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REVOLUTIONISING LANDSCAPES: HYDROELECTRICITY AND THE HEAVY
INDUSTRIALISATION OF SOCIETY AND ENVIRONMENT IN THE COMTÉ DE
BEAUHARNOIS, 1927-1948

By

Louis-Raphaël Pelletier, B.A. (spécialisé), M.A.

A thesis submitted to the
Faculty of Graduate Studies and Research
in partial fulfilment of the requirements for the degree of

Doctor of Philosophy

Department of History

Carleton University

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**REVOLUTIONISING LANDSCAPES: HYDROELECTRICITY
AND THE HEAVY INDUSTRIALISATION OF SOCIETY AND
ENVIRONMENT IN THE COMTÉ DE BEAUHARNOIS, 1927-1948**

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29 September 2005

Je dédie cette thèse à
Roger Pelletier, Jeanne Lepetitcorps
Marcel Cadrin et Marguerite Bertrand,
Christine Cadrin-Pelletier et Jean-Pierre Pelletier,
Iolande Cadrin-Rossignol, Jean-François Beaudin, Fernand Dansereau, Thérèse Cadrin-
Petit, René Petit, Paul Cadrin et Christiane Poirier,
François-Nicolas Pelletier et Catherine Boucher

Mes Grands-parents ont cru qu'il fallait être généreux envers son prochain et valorisaient
le savoir
Mes parents que la nature est belle, qu'il fallait être socialement responsable et fier de son
peuple
Mes tantes et mes oncles qu'on peut adorer les enfants et leur parler de choses savantes
Mon frère et ma belle-sœur qu'on peut débattre dans le but d'élever l'interlocuteur

J'essaie de vivre selon ces valeurs.

ABSTRACT

This dissertation analyses the rapid industrialisation of the rural Comté de Beauharnois and the adjacent stretch of the Fleuve Saint-Laurent owing to the construction, between 1929 and 1948, of a gigantic canal for hydroelectricity production and navigation by an electricity corporation called the Beauharnois Light Heat and Power (BLH&P). Using principally the archives of the BLH&P – especially its complaints files and its rich photographic record –, this thesis argues that this process exemplifies the finance capitalist reorganisation of the society and ecosystems of the Canadian province of Québec from the 19th century to the Great Depression. In keeping with recent work in environmental history, the transformation of rural landscapes and a river for heavy industry is described as an important dimension of a revolution in modes of production.

More specifically, I argue that, in the case under study, the finance-capitalist reorganisation of Québec revolved around two central and explicit projects, one social and the other environmental: the grouping of most individuals in an industrial working class without control over the means of production and the reorganisation of rural landscapes into reservoirs of modern energy and industrial natural resources.

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INTRODUCTION: HYDROELECTRICITY AND THE RESHAPING OF A RURAL LANDSCAPE

1. Object of this Dissertation

This thesis reconstitutes and analyses the rapid industrialisation of the rural Comté de Beauharnois by the construction of a gigantic canal for hydroelectricity production and navigation during the 1930s and 1940s. The central argument of the thesis is that this project exemplifies a finance capitalist reorganisation of Québec society and ecosystems that had been unfolding since the last third of the 19th century. Using the propositions of environmental history, the transformation of rural landscapes for heavy industry is described as an important dimension of the revolution brought about by the finance capitalist mode of production. A mode of production is understood in this thesis as an organisation of society and its ecosystems to correspond to a set of ideas about how wealth should be created from nature and how it should be distributed among humans. For the case under study, I propose that the finance capitalist reorganisation of Québec revolved around two central projects, one social and the other environmental: the grouping of most individuals in an industrial working class with no control over the means of production and the reorganisation of rural landscapes into reservoirs of modern energy and industrial natural resources.

I have chosen to focus on a single hydroelectric project in this dissertation because I hope to understand the intricacies of the landscape changes in the Comté de Beauharnois and to render this local revolution in the landscape as tangible as possible to the reader. Ideas, values, dreams, and knowledge drive social and environmental changes but these

cultural realities are always, in the end, sculpted in our material environment and perceived through our bodily senses.

The intuition behind the choice of a single and thorough case study of landscape transformation for hydroelectricity production was that the landscape succession in Beauharnois would reveal a great deal about the social causes that drove environmental changes everywhere in Québec during this period. This intuition has been confirmed by my theoretical analysis in which I describe landscape and society as inseparable realities. Changes in the latter are necessarily reflected in the former. They are like a star and its light. They can be conceptualised as separate entities with different properties. But to understand the origin and properties of the light physicists must understand the star, and to understand the nucleo-chemical dynamics of the star they must study its light. Such are societies and their landscapes: in order to comprehend the origin and properties of the landscape, historians must know the society and to analyse society historians must study its landscape. In examining the Beauharnois landscape, I was in fact studying the entire Québec society.

Are environments profoundly reshaped by humans and, if they are, do landscapes really reveal much about human societies? The short answers are *yes* and *yes*. Human impact upon nature has enormously increased since we, as animals, have broken away from natural evolution and entered cultural evolution. All living beings look for and borrow energy from their environment. As such, all living beings are transforming agents of their ecosystems. In this regard, humans are no different from an ant colony or a beaver.

Individuals of our species borrow energy in various shapes (sugar, fat, heat, motion) to reproduce themselves. However, now that they are culturally driven entities, humans extract far more resources from their ecosystems because they need surpluses to accomplish social goals that answer purely to cultural dynamics. To build cities, temples, theatres, to have leisure time, to sustain artists and scientists, or to wage war on a neighbouring people, humans fundamentally reshape their environments to extract fantastic amounts of food and building material. This has been true for millennia, not decades. Thus, all human cultures extract far more energy than is needed for mere biological survival, and because the driving mechanism is sociocultural, these modified environments are cultural realities. They are landscapes.

When studying a landscape in detail, one is thus trying to understand how a society is organising the non-human world to channel energy into resources that humans know how to manipulate. Thus, simply by understanding which set of natural resources a society extracts from the environment, historians learn about its knowledge of nature, social goals, and division of labour. When historians find that a landscape holds traces of former natural resource extraction activity, we know that the society abandoned a former set of natural resources to favour a new one. This suggests major changes in the society. In sum, the more we learn about a landscape, the more we can read it as a source revealing the society that shaped it.

However, landscapes can be primary sources of limited help when trying to understand the social conflicts which preceded or accompanied a specific spatio-temporal

arrangement. A landscape can be an end-result: it might only reveal which social project prevailed at a given time and place, not necessarily why and how it prevailed. This is certainly the case with the Beauharnois case. One who is able to read the contemporary Beauharnois landscape today understands that heavy industrial development became at some point the preferred economic activity over agriculture, but the landscape does not reveal who promoted heavy industrial development in Québec, who remained indifferent to this new spatial arrangement, and who resisted it. In the absence of complementary historical sources, landscape analysis alone cannot reveal social resistance. Moreover, viewing the Comté de Beauharnois today gives little information on how these opposing forces shaped the transition from one landscape to the other.

2. Strengths and Limits of the Sources: The BLH&P Fonds and Secondary Literature

I turned to the BLH&P archives, a set of more traditional historical sources, to understand the social conflicts in the process of transition from a mostly rural environment to a mostly industrial one during the 1930s. The letters, memos, maps, plans, and newspaper clippings provide crucial insights into who promoted the project, why they did so, and the allies they sought to make sure that the project would become reality. These sources also reveal those that opposed the project and the strategies they deployed to make their voices heard.

The BLH&P archives are particularly rich for another reason: they hold a fantastic collection of photographs of the construction site that reveal the physical transformation of the landscape. It is almost as if we could travel back in time and take a walk in the Comté de Beauharnois while the power plant was being constructed. As such they form a direct testimony to a transformation from one spatial arrangement to another. I used a sample of these photographs in my thesis because they enable landscape analysis in the past as few other sources can. These photographs are reproduced in the appendices. I have tried as much as I could to respect the integrity of the source. The photographs themselves are at the centre of the appendix. They are smaller than the original photographs (these were all 8 ½ inches high and 11 inches wide) but they were digitised at high resolution to preserve as much visual information as possible. Above the photograph is the archival reference. This reference has two components, the “F” number and the “B” number. The “F” number refers to the photo dossier in the BLH&P fonds.

The “B” number refers to the identification of the photograph itself within each photo dossier. This number was originally hand-written at the lower right corner of the picture. The last three numbers of the “B” number is the date on which the photograph was taken. For example, Appendice 1 is labelled F2-700 012 B60-3-20-30. This means that this photograph was taken 20 March 1930, and is filed in photo dossier 700-012 of the F2 fonds. Below the photograph is the name of the photographer – when he was identified – followed by the legend that was hand-written or typed at the back of the original picture.

There are, of course, strengths, limits, and problems with using the Beauharnois fonds. Its greatest advantage lies in its capacity to document the changes in the landscape. The photographs are particularly striking in this regard. The attention of the photographer was usually on a construction activity (like a dragline at work)¹ or a construction result (such as a dyke)². Nevertheless, the wide angle needed to capture these activities means that the photos show the rural spatial organisation about to be transformed³ or the untouched rural landscape in the background. Thus, most photographs contain as much information about the spatial organisation before construction as they do about the new landscape dynamics that are being built. Most of them offer a voyage in time. The written sources of the fonds are similar time-travel machines. When a peasant writes to complain about problems created on his land by the power plant, he simultaneously informs us of a past situation (there was no problem there) and of his present one (now there is a problem).

¹ See picture F2-700 038 B165-6-12-30 (Appendix 5).

² See picture F2-700 085 B304-9-23-30 (Appendix 10).

³ See picture F2-700 085 B295-9-22-30 (Appendix 9).

That being said, it must be remembered that these sources were not constructed to document the society and landscape of Beauharnois before the arrival of the corporation. They hold historical data about the peasant county before 1929 only insofar as this passing reality interfered with the corporation's one goal: to maximise returns to the shareholders. The construction photos were taken to make future building operations more rapid and less costly. The protest case files were built in the hope of assuring victory in court and to prevent the payment of compensation to the Beauharnois inhabitants. The BLH&P executives were not interested in, for example, the local peasant road system for its own sake: but it does appear in the photos as it is being cut through by a dredge, and in letters from peasants complaining about destroyed or impassable roads. For these reasons, the corporate archives are silent on many aspects of the prior state of the land. They are most useful for understanding the transition from the former environment to the new industrial one. The irony, however, is that we would never have had these protest cases and the 10 000 photographs of the Beauharnois landscape had it not been for the BLH&P project. When used in conjunction with secondary literature, these corporate archives are a rich source about the world that preceded the industrial company's arrival in the region.

In this thesis, I use photographs to reconstruct the transformation of a specific landscape in the past, which I interpret as a local change in modes of production reflecting larger social trends. There is an in-depth discussion of this problem in Chapter 4, but at this stage, I think it pertinent to stress that this approach is, to my knowledge, unprecedented

in the historiography of environmental history. The few environmental historians of industrial societies who have used photographs studied them as bearers of discourse about nature. The BLH&P photographs could also have been analysed in this way, but I used them first and foremost as windows on former landscapes. I am fully aware that these windows are in part an interpretation of the Beauharnois landscape. I contend nevertheless that my critical analysis of these photographs provides fresh insights into landscape successions in the industrial area, and I encourage others to use this kind of source in this way.

One frustrating aspect of analysing the BLH&P fonds has been the scantiness of the secondary literature I used to contextualise my archival findings. Unfortunately, the history of the Québec rural world in the late 19th and early 20th centuries is not well developed. This means that some information on the rural history of Québec had to be gleaned from works that did not examine this field directly. Luckily, there are exceptions to the generalisation that the state of Post-Confederation Québec rural history is underdeveloped. One is the fantastic amount of research done by Gérard Bouchard's team concerning the Lac Saint-Jean region in Northern Québec. I often longed for more synthetic works, but it may be that larger integrative works will not emerge for some time. In 2001, for instance, two historical geographers published an historical atlas of Catholic parishes in Québec. The atlas was first planned as a synthesis of the evolution of this institution but the historiography, "en dépit d'important acquis, laissait trop de question non résolues ou de réponses incomplètes pour entreprendre une tâche aussi

ambitieuse”.⁴ In its stead, the work explores a series of themes relating to Catholic parishes.

