

THE INTRODUCTION OF LUMBERING
IN
LAVANT AND DARLING TOWNSHIPS

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Abstract

The importance of the lumber industry in Canada's historical development is reflected in the numerous texts and articles written on the subject. This research paper utilizes this same theme but examines the timber industry from a slightly different angle. Rather than studying a general overview of the industry in a defined region this paper follows the step-by-step introduction of lumbering in a specific area. The availability of primary sources in the form of licence record volumes allowed for the evaluation of the licencing of concession lots in Darling and Lavant Townships of Eastern Ontario.

For a historical geographer, this unique approach exemplifies the value of authentic primary data. Despite the enormous amount of work involved in extracting relevant information from these sources, the final outcome is invaluable. In this case, the licence records allowed a more detailed picture of the introduction of the lumber industry to be formulated. As only one, relatively small region, was examined in this manner, the paper acts as a starting point for similiar compilations of licencing data.

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Table of Contents

Introduction	1
Literature Review.	3
Data Collection.	8
Data Analysis.	11
The Influence of Time.	13
The Entrepreneurial Force.	20
Physical Characteristics	25
The Accessibility Factor	31
Conclusion	35
Footnotes.	37

List of Illustrations

Lanark County	Appendix A
Forest Capability Map	Appendix B
Soil Capability Map	Appendix B
Master Map.	Appendix C

Introduction

The significance of the Canadian timber industry and its subsequent contributions to the economic structure of early Canada is well-documented. Discussions on the growth of the industry centre around the expanding American markets, British interest in Maritime forest resources and the shifting of interest to the resources of the Canadian Shield, culminating on the trade in the Ottawa Valley. The effects of water transportation routes and construction of the railway system on trade are also significant themes. Furthermore, historical sketches on various lumbering giants, and tales of myth-like lumberjacks and shanty towns add colourful sources of slightly more specific details of the lumbering era. The relationship between the settler and lumbermen comprises yet another area of relevant concern. Studies of settlement patterns and timber boom towns logically follow the discussions on the partnership between lumbermen and farmers.

To fully appreciate the significance of the timber trade in Canada, and more specifically in Upper Canada, a clear appreciation of all the above data is necessary. One level of documentation, however, is curiously absent from the discussion on lumbering and that is the level of very specific detail. Very few attempts have been made to docu-

ment the arrival of lumbering on the primary level of individual land licence application. This paper acknowledges this oversight and initiates a methodological, lot by concession lot, study of lumbering in a defined study area.

Literature Review

The importance of forestry in the early days of the Canadian economy is well-documented by historians and economists alike. The majority of written material tends to concentrate on the timber trade in British Columbia, New Brunswick and in Lower Canada. Material on the trade in Ontario is less abundant suggesting to students interested in the economic development of early Canada that lumbering was not as influential in Ontario's development. This initial impression, however, would be premature. In fact, by the middle of the nineteenth century, forty-two per cent of Upper Canada's exports were forest products. (Cross: 1960, 215)

Articles available on the timber trade in Ontario have most often focused on specific regions of activity and the subsequent effects of the trade on these regions. For instance several papers have examined the Muskoka and Georgian Bay trade where the emphasis is placed on the influence of the proximity of the American border. (Murray: 19?, Hatcher: 1944) Ontario's water and land connections with the booming American midwest was obviously a vital ingredient in the expansion of her timber industry thus warranting numerous articles dedicated to examining this

American influence.

The majority of the remaining material available on Ontario's lumber industry concentrates on the Ottawa Valley. The historical development of the industry and the effects of the trade on the region are the topics of primary concern in the available papers. (Cross: 1960, Greening: 1970) As previously determined this paper also focuses on the Ottawa Valley. Unlike the other papers, however, the main focus will not be on the general effects of the timber trade in the entire region. This paper will take a unique approach and examine two particular townships and determine precisely how the timber interests moved into the area. One previous thesis attempted to examine the initial timber interests but the completed work did not dwell on this subject matter. (Philpot: 1973) Although the paper focused on one specific region, the Bonnechere Valley, the emphasis was on the effect of timbering on settlement patterns and not on the step-by-step introduction of lumbering in the area.

The literature beneficial to this study is therefore somewhat limited. General background information on the lumber trade and more specific, detailed work on the Ottawa Valley will comprise the two main areas of background research. Another limit consequential to the study is that material available on Lanark County is comprised mostly of historical

sketches and centennial reports containing few, somewhat hidden, relevant details. (Jamieson: 1974, McGill: 1968)

The starting point in the gathering of literature is to gain a comprehensive background on the impact of the industry, as a whole, on Canada. Two texts by A. Lower provide excellent references for initial explorations into the forest industry. (Lower: 1968, Lower: 1973) In particular, Lower concentrates on the economic importance of the industry on Canada and more specifically on the influences of the export recipients, the United States and Great Britain. For a more thorough synopsis of the forest resources in Canada, R. Craig's work on this area is invaluable. (Craig: 1926)

To venture from the general to the slightly more specific, an article on early forestry in Ontario by G. Head is a logical selection. The paper concentrates on the examination of exporting of forest products and the analysis of one particular forest region, the Belleville Agency. (Head: 1975) Head draws important conclusions in his work as he emphasizes the impact of lumbering on the landscape of nineteenth century Ontario.

