Waterway.

Ojibwa society had undergone a revolution of its own between 1825 and 1900. As the first settlers started arriving in the district, missionaries and several churches tried to improve their lives. Many hoped that once they understood Christianity, farming, the English language and numeracy, Ojibwas would be better able to adapt as settlers came to the region. Some might even become doctors or lawyers. Initially the missionaries' lessons were enthusiastically received, and many of the skills they taught proved helpful.

In the decades that followed, Ojibwas faced increasing pressure to conform as they came under stricter oversight by a government that was rarely sympathetic towards their way of life. It assumed that its domain would be an agricultural landscape, regardless of terrain or the productive cultures of its subjects. Departments were blinkered to pursue simplistic agendas and generally overlooked the breadth of the economy that they were trying to govern. Ojibwas were pressured to assimilate, to become sedentary, English-speaking farmers. This agenda would benefit neither Ojibwas nor the immigrating society. Ojibwa hunting, fishing, trapping and manufacturing was essential

to settlers throughout the century. Settlers were happy to barter fish or venison for flour. Merchants eagerly bought pelts. How many people living on the waterway did not need a canoe?

Time and again government officials manipulated their relations with Ojibwas to advance their own agendas—the most important of which was an expansion of state power, in large part by administering land. For the Crown, Ojibwas could legitimize their claim to control the land, through the treaty process. Ojibwas received some compensation, and when farmers or timber ventures wanted access they got it via the Crown. The officials' expectations for Ojibwas reflected their obsession with land and agriculture. They often seemed unable to grasp that a land-focused agricultural society was in many respects complementary to a culture that lived at water's edge. When the Crown got Ojibwas to consent to settlement, the natives asked to retain their ability to hunt and fish. The Crown responded by formalizing a legal document that entirely ignored their wishes. When Ojibwas later asked for help to preserve their ability to hunt, fish and trap, officials eventually produced another treaty that was again only about land cession. By the end of the century many Ojibwas had learned to be cynical towards the government. Some, especially in the younger generation, came to believe that they had no alternative but to protest and challenge officials.

Over seventy-five years Ojibwa society was transformed. While they never focused their livelihoods on farming, agriculture came to play an indispensable role in their lives. Whether coming from their own plots or through exchange, they relied increasingly on farm produce, especially in what had been traditional seasons of want. Many sincerely converted to Christianity. They enjoyed many of the same leisure activities as settlers. Rubber boots, pocket knives, larger homes, and wood stoves became necessities. But these advantages were offset by declines in fishing—especially in taking advantage of spawning runs—and wild rice. There was much in their new lives that they would find it a hardship to live without, but they also had traditions that they could only nostalgically recall.

By the turn of the century life in the Kawarthas was in many ways settling into routine. Many adventurous sons and daughters who yearned for their own frontier experience had already left for the west. Others moved off farms for employment in

nearby villages. Some even found their way to the cities. But, especially in the farming communities, many of the families stayed for generations. These close-knit neighbourhoods spent almost their entire lives within a radius of a mile or two. Gathering at the church hall on Sunday, the local blacksmith shop or in each other's kitchens, they recounted the stories of the trials, triumphs, bear hunts and bees their families had shared as they together made the farm landscape. They spent the evening listening to neighbourhood story-tellers' yarns. The neighbourhoods were like extended families, and children usually married within their community—the long-standing residents of Bury's Green seldom married even as far away as Red Rock.

Farm families' working lives had also become much the same, year in and year out. Early to bed and early to rise, each day they tended their animals, cleaned up, and prepared their meals. They followed the seasonal cycles, tapping the sugar bush, shearing the sheep, ploughing, planting, harvesting, preserving, spinning, sewing and keeping everything in repair. This society valourized diligence and duty, devoting their lives to getting all of their jobs done, while helping friends and family. This steady rhythm of farm life carried on into the second half of the twentieth century.

The lumber industries had followed a similar trajectory. The adventurous days of the white pine rush had almost entirely ended by the turn of the century. Logging no longer took place in isolated camps—almost the entire district had been settled. Commercial production was becoming less focussed on exports, as manufactories sprang up for a variety of forest products, a significant portion of which was for sale to locals. The large companies no longer just made pine lumber or timbers. To compete on tighter margins they found new uses for material that would previously have been wasted.

The goods and services available in the villages were becoming much more diverse as well. At the start of settlement, few products were produced on mass, and almost everything consumed had to be imported, or if at all possible, made at home. By the turn of the century families might have their photographs taken at the local studio, indulge their children with candy from the confectionary, or even see the variety of vendors when the circus came to town. They no longer had to rely on as many makeshift tools, though farms, especially, were still largely self-sufficient. Yet they continued to

find a host of advances indispensable: cream separators, washing machines, horse or dog powers, mousetraps and reapers.

In the first years of the twentieth century, the Trent-Severn Waterway was coming together. Once the engineering marvels of the Peterborough and Kirkfield Lift Locks were erected, through navigation from Trenton to Port Severn seemed close at hand. Though few vessels other than pleasure craft would ever travel the entire route, the completion of the Trent-Severn Waterway in 1920 was the fruition of generations of lobbying. Around the turn of the century, enough of the waterway was complete to meet local needs. More importantly, the Trent-Severn Waterway was becoming much more functional. With the completion of the reservoir lakes system water levels could be precisely managed for the entire season of navigation—to prevent flooding and allow navigation from ice-out to freeze up. Dam and lock construction had vastly improved over the last half of the nineteenth century. Streams of water shooting through the logs were becoming less common and villagers did not have as much cause to worry that the dams might give way, releasing a deluge.

With the railway open to Bobcaygeon in 1904, the villages on the Upper Lakes were well served by locomotives. Mass transportation was just then reaching its peak. For a couple of years before the large steamboat companies disappeared, there was regular rail and steamer service to most villages. The "jolt, jolt, jolt" of corduroy roads and rough routes strewn with stumps and mud holes were disappearing at the same time.

After two generations of labour, requiring an abundance of lot of ingenuity, importing plants, animals and material practices from all corners of the globe, improving species traditional to the region, the residents of the Kawarthas had produced a new way of life that was particularly suited to the region. The immigrant families were very proud of the advances they had made—to them, progress defined their era. Now, having naturalized themselves to their new home, they continued to find new ways to progress, as their society continued to become more efficient, specialized and mechanized.

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6. The Kawarthas in Canadian History

This study started with a scale (two townships) and a theme (environmental change associated with resettlement), rather than a particular historiographical question or a method. Since environmental history in Canada is still relatively young—I believe that as an attempt to write a comprehensive environmental history of a region, this is original—its relationship to other works is not limited to a particular subfield. Scholarly literatures were pivotal to this account, but their objectives and major themes are often tangential to the *Changing Face of the Kawarthas*. Nevertheless, this research has significantly modified my understanding of Canadian and environmental history—an unusual approach, it seems, has particular potential to shed new light on old historical questions.

Recently, identity and culture have dominated professional history. This traditional approach often looks at society through archetypes—how 'the speculator,' 'the squatter,' 'women,' 'elderly,' 'the settler,' 'the timber baron,' 'the labourer,' and 'the native' interacted. This account instead focused on lived experience, work and leisure, landscape and regional character. Its subjects were, as far as possible, examined individually, within the context of their families and communities. As it endeavoured to trace how actual people interacted with their environment, it produced a very different understanding than that derived from archetypes. All of these social classes were much more diverse than might be assumed from reading nineteenth century public discourse.

Another characteristic that will distinguish this account in the historiography is that it examined the Kawartha Lakes region on its own terms, as more than just a microcosm for Ontario, Canada or North America. It should be appreciated that many historical subfields—especially environment, but also economics, society and culture depend on place or geographic characteristics. But, historians tend to focus on change over time in an abstract or relatively large area. As Richard White observed, regional studies "become national by being metonymic" or when their authors portray them as "important variants on a dominant national experience."¹ Such approaches have meant that the spatial dimensions of history are poorly understood. To the extent that most Canadian historians recognize regional variations they tend to be on a very broad scale that Ontario is different than British Columbia. But for economy, landscape change and

environment, three fields of critical importance to this study, Ontario or Southern Ontario appears as a relatively homogenous entity.

Even Southern Ontario is certainly not a monolithic whole. The history of the forest industries, for example, depends critically on transportation. The Trent Waterway allowed commercial forestry to develop in south-central Ontario before the advent of railways, as the Ottawa River opened its tributary watersheds. But many other regions were not similarly blessed. Settlers presumably largely cleared parts of southwestern Ontario for agriculture before rail construction, which made large-scale wood exports feasible. Much of the timber in Algonquin Park was inaccessible until the iron horse arrived, which came after the end of the British timber trade. The historiography shows that forest exports were a pillar of the Ontario economy as a whole, but there is little sense of which regions never had a significant export trade, produced lumber but little timber, produced both in abundance, had large pulp and paper industries, distilled chemicals from wood, the impact of the significant differences in Ontario's forest composition, nor a sense of how production evolved over time and space.

The literature on agriculture has similar limitations, as most writers scarcely deviate from nineteenth century government's assumption that all land was arable. One exception is geographer David Wood, who briefly observes that the most concentrated wheat production was in Peel and Halton. Agriculture in the Ottawa Valley was mostly meat, oats and horses for the timber industry. The Midland District focussed on oats and rye since wheat would not grow well. On the flanks of the Canadian Shield the population grew slowly, and always faced significant emigration.²

The pattern of Ontario farming reflected its place near the northern limit for many crops that nineteenth century families wanted to produce—a period when climate was cooler than it is at present. In the patchy, usually shallow soils of the Muskokas, the changing soil structure following deforestation was probably of particular significance. Farmers in Melancthon Township were much more likely to encounter good soil, but in that area, as in the Muskokas, transportation to larger centres was difficult. The nearby Holland Marsh was very fertile, but largely waterlogged. Clinton was an excellent situation for transportation and had a climate that supported many crops that would not grow in other parts of Ontario.

When historians study Canada or a province, their results are largely what can be generalized to that scale. In the British literature, much work has been done to show how the agricultural economy varied regionally as in Eric Kerridge's *The Agricultural Revolution* or the Cambridge University Press' *The Agrarian History of England and Wales*. In the case of Ontario agriculture, much debate focuses on rise and decline of certain staple crops like wheat and dairy. But how important was wheat in areas poorly endowed with transportation? And if, as Wood's work suggests, wheat exports came disproportionately from certain parts, what was the structure of agriculture elsewhere? The pace at which different areas of Ontario were actually converted to farmland is fundamental to so much of its environmental and economic history, but is not precisely understood. It is not just agriculture or forestry that have regional characters, many other economic sectors like mining or tourism also depend critically on environment.