In spite of the lacuna in the existing literature, rural historians generally agree on the following statement about the Québec rural world post-1850s: the social values and agricultural practices inherited from its non-capitalist origins changed very slowly until the Second World War. Prior to the 1850s, the Québec rural milieu was characterised by a peasant agriculture and the peasant class was the “economic backbone” of the entire French colonial society.⁵ It was a universe of poorer and richer but, by and large, the peasants owned their means of production and knew how to exploit them. They sold excess production to regional and international markets without organising all of their productive activity to satisfy exterior demands.⁶ By the beginning of the Great Depression, the proportion of cash crops and cash livestock had increased and small farms were quickly disappearing (because they were being purchased by peasants who already owned medium and large-size farms), but the techniques used were still largely traditional. Non-family labour employed on the farms was extremely marginal, multiple crop and livestock production was still the norm, confection of domestic goods was an important part of the household economy and – most importantly – producers made it a

⁴ Serge Courville and Normand Séguin “Présentations” in Serge Courville and Normand Séguin, *dir. Atlas historique du Québec. La paroisse* (Presses de l’Université Laval, 2001), 1.

⁵ John Dickinson, Brian Young, *A Short History of Quebec* (McGill – Queen’s University Press, 2003), 28.

⁶ Being linked to regional, state-wide, or international markets is not a fundamental criterion distinguishing capitalist agriculture from peasant agriculture. Peasants are always linked to exterior markets.

point of honour not to borrow from governments or banks in order to preserve their economic independence.

Based on these findings (which are fully discussed in chapter 2), I have chosen to call these early 20th century agricultural producers *peasants*, not *farmers*, in recognition of their beliefs that wealth should be created by independent producers, and to distinguish them from the universe of capitalist agriculture based on borrowing and market-oriented production. The conceptual distinction between a peasant and a farmer is thus that the first remains, and attempts to remain, mostly independent from capitalist financial institutions and food distributors while the farmer is not, or does not wish to be.⁷ This is not to say that Québec peasants were unaware of the fast capitalisation of all economic relations in Québec from the mid 19th century to the 1930s. In fact, the peasantry of the old country did try to adapt to this new economic system by partly changing production, but, at the same time, they also tried to maintain independence from capitalist financiers and distributors. The early years of the co-operative movement in the mid 1920s is a good indication of a conscious effort on the part of the peasants to adapt their world to the now dominating capitalist rules. Taking place at the very end of this period, the BLH&P episode shows how hard this adaptation was. The political and economic elites favoured first and foremost heavy industrial development, not the protection of the fertile

⁷ Two very stimulating works concerning conceptual frameworks for agricultural producers are, in the Canadian context : R. W. Sandwell, "Rural Reconstruction. Toward a New synthesis in Canadian History," *Histoire sociale – Social History*, Vol XXVII, no 53, (May 1994) and Gérard Bouchard *Quelques Apprentis d'Amérique. Population, économie, famille au Saguenay 1838-1971* (Boréal, 1996).

agricultural regions of Québec, such as the Comté de Beauharnois, nor the renewal of peasant type agriculture.

Another frustrating aspect of studying the BLH&P fonds is the limited political analysis it enables. The complaint files show that the local land-use conflicts caused by the arrival of the BLH&P hydroelectric and navigation canal were embedded in Québec and Canada-wide power contests. The BLH&P's legal charter was negotiated at the highest circles of Québec and federal political life. Many peasants called upon their provincial or federal members of parliament for help in opposing the corporation. All of these actors were entangled in fierce contests within political parties, between political parties, or between the provincial and federal levels of government. The sources unambiguously show the existence of these complex political battles but they do not permit one to study them in details. In my political analysis, I go as far as my sources enable me: I indicate the actors of the larger political scene with which the Beauharnois peasants and the hydroelectric entrepreneurs interacted, but I cannot provide a detailed analysis of these political dynamics. Doing this would have required the use of other primary sources and the development of other lines of analysis. However, I use the existing literature on Québec political life before the Second World War to explain the general political dynamics that stirred the revolution in modes of production exemplified by the BLH&P project.

3. Organisation

The central narrative of this thesis is organised around the chronological environmental transformation of the Comté de Beauharnois by the BLH&P during the 1930s and 1940s. This is done in order to illustrate the change in the dominating mode of production that occurred in this environment. Before beginning a historical analysis of this change, I take time in Chapter 1 to discuss my approach to environmental history. I propose that cultural analysis is crucial and that the use of the concept of “cultural landscape” provide fundamental insights into the Beauharnois episode.

Chapter 2 sets the long term background for the changes that occurred before the Second World War in Québec. This chapter is based essentially on secondary literature. It sketches a long term history of the Québec peasantry to show that this mode of production saw a deepening and finally fatal crisis from the 1850s to the 1930s. This crisis was intimately entangled with the advent of finance capitalism in North America. This chapter serves to illuminate the wider conflicts that accompanied and followed the construction of the BLH&P project in the rural Comté de Beauharnois.

Chapter 3 begins the analysis of the BLH&P episode *per se*. The analysis of the BLH&P lists of property titles, the local newspaper, and the construction reports show that the peasants did not wish to sell their land. This I have interpreted as an attachment to their landscape and their productive activity. In response, the financial and political elite behind the project orchestrated a ceremony to promote the finance capitalist worldviews that animated their hydroelectric and navigation canal. The central message of the

ceremony was that the independent rural producers of Beauharnois should enthusiastically become industrial workers, and give up control over their means of production. Locally, this propagandistic show of force was successful in convincing the farmers to sell. Also, the reasons explaining why the Beauharnois peasants received little political support from outside the Comté are explored. In sum, Chapter 3 shows how the social program of finance capitalism was successfully imposed on the Beauharnois peasant communities.

Chapter 4 analyses the transformation of the county which began after the transfer in landed property. This analysis in landscape transformation uses photographs, maps, and drawings to argue that the county was transformed into a predominantly industrial landscape, though elements of the former peasant landscape remained. Furthermore, I explore how the new landscape incarnated the environmental project of the finance capitalism: conservation. I argue that the conservation movement promoted the maximum exploitation of industrial natural resources and energies from all environments to the exclusion of other land uses.

Chapter 5 takes a close look at the communities that both witnessed and had to cope with the transforming landscapes. I focus on the peasants who remained in the county and explain how the ecological consequences of the canal and power plant rendered the perpetuation of peasant agriculture difficult. I analyse cases of political and judicial protest from peasants to understand their strategies to recover some of the power to shape the land in accordance with their methods of production. I conclude that their efforts met

mostly with failure and interpret this as a consequence of the fact that the Québec political elite and a growing segment of the popular classes supported the heavy industrial project of finance capitalism. In sum, the protest cases of the remaining peasants show that the new Beauharnois landscape from then on served heavy industrial goals first and that political elites agreed with this state of affairs.

In the conclusion, I briefly turn my attention to the long-term ecological consequences of the Beauharnois canal and power plant. Some of the most acute early local problems appear to have been partially remedied, but the hydroelectric infrastructure initiated the total regularisation of the Fleuve Saint-Laurent, which has caused enormous ecological damage. Finally, I take a look at the decades following the Beauharnois episode and further reflect on the meaning of this episode for the long term history of modes of production in Québec.

I must make a final comment about the narrative of this thesis. I do not discuss the Great Depression of the 1930s. The basic reason for this is that the construction of the BLH&P hydroelectric and navigation canal went ahead in spite of the economic crisis for reasons that would be too complex to address here. The plans did not change and the pace of the works did not slow down. Thus, the crisis had no effect on the revolution that occurred in this specific landscape. The history of BLH&P is intimately entangled with the history of the Depression in other respects but these will have to be studied elsewhere.

4. Linguistic Remarks

A few remarks must finally be added to explain the use of French words in the text. The Province de Québec and its historical antecedents⁸ has always been dominantly populated (75% and more) by the descendants of the French colonisers. The defining social and cultural traits of this territory have thus always been determined by this ethnic group, even though the change in colonial rule from the French Crown to the English one in 1763 diminished their political influence over the continent in the following two centuries. This Neo-European people gave names to the places they travelled through or lived in, and they developed unique cultural traits over the centuries. These cultural realities, of course, were given French names. It would thus be a strange history which would reconstruct the past of this society without referring to the names and concepts they used to give sense to their environmental realities. The names of places were therefore systematically given in French, even though an English version might have been used by the English speaking minorities of the province. The exception to this is when a name had originally been in English. As a general rule, the exact spelling of the place names was established through the databank of the Commission de toponymie du Gouvernement du Québec.⁹ Furthermore, words which in my view embody an

⁸ The Province de Québec is the contemporary descendent of the French colonial empire in North America. French colonisers essentially populated the Fleuve Saint-Laurent valley east of Lake Ontario from the early 17th century to the British Empire Conquest in the 1760s. This region was then called Lower Canada or Bas Canada from this change of colonial rule to the creation of the Canadian Confederation in 1867. The Canadian state was sub-divided in provinces. The French populated valley of the Saint-Laurent was named Province de Québec.

⁹ <http://www.toponymie.gouv.qc.ca/> Last visited in January 2004.

environmental reality specific to Québec are given in French. Its first appearance is in brackets, followed by a footnote which explains its historical significance. In subsequent occurrences, the word is written in italics.

CHAPTER 1: CULTURE AND THE HUMANITY OF LANDSCAPES

The Beauharnois Light Heat and Power hydroelectric canal brought major social and environmental changes to the Comté de Beauharnois. They will be studied by applying some of the main propositions of environmental history. Broadly defined, the field aims to understand “the human experience of the environment from the perspectives of history, liberal arts, and sciences”.¹ This chapter proposes that understanding the human experience of the construction of the BLH&P canal requires a cultural understanding of the environments surrounding us. This theoretical stance does not mean an abandonment of the empirical study of the ecological or the built environments. Quite to the contrary, it explains that these material dynamics are best understood with a cultural analysis. In sum, I propose that it is mainly cultural dynamics that move social changes, and that it is mainly social changes that drive transformations in human occupied environments. These human occupied environments will themselves be called *landscapes*. Linking all these changes is the concept of modes of production as put forward by environmental historians.

1. Propositions for a Culturally Oriented Environmental History

A major characteristic of humans is the very high degree to which cultural dynamics govern their actions. Biologist Cyrille Barrette remarks that this makes us fundamentally different from the other life forms we know. Barrette argues that humanity has broken

¹ American Association for Environmental History web site, <http://www2.h-net.msu.edu/~environ/ASEH/about.html>, visited on 26 June 2003.

away from the rest of the living world because it has ceased to be governed by evolution through natural selection. In comparison with the other living beings, we have become free and proactive with the emergence of our mind: “l’évolution culturelle occupe presque toute la place chez nous. L’évolution culturelle et technologique rend inutile, elle empêche même, dans une large mesure, l’évolution organique par sélection naturelle.”²

As philosopher Hannan Arendt argued long ago, cultural dynamics govern even the most material of human intervention in their environment. Actions upon the physical world are necessarily mediated through our personal experiences, the knowledge and values available to us and variously encoded in religion, myths, science, and class cultures. In Arendt’s words,

[A]ction and speech go on between men [...] and they retain their agent-revealing capacity even if their content is exclusively “objective”, concerned with the matters of the world of things [...], which physically lies between them and out of which arise their specific, objective, wordly interest. These interests constitute, in the word’s most literal significance, something which *inter-est*, which lies between people and therefore can relate them and bind them.³

Put differently, humans “disclose themselves as subjects, as distinct and unique persons” each time they express desire for an object.⁴ This is because the expression of a need for something (except, maybe, the most rudimentary means of survival) reflects an

² Cyrille Barrette, *Le miroir du monde. Évolution par sélection naturelle et mystère de la nature humaine* (Éditions Multimonde, 2000), p. 239.