Hipel's article on forestry in Ontario concentrates on land grants and land allotment. This investigation of granting land seems promising for providing possible information on licencing as well. Unfortunately though, this topic

area was covered very quickly and without the depth of the land grant information. (Hipel: 1942)

The next major subfield of information was gathered from literature written specifically on lumbering in the Ottawa Valley. M. Cross researched the timber community in the area in one of his works on the forest industry. (Cross: 1960) Highlighted in the article was the relationship between the farmer and lumbermen. Cross suggested the relationship was a fairly successful one in comparison to the often unstable relations between the two groups in the New Brunswick forest industry. The basis for the success of the relationship, Cross suggested, was that the "capitalistically-based lumber industry of Upper Canada was divorced from agriculture...". (Cross: 1960, 218)

The discussion on the relations between settlers and timber interests is taken a step further in S. Gillis' investigation of the lumber trade in the Ottawa Valley. (Gillis: 1975) Gillis hypothesizes that settlers turned to timbering only when they were in need of money. In other words, timber was seen as a cash crop at times when no other crop was harvestable. Despite this initial interest in the relationship, Gillis does not dwell on this topic for very long but instead moves on to other areas of the timber trade in her thorough, somewhat generalized, overview of the timber trade.

The final area of literature dealt with for this paper was concerned with writings on the county of Lanark itself. This material was invaluable for its historical sketches on early pioneers in the area but the limitation of these articles must be realized. Most of this type of work was written merely as historical synopsis for community reference only. This was not written for scientific research. Despite this limitation it was nonetheless useful in the research. For instance, a text by E. Jamieson detailed the land division in the County as well as listing names of initial settlers. (Jamieson: 1974)

Although much of the information may seem trivial, there are many important findings in these works that are simply not found in any other references. For this reason these community sketches are irreplaceable in the research of a historical geographer.

After reviewing the literature, the limitations are obvious, but nonetheless the material available can not be criticized for its ability to give a sound, background coverage. The lack of information on licencing details is severe and the historical information on specific details is somewhat sketchy but the background material is adequate. It is, at least, a starting point. Since this research paper is dealing with an unique theme, the limitations discovered were anticipated before the review was undertaken.

Data Collection

As outlined in the introduction, the purpose of this paper is to study the licencing of the land for the timbering rights in two townships of Lanark County. The townships selected for the study included Lavant and Darling Townships. Lavant and Darling are both situated at the extreme north of Lanark County and border each other, Lavant to the west and Darling to the east. These two townships are further removed from the area of great timber activity in the 1800's (i.e. the Ottawa Valley) than the southern portion of the county, and therefore their forests were utilized at a later date. The impact of this feature is discussed at length in the explanation and analysis section.

The contribution of this paper is a result of the manner in which information on this lumbering area was collected. Rather than using only reference texts and historical sketches, the research aimed at acquiring a more precise and finely detailed picture of the introduction of timber licences in the area. The data base involved the documentation of the acquisition of timber licences concession lot by concession lot. In order to obtain this type of data record books at the Public Archives of Ontario were examined. The data base therefore consists of primary

sources. The detailed examination and evaluation of these primary sources qualifies this paper as a research study.

Eight authentic volumes of timber licence registrations were read, page by page, in order to compile a file of all licences issued for Darling and Lavant Townships. The volumes dated from 1840 to the middle of the twentieth century but for the purpose of this paper only volumes from 1840 through to 1880 were examined.

The entries in the volumes were cited by location and were listed in order of the date of application. For instance a typical volume of records might contain seven entries from Lavant and Darling Townships scattered throughout three hundred pages of entries. The location name that was used as a reference for the government ranged from the name of the exact township to merely a physical reference (such as branching of a particular creek from a certain river). This method of citation hindered the process of searching for relevant entries. Despite this handicap it is believed that all entries for the concerned townships were uncovered in the research.

In the volumes examined a total of thirty-seven entries were discovered for the two pertinent townships. Each entry contained information on the date of the licence application, the licence number, the area in square miles

that the licence covered, the name of the applicant, the locality and the description of the area. The description merely listed the concession and lot numbers contained in each licence entry.¹

Data Analysis

After the data was compiled from the record volumes, the information was plotted on a master map. (See Appendix C) A map of Darling and Lavant Townships was drawn to include concession and lot boundaries as well as rivers, creeks and lakes. The data was plotted on this map according to two major stipulations. Firstly, the entries were divided into the years that they were made. Seven different years or licence seasons contained entries for the two townships. These included 1860-61, 1862-63, 1863-64, 1867-68, 1868-69, 1870-71 and 1871-72. On the map these different years are represented by different colours. Secondly, the licences were distinguished according to their individuality. In other words all lots that were obtained in one licence application were coded with a similar pattern.

After an initial examination of the map several common observations become evident. For example, there seems to be a predominance of dark brown lots suggesting a heavy concentration of applicants from the early 1860's. The continued repetition of several patterns throughout the townships is evident as well. Also highlighted by the mapping of the entries is the clustering of licenced lots around particular bodies of water. Although these obser-

vations may seem rather generalized they are a necessary component in this research for now that generalized patterns are known, areas of further study can be isolated. From this step in the research, four variables for in-depth analysis were thus logically selected. These variables include time, entrepreneurialship, physical characteristics and accessibility. All four factors will be discussed at length in the next few sections of the paper.

The Influence of Time

When collecting the data for Lavant and Darling Townships, record volumes were examined from 1840 through to 1880. As documented on the map, however, licences in these two townships are dated from 1860 and onwards. There are several reasons for this delay in time. Firstly, these two townships are located at the northern most end of Lanark Township and are thus further removed from the Ottawa Valley and the hubbub of timbering activity. Secondly, this portion of Lanark County was not included in the first two volumes of timber licences of the Lower Ottawa Valley. In 1860, government timber agency boundaries in Upper Canada shifted to combine the Lower Ottawa Valley in the Upper Ottawa Valley records. Before 1860 only a few odd samples of licence applications were available and it was impossible to determine if any were applicable to Lavant or Darling Townships.