While the relevance of spatial considerations to environmental and economic history seems natural, their place in other subfields should not be neglected. The early settlement of Eldon Township was of Gaelic-speaking Highlanders. Irish Catholics preponderated in North Emily, while the south was mostly English Protestant. Later on, an Icelandic population migrated to Kinmount. Many early settlers in the Kawarthas were Fermanagh Irish. Bruce Elliott has shown the importance of chain migration for *Irish Migrants in the Canadas*, and it is unlikely that the Kawarthas were unique in having many cultural communities. Yet the changing cultural landscape is not well defined in the Canadian historiography, nor is its significance to culture, politics, education or society.

A similar shortcoming applies to much historical work on Natives. While scholars less interested in place frequently observe the broad regions occupied by certain groups, or the locations of bands or reserves that the British Crown acknowledged, few study the spatial pattern of their livelihoods. Instead, professional historians have largely focussed on interacting political interest groups—natives, European immigrants and government officials. A few scholars like Donald B. Smith and Janet Chute study individual natives' lives, but even this literature can be enriched with a fuller understanding of spatial dimensions. Their livelihoods were intrinsically related to their home regions—what game was available on nearby creeks, whether lakes could support wild rice, the presence of maple groves. Their cultures, societies and relationships with immigrants all reflected their material realties. To them, 'land' issues were not about abstract parcels delineated on a map—they centred on their tangible relationships with their environment. The term land is somewhat misleading because water and wetlands were often as important.

As scholars focus on topics and themes that seem to have enduring relevance, as they look for transferable knowledge, there is a real danger that realities that do not translate well to the modern, urban, specialized world will be overlooked. Historians have generally underappreciated the importance of regions-it is a modern phenomenon that it scarcely matters whether wood, iron, fish, cotton or even food can be produced locally. Before the age of eighteen-wheelers, massive ocean going freighters, or even steamers and the railway, it mattered whether metals were available locally-if not only particularly significant applications justified their use. Then, for instance, some people relied on carved wooden shovels, which were far heavier and more tiring to use than those with metal blades. If good stone for dressing was not to be found—as on the Canadian Shield—stone locks and dams were not practical. Nor were wooden houses in areas without trees. With rare exceptions, like salt and sugar, which were necessary for preservation, families ate almost entirely what they could produce for themselves. Without rapid, long-distance transport, very few goods were worth shipping far. Yet, the there must of have been patterns of commodity flows like those that William Cronon examines in *Nature's Metropolis*, that would have changed substantially over time—in many contexts, they were presumably not so centred on a metropolis as Chicago. Then, many aspects of life were shaped by local characteristics, a basic fact that historians generally overlook. Without taking regions seriously, without considering them on their own terms, as more than a microcosm to explore national phenomena, a whole dimension of the past is missing.

The history of labour often focuses on employment, waged work, or relationships of labour and capital. As an element of landscape change, this study made a serious attempt to provide a comprehensive portrait of all the ways that people worked outside to make their homes and living in a particular region. Such a project is, I believe, unique—I do not know of a comparable recent work in the Canadian or even American historiography. One reason that such work is not undertaken is that many historians would dismiss the material details of farming or rural life as just 'antiquarianism' or

'local history,' not worthy of a place in the professional literature. This oversight marginalizes what most nineteenth-century Canadians were doing most of the time. It often seems that 'scholarly' and digging a ditch are irreconcilable. So much vital material detail on how people worked is missing from labour history, particularly information on how people worked for themselves and with their friends or neighbours, rather than in contexts that relate to the formal organization of labour.

As historians look for enduring, transferable knowledge, they risk the specialize niche that professional historians enjoy in modern life. Today systems of knowledge seem to be ever more disjoint—historians are largely isolated from working in an environment to provide their living, while manual labourers rarely write their own history. Within their discipline, it is often difficult to see the relevance of much material detail relating to the past—professional historians are often left saying, so what? Why would anyone care how barns were built? What is the larger payoff for the historiography? Rural people— especially those who own a barn needing repair—might have more difficulty grasping the significance of critical theory. For people who spend their days working with their hands, how they labour is of fundamental importance—they understand the world in large part based on function and procedures. For many manual labourers, the one standard of judging almost anything is, "does it work?"

Some historic skills like tapping trees, catching suckers, or barn construction might not have immediate pertinence to a modern, specialized, literate, urban society. But that does not mean that they are irrelevant to modern life, to people who make their living working outdoors. For a society that valourizes 'green' agriculture, is it not important to understand what farming was like before the advent of Round Up? In all the political debates surrounding First Nations, treaties and land, is there not a place for carefully studying historic livelihoods? As conservation agencies create and maintain pine plantations is it important to know the species content of pre-settlement forests, or the diversity of wood production even in the 'age of pine'? Surely there is value in learning why wild rice fields disappeared; or that much modern infrastructure is built around an assumption of relatively constant, often artificially raised, water levels that rely on continual maintenance. Is an understanding of workers' material realities not worthwhile in its own right?

Yet agriculture has often been discussed as the rise the wheat staple, then export dairying—or perhaps just an economy based largely around wheat. But certainly not "in a time when families made almost all of the things they needed." Crops are also used to isolate the roles of particular family members. Transportation is discussed for its national or colonial significance, whether grand schemes for through transportation made sense. But as historians seek universal, abstractable, transferable knowledge, an understanding of what it means that Canada was once overwhelmingly comprised of rural manual labourers toiling to create a livelihood for themselves is largely missing from the historiography—what it meant to perform tedious, even debilitating, tasks day after day; to live in a home that is not snow or waterproof on a winter night below -30 Celsius; to be isolated from your family, cities or even a blacksmith; to only have food that was starting to spoil to eat; for a wife to have to carry every grain miles on her back to be ground; to keep working in the face of real, tangible, daily physical danger; to rely on and work daily with horses, cattle and other animals; or almost never to have clean clothes. These realities are an essential dimension of the past, yet there is often little sense in the historiography of how fundamentally their subjects' living conditions differed from the modern age of affluence.

Though historians rarely study the everyday actions of rural people in their own context, a caricature of their lives often underpins grander theories—settlers imposed plough agriculture which excluded natives; wood production ruined the forests, causing its own collapse and social hardship; since farmers had little trouble introducing European agriculture to America, we can see the biological component of imperialism, the advantage of their cosmopolitan biota. But would historians make the same pronouncements if they took the time to closely examine material or procedural history?

Natives & Immigrants

While a generation ago it was common to observe that many Native groups occasionally faced food shortages during the early phases of colonization, today scholars prefer to depict more idyllic conditions, often reflecting anthropologist Marshall Sahlins' "Original Affluent Society." John Sutton Lutz asserts, "prior to the establishment of white settlement, the Aboriginal Peoples of present-day British Columbia were among the richest and best-fed societies in the world." Natives' prosperity often seems to be

inseparable from geo-politics. Peter Schmalz explains that the Ojibwas' "Golden Age" ended as the French surrendered Fort Niagara.³

There is a broad consensus that European immigration was catastrophic for natives, and despite scholars often making a point of asserting native agency, it seems that the responsibility rests almost entirely with the colonists—natives appear passive or powerless as colonial society destroys their way of life. Lutz observed that by the 1970s, "the vast majority of Aboriginal People in British Columbia were impoverished and dependent," because of "competition, the deliberate erosion of some elements of aboriginal culture and the persistence of others—racism, educational opportunities, technological change, and restrictions on subsistence economies." Brian Osborne and Michael Ripmeester found that Mississaugas' "essential independence and selfsufficiency was dislocated by a growing dependence upon exogenous goods, the loss of their lands, and the dissonance of their former spiritual values with their new life."⁴

The fur trade often appears as a prime culprit in making natives dependent and impoverished. It, in the words of Carolyn Merchant, "would devastate beaver and Indian."⁵ Scholars often assume, based largely on the observations of trading companies, that by some date, beavers were either extirpated or severely depopulated wherever they were traded—some accounts equate the fur trade's geographic range with those of major companies. For south-central Ontario, Calvin Martin placed the decline at 1635. At about that time missionaries observed Iroquois trespassing on their neighbours to hunt beaver. Bruce Trigger and George Hunt suggest that in the next decade the Iroquois exhausted their own supplies, prompting them to attack their neighbours and capture southern Ontario.⁶ Janet Foster's study of Canadian wildlife dates the decline around the 1820s and 1830s when "beaver had been hunted and trapped to the edge of virtual extinction in some regions," which parallels Charles Bishop's work on the northern Ojibwa.⁷ Many historians have narrated beaver's decline in other places.⁸

Historians suggest that the fur trade quickly displaced older technologies and rendered natives dependent on Europeans, which became evident as it declined. Arthur Ray, following Arthur Innis' interpretation, explained that the international exchange led to "specialized economies" which were then "destroyed due to over-exploitation." Especially for an older generation of historians, this resulted in the ruin of their material

culture, as natives came to depend on trading companies and the Crown. But many more recent scholars have produced similar results for native groups across North America, though they commonly highlight continuing native agency—that they were not just "passive pawns at the hands of unscrupulous traders." According to Peter Schmalz, almost immediately after their "Golden Age ended" with the transfer of French sovereignty claims to the British, they became "completely dependent on [trade] goods for their well-being." He continues, "by 1780 the fur trade had… rendered the Mississauga of the Lake Ontario region dependent on the white man." For southern Ontario, most historians agree that Mississaugas' dependency had begun by the early nineteenth century—much earlier in the accounts of Harold Hickerson and Edward Rogers.⁹

In recent decades many ethnographers have instead emphasized that Natives fit trade goods into their existing cultures. Lutz asserts that "the main reason that so many Aboriginal People participated in the capitalist economy was to enable them to participate more fully in their own." Jane Merritt prefers to think of interdependence, rather than dependence. Richard White argues that while European trade goods had become "integral" to "Algonquian life, by the end of the French period there was not, as yet, material dependence." This was because "native technology survived for a remarkably long time alongside new technology.... A far less efficient, but still serviceable, native technology remained available if trade goods were lacking." By the mid 1790s, they were "threatened...with economic dependence," as they "deeply desired European manufactures and would hunt to obtain them... but that they would starve or die without them does not follow." ¹⁰