³ Hannah Arendt, *The Human Condition* (University of Chicago Press, 1989. First published in 1958),.182.

⁴ Arendt, *The Human Condition*... p.183.

individual's knowledge, values, symbolic representations of the world, and aesthetic leanings. For example, a few engineers looked at the Fleuve Saint-Laurent next the Comté de Beauharnois in 1926 and they imagined the biggest hydroelectric power plant in North America. At the very same moment, a peasant may have bought a farm next to the river thinking how easy it would be to water his herd. Is the first project more objective than the second? Is there a mystical nature in the river that calls for one or the other project? Of course not. These are different projects, based on different class cultures, hopes and technical know-how, and each casts its specific reality on the environment. An individual reveals to the others his subjective and psychological reality when she says what she wants from her environment. Deciding what is a natural resource, how that natural resource will be used, what constitutes the best food, what is worth trading for, what is a reasonable salary: these are all exercises revealing an individual's personal beliefs and preferences. Economic and environmental actions are therefore necessarily embedded in culture.

My interpretation of environmental history's propositions is built upon the understanding that humans are culturally driven animals. Cultural phenomena such as values, knowledge, and spiritual beliefs are seen as the primary causes of the transformations in the human occupied environment. Social dynamics bridge the fundamental causes (cultural phenomenon) to the result (transformed environments) by selecting, through power contests, specific sets of ideas about the interaction between the human and the natural world. As a result, transformed environments are described in this thesis as *landscapes* to recognise the degree to which they reflect cultural phenomena. Finally, my

project for a culturally informed environmental history links sets of ideas about the world and their associated social dynamics and landscapes with the concept of “modes of production”. However, modes of production are not defined as mutually exclusive within societies. They can coexist or compete within the same society. The rest of this chapter will explain these propositions in further detail.

2. Consequences of this orientation

If it is recognised that culture is crucial to understand change in human occupied environments, the first consequence is that humans are the most dynamic *actors* in our stories. Following Arendt, research should thus begin conceptually⁵ with the knowledge that changes in the human-nature relationship are the emergent properties of the millions of persons saying to (i) *the preexisting web of relationships* (ii) *who* they are and (iii) *what* they intend to do in this world.⁶ This preexisting web is the totality of human societies.

Particularly important to environmental history is how these societies are organised to interact with nature. My research will thus look into the economic and environmental projects that guided the different groups of people involved in the Beauharnois transformation, namely Quebec peasants, economic elites, and politicians. However,

⁵ Not necessarily empirically; one can focus on sampling and study of bacteria in the soil and still acknowledge that these bacteria live within the parameters set by human activity on this very soil.

⁶ Arendt, *The Human Condition...* (respectively) 184, 178, and 200.

some of these projects about the Beauharnois environments were fundamentally incompatible. The fact that some environmental projects prevailed while others were subordinated was the result of power dynamics between the actors.

Thus, a cultural analysis also requires the study of power relations because these determine which set of ideas, values, and knowledge guide the organisation of the human-nature relationship at a specific place and time. The necessity to study power relations in environmental change is the second consequence of my cultural standpoint. Consequently, laws, judicial institutions, political institutions, and political dynamics will receive a sustained attention.

There are many approaches to power relations in society and some are more useful than others in the study of human interaction with nature. However, one approach to power relation systems has proven to be most fruitful to understand human experience of the environment: *modes of production*. The notion of mode of production describes how societies organise labour, social classes and technologies to exploit nature and to create surpluses out of it. Authors such as Donald Worster and Carolyn Merchant have proposed that the concept of modes of production be a major tool of environmental history research.⁷

⁷ In his analysis of the use of water in the American West, Worster distinguishes three successive modes of production in hydraulic society: the *local subsistence mode*; the *agrarian state mode*; and the *capitalist state mode*. See Donald Worster, *Rivers of Empire. Water, Aridity, and the Growth of the American West* (Pantheon Books, 1985), 22-60. Merchant offers a similar three-part historical reconstruction by dividing

I will emphasise, within this framework, how cultural dynamics are central elements of the modes of production analysis. Keeping Barrett's and Arentd's propositions in mind, I will pay attention to the way by which ideas drive economic and environmental decisions. As such, the working definition I will use in this thesis is that a mode of production is the organisation of a society and its associated ecosystem by ideas of how to create wealth from nature and how to distribute it among humans. My central discussion of this concept will come in the next chapter.

What is also important to notice now is modes of production are not mutually exclusive during a given period of time. Indeed, the environmental history of the Beauharnois episode requires that we see *capitalism* and *peasantry* as competing modes of production in the shaping of society and environment in the Comté de Beauharnois. The actors I will be looking at — male and female peasant heads of household, widowed peasants, engineers, rich entrepreneurs, politicians — were involved in the class systems of these competing modes of production.

The final consequence of the cultural approach I use in this thesis is that human occupied environments are mainly reflections of the cultural and social patterns of a society. Their specific shape is made to answer the dominant ideas of what nature should be; that is,

the different society/nature symbiotic regimes in New-England into three categories: the native American society; the preindustrial society; and the industrial society. See Carolyn Merchant, *Ecological Revolutions: Nature, Gender, and Science In New England* (University of North Carolina Press, 1989), p. 24-25.

human environments are modelled to serve social projects in general and productive activities in particular. I use the term *landscapes* to describe these human occupied environments. The description of human environments as landscapes has many implications and the next sections are entirely dedicated to these.

3. Cultural Landscapes

A culturally oriented environmental history is not about abandoning the study of physical environments. Rather, it proposes that the human transformations of ecosystems can only be understood as a consequence of culture-driven social evolutions, and that socially induced ecological changes, along with natural ones, will themselves be interpreted through culture.

Beyond the fact that human actions upon the environment are governed by cultural dynamics, we must also recognise that few landscapes on Earth are truly wild, or untouched by humans. One way to conceptually deal with natural environments that reflect our cultural societies to a great extent is to describe these environments as *cultural landscapes*.⁸ This concept enables scholars to see how a great many ecosystems have

⁸ The *cultural landscape* concept is but one notion within a complex cluster of related ones such as *culture*, *cultural area*, *colonization*, *modernization*, *cultural ecology*, *political ecology*, *social construction*, *representation*, *power*. Cultural landscape is “a principal object of cultural geography”. The American geographer Carl Sauer proposed its classic definition in 1925: “The cultural landscape is fashioned by a cultural group. Culture is the agent, the natural area the medium, the cultural landscape the result”. Sauer’s aim was to counter the then-prevalent environmental determinism which denied human agency. Denis

been shaped through time by successive human land-uses. This approach warns researchers that stark dichotomies between natural and artificial environments are misleading and that ecological successions have been influenced by human activity for millennia.

The concept of *cultural landscape* (referred to in the rest of this thesis by the word *landscape*) has stemmed from a growing awareness that “the borderline between cultivation and nature had, perhaps, been wrongly placed. Man’s influence was wider and subtler than originally thought, and the landscape in general was far from being unadulterated nature.[...] In the end, it was realized that [...] a virgin landscape was a fiction”. Three aspects of *landscape* are important to stress at this point. First, nature in *landscapes* can be profoundly altered by humans. For example, researches now acknowledge that in Scandinavia “[w]ith small and doubtful exceptions all vegetation types were created or modified by humans”. Second, the transformation of nature has been going on for a very long time. Pollen analysis, plant ecology and prehistoric archeology have all demonstrated that humans have been reorganizing nature for millennia. Finally, and as a consequence of these two propositions, “[t]he ‘natural’ landscapes of preceding generations are now understood for what they really are: relics of earlier types of land-use [...]”⁹.

Cosgrove, “Cultural landscape”, in R.J. Johnston, Derek Gregory, Geraldine Pratt & Michael Watts, *The Dictionary of Human Geography*, (Blackwell Publisher, 2000), 138, 139.

⁹ Hilary H. Birks, H.J.B. Birks, Peter Emil Kaland, *The Cultural Landscape. Past, Present and Future* (Cambridge University Press, 1988), 1,2.

Two conclusions follow this understanding of nature. The first is that landscapes are a reflection of culturally-driven societies. Of course, everyone can recognise a farm, in a rural landscape, as a human artefact, but human imprint on the environment goes far beyond the obvious built environment. The Scandinavian example I mentioned shows that the entire pool of plant species in this country – even the apparently wild ones – is the result of human activity. The implication is that when, as environment historians, we study a specific landscape, the basic assumption should be that even apparently wild patches of nature may in fact reflect former human use of these ecosystems rather than virgin natural dynamics.

The second consequence of this understanding of nature is that environmental history becomes a much more *archaeological* enterprise than an approach that sets up a dualism between wildness and artifice. A substantial and ever growing part of nature is the result of cultural activities, and because cultures have changed so frequently, cultural landscapes have succeeded one another like geological strata piled atop each other through time. However, in stark contrast to geological dynamics, cultural landscapes pile up infinitely faster and former landscapes leave much lighter and scarcer traces of their existence. In particular, the new landscapes of industrial societies have superseded former landscapes at a speed probably unprecedented in human environmental history. The use of heavy machinery, aerial pesticides and herbicides, or artillery barrage can completely reshape an entire region within hours.

Both characteristics of cultural landscapes (the depth of human impact in their environment and the numerous succession of landscapes over time) are the result of fast-changing culturally driven societies. If a society abandons agriculture in a region, meadow landscapes can revert to forest landscapes in one or two human generations, as naturalist and philosopher Henry David Thoreau witnessed in 19th century New England.¹⁰ Also crucial to note at this point, is that each cultural landscape is partially structured by its predecessor as has been pointed out by ecologist and environmental historian David R. Foster. Today's forests in New England are still partially shaped by the physical remnants left by long-gone farmers (such as stone walls)¹¹. Foster's relativist, archaeological approach to the succession of landscapes will be important for this thesis because my case study – the Comté de Beauharnois – was in no way wilderness before the arrival of large hydroelectric industrialisation. However, the speed at which landscapes change also calls for the use of sources that reveal this invisible cultural geology. In particular (and as I will show in chapter 4) sources like photographs should be used to reconstruct recent but now hardly noticeable revolutions in the landscape.

Seeing cultural landscapes in such a diachronic perspective should not lead to the conception of a universal linear process of growing human impact on nature, from lightly culturalised landscapes to utterly artificial environments. Human imposition of cultural

¹⁰ David R. Foster, *Thoreau's Country : Journey Through a Transformed Landscape* (Harvard University Press, 1999), 122-133.

systems on nature can grow or decrease in importance within a region. Once again, New England provides a good example. Although its contemporary forests are shaped both by past human activities and contemporary leisure and timber practices, this landscape has nevertheless reverted, because of human choices, to a regime in which nature's autonomous dynamics have more weight. However, it must be noted that the specific version of a supposedly more wild nature is a reflection of an American bourgeoisie's conception of what nature should look like.¹² Moreover, two technologically similar societies can decide to have very different impacts on nature based on different values about the correct or moral way to exploit nature. Finally, a highly technologically complex society can choose to let an ecosystem develop with little outside interference, or to protect particular species.

One could argue that the concept of cultural landscape is useful for a continent such as Europe, where humans have had such a diachronically and demographically important impact, but that it is far less relevant to continents, such as the Americas or Australia, in which 'wildlife' has been preeminent until quite recently. There could be some truth in this claim, but we must make sure that it does not rest on a mythical understanding of pre-European occupation of these regions or an underestimation of how many successive land-uses have already been applied to those territories since the arrival of the European conquerors.