This lack of competent licence records before 1860 may have had an affect on the large number of lots taken up in the first year of more detailed records. Timbering may have occurred sporadically in this region before the initiation of the 1860 record volumes. Once the licences were recorded efficiently in 1860, however, anyone that may

have already been in the region applied for a licence and had their licence officially recorded. Despite the discovery of the reason for the large number of lots taken up in the initial years of records, a study of the pattern in which the lots are licenced can still be undertaken. Indeed, this heavy licencing in 1860 is, in itself, an essential part of the pattern.

In order to more fully understand the effect of the northern position of Lavant and Darling and their later dates of lumbering concentration, a brief review of the settlement history of the region is required. In the first few years of the nineteenth century only a handful of settlers lived in the entire area now known as Lanark County. These few settlers were United Empire Loyalists who had fled the United States before the War of 1812. After the war several more families reached the county and in 1815 Irish and Scottish emigrants began arriving as well. All of these emigrants were granted 100 acres of land per family and per male child over the age of twenty. (McGill, 1968:6) These early settlers took up land in the region near the Rideau River and Rideau Lakes, and therefore were all located in the southern townships of Bathurst, Drummond, Beckwith, Montague, Elmsley and North Burgess. Perth in Drummond Township was selected for a military depot and settlement

site early in the nineteenth century. By 1820, Perth boasted four churches and six large stores and became the centre for Lanark society as well as the organization point for new colonists to the county. (McGill, 1968: 68)

Lumbering in Lanark County in the early twenties was carried on mostly by the settlers as they cleared their lands. Lumber was sold to local sawmills and the product was most often used for construction. By the thirties and forties timber companies began to appear throughout the county. Indigenous companies, that were operated by sons of local settlers, and foreign companies (i.e. companies that were moving into the region) operated by wealthy American or Canadian merchants, enticed the farmers to participate in their operations. At this time, the settlers began to see the timber trade as more immediately rewarding than farming. With the rocky and acidic conditions of much of the soil in the county, farming seemed to remain at a subsistence level. Selling the timber and potash from burning the coverage on their property, on the other hand, brought the settlers cash. More importantly, was the seasonal compatibility of lumbering and farming. Lumbering could be done during the farmer's off-season and therefore the farmer's work was not jeopardized by the timber business.

By 1840 there were several prominent families concentrating solely on the timber business in Lanark. The small lumbermen (i.e. family farmers) were gradually being replaced by these larger operations. Lumberjacks were hired to spend the winter in camps cutting timber and then driving the wood to major centres in the spring. Farmers were not entirely driven out of the operation, though, as they provided food supplies to the camps and as well were often employed for cutting^{and} hauling purposes during the winter. The consequence of this relationship was a lessening of concentration on farming in a long term outlook and a short term concentration on lucrative profits. As well, the promise of a ready market (even a short term market) encouraged settlers to move further into the wilderness and thus further into northern Lanark. (Philpot, 1973: 14)

As these family businesses such as Gillies, Brothers, Caldwells and Gilmours expanded their timber interests, attention eventually turned even further north towards the townships of Lavant and Darling.

At this point it is important to distinguish between the two different categories of lumbering families that emerged. The two classifications of families included families with capital and families with little previous wealth. Families with capital were often Americans who had

travelled north to remain in the British Empire and to make their fortune in the lucrative lumber business. The colonizers with money behind them, most often erected saw mills first and then began to amass licenced lots. The other category of family lumber businesses included families of Scottish or Irish immigrants. These families had little money and their fortunes began simply by obtaining a few lots at a time. In the 1840's, sons of these pioneer settlers became aware of the possible wealth and turned to the lumbering business full time, unlike their fathers. Therefore, it was the sons of the original set of settlers who were the entrepreneurs responsible for the great lumber families. John Gillies and Alex Caldwell, both sons of pioneer settlers, built two of the most prominent lumber companies in Lanark County during the nineteenth century.

By the late 1850's and early 1860's the Caldwell's and Gillies' timber limits extended into Lavant and Darling Townships. (McGill, 1968: 173) At this time Lavant had a population of 279, consisting of 190 males and 89 females, while Darling had a population of 900 with 475 males and 425 females. (Canadian Census, 1860: 215) Sixty of Lavant's males were not part of a family suggesting the presence of lumbermen or transient labourers. In Darling only 25 males were not part of a family. This data can be correlated with

information on Caldwell timber interests which were concentrated more heavily in Lavant than in Darling. The larger operations hired more 'outside' help in comparison to the small firms which hired mostly local help. (Jamieson, 1974: 18)

In Lavant the population was composed of 43 Scots, 22 Irish, 166 non-speaking French native Canadians and 42 French speaking native Canadians. The breakdown of origin in Darling was proportionately the same as in Lavant Township. Statistics on the number of lumbermen for each township were not available, however, Lanark County as a whole had 88 classified lumbermen out of 4114 lumbermen for Upper Canada. (Canadian Census, 1860: 270)

Referring back to the master map, now that the years leading to the 1860 listings have been reviewed, a breakdown of the entry years is necessary. Nine of the thirty-six entries were from the 1860-61 season and 5 of the entries were from the 1862-63 term. These numbers may not seem as high as they should be when studying the same information on the map. This supposed discrepancy exists because the early entries contained, on average, more lots than did the later years. Essentially the majority of the lots were licenced within the first two seasons plotted on the map.