In this literature on native-newcomer relations, land assumes central importance. Historians carefully narrate land cession treaties, debate whether this process was just and carefully map the spatial extent of Indian reserves—overall, they account for settlers displacing natives. The question is often, as Stuart Banner asks, *How the Indians Lost their Land*. Cronon argues, as many others have concurred, that land was "so transformed that the Indians' earlier way of interacting with their environment became impossible." Daniel Richter explains, "the arrival of European farmers—with their moving livestock, their concepts of fixed property, and their single-crop plow agriculture—combined with

the ecological impact of the fur trade to transform utterly the material environment of much of eastern North America and make traditional patterns of life impossible anywhere in the vicinity of European settlements." Ripmeester agrees that in southern Ontario by 1820, "a shift in the colonial economy from the fur trade to wheat production precluded their participation."¹¹

Cole Harris's *Making Native Space* studies the "confinement" of British Columbia's Natives to reserves, as an integral part of displacement. Though he observed "a measure of altruism was usually somewhere in the air, the underlying intention of almost any Native land policy in a settler colony was the dispossession, with as little expense and trouble as possible, of Native peoples of most of their lands." He narrates in great detail how the colony "was divided into two vastly unequal parts," as Natives received only "a tiny fraction." The Crown's administrators were, however, not monolithic in their opinions. Governor James Douglas and later Gilbert Malcolm Sproat, acting on behalf of the Dominion tried to implement a more generous arrangement for the Native population, but the province's vision—small reserves with aboriginals joining the workforce—prevailed. Once on reserves the Aboriginals were "surrounded by clusters of permissions and inhibitions that affected most Native opportunities and movements."¹²

The Ontario literature on treaties, like the cession documents, usually focuses overwhelmingly on land. Schmalz, for instance, argues that Ojibwas were "not aware that they were surrendering the land for white settlement," and narrates the injustices of the treaties in great detail. One exception is lawyer Peggy Blair's *Lament for a First Nation*. A reader of her account gets an unprecedented portrait of the convoluted history of Ontario treaties and a clear sense that Ojibwas were interested in much more than land. For instance, they developed a significant commercial fishery on Lake Huron. But, unfortunately for historians, Blair's work is unabashedly one side of the *R. v. Howard* Case. Not only is no attempt made to convey other side, but the narrative and issues are framed around the imperatives of the modern legal case, not the lives of the historical actors. William Wicken similarly "explores the historical basis of the Mi'kmaq's claim" in *R. v. Donald Marshall Jr.*¹³

Although most historians focus on treaties or land redistribution, Allan Greer argues that "privatization of land was not the main mechanism" of appropriating native

territory; "by the time that sort of enclosure occurred in many places, dispossession was already an accomplished fact, thanks in large measure to the intrusions of the colonial commons." He explains:

An area of settler hunting, timbering, foraging, and above all grazing that was arguably a more significant agent of dispossession than the fields and fences commonly associated with colonial settlement... Cattle sometimes ate standing crops; hogs stole stored food or dug up clam beds along the beaches. As in Mexico, trampling hooves and excessive grazing could bring about environmental changes that affected deer and other game populations, while spreading weeds and contributing to soil erosion; to make matters worse, livestock acted as a vector to spread Old World diseases among humans and other animals... settler regimes grew less and less concerned about the effects of their animals on native livelihoods, to the point where some actually directed their horses and cows toward Indian fields in a deliberate effort to drive natives away and take over their lands. ... [Because] the territory where their animals ranged was already a commons of sorts,...when settlers proclaimed, in effect, that the Indians' deer, fish, and timber were open to all, colonists included, yet the hogs and cattle roaming these same woods remained private property, they were indeed attempting a wholesale appropriation.

From the study of New England (with much data drawn from Virginia DeJohn Anderson's work on the Chesapeake) and New Spain, he applies these conclusions to America, noting that New France is an exception. For southern Ontario, Schmalz found that soon after immigrants began to arrive, "fear of starvation was the major concern," because settlers were "shooting their deer, bear, and game birds by the thousands." Once they were "faced with starvation as a result of the depletion of their former food supply, many Indians did turn to agriculture as a means of survival."¹⁴

While exploring the conflicting colonial commons, contextualized within John Locke's philosophy that labour creates property rights, Greer asserts that: "hunters and fishers have never been passive recipients of nature's bounty; as environmental historians have shown, they managed forests and waterways, burning underbrush, diverting streams, and generally altering the environment." Other scholars have made a point of stressing native agency in the landscape, especially through their use of fire.¹⁵

Writers explain that the colonial imposition upon natives was not limited to economics—settlers treated their new neighbours maliciously. Schmalz believes that "the Ramsay affair"—referring to David Ramsay "an eccentric," who killed and scalped eight Ojibwas, then showed up at Fort Niagara scalps in hand, explaining that he thought a war had already started—"vividly demonstrates the type of Europeans that the Southern Ojibwa had as 'models of civilization."" Ojibwas then, "were treated worse than dogs." Loyalists 'avowed the opinion that a white man ought not in justice to suffer for killing an Indian; and many of them... thought it a virtuous act to shoot an Indian at sight."" Apparently, the "negative impact" of Loyalists on Ojibaws was even reflected in their physical appearance. Alan Taylor concurs with Schmalz's portrayal, observing "as settlers increased in number they increasingly treated the Mississaugas with contempt as idle beggars, driving them away from cabin doors." The immigrants did not "accept their status as guests in Indian country," rather they "acted as if they owned the land and had extinguished all native rights," burning Mississaugas' wigwams, stealing their guns and killing their dogs. Nonetheless, "the Mississaugas kept hoping that the newcomers would improve their manners and generosity."¹⁶

By looking at the experiences of particular natives and immigrants, this study cast a different light on the traditional declensionist narrative of ethnohistory. The belief that native societies, before they were exposed to the deleterious influence of European Canadians, were "among the richest and best-fed societies in the world," has great political relevance today, but it does not seem to have much evidentiary base. It is very difficult to compare the relative prosperity of any nineteenth century economy and its global contemporaries without resorting to ideology—are such claims really based on careful study of Pwani and Nanjing? Or is there a reason that we can assume that native North Americans were wealthier or better off than most everyone else? Judging the present with the human development index is problematic enough. This idyllic view of native life does not seem to have much better footing than older assumptions that they were impoverished or even starving.

There is some scant evidence—reflecting a general dearth of sources—to suggest that Ojibwas occasionally faced food crises before the resettlement of the Kawarthas. But more significant were seasonal variations—late winter was characteristically a difficult period. The challenges they faced were by no means unusual for that period—as Giovanni Federico has observed, the existence of societies that can enjoy life of excess, never having to face real dearth seems to be a modern phenomenon.¹⁷ Over the course of the

nineteenth century, the Kawarthas came to have multiple economies that could act as safety nets for each other—these were then connected to the wider world with rapid longdistance transportation. Diets generally became much more varied and stable over the nineteenth and twentieth centuries.

Even studying two nineteenth century societies living alongside each other, it is very difficult to say which one was more prosperous, without assuming that potatoes are better food than muskrat brains. Certainly, within a generation or two settlers had more developed farms than their Ojibwa neighbours. But Ojibwas were not nearly as interested in agriculture and had other prospects—trapping, hunting, gathering, fishing, ricing and trading their manufactures. Scholars' focus on identity has tended to emphasize divisions between natives and settlers, while obscuring how much they had in common and the degree to which their lives could be complementary.

Whether aboriginal or newcomer, this region's societies depended on continual manual labour—their material prosperity was intrinsically linked to the daily work they performed, stitching moccasins or knitting socks. They endured the annual plagues of insects; made maple sugar; travelled by foot, horse, ox or canoe; wore woollens, buckskin or tailored cloth; tended gardens; sewed fabrics to clothe themselves; and greatly benefitted from the few metal goods imported to the region. By mid-century most lived in log houses and Ojibwas' were fairly well furnished for the period. They knew what it was like to work outside in January, whether it was logging or trapping. Most were at least nominally Christians. They also both understood real hardship.

While the two societies had much in common, there were important differences in local approaches to work, especially between Ojibwas' before they adopted European agriculture and the economies that followed. Many colonists—especially government officials—associated work with agriculture, and therefore struggled to see traditional Ojibwa productive activities as labour, while taking the landscape they found as natural. Recently scholars have asserted native environmental agency—particularly with fire. While it may be important to modern political debates to assert that natives "have never been passive recipients of nature's bounty," to understand their lives, it is much more revealing to consider the details of how they interacted with their environs. Many of their productive practices worked in the context of the landscape their ancestors had captured from the Iroquois—making maple sugar or birchbark canoes, gathering tubers, berrying, fishing, hunting and trapping. As they harvested, some of the wild rice had to reseed the bed, but this native plant would only grow in very specific conditions. Especially in contrast with European immigrants, early nineteenth century Ojibwas devoted relatively little effort to manipulating the broad characteristics of their landscape.

At least in the Kawarthas, the age of resettlement brought together two societies that were potentially complementary. It was the meeting of a largely land-based culture with another that centred on the waterway. The tendency of ethnohistory to focus on land and dispossession, produces a very partial portrayal of the interacting economies. Scholars commonly think of agriculture pushing natives from the region, but prior to the influx of settlers, most of the uplands transformed into farms were among the least intensively used parts of the landscape. The economies were most likely to conflict in how they used the waterway and waterfront land.

Ojibwa society did not change simply because settlers left them no other choice. While the surrender of Fort Niagara looms large in the history of Anglo-French conflict in the Americas, it is difficult to enumerate its significance to the daily lives of Ojibwas on the Upper Kawarthas. Certainly, the British occupation of French posts and Amherst's haughty attitude inflamed many residents of the Great Lakes region, but there is little evidence to suggest that their material lives closely followed colonial political history. Kahkewaquonaby converted Kawartha Lakes Ojibwas to Christianity, and missionaries soon tried to teach them to farm. It seems that agriculture was received with genuine, but short-lived enthusiasm. At the time that local Ojibwas were learning to farm, there were very few settlers nearby—they were certainly not faced with starvation because a massive influx of migrants had been slaughtering their game by the thousands.

When historians identify settler life with wheat and "single-crop plow agriculture," rather than the diverse economies that actually evolved, it leaves little room to see the interplay between Ojibwas and their new neighbours. Some Ojibwas got jobs working in forestry or on surveys. Agriculture did not exclude natives, they were themselves farmers—though not to the same degree as the settlers—and a lack of land was certainly not limiting locals' desire to clear and plough more fields. Farming was fit within existing economies. Some aspects of Ojibwa's traditional lives became impossible

by the end of the century—such as capturing the spawning runs of Atlantic Salmon. Others were inconvenienced or curtailed, while some carried on. Though the impetus for the environmental revolutions was largely external, Ojibwas had been part of the process. Ojibwa society had changed—though there was so much to nostalgically recall, new political aggravations, the nineteenth century also brought innovations they would not want to live without—lumber, nails, stoves, fabrics, sewing needles, rubber boots, potatoes—and new economic opportunities.