¹¹ Foster, *Thoreau's Country...* 12

¹² Karl Jacoby, "Class and Environmental History. Lessons From the War in the Adirondacks", *Environmental History*, Vol. 2, no 3 (July 1997): 340-342

Indeed, anthropologists and archaeologists of North America have documented how much pre-Columbian civilisations transformed nature in order to cultivate crops, to fish, or to hunt big game.¹³ Concerning Australia, a case has been made that aboriginal societies had a profound ecological impact through their use of large-scale bush fires.¹⁴ Moreover, many North American landscapes have already experienced very different cultural regimes. A well documented example of this is New England , where humans have imposed at least three different kinds of cultural landscapes since the 16th century. As ecologist David R. Foster recently argued, few landscapes in the United States can be considered truly wild. Most regions of the country have been profoundly shaped by cultural activity, although some of them may look wild to the ecologically untrained and a-historical eye.¹⁵

More broadly speaking, even if there were still some patches of untouched nature half a century ago, it appears doubtful that *any* part of the Earth could now be considered free from cultural reshaping. Human impact has now become global in such respects as, to name only one, the composition and dynamics of our atmosphere.¹⁶

¹³ Shepard Krech III., *The Ecological Indian. Myth and History* (W.W. Norton & Company, 1999), 76, 211-212.

¹⁴ Stephen J. Pyne, *World Fire: the Culture of Fire on Earth* (Henry Holt Books, 1995), 29-34, 303-308.

¹⁵ Foster, *Thoreau's Country...* 213.

¹⁶ Intergovernmental Panel on Climate Change, *Summary for Policymaker; A Report of Working Group I of the Intergovernmental Panel on Climate Change*, (World Meteorological Organization (WMO) and

Landscapes are still composed of natural dynamics that are autonomous. Thus, even if landscapes only make sense if one looks into the cultures that created them, they can nevertheless evolve in directions which had not been wished by these cultures, if only because humans never totally understand the natural dynamics of their environment.¹⁷

To visualise the relationship between culture and nature, one can compare them to a mayonnaise. A mayonnaise is composed of two radically different and insoluble elements: oil and water. Mixed at the right speed and with the exact proportions, these separate things become a third entirely different (and delicious) thing. However, mayonnaise is very fragile. If one forgets the mayonnaise under the sun during a garden party, the water and oil will separate again and one is left with an unpalatable mixture of eggs, floating oil bubbles, and vinegar. In the case of landscapes, no exterior force is whipping the ingredients: culture and nature. Culturally-driven humans are mixing themselves into their surrounding nature creating environmental realities – landscapes – in which nature retains some of its fundamental dynamics but which final appearance is shaped by culture. However, landscapes too are fragile. As long as the landscape holds, it looks solid to societies living in it. But a prolonged socioenvironmental crisis (such as a demographic explosion, or a class driven industrial exploitation of nature) can break down the landscapes. In the conclusion I will explain that the Fleuve Saint-Laurent is presently breaking down: many recent biological studies show that the ecosystems of the

United Nations Environment Program (UNEP), 2001).

¹⁷ Landscapes can also evolve in unforeseen directions because of unintended effects of laws and policies.

river are collapsing because of the very kind of physical transformations brought by the Beauharnois Light Heat and Power hydroelectric canal.

To summarise, people have been reshaping Earth's ecosystems for a very long time, a fact now easily forgotten because "the acceleration of environmental transformations blinds us to their antiquity" as cultural geographer David Lowenthal has noted.¹⁸ If humans have been modifying nature on such a large scale and for such a long time, the notion of a virgin nature (a notion that is also encompassed by such names as wildlife or nature) from which historians could measure the impact of human influence on life appears problematic. In the absence of any absolute with which to compare the human power to transform non-cultural life, I propose that historians use a comparative approach, in which study of different land-uses over different times mutually enlighten their inner dynamics and ecological consequences. Also, this relativist stance calls for a gradual scale when classifying environments in regard to their human impact. Although it seems quite reasonable to qualify downtown New York as an artificial environment and the Northern Polar Cap as a wild one, there is no contradiction in also seeing the two environments as two extremes of the same scale of human impact. After all, New Yorkers still have to deal with the living world through cockroaches and the weather, while the accumulation of pesticides in sea mammals now encloses the North Pole under cultural

¹⁸ This remark by Lowenthal was first published in William L. Thomas Jr. ed, *Man's Role in Changing the Face of the Earth* (Chicago University Press, 1956), quoted in Krech III, , *The Ecological Indian...* p 98. It should be noted that William L. Thomas's book is a landmark of cultural geography. The book emerged from a conference in which Sauer was the "guiding spirit" (Denis Cosgrove, "Cultural geography ... p 135)

influence.

These remarks are especially important for the case studied in this thesis. The Beauharnois canal was not built in a wild region; it was built over a densely occupied peasant landscape. Environmental historians cannot, therefore, use a polarised imagery of virgin and soiled nature in comparing the successive states of the Beauharnois environment in the 1930s and after.

4. Can Landscapes be Viewed Separately from Humans?

Through the ages, human beings have apparently always sought to unite with their non-human environments, re-making the latter in their own image. Since most landscapes on Earth have now been reshaped by technological power, it seems that this wish has been attained, albeit in a deeply disturbing way. Today's specific kind of reshaping of the non-human world is, for good reasons, highly contested in many quarters, and environmental history is part of that critique. On a purely anthropocentric level, it is certain that today's dominant industrialist capitalist mode of production is not ecologically sustainable; if nothing changes, humans might very well find themselves without enough food, clean air and water. Moreover, today's massive disequilibrium in resources among humans, overuse of conscious animals to feed ourselves, and destruction of highly complex and beautiful ecosystems and species puts into question just how far our species can evolve aesthetically and ethically. But it is questionable whether nature on Earth could ever return to a stage of wildness. This is because evolution could hardly revert to a purely natural selective process. Humans, by their sheer presence and by their ethical and

aesthetic choices (even if guided by universal justice and love for all living beings) will undoubtedly impose cultural boundaries on life processes. The question, in the end, is not whether we must know and shape life on this planet, it is rather morally why and scientifically how we are going to do this.

CHAPTER 2: PEASANTS AND CAPITALISTS: THE COHABITATION,
COMPETITION, AND DECLINE OF MODES OF PRODUCTION IN QUÉBEC, 19TH-
20TH CENTURIES

1. Introduction

In the first chapter I have explained why a cultural analysis is crucial to understand the Beauharnois episode. The next step is to provide historically situated theses which encompass in broad terms the sociocultural dynamics that are driving the modifications in the living world or shaping the reactions to changes in it. In the context of this thesis, the peasant origins of the Québec society and landscape, and the finance capitalist revolution are central to understanding the environmental change brought about by the construction of the Beauharnois hydroelectric and navigation canal between 1929 and 1948. I treat this case as a revealing example of a revolution in modes of production, that is to say a fundamental change in the *dominating* representations and power dynamics that forced the reorganisation of class and environmental relations in Beauharnois. In light of the former reflection on modes of production, however, I stress that capitalism never completely dominated Québec society. It was always contested and, for the case under study, it coexisted with a peasant mode of production.

I have explained in the preceding chapter that societies' modes of production are a central element of study for environmental historians.¹ Following Marx and Engels, Donald

¹ In addition to the texts mentioned, see also Donald Worster, *Rivers of Empire. Water, Aridity, and the Growth of the American West*, Pantheon Books, 1985, p.22-60. Donald Worster, "Toward an

Worster and Carolyn Merchant have put forward that each mode of production reveals how wealth is created and then distributed throughout society.² To this largely economic conceptualisation, environmental historians add that modes of production are also intricately linked to the ecology of human environments, since wealth is created either from the gathering and transformation of natural products – energies socially seen as natural resources – or from the full-time work of scribes, artisans, political leaders, poets, and mathematicians; who, thanks to agricultural surplus, do not worry daily about gathering food. A mode of production is therefore a theoretical middle term linking natural environments and human's uniquely culturally driven evolution. It tries to link in one analytical framework societies' ethical and aesthetical aims, their power structures and their relations with the natural world.

I have also argued earlier that it is important to recognise that modes of production are not necessarily mutually exclusive. One can often find a dominating mode of production in a given society – meaning either that a mode of production is actively promoted by the most powerful class of a society or that most of the material and cultural surplus created in this society is the result of one specific arrangement of landscapes, techniques, working organisation, and values – but this does not lead to the conclusion that *only*

Agroecological Perspective in History” *The Journal of American History*, Vol 76, no 4 (March 1990), p. 1090. This number has a round table on environmental history.

² Carolyn Merchant, *Ecological Revolutions: Nature, Gender, and Science In New England* (University of North Carolina Press, 1989), 3-4. Donald Worster, “Doing Environmental History” in Chad Gaffield and Pam Gaffield ed., *Consuming Canada. Readings in Environmental History* (Copp Clark Ltd , 1995), 22-30.

modes of production shape society, nor that a dominant mode of production necessarily obliterates alternate, competing, or contesting productive systems.

A classic study of competition in economic logics – or clashes in *moral economies* – is E. P. Thomson’s study of the rebellions in the 18th century Windsor Forest.³ More recently, environmental historian Karl Jacoby reconstituted the non-capitalist ways of relating to the New England forests of marginal rural communities in late 19th century.⁴ These communities tried to resist the capitalist and conservationist programs of the urban high bourgeoisie that colonised the forests from the mid-19th century on. Inspired by Thompson, Jacoby describes these alternate systems of relations to nature as competing *moral ecologies*. This interpretation of the concept of mode of production is also essential to understanding Québec during the 19th and 20th centuries. If capitalism grew a firm grip on its economy during this period, alternate peasant economies persisted for most of this era. At the very least, historians of Québec recognise that “la civilisation traditionnelle du monde rural évolue à son rythme propre”⁵ during the 19th century. Going beyond the statement that the Québec rural world might evolve at a different pace than the urban universe, some researchers have recently proposed new analysis to understand the inner

³ E. P. Thompson, *Whigs and Hunters. The Origins of the Black Act* (Peregrin Books, 1977).

⁴ Karl Jacoby, “Class and Environmental History. Lessons From the War in the Adirondacks”, *Environmental History*, 2, 3 (1997) : 324-342; and *Crimes against Nature. Squatters, Poachers, Thieves and the Hidden History of American Conservation* (University of California Press, 2003).

⁵ Paul-André Linteau, René Durocher and Jean-Claude Robert. *Histoire du Québec contemporain. Tome I. De la Confédération à la crise (1867-1929)* (Boréal, 1989), 76.

logic, values, world view, and economy of Québec peasantry before the Second World War.⁶

One last comment is necessary before turning to class structure in Québec in the early 20th century. Environmental historian Carolyn Merchant has forcefully and convincingly argued that the thorough study of modes of production requires the understanding of women in particular and gender relations in general. This means, for example, that truly understanding pre-Columbian and early colonial New England's environmental history depends on the careful study of women's complex artisanal, gathering and agrarian activities.⁷ I had hoped to make Merchant's propositions a central aspect of my thesis. Unfortunately, I eventually realised that the BLH&P corporate archives, my main primary sources, did not enabled me to study the evolution of women's role in the Comté de Beauharnois during its transformation to hydroelectricity production. Nevertheless, my sources sometimes reveal glimpses of information about the experience of Beauharnois women. Many of these findings are integrated in my thesis. I did considerable research in the secondary literature to contextualise these but, for lack of

⁶ Gérard Bouchard, *Quelques Arpents d'Amérique. Population, Économie, famille au Saguenay 1838-1971* (Boréal, 1996); Christiane Montpetit, "D' "habitant" sédentaire à émigrant. Migration, Économie et transformations agricoles À Saint-Louis de Gonzague (1861-1931)", Doctoral Thesis in Anthropology, (Université de Montréal, 2000).

⁷ Her classic book in which gender is fully integrated into environmental history analysis is *Ecological Revolutions. Nature, Gender, and Science In New England* (University of North Carolina Press, 1989). On the integration of women and gender analysis in the narrative of environmental history, see the

research in other types of sources, I can only offer informed questions about the meaning of these archival findings.

2. General Characteristics of Capitalism

Before introducing the revolution in modes of production occurring in Québec during the 19th and 20th centuries, I will explore briefly general characteristics of capitalism. This will provide me with very useful notions and questions to analyse the BLH&P archives. Capitalism has been an ever more dominating mode of production in the European and Neo-European countries since the early 19th century. Meghnad Desai⁸ proposes six criteria to characterise it. These are, in his words:

introduction, chapter 3, and chapter 7.