In the 1860's when Lavant and Darling were being rapidly initiated into the lumbering business, the Ottawa Valley had just entered the era of big business in timbering. Lumber companies did not obtain a few lots at a time but acquired large amounts in an area at the same time. This trend is also reflected on the map by the dominance of several colour codes. This entrepreneurial aspect evident on the map will be discussed at length further on in the paper.

In brief review, the importance of the time variable in the sequence of licences is the understanding of the delay factor. The delay factor, which was caused by a less central position in the county and unavailable data, can be explained through comprehension of the history of settlement and lumbering in the county. This historical background is a necessary requirement in the study of the next three variables.

The Entrepreneurial Force

The reoccurrence of several names as licence applicants in the entries for Lavant and Darling Townships, leads one to suspect a concentration of business interests in the region. As previously discussed, the timbering in the area initially began as a form of profitable return from a farmer's clearing of his land. By the middle of the nineteenth century, however, the transformation from family farms to family timber companies was undertaken by several local settlers. This entrepreneurial aspect to the lumbering of northern Lanark County is the next variable to be examined in reference to the data plotted on the master map.

A review of the applicants in Lavant Township indicates a predominance by certain individuals.² Of the thirteen entries involving lots not previously licenced, only seven different men were among the initial applicants. If the names of those receiving the licenced lots through a business transfer were included, an even greater concentration would result. It should also be noted that those licences representing the largest amount in square miles are also the licences owned by the applicant(s) with the greatest number of different licences.

Although this trend exists, to a certain extent, in Darling Township, it is not as prominent as it was in Lavant Township.³ In two cases the same lumberman owned the rights to particular lots in both townships. The Caldwells including Alex and his brother, Boyd, and Alex Horne had interests in Darling and Lavant.

The Caldwell interests were unquestionably the largest in the two townships. Alexander Caldwell's father, William, settled on the border of Darling Township around 1828. Alex consequently grew up in the backwoods and was familiar with the timber business at an early age. By 1860 his timber limits extended north into Darling and Lavant and his company, A. Caldwell and Son, cut from 200,000 to 300,000 square feet annually. (McGill, 1968: 166) Although Alex Caldwell's timber limits extended into the northern part of the county his home was in Lanark Village in Lanark Township. Alex's brother, Boyd also entered the lumber business in the early 1860's. His timber operations were run out of Carleton Place in Beckwith Township.

By 1860, Alex Caldwell's company employed hundreds of lumberjacks during the winter months. These men resided in shanty camps consisting of a log structure, with oxen, horses and provisions for a long winter. One log

building, often around 40 feet by 35 feet with bunks and a large square chimney in the centre, housed all of the men. (McKay, 1978: 27) The lumbermen consisted of fellers, who cut the trees down, liners, who lined the logs to make them square, scorers, who took the bark off and selected the trees for harvesting, and hewers, who smoothed the scorer's work. (Shortt, 1967: 67) As well a shanty town will have foremen and most importantly, a cook. The cook, who was often a French Canadian, had the momentous job of feeding hundreds of healthy outdoorsmen as often as three or four times a day. Meals commonly included salt pork, beans, peas, bread, potatoes and molasses with tea. (McKay, 1978: 20)

When spring came in these camps the famous log drives began when the logs were directed down a river to a predetermined market centre. Alex Caldwell led his yearly log drives himself and he was known in the Ottawa Valley as one of the greatest river captains. The drives were extremely dangerous and also very competitive as neighbouring lumber companies fought for positions along the river. Caldwell's company spent several years fighting a court case with the McLaren Company for rights on the tributaries of the Mississippi River. McLaren claimed that he had first rights because his company had made improvements (i.e. dams)

on certain streams. Caldwell and McLaren lumber gangs had several violent encounters until the dispute was finally settled in 1881 in favour of McLaren. (Lower, 1938: 40)

The success of Alex Caldwell's business expansion in the county was considered to be an indication of the immense respect his employees held for him. Despite working his men harder than any other boss in the region he was well liked. (McGill, 1968: 167) Joshua Fraser who worked for Caldwell at one time claimed that,

He shirked nothing that any man could do and did many a thing that the boldest and hardest wouldn't dream of attempting. He loved the work and the work loved him... He was a first-class shot... though he was a merciless despot at getting us up in the morning and off to our posts, still when the hunt and business of the day was over, he was the youngest and keenest among us in any frolic or athletic game that we indulged in. (Fraser, 1883)

Family business^{es}, such as the Caldwell's were prospering throughout the Ottawa Valley by the mid-1800's. Families such as the Prices, Wrights of Ottawa, Egans of Ottawa, the Gillies of Lanark County and the Hamiltons of Lower Ottawa, all held large timber interests. The watershed of the Ottawa Valley, however, was such that it did not have a limitless hinterland. This restriction may have aided in keeping the American interest at a minimum, in this area only, thus allowing the growth of the local

businesses. As Lanark County was at the southern end of the Ottawa Valley hinterland its resources were not depleted early in the timber boom years. As will be discussed in the accessibility section of the paper, the two concerned townships were utilized at even later dates because of their proximity in the county. These factors together contribute to the more gradual introduction of business interests in Lavant and Darling Townships.

Physical Characteristics

Another element that plays a role in the selection of property for timbering purposes is the physical capability of specific land. Concession lots were examined by interested parties before an application for the land was considered. Stipulations such as payment for cut timber, which had to be forwarded to the Crown Timber Agency within a certain length of time after the licence was issued, and restrictions on minimum and maximum cuts existed. Lots that were not exercised properly were automatically forfeited by the respective timber operators and the lots were put up for public auction. An alternative to forfeiting one's lots was instituted in 1849 when transfers were made permissible. (Philpot, 1973: 24) As witnessed, entry examples included in the text, the transfers were recorded in the timber volumes along with the original licences. These regulations made it imperative for the lumbermen to carefully select their property.