In the Kawarthas, at least, the evidence suggests that the fur trade may not have devastated "Indian and beaver" to the degree that has been assumed. It is very difficult to trace the dynamics of nineteenth century beaver populations. But the sources discussed in this study fairly consistently refer to it being trapped. There was likely significant regional variation in trapping. Ojibwas recognized that families had rights to certain places, which it seems could be passed to their children. The families would then often resort to the same camps year after year to trap. The Ojibwas' villages were on the main line of the Trent Watershed, and much of their hunting took place proximate to their villages. There is little evidence to suggest that the upper reaches of the Trent Watershed, and the drainages beyond were as intensively utilized in the early nineteenth century. The fur trade remained a major part of the Ojibwas' economies and culture well into the twentieth century.

The returns from fur bearers could be lucrative, for expedient returns on the time spent trapping, they seem to have often exceeded those from agriculture or forestry. The goods that trappers acquired—such as clothing, food, hunting supplies, knives, combs and mirrors—were important parts of their livelihood throughout the century, it certainly would have been a hardship to do without them. It is probably more accurate to portray this as interdependence than dependence—how many immigrants would want to do without a canoe or moccasins? It is also difficult to judge how quickly the society got to the point where it could not survive in isolation—but the same might be said for farming neighbourhoods. While there was always official pressure to assimilate, Ojbiwas eagerly adopted many of the new goods, opportunities and ideas that came with resettlement—to debate whether this was appropriation by the existing culture or its evolution seems to centre largely on modern politics.

While native and settler societies were growing together, they did remain separate and individuals who were immersed in both cultures were rare. It seems that both sides had a sense of the superiority of many of their traditions, and even as they came to know each other better did not want to adopt the other set of customs. Some tensions lingered, particularly when resource use expectations clashed—when waterway development conflicted with wild rice harvests, or hunting and fishing with conservation. Ojibwas expected that their wild rice fields would be their exclusive domain, and the Crown made some limited efforts in this regard. They believed that they retained a right to hunt, fish, trap and gather, which became particularly contentious as Canadian society cracked down on pot hunting or fishing and as fee simple tenure came to be viewed as more absolute. They also objected to how the Crown alienated the islands they retained when the treaties were concluded. All evidence seems to suggest that Ojibwas understood that the land cessions were to allow settlement. The largest problem with the first two treaties notwithstanding the Crown filing a blank deed in 1787/1788—was that they memorialized what officials wanted, not what was discussed at the council.

Feral livestock in the Kawarthas were not the destructive multitudes that apparently existed elsewhere in North America. The potential function of animals as agents of dispossession was complicated by the fact that Ojibwas had livestock of their own and fences as the first settlers arrived on the upper lakes. While animals were pastured at large in the early resettlement era, they were not nearly as numerous as other in parts of North America—the 1841 agricultural assessment enumerated 316 cattle and 31 horses in Fenelon, Bexley, Verulam and Harvey Townships—fewer than one per square mile. Driving livestock in the bush was difficult, and in such environs, using them as an offensive weapon to drive natives from the area would have been quite the logistical challenge—perhaps only for unusually well trained animals. It seems that, as in New France, pasturing customs were not a major mechanism of dispossession.

European livestock were very well suited to some parts of the Americas, such as the southern and even mid-latitude United States. As T.L. McKnight explored in *Feral Livestock in Anglo-America*, in some places populations exploded—having many more pigs than people, for instance. But feral livestock depended critically on environmental conditions. In the Kawarthas there were not many nut trees, and most livestock could not survive the winter in any significant numbers. The significance of pasturing animals at large was intrinsically related to local conditions—grassland, forest or even how open the forests were, local biota, native material economies, climate, predators and human population densities. These variables are of such importance that it is hard to conceive of a common experience across America.

Historians' focus on natives' dispossession or displacement tends to produce an unbalanced account of the processes involved. A massive cohort of immigrants was determined to create a new economy, landscape and society—in short, a new way of life-in a region that was already inhabited. Such developments inherently meant that natives' access to many places that had formerly been important in their livelihoods was curtailed. They faced many new political and social expectations. But the reconstitution of political authority in the nineteenth century Kawarthas was more than just dispossession—especially when compared to the conquests that came before, the Iroquois of Hurons, then Ojibwas of Iroquois. Removal—briefly debated in Upper Canada or Canada West and practiced in parts of the United States-represented dispossession in a very literal sense. But events here played out differently. In 1800 the Ojibwas had villages at Rice Lake, Chemong Lake and Lake Scugog. One hundred years later they occupied reserves on the same three lakes, plus a fourth at Alderville, housing a community that formerly lived near the Trent River's mouth. Can the settlement on Balsam Lake-where immigrant occupants were removed to make way for natives—ill-conceived as it was, be dismissed simply as a scheme for dispossession?

The movement to revolutionize the environment, society and economy of North America in a sense had a life of its own—so many people believed that they had a role to play in this destiny for the continent, that it would occur. As a defining idea of the age, it reshaped thousands of communities. It entailed fundamental reorganizations of countrysides. It carried characteristic prejudices—many colonists mused that 'the Indians' would disappear—and theorists who implied that vast tracts of land were not used. But it played out, more often than not, in small, often isolated, communities—especially by modern standards. In the tangible context of the Kawarthas, a high-minded gentleman could write a tract repeating the familiar justifications for colonialism, but Ojibwas were not going anywhere. Before long, new neighbours came to rely on one other. Waves of immigration brought together societies that now had to adjust their traditional ways of living. Displacement—how the presence of settlers curtailed natives' opportunities, all of the new political aggravations—was one part of the story. But, at least in the Kawarthas, it was a component of a broader process of locals and migrants alike creating or modifying customs to suit the region. Ojibwas were not relegated from the picture; time and again they had indispensable roles to play.

Though racism was a general fact in the nineteenth century, it is misleading to reduce native-settler relationships to a catalogue of malicious, even homicidal, settlers' crimes. Certainly historians can find cases of settlers behaving badly, but those who take the worst actions and conflicts as typical misrepresent the complexity of real-life relationships. If gun stealing and wigwam burning were regular occurrences, how did Ojibwas react? Did they try to protect their homes? Were they really victims who passively hoped that settlers would improve their behaviour and become more generous to them?

Nineteenth century life, in the Kawarthas at least, was not a sort of civil war. Mossie Boyd and Dan Whetung, for instance, were friends. When Whetung petitioned the Federal Government to grant him Emily Creek, he had Boyd's cousin, H.J. Wickham—a prominent Toronto lawyer, who had recently defeated the Crown in the Exchequer Court on their right to impose slide dues—make the case for him. When Bobcaygeon businessmen were looking to promote the region, they turned to Martha Whetung, who gave the Kawarthas its name. Willie Boyd then recognized her contribution with free passage for life on his steamers, and when she passed on, made a donation to provide a grave marker. The Whetungs also became friends of the Robertsons, who lived near Emily Creek in South Verulam—they were close enough that more than a century later they held their family reunions together. If natives and settlers could not get along, Curve Lake would never have become a major tourist destination, there would not be intercultural families.

Historians have taken a particular interest in studying the discourse surrounding racial prejudice. While attention often focuses on colonist's beliefs, prejudice was by no means a one way street—without reciprocal divisive ideologies there would not have been wars in other colonials settings, there would not have been as much resistance to

natives and settlers growing together. Though both cultures found much to borrow or adapt from the other, they maintained a strong sense of their identity, which sustained prejudices, many innocuous. While historians often focus on intolerance between natives and settlers, there were divisions between many other cultural communities, including Irish, Gaels and English. In this area there were cases where Catholics were disinterred from Protestant cemeteries. The local gentry would never consider many of their neighbours their social equals—a foundation of their ventures was establishing their distinction above other settlers as much as natives. Yet Anne Langton had the sense that their pretensions were being mocked. But, perhaps more importantly, even though there were widespread prejudicial discourses, they were not all consuming. An important part of the story was how some people learned to move beyond their prejudices, to set aside some aspects of their upbringing, to de-emphasize ideals; how their better nature could take over; how they could learn how to relate to the people on the other side of the fence. But also how some people used divisive beliefs to justify committing acts that would otherwise be reprehensible. These rationalizations, for better or worse, were pivotal in the era of immigration.

The State & Land

In recent years, with the rise of movements asserting Native sovereignty, some political scientists have put these claims in a historical context. For many of these theorists, sovereignty requires a central, absolute authority—perhaps reflecting the philosophy of Hobbes, Bodin, Locke or Rousseau. They assume that if natives lacked sovereignty in "the period prior to European-influenced change," then their political descendants cannot legitimately claim it today. Several political scientists, including Thomas Flanagan, Menno Boldt and Anthony Long, assert that they did not then have it, since they did not exercise jurisdiction over "a definite part of the surface of the earth" and lacked "a distinct central political entity." Flanagan explains, "Sovereignty is an attribute of statehood, and aboriginal peoples in Canada had not arrived at the state level of political organization prior to contact with Europeans."¹⁸

If we work within their theoretical construct, is seems accurate that many native communities did not have an absolute central authority, they did not conduct their politics like the modern Canadian state. But North American colonies did not exercise sovereignty either. From the 1760s—when Sir William Johnson realized that although the Great Lakes region was a British domain in the realm of European politics, the "verry Idea of Subjection would fill [the resident natives] with horror"—to the 1890s—when the Province of Ontario's attempts to enforce hunting and fishing regulations were problematized by Ojibwas having understood at their treaty councils that they could continue to hunt and fish—the Crown's power was never complete. This lack of absolute authority was not just with respect to natives, as it regulated the forest industries, it often had little idea what was going on in the bush, meaning that the companies it was in theory overseeing were often their eyes and ears.

Though the state could not be sovereign, the scope of its influence steadily grew over the nineteenth century. The Crown buttressed its claims to administer all land by securing treaties with local natives purporting to cede their territory. Scholars have debated the legitimacy and propriety of these proceedings at length, and recently most have agreed that they were unjust towards natives. But the treaties were really a justification, making certain inconsistencies par for the course—in the case of the 1787/1788 Treaty particularly, officials botched the rationalization. Despite the irregularities, the treaties, surveys and land distribution system established the Crown as an arbiter of many crucial aspects of the countryside's reconstruction.