⁸ Meghnad Desai, "Capitalism" in Tom Bottomore ed., *A Dictionary of Marxist Thought* (Blackwell Reference, 2001), 71-75.

- a) Production for sale rather than own use by numerous producers: this contrasts with simple commodity production...
- b) A market where labour power is bought and sold, the mode of exchange being money wages ...
- c) Predominant if not universal mediation of exchange by use of money. In taking the money form, capital permits the maximum flexibility to its owner for redeployment. This aspect also gives a systematic role to banks and financial intermediaries ...
- d) The capitalist or his managerial agent controls the production (labour) process. This implies control not only over hiring and firing workers but also over the choices of techniques, the output mix, the work environment and the arrangement for selling the output...
- e) Control of financial decisions: the universal use of money and credit facilitates the use of other people's resources to finance accumulation. ... This implies the power of the capitalist entrepreneur to incur debts or float shares or mortgage the factory buildings to raise finance ...
- f) Competition between capitals: the control of individual capitalists over the labour process and over the financial structure is modified by its constant operation in an environment of competition with other capitals either producing the same commodity or a near substitute or just fighting for markets or loans ... Competition is to be interpreted broadly, and not narrowly as the perfect competition of neo-classical economics which is more likely in simple commodity production. It is competition which strengthens the tendency toward concentration of capital in large firms. It is to neutralise competition that monopolies and cartels emerge.

Socialist historians have also identified different historical stages of capitalism. For example, a chronology frequently referred to is the appearance of *merchant capitalism*, which mutated into *industrial capitalism* with the introduction of steam and then electric motors into factories, and finally followed by *monopoly* or *finance capitalism* with the growing influence of banks and shareholders in the decision making process of industrial sectors.⁹

⁹ Meghnad Desai, "Capitalism... p.75.

Desai's definition of capitalism lays the bases for the explanation of its appearance and perpetuation. This mode of production took a predominant place in Western societies from the 19th century for two reasons. First, economic surpluses in the form of money are easy to accumulate. Second, this accumulation took place mostly in financial institutions controlled by the elite. The elite were therefore able to channel capital (usually in the form of credit) to entrepreneurs belonging to their class.

In addition to Desai's thinking and in light of my earlier discussion of environmental history, I suggest the meaning of *surplus* is two-fold for humans. On the one hand, it describes the strategies and techniques of human societies to gather food and material surpluses, minus the entropic impact (the disorganising factor) of this activity in the ecosystems. On the other hand, it designates the cultural surpluses of a society created from the food and material surpluses in relation to its social distribution. Cultural surpluses, or wealth, are either culturally-enriched material (a refined meal, a sculpture, or a computer) or spare time to allocate to non-survival activities (leisure time with friends, erotic intercourse, prayers, writing, politics). The wealthy individuals of a society are therefore those who managed to use the most of the cultural surpluses collectively created.

Wealth has become more easily and quickly exchangeable since the dominant use of money in the modern era. Wealth is still a collective phenomenon as almost no economic activity can be performed by a single person, but the need for *a systematic role for banks and financial intermediaries*, in Desai's words, has meant, up to now, that a small class

of financial experts and large capital owners became capable of diverting, to their great advantage, the flows of wealth. Capitalist entrepreneurs' peculiar strength is not so much their personal fortunes (although that is part of it) but their capacity to borrow large sums of capital to realise projects which suit their personal and class interests. These borrowed sums, it must be noted, were taken from a capital market which, to this day, is mostly composed of the combined wealth of small savers and of government loans. The capitalist class is therefore the one that has privileged access to the capital market.

But the notion of class implies more than an economic state (being rich) or a technical know-how (borrowing on the capital market). It also describes a consciousness of common interests and a common culture. As such capitalists are not only acting in their private, individual interest. As soon as competition becomes too costly, manipulators of capital (large shareholders, bankers, and brokers) look for mergers which ensure benefits while considerably reducing risks inherent in lasting competition. The competition of first stage capitalism is then quickly turned into monopoly formation. From this tendency toward monopoly can be deduced that a strong class consciousness exists among the capitalist class. This period of monopoly formation in capitalism is generally referred to by the name finance capitalism.

3. Class Structure in Québec, 1920-1940

Capitalism in Québec during the early 20th century had reached the finance stage. Monopolies in public utilities, backed by the most powerful financial institutions of the

British Empire and the United States, were being created in every region of Québec.¹⁰ Nevertheless, the economic history of the province was more complex than the sheer rise of capitalism as the dominant mode of production. In order to do justice to this complexity and later to understand the meaning of the BLH&P episode in the 1920s and 1930s, the long-term cultural and economic background of Québec must be briefly discussed.

Most French-speaking Quebecers descended from the 17th and 18th society of New France, a North American colonial society which was certainly pre-industrial if not entirely pre-capitalist. New France's peasants, which came to form the economic and cultural base of this society, were not exclusively tillers of the soil. Most of them also participated in trading and war expeditions all across the continent. As militia for the King or independent fur traders, they were known from Newfoundland to the Mississippi Valley to the Pacific coast. These occupations were certainly part of a consolidating capitalist world economy. However, according to Dickinson and Young, "the economic backbone of this society was the peasant household". These peasants "controlled their

¹⁰ The most important work on the history of monopoly formation in public utilities companies in Canada is Christopher Armstrong and H.V. Nelles, *Monopoly's Moment: The Organization and Regulation of Canadian Utilities 1830-1930* (University of Toronto Press, 1988). For more precision on how this pattern unfolded in Québec, consult John Dickinson, Brian Young, *A Short History of Quebec* (McGill - Queen University Press, 2003) or Paul-André Linteau, René Durocher and Jean-Claude Robert. *Histoire du Québec contemporain. Tome I. De la Confédération à la crise (1867-1929)* (Boréal, 1989).

own land” and “production was centred on the family unit”.¹¹ As such, their mode of production was that of the *peasantry* because they were essentially independent from the markets of capital or the centralised financial institutions, two paramount elements of the capitalist mode of production.

Did this peasant mode of production perpetuate itself up until the 19th and 20th centuries? If, for the moment, we focus on the countryside and ignore the urban population of Québec (which becomes predominant somewhere in the late 1910s), a qualified *yes* is the answer. Even though the literature on rural Québec in the late 19th century and early 20th century is scant, historians who have worked on this subject conclude that the Québec peasantry and its related rural society made few concessions to capitalist agriculture before the Second World War.¹²

¹¹ John Dickinson, Brian Young, *A Short History of Quebec* (McGill -Queen University Press, 2003), 28, 29.

¹² “Convenons donc que cette longue évolution de l’agriculture québécoise, depuis *grosso modo* le premier tiers du 19^e siècle, s’est écoulée sans grands à-coups. Au tournant des années 1950, les grandes perturbations sont à venir.” (Claude Boudreau, Serge Courville, Normand Séguin ed. *Atlas Historique du Québec. Le territoire* (Archives nationale du Québec - Presses de l’Université Laval, 1997), 61) Speaking of the peasants in the 1920’s, historian Jacques Saint-Pierre says that “... la majorité participent à l’économie de marché sans renoncer pour autant au modèle plus traditionnel.” (*Histoire de la Coopérative fédérée. L’industrie de la terre* (Presses de l’Université Laval - Éditions de l’IQRC, 1997), 43.) Jean-Pierre Kesterman, Guy Boisclair, and Jean-Marc speak of a rural world which remained “encore très traditionnel et individualiste” in 1925-1929.” (*Histoire du syndicalisme agricole au Québec, UCC-UPA 1924-1984*, (Boréal Express, 1984), 85) In sum, while no one supports the idea that Québec agricultural producers were

This is not to deny regional differences within the Saint-Laurent countryside, adaptations in crop or cattle production, or even the introduction of some industrial machinery in a small segment of the peasants' households.¹³ But traditional world views, spiritual life, reproductive practices and – most importantly – a strong belief that a rural household should manage by itself and a staunch defiance towards financial institutions and economic intermediaries (such as food distributors) seem to have endured with few fundamental changes until the 1920s in the Québec countryside. That resilience could be partially explained by the patterns of population growth in Québec. The exceptionally fast population growth of French-speaking Québec from the British Conquest to 1960 originated almost uniquely from high fecundity and rate of marriage, not immigration.¹⁴ This means that peasant familial values could be more easily transmitted from generation to generation in Québec since few people from outside the society could introduce alternative modes of life.

fully part of the capitalist universe of values, strategies, and institutions before the Second World War, few historians after 1945 have tried to describe and substantiate further the *moral economy* of which they were part.

¹³ On these evolutions, one should consult the *Atlas historique du Québec. Le pays laurentien au XIXe siècle. Les morphologies de base*, by Serge Courville, Jean-Claude Robert and Normand Séguin (Presses de l'Université Laval, 1995).

¹⁴ John Dickinson, Brian Young, *A Short History of Quebec* (McGill-Queen University Press, 2003), 110, 202; Gérard Bouchard, *Quelques Arpents d'Amérique. Population, Économie, famille au Saguenay 1838-1971* (Boréal, 1996), 460.

That being said, the perpetuation over centuries of peasant-type agriculture in many regions of North America might be more common than previously thought. This would be especially true, as has been suggested by Gérard Bouchard, in environments that were characterised by an availability of land and little requirements for capital to start crop production.¹⁵ Indeed, a growing literature is questioning the assumption that rural capitalism grew roots easily and quickly all across the United States and Canada. As Kenneth Michael Sylvester recently said in his studies of Manitoba, the emerging portrait is that in many North-American regions “the non-capitalist, informal dimensions of agricultural life continued to exist and take new forms even as the wider society was enveloped in capitalist social relations”.¹⁶ The conclusion to draw, then, is not that it would be surprising to find peasants in Québec in the 1920s and 1930s but that they should rather be thought of as one specific articulation of a larger continental resilience of non-capitalist social relations in the rural world before the Great Depression.¹⁷

For the sake of this analysis, two major aspects of early 20th century Québec economy and society emerge from the secondary literature. First, the dominant mode of production, in Québec as elsewhere in North America, was by then capitalism. Indeed,

¹⁵ Bouchard, *Quelques Arpents d'Amérique...* p. 331.

¹⁶ Kenneth Michael Sylvester *The Limits of Rural Capitalism. Family, Culture and Markets in Montcalm, Manitoba, 1870-1940* (University of Toronto Press, 2001), 8.

¹⁷ The most interesting and historiographically encompassing work on this problematic in the Canadian context is R. W. Sandwell, “Rural Reconstruction. Toward a New Synthesis in Canadian History”, *Histoire sociale - Social History* Vol XXVII, no 53, (May 1994) : 1-32.

the majority of the wealth created by the working people and the natural resources of the province was re-injected into an industrial growth benefiting an always smaller class of voting shareholders.¹⁸ Some of these individuals lived in Québec, others lived outside (such as in Toronto, New York or London - UK), but they were all part of a thriving international capitalist class that drew from the world markets of capital to finance its projects. Québec's French-speaking elites were neither unaware of nor indifferent to these facts. Many of them actively supported these capitalists by acting as intermediaries between them and the Québec population. In particular, they facilitated many of the capitalists' projects by putting in place a political and legal environment which made possible the realisation of these capitalist projects.¹⁹

Second, a peasant mode of production cohabited alongside capitalism in rural Québec up until the 1930s. As I have just explained, this rural way of life made few concessions to capitalism before the Second World War. Social scientists Gérard Bouchard and Christiane Montpetit have recently provided new research to describe this non-capitalist agricultural universe for the late 19th and early 20th century. Based on oral testimonies and notarial archives, both researchers come to the conclusion that the preferred economic goal of the agricultural producers in Lac Saint-Jean and Beauharnois regions before the Great Depression was the perpetuation of familial farming units independent

¹⁸ John Dickinson, Brian Young, *A Short History of Quebec* (McGill-Queen University Press, 2003), 198.