The northern part of Lanark County lies in the St. Lawrence Lowlands topographical region, just a few miles from the Canadian Shield. Lavant Township is situated on precambrian igneous and metamorphic rock. Darling Township is basically the same except for an area around

White Lake where precambrian limestone predominates.

Although the St. Lawrence Lowlands is considered to possess the finest climate and soils for agriculture in Canada, in northern Lanark County this is not necessarily the case. The region is subject to varying degrees and combinations of poor drainage, stoney conditions, shallow bedrock, and somewhat low fertility. (Environment Canada, 1964: Map 31F) The soils in the townships of Lanark, Beckwith, Drummond and Bathurst were farmed successfully by the mid-1800's. Crops such as oats, wheat, hay, barely and potatoes were the mainstays of the local agriculture industry. Supplies still had to be brought in from American lake areas as late as 1860 as the Ottawa Valley could not produce enough to supply its population as well as the population of the numerous shanty towns.

In Darling and Lavant Townships the major product was potash for much of the early 1800's. Squatters settled in the untouched townships, cleared the land and burnt the trees for potash. The basically easy capital gain and the ready market for potash in Montreal encouraged the settlers to reap the land rather than to farm.⁴ With the influx of timber operators in all parts of the country, though, a close, cash market was available for a farmer's crops and the northern region began to attract more

permanent settlers.

The forest vegetation of Lanark County is classified as tolerant hardwood. Coniferous resources are comprised of red and white pine, white spruce and some cedar. Other hardwoods include maple, oak, elm, hickory and ash. (Craig, 1926: 401) It should be emphasized that the pine resources were the forest product that held the attraction for lumbermen. The white pine, "was the monarch of the eastern Canadian square timber trade in the nineteenth century." (McKay, 1978: 59) This wood was used for masts for ships and in the construction of homes and buildings. The white pine is on average 100 feet in height and three feet in diameter. The Ottawa Valley was one of only ten regions in Canada where white pine are naturally produced.⁵ The importance of the pine resources in Lanark are exemplified when noting that the total production of timber and lumber in Canada in 1871 was 2,375,000 million feet, while 1,555,934 million feet of this was pine production. (Lower, 1968: 164) The pine was the first wood turned to by lumbermen and it was not until the pine resources were nearly depleted before attention shifted to alternative resources of spruce and balsam fir. Pine trees were the 'green gold' of the lumber industry.

A generalized soil map of North America classifies

the entire St. Lawrence Lowlands (with the exception of the southern portion) as having grey-brown podzolic soils. (Oxford Atlas, 1967: 69) A detailed map of soil types in Lanark County suggests that the soils in Darling and Lavant Townships are of the Monteagle classification consisting mostly of sandy loam and rock. (Environment Canada, 1964: Map 31F) Forest capability maps detail the area to an even greater extent. The two townships contain four different subdivisions of forest capability. (See Appendix B) As outlined in the attached map the majority of the concerned land falls under the Class 5 category (i.e. from Concession 7 to 12, lots 17 to 27 in Darling and Concession 1 to 12, lots 13 to 27 and Concession 1 to 5, lots 1 to 27 in Lavant Township). These lots are considered to be lands having severe limitations to the growth of commercial forests. Class 6 land, which contains the poorest conditions for the growth of commercial forests in this part of southern Ontario, is found in Darling Township, Concession 6 to 12, lots 2 to 16. In these lots only 44 of a possible 105 lots, or 41.9 per cent, have been licenced during the study period. In the area of Class 3 division, in Darling, 78 of 135 lots, or 57.7 per cent, of the lots were licenced.

In Lavant Township the poorest land fell under the

Class 5 subdivision. 55 of 94 lots, or 58.5 per cent, of lots in Class 4 were licenced while in Class 5, 82.5 of 135 lots, or 61.1 per cent of the lots were licenced.

In Darling Township, therefore, the number of lots utilized by the timber operators consistently increased with the improved classification. In Lavant, however, the lots in Class 4 and 5 were only 2.6 per cent apart with Class 4 having less lots licenced than the Class 5 of more severe conditions.

The high percentages of lots that were licenced for lumbering in both townships obviously indicate the presence of white pine resources. Although the area is classified as having moderate to severe limitations for the growth of commercial forests, the presence of the highly sought after white pine overrides these limitations. As the soils are not well suited for agricultural purposes, the shift in attention from farming to lumbering seems a logical progression.

The Accessibility Factor

As documented in all historical works on the development of Ontario, lumbering became a vital ingredient to the economic structure of the province by the 1830's. The data on the study area, however, suggests the flourish of activity in northern Lanark to be some thirty years later. It should be noted that the early trade was concentrated around the major artery routes such as the Ottawa River, the Madawaska River, River Gatineau and the St. Lawrence River. The mode of transportation required for the square timber trade necessitated the proximity to logging rivers and main marketing centres. The contradiction in time between the study area timber trade and lumbering activity in many other parts of the Ottawa Valley suggest a less accessible location in relation to the major logging routes.