James C. Scott recognized land surveying as part of the process of states making their domains legible. But the surveys were also the blueprint for agricultural settlement—the Crown simultaneously learned about the land and defined its future use. Though scholars often mention the original surveys, for their enduring relevance, there is little specialist work on the topic. Geographers such as John Clarke, Louis Gentilcore, Kate Donkin and Norman Thrower examined relevant legislative debates, techniques, and the theoretical grids that were to be created. Thomas McIllwraith observed that the execution was often imperfect, but many implications of this are underappreciated—in part perhaps because historians tend to focus on higher levels of government, rather than municipalities.¹⁹

This study demonstrated that while the original surveys outlined subsequent township development, they were a continuing source of trouble for settlers and municipal governments alike. By the time immigrants arrived many of the survey marks

were missing or difficult to find. Because of mistakes, some settlers were short-changed on the size of their lots. Some then petitioned expecting only to pay for the actual acreage they received, not the amount specified on their deeds. But others received extra landone Verulam Township farm was 305.33 instead of 80 acres because John Huston ran out of lot numbers before he reached the township boundary. In many places it was difficult to say which farm a person was on. Some settlers unknowingly built their homes on the wrong lot. The location of road allowances was frequently open to interpretation, forcing townships—who along with their residents were often relegated the job of sorting the situation out—to order a resurvey. Townships might have difficulty constructing the crossroads, because the road allowances only meet between concessions if the surveyor was consistent. Roads had to jog around lots, meaning that the townships had to acquire land for a new allowance. But the survey was so badly executed in North Verulam that there are several lines where adjacent lots in two concessions do not even have the same number. The Township then perhaps could not even exchange the surveyed road allowance for the actual road because it might not even be on the same farm. To the end of the nineteenth century, Fenelon and Verulam Townships spent much of their time sorting out how to actually construct the landscape specified in the survey.

Having completed the surveys, the Crown then set about distributing their newly created parcels. In the political rhetoric of the day, the land was to go to honest, hardworking, 'actual' settlers. But it alienated lots far faster than the pace of migration, as public discourse condemned the scourge of speculation. Most historians of Upper Canada see speculation as a prevalent and generally negative factor in the colony's development. Leo Johnson observed that speculation slowed settlement, but he suggests, "by far the majority of the absentee-lands were in the hands of the general population who hoped to realize something worth while on their patrimony." David Wood argues that speculation was "generally a nuisance" and Toronto "was ringed by woodlands for decades because of early grants to friends of government." Lillian Gates states that the "liberal land-granting system" allowed speculators to hold desirable lots and pushed genuine settlers to more marginal areas. The effects were greater because "the chequered plan did not facilitate the compact settlement of the country." S. J. R. Noel explains that "by the 1820s new settlers were frustrated to find that they could not obtain land except by private

purchase (and often at prices they regarded as exorbitant) or could not obtain enough land or could obtain grants only in the remotest or least fertile areas." Ian Johnson argues that it was wasteful, since the land in use in the mid-1820s was 1/10 the total that speculators held. He highlights the slow population growth relative to the amount of land surrendered. The colony's population was 10,000 in 1787 and grew to 65,000 in 1810, a time when the Crown held the strip along Lake Erie, Lake Ontario and the St. Lawrence to a depth of at least 10 miles.²⁰

John Clarke tries to be more balanced in his analysis, giving the advantages and drawbacks of speculation:

In the rural context, prospects of a speculative profit have stimulated pioneer settlement, mineral prospecting, and exploration. Numerous pioneers might never have succeeded but for the credit facilities of the speculator... On the other hand, the same process has resulted in an extended farming frontier when rising land prices have stimulated the occupation of submarginal lands later abandoned. Again, rising land values and concomitant taxation out of all proportion to potential farm income have often resulted in depressed agriculture, an increased amount of mortgage indebtedness, and an increase in farm tenancy.

He also highlights the political import of land policy, claiming, "the disposal of public lands and their acquisition by speculators lay behind many of the grievances that ultimately culminated in rebellion in Upper Canada." Douglas McCalla distrusts assertions that land distribution "retarded development and… fostered an unequal, hierarchical class structure and, eventually, 'a large landless labouring class." He counters that the investment in land was "a small fraction" of the total to establish a farm.²¹

Many historians have attempted to determine the proportion of land that speculators owned. Based on census records, Lillian Gates claims that speculators held 5,000,000 acres in 1824 and about 3,500,000 in 1860, two-thirds of which was in Grey, Simcoe, Lambton, Huron, Bruce, Peterborough and Victoria Counties. Throughout much of the period, these speculators held more land than the Crown. Gates' assertion for 1824 corresponds to about 62.5% of the total granted. Peter Russell counters that his examination of census and assessment records:

Does not tend to confirm Lillian Gate's [sic] picture of a lavish land granting policy... [which] had established speculator control over the most

fertile parts of Upper Canada... Most townships in 1812 or 1822 had about 20 to 30 percent of the privately owned wild lands in the hands of non-residents or resident large holders (i.e., those with more than 400 acres not cleared). The latter almost always account for more of the land so held than the former... Moreover, almost all the non-residents held less than 1,000 acres.

John Clarke produces figures closer to Gates' in his study of Essex County, concluding that up to 1815, "large tracts of land were acquired by capitalists who at any one time could acquire more than 50 per cent of all the land taken up by patentees." By 1825, speculators with 400 acres or more held 57.43% of land in Essex. David Wood's results are also similar. Speculators initially owned 60% of Essa Township, in addition to the 28% in Crown and Clergy Reserves.²²

Leo Johnson studied speculation in the Home District through the period of settlement. "For the first five years, the majority of the lands patented went to recipients of more than 500 acres." The Uxbridge "settlement had difficulty in attracting additional members, however, because new-comers were forced to purchase their farms from the absentee owners." Within six years of Scott Township opening to settlers:

92.8% had been patented and all by absentee owners....Even more dramatic was the case in Reach where in the first year the township was opened (1811) 73.2% of the land was patented, and the next year another 14.3% had been taken up by absentees. In both cases settlement lagged far behind—Reach not receiving its first settler until about 1824, and Scott not until about 1835.

However, Johnson maintains that Maitland's reforms had some effect, as the amount of land occupied increased from 40.7% to 85.3% between 1820 and 1825.²³

Mirroring nineteenth century political debates, many historians link speculation to distribution policies. Gates emphasized that speculators bought most of the 3,300,000 acres granted to the children of Loyalists. John Clarke maintains, "in Upper Canada, speculation could occur because of a government policy that rewarded the faithful with large quantities of land and that after 1825 instituted land sales." David Mooreman claims free and common soccage was to blame, because it placed relatively few restrictions on the use of land and allowed sale or transfer. He asserts that quit-rents were able to "produce increasing revenues, control speculation, and be convertible into a general property tax" in other colonies.²⁴

J.M. Bumsted found that land speculation was not as profitable as critics might have believed:

In the lengthy history of North American colonization, the number of entrepreneurs who profited financially from their settlement activities can be counted on the fingers of one hand, and the number of private fortunes lost or badly damaged in the maw of such adventuring was considerable. Part of the answer is that financial profit from settlement was not really what was at stake for most promoters. They often sought other advantages with the government at home, and were prepared to pay this price for concessions or favours elsewhere.²⁵

Land ventures, then, helped establish colonial elites—the patrons that S.J.R. Noel saw as a persistent, "useful, practical" part of Upper Canada's political culture.²⁶

In this study area most lots passed through the hands of an intermediary before an occupant acquired them. But, if the time is taken to look at lots individually, it is not easy to identify speculators. Some cases are clear-cut—businessmen who bought lots for resale that they would never even visit. Some never set foot in the colony. But others like Jabez Thurston are debatable. As we have seen, he was a farmer and saw miller near Thurstonia, South Verulam. He owned 1,516 acres in the township, with over a third of the property on or very near Sturgeon Lake. Most tests proposed in the literature would identify him as a speculator, yet his family farmed 740 of the acres. Several other settlers also owned more land than they could work and gave part to their families. Many owned a few lots that they never directly used themselves and subsequently sold. Mossom Boyd farmed on the north shore of Sturgeon Lake before building one of the largest lumber businesses in Canada, centred at Bobcaygeon. After leaving the farm he accumulated another 5,492 acres. He bought these lots with the intent of reselling them at a profit, but in the meantime, he removed their timber. He was not an absentee landowner as speculators are often assumed to be. Calculating the proportion of land speculators owned is problematic when just two of the numerous marginal cases account for more than 1/9of Verulam Township.

But for a few decades after granting began, investors looking to profit from flipping titles owned a significant proportion of the land. Much of the property they held was granted as either a Loyalist or Militia preferential grant. Many speculators had little connection to the developing communities, but a few gentlemen created ventures centred

on Fenelon Falls and Bobcaygeon. Each village had a speculative business that developed its infrastructure in the hope of attracting immigrants. They were pivotal to the villages' early development, but were not profitable financially.

The availability of credit from land speculators may have been useful to some settlers, but it seems that the businesses were most likely to lend money to their customers, who would be purchasing land at inflated prices. It is debatable that these settlers were better off with a larger debt to a speculator, when the government would finance purchases of Crown Land. The preferential grants and subsequent speculation did mean that the Crown alienated farms far faster than they were occupied, making townships slow to settle. It is not however clear that this prompted the government to promote settlement of marginal or unsuitable agricultural land. The Crown seemed to assume that (almost) all land was farmland. Ontario, for instance, kept promoting homesteading in questionable regions long after the difficulties of farming such tracts had become common knowledge.

The price of land in private transactions was significantly higher than in direct Crown sales. However, the volume of private sales to owner-occupants was very low in the first years of settlement. More speculators managed to cash out a few decades after the beginning of land granting, but some ventures were ruined waiting for customers. Many of the speculators were members or associates of the Family Compact. The major local speculators' role as community promoters helped cement them as the most prominent local political figures. But this social structure was fleeting, because none of their ventures were economically viable.

While many historians have condemned land speculation, they seem more conflicted towards squatters—another construct of the land distribution system. John Clarke explains that "throughout much of the first half of the nineteenth century, the term 'squatter' had an ambivalent meaning because land titles on the frontier were often unclear and many 'settlers' started off life as what would legally be described as 'squatters.'" Squatters have often assumed a similarly ambivalent place in the historiography. Lillian Gates wrote, "The usefulness of squatters in opening up new country was generally admitted," and "What did settle the country-apart from the assisted settlement was squatting"—two observations commonly repeated by more recent writers like Clarke, Michelle Vosburgh and J.I. Little. But she also found that without permanent title:

The squatter tended to 'exhaust' the soil by his methods of cultivation and took no pains to erect decent buildings or fences or to maintain roads. In timbered country he was likely to choose a lot bearing a good stand of pine, strip it of its timber, and then abandon it, after helping himself also from adjacent land.