¹⁹ Brian Young, *George-Étienne Cartier, bourgeois Montréalais* (Boréal Express, 1982), 192; and *The Politics of Codification. The Lower Canadian Civil Code of 1866* (McGill-Queen University Press, 1994), 175.

from the markets of capital and financial institutions and relying on a familial labour force. However, this non-capitalist value system did not prevent them from having exchanges with capitalist economic activity, such as short-term or seasonal paid labour in logging or local industrial activities. Bouchard coined the term “co-intégration” to describe this social phenomenon where peasant families interacted, within limits, with the capitalist markets of labour while consciously trying to remain independent from the capitalist markets of capital. Montpetit use the phrase “modèle résidentiel” to speak of the same reality.²⁰

²⁰ Gérard Bouchard, *Quelques Arpents d'Amérique. Population, Économie, famille au Saguenay, 1838-1971* (Boréal, 1996) and Christiane Montpetit, “D’ “habitant” sédentaire à émigrant. Migration, Économie et transformations agricoles à Saint-Louis-de-Gonzague (1861-1931)”, Doctoral Thesis in Anthropology, (Université de Montréal, 2000). The Saint-Louis-de-Gonzague municipality is located in the Comté de Beauharnois. To historians’ great fortune, these two studies represent very different geographical settings which would, in theory, reinforce the general validity of this conclusion for the entire Québec peasant class. The first study is about a region of colonisation far away from the major urban centres – the Lac Saint-Jean in the late 19th and 20th centuries – while the second is about a county close to the Canadian metropolis, Montréal. What Bouchard’s and Montpetit’s work points to is that a form of cultural coherence still united the Québec peasant class before the Second World War. Earlier studies of the rural world generally suggested that peripheral rural regions tended to practice survival agriculture while the ones closer to the urban centres would have transformed their agriculture quite early to capitalist practices. See Léon Gérin., *Le Type Économique et social des Canadiens* (Fides, 1948). Raoul Blanchard, *L’Ouest du Canada français*, (Beauchemin, 1953-54). Jean-Pierre Kesteman, Guy Boisclair, and Jean-Marc, *Histoire du syndicalisme agricole au Québec, UCC-UPA 1924-1984* (Boréal Express, 1984). I propose this apparent contradiction is easy to resolve if we distinguish between the involvement of the rural households in the markets of agricultural products, of labour, and of capital. Being involved in the markets of agricultural

According to Diane Gervais, this system rested on strong inter-generational solidarity values.²¹ The pride of these family stemmed from a prosperous “terre”²² and numerous children.²³ They grew their own food and produced a significant part of their manufactured goods. Mono-production was seen as a sign of failure.²⁴ In other words, they both owned and controlled their means of production (arable land, tools, animal power) and labour was not yet waged. Material independence was an overarching value,

products is not proof of capitalist agriculture. All agricultural units that have cleared their land and create surplus participate in the markets of agricultural products. That does not make them capitalist rural production units. Rural households in the old Saint-Laurent valley country were certainly orienting production to sell agricultural products to the local cities and the international markets. This does not necessarily mean that they borrowed capital and hired non familial labour, hallmarks of capitalist agriculture, to achieve this.

²¹ Diane Gervais “Succession et cycle familial dans le comté de Verchères, 1870-1950”, *Revue d'histoire de l'Amérique française*, Vol 50 no 1, (1996), 91.

²² The word “terre” refers to a peasant exploitation in pre Second World War Québec. Each peasant has a *terre*. In *Le Progrès de Valleyfield*, advertisements concerning farms for sale were always called *terres*. See the 28 July 1927 edition for such ads. For example, an article titled “Le bon pays de chez nous pour les Canadiens” in the 22 August 1929 edition of the same paper encouraged the Canadien that had emigrated to the United States to come back to Canada, where “elles pourraient s'établir ... sur de bonnes terres elles finiraient par connaître l'aisance”.

²³ Christiane Montpetit, “D' “habitant” sédentaire à émigrant... p. 116, 242, 249.

²⁴ Christiane Montpetit, “D' “habitant” sédentaire à émigrant... p. 251.

and borrowing either from banks or the government was indeed a dishonour.²⁵ Accumulating a reserve of money was not condonable but it had to be the result of selling crops, products, or services to the local rural markets. As such, their economic life did not fundamentally depend on financial institutions and that appears to have been a conscious and widespread choice, which suggests a form of class consciousness.

What also reinforces the hypothesis that this peasantry had a class consciousness is the recurring and public use of the expression “classe agricole” to describe all family households living from the land.²⁶ A good example of this can be found in the weekly newspaper *Le Progrès de Valleyfield* published and distributed in the Comté de Beauharnois. On 21 July 1927, the newspaper reported that on the 16 of July 1927, “mourait subitement, à l’âge de 79, un vétéran de la *classe agricole* dans la personne de Monsieur Narcisse Bouchet”.²⁷ Other researchers have noticed that petitioning peasants in the early 20th century referred to themselves as members of the “classe agricole”.²⁸ Individually, peasants in Québec referred to themselves either as “agriculteur” or “cultivateur”, and extremely rarely as “fermier” (farmers). I have found only one

²⁵ Christiane Montpetit, “D’ “habitant” sédentaire à émigrant... p. 230, 257, 258; Gervais “Succession et cycle familiale... p. 83.

²⁶ Saint-Pierre, *Histoire de la Coopérative fédérée...* p. 43.

²⁷ *Le Progrès de Valleyfield*, 21 July 1927.

²⁸ David Massell, *Amassing Power. J.B. Duke and the Saguenay River, 1897-1927* (Montréal, McGill-Queen's Press, 2000), 107-8.

occurrence of the word “fermier” in the sources originating from the BLH&P fonds.²⁹ This is interesting because the word “fermier” in the French *Ancien Régime* described a kind of rural labourer who did not own his means of production.³⁰ Using “agriculteur” or “cultivateur” could have been a strategy of the peasants to affirm their pride in being independent agricultural producers.

The political situation of this class in the early 20th century has been described only in general terms in the existing literature, but a growing frustration and a series of attempts to organise collective action seem to characterise the decade preceding the start of the construction of the Beauharnois power plant in 1929.³¹ This was the result of a cascade of events that gravely undermined the peasants’ sacred economic autonomy. First, a race for overproduction to sustain the war effort in 1914-1919 left them with worthless agricultural surpluses when the war was over. This specific production crisis was then compounded by the general economic recession of the early 1920s and the closing of the American food markets with the protectionist Fordney-McCumber tariff. Finally, the emergence of food distribution monopolies backed by the big financial institutions of Canada threatened to take control of raw-product pricing and distribution.

²⁹ F2/2138/14, letter from the secrétaire-trésorier J. [Nap] Laberge of the Municipalité du Village du Lac-St-Louis to the BLH&P, 6 July 1932.

³⁰ A. Rey and J. Rey-Debove *dir.*, *Le Petit Robert*, Le Robert, 1981.

³¹ The following discussion about the political situation of the “classe agricole” is based on Robert Migner, *Quand gronde la révolte verte* (Les Éditions de La Presse, 1980). To this day it remains the only general study about the politics of the Québec “classe agricole” in the first three decades of the 20th century.

Faced with such daunting challenges, peasant leaders emerged during the 1920s and tried to organise the “classe agricole” into a political force. This resulted in a quick succession of buoyant but ephemeral new organisations: the Union des agriculteurs du Québec, the Union des cultivateurs du Québec (headed by Joseph Marcil and Joseph Forget), the Fermiers Unis du Québec, and the *Bulletin des agriculteurs* (a journal founded by Joseph-Noé Ponton). Interestingly, most of these new rural leaders were from the Montréal valley, one of the oldest and most prosperous agricultural regions of Québec. Also, some of their most respected representatives were among the first French Canadians to have studied agronomy at university (such as Ponton and his friend Firmin Létourneau, who wrote a great many articles in the *Bulletin des agriculteurs*). At first, the leaders and the rank and file of these movements favoured class-based partisan politics and pushed for the creation of a strong peasant party that could form the opposition, or even the government, in the provincial parliament. The sheer scale of their ambition is telling: they believed that a rural project for Québec was still relevant and thought that a majority of the electorate shared their socioeconomic aspirations. They were encouraged in this vision by seeing the relative electoral success of agricultural political parties elsewhere in Canada.

By the end of the decade though, these political organisations had suffered a string of bitter electoral defeats. A majority of French-speaking *cultivateurs* (and no English-speaking ones) retreated to the Union des cultivateurs catholique du Québec (UCC), a

confessional organisation which publicly professed to have no electoral ambitions at all and focussed instead on corporate and lobbying activities.

This major and, to some extent, surprising sociopolitical shift will require much more study. Based on Migner's findings, two phenomena probably forced this reorientation. The first, as we have just seen, is the realisation by the peasant class of its marginality in the electoral scene of the 1920s. This is probably linked to the fact that the rural world was then, demographically speaking, a minority.

The second, is the peasants' deep attachment to the spirituality and institutions of Catholicism. However furious the peasants may have been, almost all of them looked at the Québec Catholic Church for political caution. Locally, this drive unfolded in complex and widely different patterns: parishioners might follow and support a politically radical priest who held ideas that were anathema to his superiors; or a bishop could lead his whole diocese in directions that angered his hierarchical equals. Nevertheless, this general will to be respectful of the church meant that no province-wide agricultural movement could sustain itself for some duration without the official approval from the assembled Québec bishops.

Most bishops were fighting a crusade against all progressive liberal and socialist ideas and they were highly suspicious of the first agricultural organisations of the province because they had had no say in their creation and constitution. They made it clear that they would eventually support a Catholic movement (hence the UCC) but on one

condition: no partisan politics, otherwise the movement would too closely resemble European and North American rural socialist movements. The price was extremely high, for it also entailed the retirement of the most respected peasant leaders (such as UCC's first but short lived president: Laurent Barré) because they were associated with partisan politics.

Eventually these founding leaders decided to leave the existing agricultural organisations so that the new UCC might be officially blessed by the bishops. Nevertheless, two economic ambitions remained central to the agricultural movements, even in their Catholic milling: first, to organise credit which was controlled neither by the major banks or the governments; and second, to escape the chains of food distribution that were operated by powerful capitalist intermediaries. These the bishops could not touch, and both desires would be partially fulfilled in the coming decades through the institutions of the UCC.³²

In sum, this peasant class was fighting to maintain its autonomy from the dominant capitalist markets even though it was experiencing increasingly heavy pressures from this system and the Catholic Church was, as a whole, trying to checkmate its more radical

³² The Québec Catholic Church was a major institution of Québec society in the 19th and 20th centuries. Nevertheless, it is not a central concern of this thesis. The church is integrated in the analysis insofar as it intervened to influence the Beauharnois peasants as they were facing the arrival of the BLH&P, as we will see in Chapter 3. Understanding the motivations of these bishops or the complex power relations within the larger religious institution lies beyond the analytical goals and means of this thesis.

leaders. The peasants partially changed production, sold excess crops, animals, and manufactured products to regional and international markets. However, they did not borrow massively to specialise their production for the exclusive satisfaction of the markets. Thus, they managed to keep a degree of autonomy from the capitalist markets of labour and capital.

In spite of peasants' relative success in maintaining elements of their mode of production, a greater and greater proportion of their many children went to the cities in Québec and New England where they usually became cheap and unskilled labour for the growing manufacturing sector. This was a result of the perpetuation of the two centuries-old quest for very large families in spite of the fact that very little new good arable land was available in the Saint-Laurent valley after the mid-19th century.³³ Sociologist Hubert Guindon calls this phenomenon the “demographic contradiction” of Québec in the 19th century.³⁴ I propose this could be renamed the Québec peasant mode of production crisis, since the world which had brought these children to life remained peasant in spirit, economy, and landscape, while the world these new generations kept boosting with their labour was capitalist and industrial.