The large timber operations provided quite a show in the spring when they drove their winter's harvests down the river to Montreal.⁶ Large rafts were constructed usually containing about 1400 square timber logs, maintained by a crew of twenty-odd raftsmen. (McKay, 1978: 40) These rafts, or 'cribs', not only housed temporary shelter for the crew, but sported sails and oars as well, for still

waters along the route. The dangers in the drive were the many rapids and falls along the Ottawa and St. Lawrence River where an entire raft and crew could be lost while attempting to go over a falls. By 1830, the introduction of timber slides somewhat lessened the danger. A slide was a shallow canal containing numerous inclined planes built to by-pass the falls. Although single cribs could be navigated down the slide successfully, the process was time consuming and was also often a source of rivalry between competing timber operations. (McKay, 1978: 45)

The excessive work and risks involved in creating and maintaining a viable logging route contributes to the explanation of a concentration on lumber sites adjacent to the main routes or lands along the larger tributaries of the logging rivers. Lavant and Darling Townships are some forty miles from the Madawaska River (a major tributary of the Ottawa River). Water connections to the Madawaska River from the townships is minimal and therefore the distance between the two is significant. Northern Lanark is further removed from the Ottawa River than from the Madawaska as it is located approximately sixty miles south of the Ottawa at its northern tip. Although this distance played a role in the late entering date of large business interest in the area, rideable tributaries

did exist to keep the timber operators in the region.

Two major timbering routes were utilized in Lanark County. The first timber route was down the Tay River to the Rideau River system thus draining the lower portion of Lanark County. The second route covered the central and northern parts of the county. This system utilized the Clyde River and its extensions which, in turn, emptied into the Mississippi River and then down to the Ottawa River. (McGill, 1968: 165) The Clyde River, itself, runs through the southern corner of Darling Township and travels northward to Joe Lake in Lavant Township. Of the 17 lots directly bordering the Clyde River only 8.5 lots were licenced during the study period. Of these lots the majority were licenced in the 1862-63 lumbering season. In the southern corner of Darling Township there are curiously 7.5 un-licenced lots that directly border on the Clyde River. ~~This~~ The Clyde River also extends further west from Joe Lake to the western border of Lavant Township and the neighbouring county of Frontenac. Two important tributaries extend from the Clyde in Lavant Township. One creek extends from Joe Lake by-passing Lavant (i.e. Lavant Village) to Robertson Lake. Another creek runs northward from Joe Lake to Flower Station and finally to Flower Lake. Along this first tributary extension, 5.5 of 15 lots are

licenced while along the second tributary, 4 of the 9 lots are licenced.

At this point it should be emphasized that the area of each township is only, approximately, ^{thirty-} six square miles. Lots not immediately adjacent to the tributaries or main logging rivers are therefore not significantly removed from the water routes.

In Darling Township, in all but the southern corner, another river plays an important role in the lumber accessibility of the area. The Indian River, which flows into the Mississippi River in Ramsay Township, flows through the centre of the township and into the eastern corner. Along this river there are 28 lots bordering its banks, 13.5 of which are licenced. As well, just below White Lake is another tributary of the Mississippi River, Indian Creek.

Both townships are therefore, well situated in terms of proximity to minor, local logging routes. These local river routes, however, are significantly removed from the larger logging rivers so that the area was not among the first in Upper Canada to be exploited for its timber resources. Only after the areas adjacent to such rivers as the Ottawa and the Rideau, were introduced to the timber trade, did attention shift to the less accessible areas.

Conclusion

The examination and compilation of primary sources has been a valuable addition to the study of the Canadian timber trade. Although this initial research involves only a small portion of the Canadian resources utilized in the industry, it is important nonetheless as it attempts to acknowledge the types of information that result from such a study. The authentic licence lot applications precisely map out the route of the lumbermen's axe in the Canadian forest. The master map outlined in the paper exemplifies the lumbermen's path in two townships in the Ottawa Valley. When this breakdown of the lumber industry is contrived from the general overview to the specific process, the interplay of forces contributing to the presence of the industry in regions can be examined on a more intricate level. In Darling and Lavant Townships important themes discovered included the accessibility to the transport routes and the presence of white pine cover.

The acceptance of these locational factors allowed for the inspection of possible entrepreneurial forces in the region. The presence of large, mostly indigenous family firms produced a picture of pioneer settler success. In northern Lanark the local family firm was unmistakably the prevalent type of timber operation. Again, the locational factors

contribute as the more northerly position and the proximity to the major tributaries to the Ottawa River left Lavant and Darling Townships relatively untouched during the initial days of the timbering in Upper Canada.

The ultimate reference for the Ottawa Valley timber trade would be a complete examination and documentation of the primary sources, concession lot by concession lot, for the entire region. This paper is only the first step in the lengthy process necessary to create and eventually complete the scenario of the precise introduction of the timber trade in the Ottawa Valley.

Footnotes

1. Example of Licence Entry:

<u>Season</u>	<u>Date of Licence</u>	<u>Number of Licence</u>
1860-61	July 31	78

<u>Area in Square Miles</u>	<u>Name of Licentiate</u>
4	Wm. McKay

Locality or Designation
Township of Lavant

Description

Lots Nos: E $\frac{1}{2}$ 18, W $\frac{1}{2}$ 19, 23, W $\frac{1}{2}$ 25 & 26 in the 1st Range, 18, E $\frac{1}{2}$ 19, 22, 24, 25, 26 in the 2nd Range, 23, 25, 26 in the 3rd Range of the Township of Lavant. Not to include any lots sold or located by the Authority of the Commissioner of Crown Lands at this date. (Timber Licence Record Volumes, 1860)

2. Timber Licence Applicants in Lavant Township, 1860-69

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1860-61	64	16 $\frac{1}{2}$

Name of Licentiate

Wood Petry

Transferred to J. Jackson (April 1863)
Transferred to Boyd Caldwell (Nov. 1863)

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1860-61	65	9

Name of Licentiate

Wood Petry

Transferred to J. Jackson (April 1863)
Transferred to Boyd Caldwell (Nov. 1863)