This distinction between squatters and settlers is evident in the work of most historians. Clarke writes:

> An increasing incidence of conflict, the use of 'professional' squatters to assist land speculators in the pursuit of profit rather than social goals, the dilapidated appearance of neighbouring property, and the exhaustion of soil by an insecure, impermanent group of people finally led to a turn against squatters.

Yet Clarke found that most people believed squatting a "reasonable response" to the inefficiencies of the Crown's land distribution system. Little found that one downside of squatting was that after a sales system was introduced in 1826, they "might be outbid by a speculator."²⁷

This study showed that the classes 'squatter' and ordinary 'settler' were not as distinct as might be inferred from the literature. Squatting was not necessarily a way that farmers started off their settlement—many were not new to the area. Some farm families squatted to augment their holdings—perhaps to acquire land for their children. The first settlers in this region were squatters, and their improvements may have helped attract others, but their locations were close to older settlements, or on the waterway. There is no reason to suggest that they had any role in attracting the genteel community that dominated the early phase of the Upper Kawarthas' reconstruction.

Despite its prominence in nineteenth century political discourse, it is hard to trace the identity 'squatter' because they were not so distinct from common farm families as historians assumed. Relative to the lifetimes invested in farm creation, the cost of land was trivial, so it made little sense to use the property recklessly or in a way they knew would exhaust soil. Nor is there much basis to assume that squatters would not work on roads—municipal records show many people who had not yet purchased their land helping with their civic duties. These criticisms seem to originate in contemporary political debates, which were a step removed from the experiences of settlers on the ground. Lumber companies often suggested that squatters in timber regions did strip trees, but they opposed settlement of timber berths, largely because they feared the fires used in clearing land.

In this area 'professional' squatters or settlers seem to have been rare, and were not a significant part of land speculation—these ventures had less laborious and expensive ways of acquiring land. There are no known instances of squatters being outbid by speculators at sales—aside from select lots like potential village plots, speculation was generally based on acquiring land cheaply, not outbidding someone who had already made improvements to a lot.

The Crown's land distribution system necessitated its continued involvement. The original survey was so confusing that settlers often had to consult the Crown Lands Department to determine where their lots were. Even into the twentieth century inconsistencies endured, so many parcels of land had to be resurveyed before they could be sold. Fee simple tenure implied the creation of centralized registries of land title, as the state became the arbiter of land ownership. By 1900, government assumed a role in the day-to-day lives of its subjects that would have been unthinkable a hundred years earlier. It legislated weed control, what type of buildings could be constructed in villages, lake levels, and standards of sanitation. As the Crown was such an intrinsic part of the environmental, social and economic reconstruction, it made itself indispensable, and in so doing made its sovereignty claims more credible.

Agriculture

Alfred Crosby's *Ecological Imperialism* was one of the first works to consider the global biological diaspora that accompanied European colonization. He argues that "the stunning, even awesome success of European agriculture in the Neo-Europes," occurred largely because Europe's biota was more complicated in some crucial ways than those of the Neo-Europes, perhaps because it was part of a much larger exchange network, in which deliberately domesticated organisms had coevolved with less desired ones over millennia. Yet, despite having less exposure to a culturally complicated "Darwinian struggle for survival and reproduction, …very few of the indigenous life forms of the Neo-Europes have become extinct." While these invasions often drastically reduced

habitat for natives, they brought a strikingly large number of species—weeds, pathogens, rodents, parasites, insects—that would harm or annoy large portions of the population. While many scholars are uncomfortable with his thesis that could seem like an assertion racial superiority of the European biota in having evolved certain advantages, it does reflect the fact that many were weed-like, successful at reproducing. His work can be read to suggest that these species spread relatively easily—an assumption dating back to Innis in the Canadian historiography. In studying a global phenomenon there is little time for the details of how each species fared in different places.²⁸

At first glance, the successful transition of European biota appears remarkable farms grew wheat, fruit trees, kept cattle and sheep. But more careful consideration reveals that Europe did not transplant easily to Upper Canada. The farms themselves were artificial environments, painstakingly created through a generation or more of manual labour. Most farm families aspired to one day own a homestead that was much like those they had left in Britain—and worked until they finally achieved this objective. This immigrating society overcame the fact that a large proportion of the species they tried to introduce failed. Some like grapes were susceptible to North American parasites that did not exist in Europe. Others, like many varieties of apples, could not withstand the Canadian climate, so new varieties were created, many originating from Russian or American stock. Rust ruined many fields of wheat before resistant varieties like Red Fife were discovered. Sheep were difficult to keep on backwoods farms because of wolves. When the history of different crops and animals are considered, it becomes clear that generations of work went into creating an agricultural biota suited to the new environs.

With notable exceptions like Edwin C. Guillet's *Pioneer Farmer and Backwoodsman* (1963) and *Pioneer Arts and Crafts* (1968), Canadian historians have usually incorporated only a small subset of agricultural activity in their accounts typically that associated with exports or markets. It seems the wheat staple has cast a long shadow over the history of agriculture in Canada, particularly Ontario and Quebec. Merchants and the governing elite often thought of their economy in terms of markets and exports—John Graves Simcoe had assumed "the product of the Earth, which forms the Staple of Upper Canada must be Wheat"—they, after all, stood to profit from such commerce. Harold Innis entrenched the staples perspective in the historiography, viewing

Canadian development as a series of commodities, like fur, wheat and timber. These exports fuelled colonial economic development and industrialization, but he believed that the methods of wheat farming caused the "exhaustion of the more fertile land areas"²⁹

After John McCallum provided the most thorough argument in favour of an Ontario wheat staple, Marvin McInnis used McCallum's own data to challenge his conclusions, arguing that Canadian wheat exports to Britain did not grow rapidly until about 1838 or 1846. Yet he agreed that Ontario farmers were wheat farmers—almost all who could grow wheat planted the eight to ten acres they could harvest without assistance. Those that could cultivate fall wheat, which ripened earlier, planted a similar crop of it. Douglas McCalla believes that rather than a wheat staple, the French continental system created a timber staple. While most farms grew all or part of their necessities and pork was the agricultural commodity most likely to find a market beyond the immediate locality, wheat was "the principal crop." For Quebec, Louise Dechene, Gerald Tulchinsky and Allan Greer suggest that agriculture was principally the production of wheat, while Cole Harris asserts, "whatever the size of an habitant's farm or the methods by which he worked it, wheat was almost invariably his staple crop." William Marr, however, dissents from this consensus, suggesting "farms were very diversified, exhibiting the characteristics of mixed farming."³⁰

Historians of Ontario agriculture generally agree that wheat declined in relative importance at some point after 1850, but the date remains contested. John McCallum claims that the peak of the wheat staple came in 1850, and then the economy shifted to a "diversified pattern of production" by 1870. Barley became the major export of Eastern Ontario, while butter, cheese, wool and meat assumed a much more significant role province-wide. In contrast, McInnis asserts that "the apex of 'wheat staple' in eastern Canada was the mid-1850s." The transformation to mixed farming and dairying came after Confederation. Beef became the largest component of Ontario agriculture, while cheese for export and butter for the domestic market both grew rapidly. Pig production, which had not been a prominent part of Canadian farm output, grew markedly after 1890. Robert Ankli places the transition to dairying between 1880 and 1914, and attributes it to a desire for more stable, though perhaps smaller, incomes.³¹

These questions relating to farm production are related to a debate over the degree

to which farms produced for the market, or were capitalists. Christopher Clark studied growth of industrial capitalism on Massachusetts farms of the eighteenth and nineteenth century. Even while studying gender relations on the farm, scholars like Beatrice Craig or Marjorie Griffin Cohen often focus on produce for the cash economy, such as wheat, dairy, poultry and woollens. Frequently the goods chosen are intended to isolate the role of particular family members. ³² Douglas McCalla uses the goods purchased at stores to stress the importance of market connections, and suggests "no one admits to" believing "in a time when families made almost all of the things they needed." ³³ But three studies of Quebec agriculture question the centrality of markets. Allan Greer argues that in Sorel, St. Denis and St. Ours between 1740 and 1840 the peasant "economy centred on production for domestic consumption," though habitants made some incidental sales. Between 1848 and 1881, Jack Little's Scots and French Canadians in Winslow Township both "produced essentially for home consumption." According to Louise Dechene, "self-sufficiency was desirable, but no farm could be completely autarkic" in seventeenth century Montreal.³⁴

Especially in the first decades of resettlement, wheat was one of the few types of farm produce that could bear the cost of long distance transportation—if kept dry it was fairly non-perishable, and valuable relative to its weight. Throughout the nineteenth century it was an important crop, but as we have seen, only a modest part of most farmers' operations. It, however, might be said that it was one of the few pieces of foreign currency in the neighbourhood economy. But farms did not center on market relations—distant exchange was essential, but not a large proportion of their material livelihood. If the geographical context of backwoods farming is considered, it is not so easy to ridicule the possibility that families once "made almost all of the things they needed."

The debates over whether farms were market-oriented or self-sufficient reflect a congruence of interest between modern scholars and their historic subjects. Today theorists are interested in tracing the development of capitalism, while merchants and governing elites sought commercial expansion. The terms of such debates do not reflect the lives of most nineteenth century farmers, who did not live in the context of a capitalist system. These families' lives centred on their neighbourhoods. Throughout the nineteenth century many farmers would have to journey most of a day to get to the nearest village.

Especially in the first years of resettlement the roads were usually rough, and most of these villages had few services—a store, mills and perhaps a blacksmith. The county town might be a day or more distant. When everything had to be transported by muscular power—be it horse, ox or human—over the mud holes and tree stumps that pioneers called roads, or by sleigh in winter, families did not supply their daily needs by running to the store. Neighbourhoods had little choice but to get by largely on their own produce. They functioned like extended families, and in time this usually became realty through intermarriage.

From the start, families acquired some imported goods. A few, like sugar and salt, were absolute necessities. From the start of resettlement to the end of the nineteenth century, a very strong majority of the goods they needed, owned and consumed were the fruit of their family's or neighbourhood's labour. Most of these products required the contributions of many hands, more than would be apparent through approaches that seek to isolate the contributions of certain family members.

It is equally a distortion to stress the importance of the market and 'rational' economic behaviour in an economy that was nearly cashless, where very little was produced for sale, and where even formal barter accounted for a minority of transactions. While many writers romanticized the self-sufficient lifestyle, the economy was based on mutual aid—almost all of production depended in one way or another on neighbours. Self-reliance of farms or neighbourhoods was not an objective as much as an economic reality. Whether at a bee or smaller gathering of friends, working together broke up the monotony of farm labour, and made the varied skills of the neighbourhood available to all. Given the technology of the day many essential tasks were difficult or impossible for families to accomplish on their own.