³³. The valley was approximately full by the 1850s, at least in terms of the traditional *Canadien* agricultural techniques. See Serge Courville, Jean-Claude Robert, Normand Séguin, *Atlas historique du Québec. Le Pays laurentien au 19^e siècle. Les morphologies de base*, Presses de l'Université Laval, 1995, p. 61, 125.

³⁴ Hubert Guindon, “The Social Evolution of Québec Reconsidered”, *Canadian Journal of Economic and Political Science*, 26, 4 (1960) : 541.

In effect, this crisis of the Québec peasant mode of production assured its inevitable demographic and political marginalisation in Québec society. In the countryside, those who remained were able to maintain their peasant mode of production (and thus control over their landscape) but their political weight quickly diminished as more and more of their children went to the city. Between 1901 and 1931, the urban population grew from 36.1% of the total Québec population to 63.1%. Peasants' claim to property and management of the rural landscape thus became increasingly vulnerable as the interests of the industrial economy and the needs of the urban population monopolised the attention of the lawmakers.

CHAPTER 3: “[A] RESERVOIR OF ENGLISH AND FRENCH YOUNG MEN
AND WOMEN WELL SUITED TEMPERAMENTALLY TO INDUSTRIAL
EMPLOYMENT”: EXPROPRIATION AND THE FORCING OF QUÉBEC
AGRICULTEURS INTO WAGE LABOUR

1. Introduction

This chapter begins the analysis of the Beauharnois episode *per se*. It provides a reconstruction of the transfer of land property from the *agriculteurs* to the Beauharnois Light Heat and Power (BLH&P) and argues that these peasants offered a strong, albeit hidden, resistance to the transfer. The analysis focuses principally – but not exclusively – on the social element of environmental history analysis. I suggest that this transfer of the means of production in the form of landed property from economically independent rural producers to a large hydroelectric corporation was a conscious and explicit effort by the social elite to reorganise all members of society into two classes: workers without property over the means of production and capitalists with control over the means of production. The inhabitants of the Comté de Beauharnois were invited to join the labouring class, not the entrepreneurial one. In the words of the company’s promotional leaflets, they were merely seen as “a reservoir of English and French young men and women well suited temperamentally to industrial employment”.¹

¹ Beauharnois Power Corporation Limited, *Beauharnois. An Ideal Location*, (September 15th, 1930) p. 9. A copy is filed in F2-2154-2.

This streaming of the rural people into the working class would be one of two fundamental drives of the finance capitalist revolution, the other being (as I will argue in Chapter 4) the reorganisation of ecosystems and landscapes as reservoirs of modern energy (such as hydroelectricity) and industrial natural resources. I do not know if the peasants who sold their land were able to buy new land somewhere else or if they joined the working class. What is certain is that the BLH&P entrepreneurs and Québec's social elite encouraged them to join the latter class.

Throughout the analysis, I have tried to situate this episode as one example of the fundamental social and environmental changes brought to non-urban Québec by hydroelectricity production in the first four decades of the 20th century, a phenomenon here seen as one example of the finance capitalist mode of production. Unfortunately, little is known about this major type of landscape succession in the province. Historians have not yet established a list of all the hydroelectric projects that were completed within this period. Nevertheless, one case is better known. Thanks to historian David Massell, we have a rich picture of the tragic events surrounding the Île Maligne project which transformed Lac Saint-Jean in northern Québec into a hydroelectric reservoir. I will often refer to this case because it is the best known episode of the 'hydro-electrification' of non-urban landscape before the Second World War.

Beyond this, the researcher is limited to snippets of knowledge. Some Attikamek (a Québec aboriginal people) villages disappeared under the water of the Gouin réservoir (again in northern Québec, north-east of the city of Trois-Rivières), but no analysis exists

of this brutal and unannounced displacement.² There are oral testimonies of the sorrows encountered by Canadien pioneers who were evacuated from the farmland and village of Saint-Ignace-du-Lac, located in the Laurentian forest of the Haute-Matawinie (today part of the Municipalité régionale de Comté de Matawinie).³ However, historians lack an overall view of the causes, characteristics, and consequences of the reorganisation of the Québec rural landscape in this period for hydroelectric production. It is hoped that this thesis will provide more insights into this large scale phenomenon of landscape and social reorganisation.

In this chapter, attention is often paid to politicians, the lawmaking processes, laws, and the judicial system because they are important factors in landscape successions. Laws creating corporations exploiting natural resources and modern energies, or laws concerning the designation, extraction, transformation, and then distribution of natural resources (in other words, laws providing the guidelines of a given mode of production) reflect, at the very least, the values and aspirations of the dominating groups of a society, those closest and most able to influence the recognised authorities of a society. For example, E. P. Thompson has shown that the rising capitalist elite in 18th century England based its material power upon a radical redefinition of property rights. In particular, this

² Dales, John Harkness. *Hydroelectricity and Industrial Development: Quebec 1898-1940* (Harvard University Press, 1957).

³ Part of the historical inquiry can be consulted on the series' website: <http://www.radio-canada.ca/histoiresoubliees/> ; select the "Série 3" icon, then "Carte du site", and finally consult the "Le village englouti" episode. Consulted in October 2004.

resulted in major changes in the ecology of Windsor Forest. This dual legal and environmental change was actively, but unsuccessfully, fought by the rural classes that defended alternate law systems and sets of relations with the forest.⁴

My case study is somewhat different. Laws were not fundamentally redefined to facilitate the BLH&P project. However, the construction of this gigantic structure necessitated a huge transfer of property. Québec legislators granted extraordinary powers – in the form of expropriation rights – to the BLH&P company to make certain that the Beauharnois inhabitants would sell their property. This made the transfer of property a highly political event. It is therefore essential to understand the political process that made the creation of the BLH&P possible and defined its powers. This reveals much about the dominating mode of production in Québec during the 1920s and 1930s.

Unfortunately, the political life of Québec during the 1920s and 1930s is not very well known⁵ and the sources I studied offer only fragments of information about political

⁴ Not all environmental historians have recognised the centrality of law making and law enforcing in environmental matters. This could be a consequence of the materialist stance of many of its practitioners. Notable promoters of the study of lawmaking are William Cronon, *Changes in the land : Indians, colonists, and the ecology of New England* (Hill and Wang, 1983) and Karl Jacoby *Crimes against Nature....* Both historians have explicitly recognised in their writings the centrality of culture in understanding humans' relations with their environments.

⁵ Réal Bélanger "Évolution politique", in Jacques Rouillard ed., *Guide d'histoire du Québec. Bibliographie commentée* (Méridien, 1993), pp. 133-159; and "Pour un retour à l'histoire politique", *Revue d'histoire de l'Amérique française*, 51, 2 (1997): 223-241.

actors. This means that I can only offer a very limited background on the many politicians and political institutions involved in this story. For example, I have found no analysis of the Comité des bills privés or the Commission des services publics, two bodies of the Québec Assemblée législative. This is frustrating because these two administrative institutions appear to have been central in determining land use in Québec. Indeed, the legal charter of the BLH&P was first debated in the Comité des bills privés and the arbitration of conflicts in expropriation cases was the responsibility of the Commission des services publics. Fortunately, this partial lack of context does not jeopardise the central conclusions of this chapter. The Beauharnois peasants would have preferred to keep their *terres* and perpetuate their mode of production but the BLH&P was too powerful politically and its economic project for the Comté de Beauharnois prevailed.

The historical sources used to explore this question are a sampling of the transactions by which hundreds of peasants sold their property to the BLH&P⁶, and the local weekly newspaper *Le Progrès de Valleyfield*. No violent protest occurred and no company executive was shot late at night, but by the start of the work in August 1929, the company had not managed to buy more than 12% of the lands it needed to proceed with the whole project, even though the *agriculteurs* had been under intense pressure from the company for more than six months. Most of them eventually sold their land; less than half a dozen

⁶ For a more complete discussion of the origin and treatment of these lists of transactions please refer to section 2.9 of this chapter.

of them were dragged to court to be expropriated. Nevertheless, I will argue that this transfer of property hardly was a free and mutually advantageous contractual process.

As we will also see in Chapter 5, there would be numerous acts of protest and claims for compensation from the surrounding communities during years of the construction of the project. People were taken aback by the scope and deeply disturbing impact on their environment of this hydroelectric and navigation canal project. As one priest put it, this “grand dérangement” – a clear reference to the Acadien deportation by the British troops in 1755 – was for his community a heavy price to pay, “une perte qui effraye l’imagination”, for industrial progress.⁷ Taken together, these initial and persistent acts of resistance show, I propose, how attached these peasant communities were to their means of production: the rural land or, in their words, their *terres*.

The following account is partly chronological in structure since it is the very succession of events that reveals the peasants’ resistance to the strategies used by the Beauharnois corporation. In section 2.1, the BLH&P’s executive team is briefly discussed because many of its members had experience dealing with peasant resistance in hydroelectric projects. Then, in sections 2.2 and 2.3, I analyse the voting of the legal charter of the Beauharnois Light Heat and Power in the Assemblée législative du Québec in 1928. The following sections (2.4 to 2.9) describe the buying tactics of the company in the Comté de Beauharnois from March to October 1929. Notable among these were generous

⁷ Abbé Omer Séguin, *Souvenir du centenaire. Saint-Louis-de-Gonzague 1847-1947* (Paroisse de Saint-Louis-de-Gonzague, c1947), 33.

monetary offers, lies about the real scope of the project, lies about how most *agriculteurs* were reacting to the offers, half-truths about the spirit and administrative working of the expropriation procedures and, finally, a spectacular and impressive slate of political allies parading through the Comté during the company's inauguration ceremony.

Concluding this chapter is an analysis of the inhabitants' reluctance to sell (3.1) and thoughts upon the market value of land, whether it is used for agriculture or energy production (3.2). The first submits more evidence to corroborate the thesis that the Beauharnois *agriculteurs* were peasants, not capitalist farmers. The second observes that good arable land in Beauharnois was worth more when used as building material in an hydroelectric project, which is surprising in a society where the traditional rural life was praised by the conservative intellectuals and politicians of all stripes. This final section asks more questions than it can answer, but it provides a springboard for elaborating long term historical hypotheses in the conclusion of the thesis.

2. Pressured Transfer of Land

2.1 The Background and Experience of Sweezey 's Team

During the early and mid 1920s, Canadian entrepreneur Robert Oliver Sweezey had grandiose industrial dreams for the rural Comté de Beauharnois of the Province de Québec, located 40km south-west of Montréal, on the south shore of the Fleuve

Saint-Laurent.⁸ From the outset, and contrary to what his legal representatives would often repeat from 1927 to 1929, he hoped and devised plans to divert the entire flow of the mighty Fleuve Saint-Laurent into one of the largest hydroelectric power plants in the world. To achieve this, the engineers of his company, the BLH&P, designed a gigantic canal that would divert the water from the enlargement of the Fleuve Saint-Laurent further west called Lac Saint-François and maintain this water at the same height until it reached the power station, at the head of Lac Saint-Louis, another enlargement of the Saint-Laurent further east (see Synthetic Map A, Appendix 37). There, the flow of the river combined to the artificially created fall of 25 metres (m), would generate an electricity output of 2,000,000 horse power or, in today's terms, 1.6 million kilowatts (kW), which, even to this day, makes it one of the most powerful hydroelectric plants in North America. For example, it ranks fifth in electricity outlet in Québec, after hydroelectric plants Robert-Bourassa (5.62 million kW), La Grande-4 (2.78 million kW), La Grande-3 (2.42 million kW), La Grande-2-A (2.10 million kW) all located on the La Grande watershed, near James Bay in northern Québec.⁹ In the Province of Ontario, the five plants of the Niagara Plant Group produce together 2.44 million kW.¹⁰ In the United States, the famous Hoover Dam has a capacity of 2.08 million kW.¹¹ The canal, the single biggest feature of the BLH&P project, would be 24km long and 3km wide and no lower

⁸ Please refer to Figure 2 in Chapter 4 to locate the Comté in relation to Montréal.