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1860-61	67	1

Name of Licentiate

Alexo Horne

Transferred to W. Manie (Dec. 1864)

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1860-61	78	4

Name of Licentiate

Wm. McKay

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1860-61	241	3

Name of Licentiate

Wm. McKay

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1860-61	258	$3\frac{1}{2}$

Name of Licentiate

Robert Teskey (Clergy) Transferred to Alex Caldwell (Sept. '62)

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1863-63	120	2

Name of Licentiate

Alex Horne

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1862-63	109	5

Name of Licentiate

Wm. Graham

Transferred J. Jackson (Oct. 1863)

Transferred B. Caldwell (Nov. 1863)

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1867-68	156	10

Name of Licentiate

Alex Caldwell

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1867-68	154	13

Name of Licentiate

Boyd Caldwell

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1867-68	155	9

Name of Licentiate

Boyd Caldwell

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1867-68	69	4

Name of Licentiate

Wm. McKay

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1868-69	150	$2\frac{1}{2}$

Name of Licentiate

Alex Caldwell

3. Timber Licence Applicants in Darling Township, 1860-69

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1860-61	66	2

Name of Licentiate

Alex Horne

Transferred J. Mann (1863)

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1867-68	235	?

Name of Licentiate

Henry Warren Transferred H. Dickson (April 1868)

<u>Season</u>	<u>Number of Licence</u>	<u>Area in Square Miles</u>
1868-69	149	2½

Name of Licentiate

Wm. Robinson

4. Settlers were encouraged to take advantage of this fast method of capital gain as a settler could be given squatter's rights on land with merely a small down payment. As long as taxes were paid there was no interest charged on the unpaid portion of the land. Squatters lived on the land until they had made some money and then left the land bare. (McGill 1968: 123)

5. Location of white pine in Canada

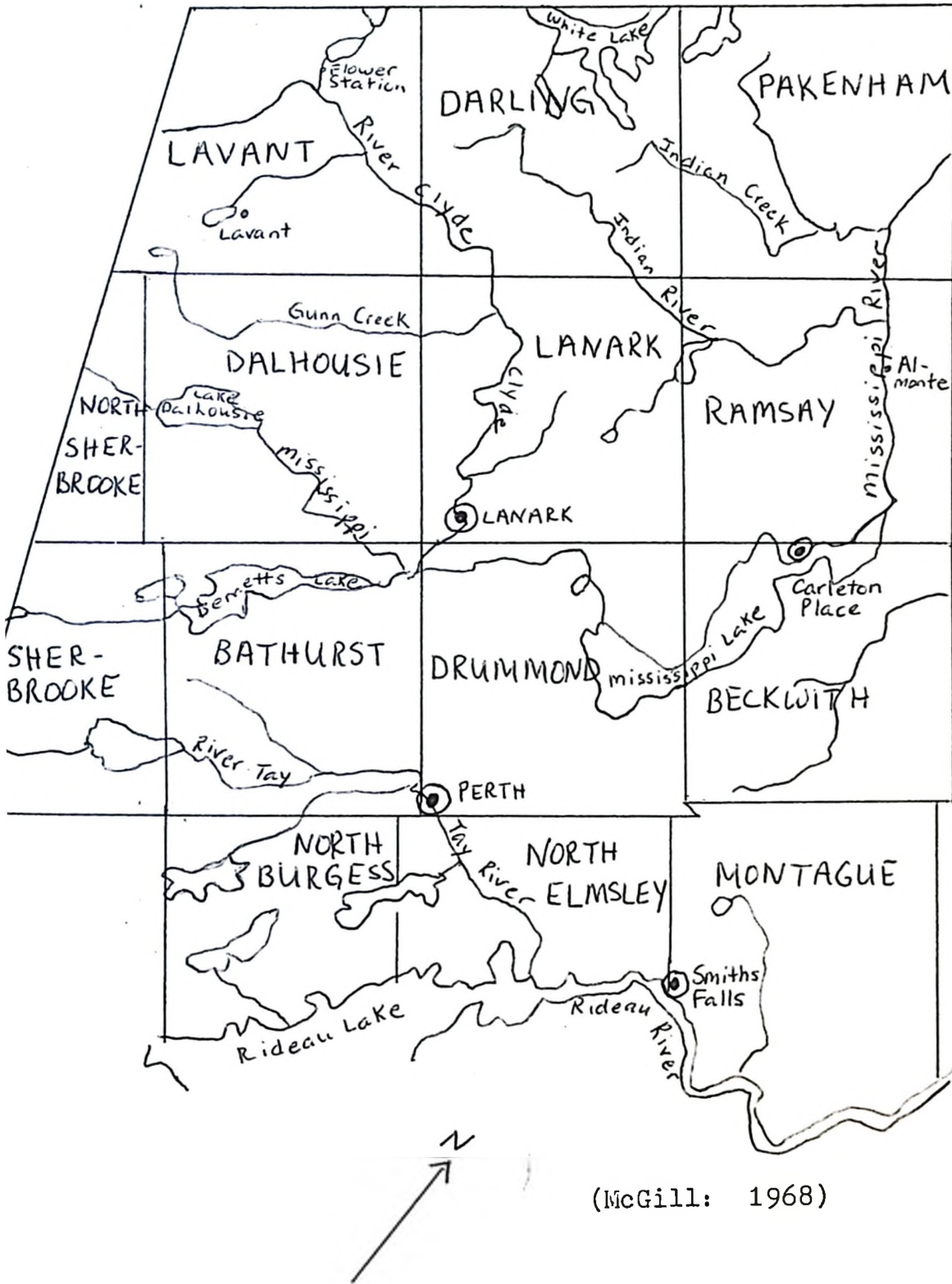
- (1) The Lake of the Woods and Rainy River or the Quetico Reserve.
- (2) The North Shore of Lake Huron
- (3) The Georgian Bay Watershed
- (4) The Peninsula of South-Western Ontario
- (5) Central Ontario, north of Toronto
- (6) The Trent Watershed and neighbourhood
- (7) The Ottawa
- (8) New Brunswick
- (9) The Lower St. Lawrence
- (10) Nova Scotia and Prince Edward Island (Lower, 1938: 20)