The ability to meet its own needs was one of the most important ideals to most farm families, valued in tandem with diligence, perseverance, and frugality. This duty did not necessarily entail a desire to avoid exchange. Families setting off to live in a new clearing endured many years of hardship, and often hired out to underwrite their family farm—in early days, usually to the local gentry. Many were initially poorer than they had been back home, and dreamed of one day having a homestead. To them, farms represented self-sufficiency—of their community, more than their family. Consumers

almost always personally knew the producers personally, as families succeeded by improvising, and relying on their own and their neighbours' fabrications. With few luxuries, almost everything was utilitarian. Very little of their produce was exported from the region, and only a small proportion even made it to the village. There were a few more capitalized farms by the 1870s, but even they were modest.

While most historians have focussed on markets and exports, environmentalists have embraced anti-modernist aspects of pioneer or colonial agriculture as models of sustainability. Environmentalists often do not believe that their own society is sustainable, and scholars frequently search for examples of sustainable production, often by looking societies they perceive as being less 'developed.' For instance Maria R. Finckh and Martin S. Wolfe believe that "until the past few hundred years, agriculture developed on the basis of biodiverse systems," but in the last three hundred years the "developed world" has specialized "among few crops and the consequent massive monoculture." They assert that agriculture in the developing world "is more sustainable than the systems currently practiced in the developed world." Brian Donahue argues that "colonial agriculture in Concord was an ecologically sustainable adaptation of English mixed husbandry to a new, challenging environment." ³⁵

After a generation or more of labour farmers in the Kawartha Lakes did produce a way of life that was suited to the region, with many enduring characteristics. An argument could be made that others aspects of nineteenth century life might have, if its population was determined to live by unchanging ways. But it is hard to label this society as "sustainable" because it was created by environmental, economic and cultural revolutions, and retained a determination to improve, recreate and progress. Agricultural improvers were bent on ensuring ever-increasing yields, ploughing greater quantities of land, creating a more 'civil' landscape, and in the case of Mossom Martin Boyd, even one populated with engineered species of animals. Nineteenth century farming was based on a staggering amount of manual labour—the amount of work they had to do limited what families could achieve. They yearned for less painstaking ways of living. While for the sake of a scholarly argument, one might cleave agriculture from the rest of the economy, its structure depended on other types of production as well. The forest economy, particularly the large exporting firms, was also bent on acceleration, cutting ever-greater

quantities of pine, until this business-model proved impossible. Many hunters and fishermen were not satisfied with the native species of game, and tried to redefine the biota. Tourism also brought determination to recreate the region along a different aesthetic.

One problem with labelling such a rapidly evolving society sustainable is that it implies that some moment in the progression could or should have been maintained. But how many families wanted to live with farm animals in a dirt-floored house for the rest of eternity? Who would idealize using the same water body as a site of human waste disposal and source of drinking water? Would even environmentalists want to pick the parasites off many of their food crops, time and again, as was necessary before the popularization of pesticides? This society did conform to certain ideals that modern theorists champion. But it also faced many tangible problems and hardships that are no longer a concern, and thus are too easily overlooked. It was integrating within regional or even global societies that pressed it to change, but this society was itself bent on revolution. And if the time is taken to understand the situations that its members faced, we should appreciate many reasons why.

Forest Production

Academic works on forest production tend to focus on the large firms that exported timber to Great Britain and lumber to the United States. Despite recent trends de-emphasizing staples trades in Canadian economic history, scholars like Douglas McCalla still narrate Canada's lumber industries as the product of British demand in response to continental blockade during the Napoleonic Wars, and the American lumber trade. The extant literature on nineteenth century Ontario forest industries—Arthur Innis, A.R.M. Lower, McCalla, Ian Radforth—focuses on the white pine staple, whether destined to serve as a mast, planking, lumber or siding.³⁶

Forestry often appears as perhaps the pre-eminent example of Canadian profligacy and waste. The companies are seen has having exploited an extremely valuable, but scarcely (if at all) renewable resource. They were extremely wasteful, quickly ran out of trees, and disappeared amidst a timber shortage. Creating an impoverished landscape, they threw communities out of work, leaving only ghost towns, as the lumbering frontier advanced across the country. In the words of A.R.M. Lower, "the new colonies got the minimum out of the wreck of the forests."³⁷

Historians' tendency to focus on the few large firms has distorted our understanding of forest history. As we have seen, the export trades were a specialized sector of forest production. Many immigrants brought knowledge of wood working trades, which underlay a crucial component of settlers' material culture. Throughout the century, most forest production was for local consumption, much of it manufactured on farm or for use within a neighbourhood. These other components of forest production used a much larger cross-section of the regions' resources—which were approximately 60% broadleaf, while the three most common species were scarcely marketable.

The common narrative of the firms' demise is misleading. The firms cut selectively, and only floated out the best material that would bear the cost of longdistance transportation. They left behind a lot of slash, crooked trunks, knotty crowns and wood chips from timber production. This material fuelled enormous conflagrations. But they did not produce the end of the forests, or of forest production, rather, their decline was the end of a business model. The district was not running out of trees, it was nearing the end of pine that could be profitably exported. Rather than ending, forest production was diversifying. Markets emerged for a host of products—such as telegraph poles, rail ties, lath, pulp and paper, barrel staves and wood chemicals. New sawmills emerged cutting many different species, and much of the production still centred on local markets.

The large firms that historians have tended to focus on were among the few large businesses in many parts of nineteenth century Canada. Labour historians have therefore marshalled them to study relationships between capital and labour. Ian Radforth argued that the firms were technologically conservative, making "no formal attempts to innovate, either as individual firms or in co-operation with one another." Even though they operated during Industrial Revolution, "logging remained heavily dependent on simple tools and the muscles of men and beasts." With such reluctance to innovate, their workers endured "crude living conditions" and were expected "to project an image of rugged masculinity."³⁸

Radforth studied "parts of Ontario and Quebec where the land could support only struggling, marginal farms." There, firms could pay just "a low, seasonal wage." Their

workers then supported themselves for the summer on their land, but would return in the autumn "because marginal farms did not produce enough to permit even a basic level of comfort. It was a treadmill for reproducing rural poverty generation after generation, even as it kept the timber camps well manned." In the first half of the twentieth century, "there were almost always plenty of men who, desperate for winter work, snapped up logging jobs however low the pay and poor the living conditions." Since men had no choice but to enlist, "neither management, advocates of woods mechanization nor unionists could make much headway. Employers simply did not need to introduce elaborate equipment, provide comfortable accommodations, or pay wages adequate for the support of a family."³⁹

The workers' lives were certainly dangerous, as "nearly every step of the seasonal round of lumbering activities provided all too many opportunities for mishaps and disasters." Once Ontario made statistics available for workplace injuries in the twentieth century, "logging has rivalled mining as the province's most dangerous industry." Men got hernias and back injuries from lifting or rolling timbers. "Especially on river operations, the annual toll must have been atrocious."⁴⁰

While the firms were working in the age of the Industrial Revolution, historians should not take this to mean that the rest of society had become technically sophisticated, especially relative to the expectations of the twentieth and twenty-first centuries. The architecture of shanties might seem crude to modern observers, but they were larger versions of the early homes that were still common on farms. Barracks became much better in the twentieth century with the advent of motor vehicles, which gave a camp a much larger range of operation. As long as workers accustomed to living in a shanty populated the camps, which often lasted only a season or two, it would be madness to construct fine dwellings in the bush—especially when all of the materials would have to be cadged in over rough roads. The firms continued to employ many traditional tools, and relied on muscular power—but so did the rest of their society. If anyone in the nineteenth century Kawarthas was at the cutting edge of technology, it was the large firms.

The large lumber firms were instrumental in the construction of many rail lines and the introduction of steamships. They brought systematic management of water levels to the Kawarthas. To conveniently ship forage they adopted hay presses—the antecedent of the modern baler. By the end of the century most large firms were using alligator tugs.

Once crosscut saws were manufactured with raker teeth, they were used for bucking logs. When they became practical, bandsaws were quickly adopted. They employed steampowered jackladders. It is difficult to name any local manufactory that was as automated as the large mills. The heads of the firms collaborated extensively, and frequently toured each other's operations looking for ways to make their own more efficient. The innovations that would revolutionize logging—chainsaws and trucks—were still years from being practical inventions.

In the nineteenth century Kawarthas—an area where farming was not as constrained as in Radforth's arguments—there were not as many men desperate for work. The companies could not take for granted that they would have enough help. In the first decades after settlement waged labour was in short supply, and they had to compete with gentry, public works projects and the returns on labour from the farm and village economies. They tolerated their employees leaving their service when there was more pressing or remunerative work to be done. It was difficult for the companies to operate when their hired hands could leave at any point to tend to other affairs, so the larger firms began to insist on formal contracts. They did seek to minimize their expenditures on labour, and soon brought in labour from other regions where wages were not high including rural Quebec. But there were also better paying jobs, often held by permanent residents, and earnings from logging helped support many families. It was characteristically work for young men—and could be a stepping-stone for other careers. Albert Edward Bottum, for instance, who ran a successful Bobcaygeon hardware store, got his start as a clerk in a Boyd shanty.

Radforth's belief that the employers, rather than their workers, benefited most from the system, does not seem to take into account the fact that nineteenth century forest industries were very uncertain propositions. It is easy to look at the stupendous wealth of Mossom Boyd, and conclude that the companies were taking advantage of their workers, without carefully considering the parameters of their business. Long-distance trade in lumber and timber was tantamount to gambling. The fluctuations in market prices were greater than profit margins and the odds were not necessarily in the firms' favour. In an era when wealth was associated with power, their owners usually tried to project an image of success and affluence, but it was often a mirage. The two largest firms operating

on the Upper Kawarthas and the largest on the Watershed all went bankrupt. As we have seen, many other businessmen lost their shirt in the forest industries. Very few retired from the trade with a respectable fortune intact. It would be a mistake to treat Boyd as a typical example—no other venture in this district came close to replicating his financial success. And even in this singular example, Boyd spent much of his career relying on the generosity of his creditors. For many years, if they had called his loans, he would have been in no position to pay. Many fortunes were lost in the forests chasing an illusive prospect.