6. Charles Dickens, describing the St. Lawrence River in "American Notes", 1842,

Going on deck after breakfast I was amazed to see floating down the stream a most gigantic raft, with some 30 or 40 wooden houses upon it and at least as many flag staffs, so it looked like a nautical street.

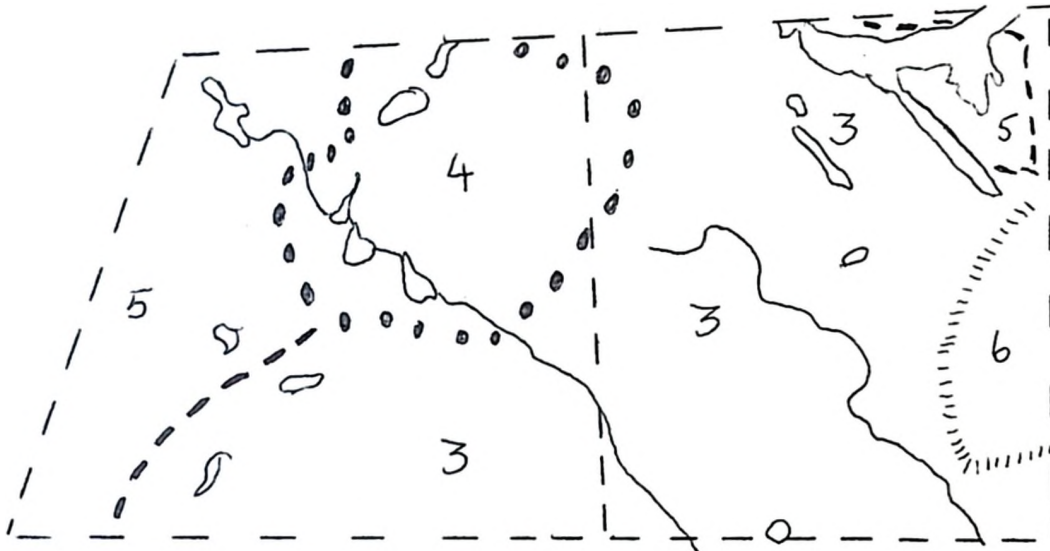
Appendix A

A Map of Lanark County

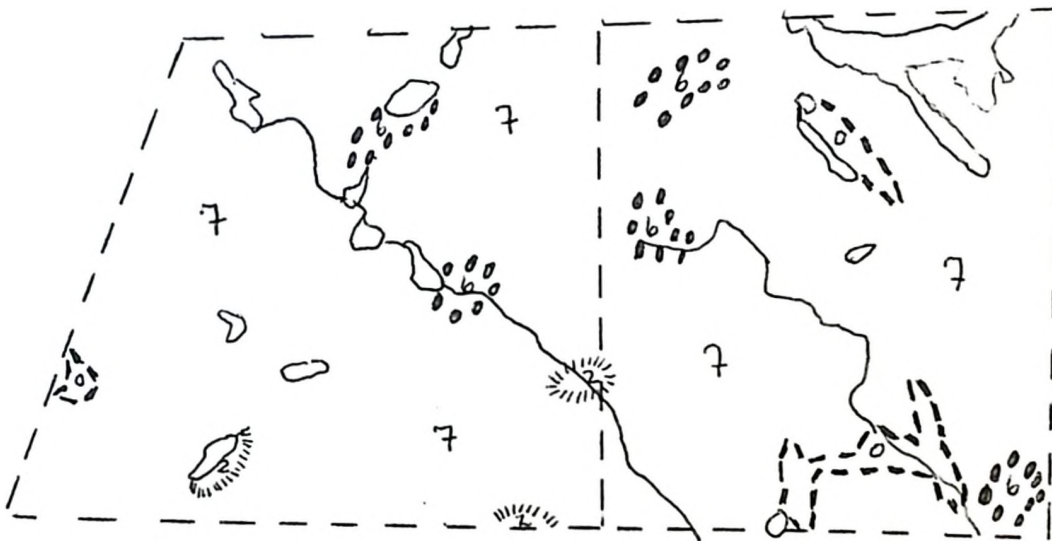


Appendix B

Lavant and Darling Townships



Forest Capability Map



Soil Capability Map

(Environment Canada: 1964, Map 31F)

Appendix B

Key for Forest Capability Map

Class 3: Lands having moderate limitations to the growth of commercial forests.

Class 4: Lands having moderately severe limitations to the growth of commercial forests.

Class 5: Lands having severe limitations to the growth of commercial forests.

Class 6: Lands having severe limitations to the growth of commercial forests.

Key for Soil Capability Map

Class 2: Soils in this class have moderate limitations that restrict the range of crops or require moderate conservation practices.

Class 6: Soils in this class are capable only of producing perennial forage crops, and improvement practices are not feasible.

Class 7: Soils in this class have no capability for arable culture or permanent pasture.

Class 0: Organic Soils.

(Environment Canada: 1964, Map 31F)

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