Life in the shanties, on the rivers or at the mills certainly was dangerous. Most machinery of that era was designed for efficiency and expediency by people fixated on overcoming the tremendous material challenges they faced. Safety was usually a secondary concern, so it would be unusual for a saw blade or conveyor to have guards. Looking back, critics correctly observe that a little bit of care could have saved a lot of injury. But some workers from that period would not want guards because they made machines more difficult to use and maintain. Scholars often attack businesses for their safety records, and imply that they put profits ahead of the well being of their workers-it was usually true that they were geared to profit and put their workers in all sorts of dangerous situations, while making minimal efforts to ensure their well being. Foremen did goad men into being daredevils. But it also should be appreciated that little of this was unique to big businesses. Work in many nineteenth century occupations was risky or debilitating. Few workers escaped serious injury at some point in their life. It would be difficult to say that working in the lumber business was more perilous than farming, working on a train, operating a carding machine, handling horses or building canals. Many walks of life relied on loaded sleighs travelling the lakes, so almost everyone got a 'ducking' at one time or another. Was it more hazardous to fell trees in a logging camp than in clearing the back 40? Was a band saw more dangerous than a threshing machine or a corn cutter?

Work was hard on the people that had to perform it—handicaps could say a lot about a labourer. If an old man could hear well, he probably did not have much experience in a sawmill. For that vocation, many employers might assume that if someone was missing fingers, he was a competent miller. But the same injury would also

pass for familiarity with coupling train cars or working on a farm. It was an era when many people routinely worked within a few inches of losing a finger, and there was a social expectation that labourers would not complain about it, as farmers at a stumping bee would get on with the job even though the chains on the stumping machine often broke, and if they did, one of the operators might get hammered in the face with a heavy piece of iron. People were accustomed to situations where losing their presence of mind for a moment could leave them dead or maimed. Most worked long hours—some mill proprietors were convinced to switch to ten hour days near the end of the century, but work in shanties and on the rivers was governed by the sun, as it was for most farm families—and fatigue was a factor in many accidents.

Transportation

Douglas McCalla and James T. Angus have studied the construction of waterways through the lens of national or provincial politics. Angus particularly, recognized that for higher levels of government, such development was paradoxical—indeed there is reason to doubt that senior officials believed the arguments supporting the work they administered. From this perspective, waterway construction is usually treated as the process of canalization and lock building. The introduction of systematic water level management was perhaps as important, but is often overlooked—though Angus recognizes the creation of reservoir lakes.⁴¹

By the end of the nineteenth century the Crown had imposed upon itself a legal requirement to limit the fluctuation of the navigable lakes in this study area to at most a couple of inches throughout most of the season of navigation, while mitigating the spring freshet. From then on, much of the region's waterfront infrastructure was built upon the assumption of managed waterways—houses, docks, cottages, roads and extensive parts of some villages that would be either useless or destroyed without the government's oversight. In the upper reaches of the watershed it often involved extreme fluctuations that created ghastly landscapes that were seasonally inundated.

Railway construction could be equally debatable. Richard White's recent study of North American transcontinental railroads argues counterfactually that if they had not "been built when and where they were built," then "there might very well have been less waste, less suffering, less environmental degradation, and less catastrophic economic busts." Without the follies of railroad construction "much of the disastrous environmental and social history of the Great Plains might have been avoided." He explains how the United States funded corrupt corporations to build railways ahead of demand. These ventures then failed and required public bailouts, even as their founders prospered.⁴² In contrast, William Cronon's *Nature's Metropolis* observed that railways made Chicago "the interior metropolis of the continent," allowed rapid and year-round travel, while creating a host of new market opportunities and ending the need for farmers to make arduous multi-day journeys to sell their crops.⁴³

While White found that the transcontinental railroads were constructed too early, the first railroads that came to the Kawarthas had immediate and profitable use, as the requisite technology spread across Canada West at about the same time that communities and ventures developed in the Kawarthas to employ them. The first branches reaching the region from main transportation networks of the province fared very well-they captured much of the district's commerce. But the secondary railways—though they often were important to nearby settlements—were more uncertain financial propositions. Yet part of the Bobcaygeon to Lindsay rail line, a relatively short-lived route that was constructed late in the era of rail expansion, became a significant road. In the Kawarthas, efficient long-distance transportation was transformative, though certainly controversial. Two strips of steel from Lindsay to Port Hope opened a world of possibilities—for a time they were the principal connection of the Kawarthas to the cities of the front and international trade. It was no coincidence that the American lumber trade, soon the largest source of off-farm employment in the region, began when this link was complete. The line was also a tremendous advantage to the export of square timber. But the Kawarthas were not, as in Cronon's example, a major transportation hub, and local development was much less centralized.

Almost overnight Kawartha Lakes families benefited from the railway—many goods were shipped before the lines were even completed. Locomotives provided rapid, inexpensive means of exporting produce the region had in abundance like lumber, rails, cheese, flour, lime and ice, and acquiring things that had little prospect of being produced locally: salt, metals, sugar, tea, paper, paint, wire, nails and ceramics. Everybody used products that came by rail, and the iron horse made shipment so much easier than oxcarts.

It would be hard to imagine such numbers of commodious, brick clad frame houses if the bricks could not be shipped on the railway or steamers from Fox's brickyard in Lindsay to Fenelon Falls or Bobcaygeon. Would as many families have a washing machine, if it was not so easy to import metals? Would farmers have so many metal implements? It was very convenient for those transporting dense commodities like sand, gravel and dressed stone that they could use rail or barges rather than horse and waggon. Without these connections would buildings in Toronto have been erected with Kawartha Lakes dressed stone? Would there have been factories producing wood pulp, barrel staves or cheese? Would there have been as many roller mills or large lime kilns? Though families and neighbourhoods made most of their material world with their own hands, many irreplaceable components came through distant trade. The exchange they carried was essential to the transformation of domestic and farm life in the late nineteenth century, alleviating some of the tedious manual labour that underpinned many productive activities. But this advantage came at the cost of massive subsidies.

Railways and steamships reduced the isolation of these communities. In the last decades of the century a letter could be sent from Bobcaygeon—which was still yet to receive a rail link, then connecting by steamer to Lindsay—to Toronto in time to receive a reply the following day. Yet, by present-day standards most families in the Kawarthas were still quite isolated—people more often acquired goods from afar than travelled themselves. Journeying by foot or horse, most rarely ventured more than a few miles from home. But when the occasion arose they might take the railway to Lindsay or go on a steam excursion to another town. The railways and canals allowed the Kawartha Lakes to become a major tourist destination. Without them life would have been different indeed. It may be, in contrasting the results of railways and canals in the Kawarthas with White's study of the transcontinentals, that the Port Hope, Lindsay and Beaverton Railway was built at the right time. The secondary railways were more questionable undertakings.

As we have seen from this review of the extant literature relating to the landscape reconstruction in Canada, existing works provide a foundation for understanding the economic, social and environmental revolutions that accompanied resettlement. Cronon's *Nature's Metropolis* demonstrated nineteenth century patterns of commodity flows, as his *Changes in the Land* sketched environmental change. Gordon Graham Whitney

subsequently provided a much more thorough integration of the ecological and historical literatures. Graeme Wynn and Cole Harris have produced similar syntheses with less emphasis on the associated ecological changes. In the Canadian context, many historians have outlined particular sectors of economic activity. Marvin McInnis, Douglas McCalla, Marjorie Griffin Cohen and Beatrice Craig studied agriculture, particularly relationships to markets. Edwin C. Guillet provided an unprecedented portrait of settler material culture, while Thomas McIllwraith explained how to read the historic Ontario landscape. John Clarke and Lillian Gates outlined Upper Canadian land policy. Donald B. Smith, Peter Schmalz and Janet Chute chronicled Ojibwas, as many others focused on other native groups. Donald MacKay, Chris Curtis, Arthur Lower and Ian Radforth narrated the lives of forest workers.

Yet as historians study abstract problems on the scale of a nation, province or native group, their narratives often revolve around archetypes and theories applicable to these larger domains—individuals and places serve as microcosms for a larger whole. Focusing on a smaller domain, this local study has endeavoured to be comprehensive, thus recreating more tangible contexts. It has aspired to show the variable experiences of mill workers or fishers; to provide an historical understanding of spatial variation, landscape features and particular human works. It has attempted to engage themes and values of the descendants of its subjects, alongside those more commonly debated in the academic literature—to create a place for rural life, experiences of manual labour, material culture and procedural history. It has produced more qualified understandings of many phenomena—from squatting to trapping—typically considered at a much greater degree of generality in the historiography. It has sought to capture the breadth of the process of resettlement locally, showing how natives and settlers created new ways of life—economies, ecologies, cultures, communities—suited to the region they inhabited.

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Methods

While the original township surveys provide relevant data when read for particular sites, for the purposes of this study, it was at times useful to aggregate the vegetation records—a list of up to five species (or genera) of trees for segments of the township boundaries and concession lines. The data for the northern boundary of Verulam Township was excluded because of an error in the survey of this line. Otherwise it was assumed that the descriptions of vegetation contained in the field notes referred to the line between the posts used to mark the beginning and end of lots, rather than their intended location. There were cases where the corrections made in subsequent resurveys had to be taken into account. The vegetation cover of lots in these townships was estimated with a prevalence rating for each species which is defined as the weighted average of prevalence scores for all sections of the concession and boundary lines in the townships. The prevalence rating (PR) for a species on a particular segment is:

PR = $(0.8^{n-1})/(3(i=1 \text{ to } k) 0.8^{i-1})$ Where: The species is the nth tree listed in the survey k = The number of trees listed on this segment

A species has PR = 1 when it is listed first at all points surveyed on the lot, PR = 0 when it is listed nowhere, and intermediate results are scaled between.

Extensive use was also made in this study of a database compiled of all lots in Fenelon and Verulam Townships. This database included date of patenting, all owners, data from agricultural assessments, soil surveys and vegetation from the original land surveys. Information was also compiled on squatters and other occupants prior to patenting, land speculators and timber rights. For each lot an attempt was made to identify the first owner-occupant. This was done by checking the list of owners of each lot from the registry records against the other sources from the date of patent until an occupant was found. The most common sources for identifying residents were the censuses and agricultural assessments. Not all lots in these townships have had owner-occupants, and for some it was not possible to produce an exact date. In the latter cases, upper and lower bounds were placed on the dates during which the lot may have gone to an owneroccupant. A flexible definition of occupant was used in compiling the database. It was not necessarily taken to mean residential or agricultural occupation. For instance, the land acquired by lumbermen adjacent to their logging booms was included as occupied land. It was also not required that an occupant live in a house on a particular lot—those living nearby were also included, as were properties used by a known relative. Where occupants could not be conclusively identified, lots were excluded from some calculations. This method produced results for more than 90% of lots for each statistical application.

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