⁹ http://www.hydroquebec.com/production/centrales_production.html, consulted on 20 February 2005.

¹⁰ <http://www.opg.com/ops/map.asp>, consulted on 20 January 2005.

¹¹ <http://www.usbr.gov/lc/hooverdam/>, consulted on 20 February 2005.

than 4m high.¹² This massive structure would cut through the Comté de Beauharnois, severing it in two. The flow of the Fleuve Saint-Laurent in its natural bed would eventually be reduced to a trickle.

¹² For the sake of uniformity and clarity, all measurements are expressed in the metric system. However, many of the primary sources are given in imperial units. The factors of conversion are 1 mile = 1.61 kilometre; 1 yard = 0.91 metre; and 1 foot = 0.3 metre; 1 foot³ = 0.027 metre³ (0.3m * 0.3m * 0.3m).

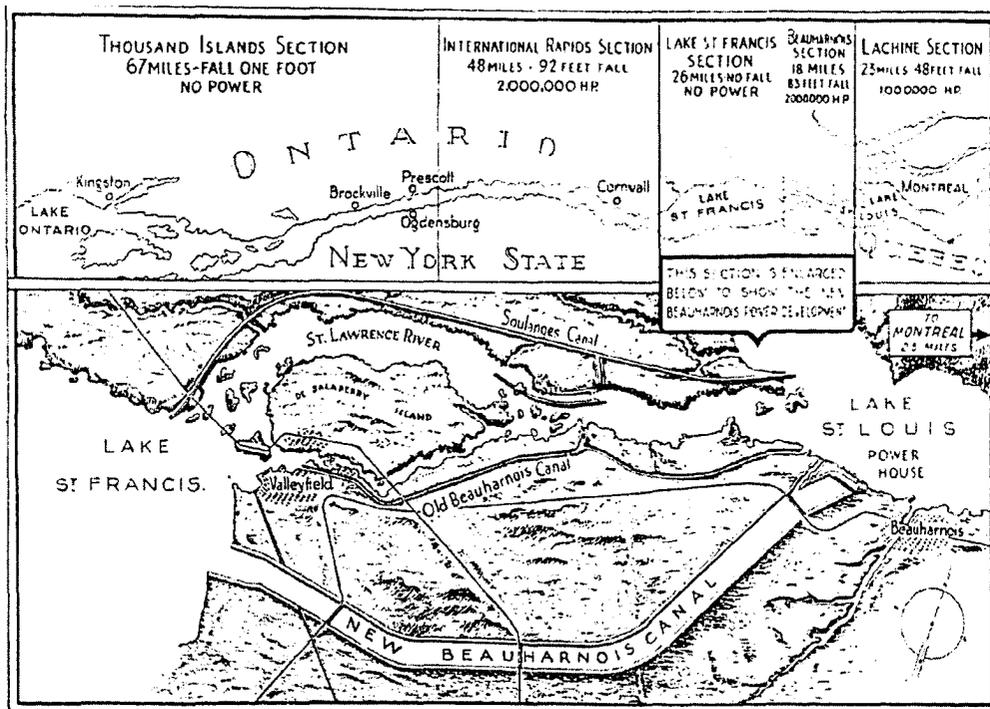


Figure 1. Map of the Fleuve Saint-Laurent and the Comté de Beauharnois designed by the BLH&P to attract investors in the early 1930s. The map is part of a promotional brochure explaining the project and the potential returns to investors.

Notice that only industrial infrastructures and cities are located. The countryside is represented like a desert. Map reproduced from : Beauharnois Power Corporation Limited, *Beauharnois. An Ideal Location*, (September 15th, 1930) p. 2.

What Sweezy and his associates avoided showing or mentioning to the wider Québec or Canadian audiences was that this hydroelectric complex would utterly transform a landscape shaped and inhabited by peasant communities and that thousands of lives would be irreversibly changed. This is clearly exemplified by the moon-like landscape of the map showed in Figure 1. These “Canadien”¹³ peasant communities were composed of people of varied professions and fortunes but their economic and symbolic life centred around a peasant class, or *classe agricole* as they proudly called themselves.¹⁴

The engineering, executive, and legal team that Sweezy assembled in 1927 to make his dream come true was experienced in transforming rural and forest landscapes into hydroelectric infrastructures. Many of them also had fresh memories of vehement and well organised resistance from peasant communities in Québec because key executives in Sweezy’s company had worked under the leadership of American entrepreneur J. B. Duke on the Île Maligne project (the discharge of Lac Saint-Jean in northern Québec) from 1915 to the mid 1920s. William States Lee had been the chief engineer of this

¹³ From the early 18th century until the Second World War the French colonisers and their descendants predominantly referred to themselves as “les Canadiens”. For an example contemporary to the Beauharnois events, see “Le bon pays de chez nous pour les Canadiens”, *Le Progrès de Valleyfield*, 28 July 1927. It was the only regular newspaper in the Comté de Beauharnois. Published on a weekly basis, the newspaper covered local community life (parish council meetings, local festivals, marriages, funerals etc.), provincial politics, and comments on the social evolution of rural Québec in particular or *Canadiens* in general. I systematically read the journal between January 1927 and January 1930.

¹⁴ See Chapter 2, section 2.2.

hydroelectric dam¹⁵ while Oliver Sweezey himself and Frank H. Cothran had served as field executives.¹⁶ Lawyer Aimé Geoffrion had been the principal legal counsellor and representative of J. B. Duke in Québec. In the Beauharnois project, W. S. Lee would again play a leading engineering role, while F.H. Cothran would become chief executive of the Beauharnois Construction Company, the subordinate company which actually did the work on the behalf of the Beauharnois Power Corporation.¹⁷ Aimé Geoffrion would once again act as the main legal counsel and representative of a major hydroelectric corporation.

Duke's industrial hopes for the Lac Saint-Jean a few years before had entailed the flooding of immense tracks of arable land. When the ambitious hydroelectric power station project had finally been built in the mid 20s, hundreds of farms disappeared under the water. But from 1915 to 1922, the *agriculteurs* had managed to delay construction. Vigorous petition campaigns, support from the local clergy, and the vigilance of the high public servant Arthur Amos forced the provincial government's executive to hold back a

¹⁵ David Massell, *Amassing Power. J.B. Duke and the Saguenay River, 1897-1927* (McGill-Queen's Press, 2000), index entry "Lee, William States" on page 296 provides the numerous references to his role in this project.

¹⁶ Massell, *Amassing Power...* p. 34 for Sweezey, and p. 134, 173 for Frank H. Cothran. In the case of the latter, see also "A Start Has been Made on the Beauharnois Power Development", *Electrical News and Engineering*, Vol. 38, no 20, (15 October 1929) : 41.

¹⁷ Notice the name "Beauharnois Construction Company" on the train wagons on picture F2 700 033 B152-5-20-30 (Appendix IV).

project it otherwise enthusiastically supported.¹⁸ In 1926 the project went ahead and the peasants saw their rightful property slowly inundated. It created such outrage that an on-site company official feared the blasting of the company's works by the incensed communities and asked the company's administrator to at least slow the pace of the flooding.¹⁹ These events were so devastating for the local peasants that they would from that moment on refer to them as the "Tragédie du Lac Saint-Jean".²⁰ Swezey and his men were thus conscious of the potential local resistance of peasants in the Comté de Beauharnois and did everything in their power to prevent such political turmoil.

2.2. What People Knew Before the Legal Birth of the Project

Swezey's hydroelectric plant had necessitated long months of planning for its design and financing. If the specific design fluctuated over that time, one crucial idea remained unaltered: eventually, the project was to divert the whole flow of the Saint-Laurent.

¹⁸ Massell, *Amassing Power...*p.149. Arthur Amos is a central character in the history of hydroelectricity in Québec. He is discussed in more detail in Chapter 5.

¹⁹ Claude Bellavance, *Shawinigan Water and Power 1898-1963. Formation et déclin d'un groupe industriel au Québec* (Les Éditions du Boréal, 1994), see note 36 of chapter 3, p 361-2.

²⁰ For further details about the "Tragédie du Lac Saint-Jean", see Massell, *Amassing Power...* p. 195; and Mgr Victor Tremblay, *La Tragédie du Lac Saint-Jean* (Éditions Sciences modernes, 1979). This was not the first occurrence of overt political conflict about the control of the water level in Lac Saint-Jean. In the second half of the 19th century, the federal government had tried to operate a small wooden dam for industrial purposes at the discharge of the lake. Government officials had reported the local anger created by the periodic floods and the dams had been repeatedly vandalised. See Massell, *Amassing Power...*p. 131.

Indeed, seven of the seventeen 1928 original engineering drawings provide calculations and component designs for full diversion.²¹ The canal would be either built large enough to hold the entire Saint-Laurent at the very first stage of construction, or designed to be enlarged later at little cost. In the end, the former option was selected. Only the power station was planned to be built in stages. Each time the Québec government would provide additional water diversion permits, new blocks of generators would be added to the powerhouse. This construction strategy would greatly reduce the total investment because only the power plant would need modifications in the future, the canal would already be capable of holding more water.

In 1927, Sweezey bought a company called the Beauharnois Light Heat & Power to realise this ambitious project. Its charter had been granted in 1902 by the Assemblée législative but the company had never done any work. However, the 1902 project was far more humble in scope: it was only designed to divert a small proportion of the Saint-Laurent water into the Rivière Saint-Louis, a river scarcely bigger than a stream collecting the water of the Beauharnois plateau and pouring it into Lac Saint-Louis.²² Since Sweezey wanted to harness the whole Fleuve, he needed a gigantic canal, so the BLH&P charter had to be revised to have expropriation rights over a large area of the Comté.

²¹ F2-2194-2, letter from William S. Lee to F.B. Brown, 17 January 1928.

²² See Appendix 37, *Composite Map A: Comté de Beauharnois, Circa 1915-1925*.

This could have created strong opposition among two very different groups in Québec.²³ The first group, which lived and worked in downtown Montréal, was the economically omnipotent and politically powerful Montreal Light Heat and Power (MLH&P) executives, who had, in the preceding three decades, bought or forced into bankruptcy all competitors in the greater Montréal energy market. They had created an incredibly lucrative monopoly on the energy market of Canada's metropolis.²⁴ From their offices in the aptly named Power Building, on the corner of Rue Saint-Urbain and Rue Craig, they

²³ The project would also create resistance of another sort. Many Canadian nationalists in Ontario and in the federal government hoped to transform the entire Fleuve Saint-Laurent into an artificial waterway linking the Great Lakes to the international deep sea commerce routes. Their dream was eventually realised in the Great Lakes St. Lawrence Seaway System which was finally opened in 1959. Their greatest fear was that provincially authorised hydroelectric projects might render impossible the building of the artificial waterway. As such, some federal MPs and all federal bureaucrats were highly suspicious of the BLH&P project. This is in itself a complex political story of federal - provincial relations that needs not be tackled within the *problématique* of this thesis because it had no impact on the design and construction of the BLH&P hydroelectric and navigation canal. Good contextual information on this federal-provincial conflict can be found in Christopher Armstrong, *The Politics of Federalism. Ontario's Relation with the Federal Government 1867-1942* (University of Toronto Press, 1981). More specific information can be garnered in T.D. Regehr, *The Beauharnois Scandal: A Story of Canadian Entrepreneurship and Politics* (University of Toronto Press, 1990), although this book lacks a sophisticated conceptualisation of nationalism, politics, and modern bureaucracies. An empirical starting point for this interesting study should be sub series RG11 (federal Ministry of Public Works, NAC, Ottawa) vol. 4225 804-1-C, (approximately 30 cm linear) which exclusively concerns the federal authorisations for the BLH&P project.

²⁴ Clarence Hogue, André Bolduc, and Daniel Larouche, *Québec, Un siècle d'électricité* (Libre Expression, 1979), chapters 4 to 7.

owned or had indirect control over the four existing hydroelectric dams in the Beauharnois stretch of the Saint-Laurent.²⁵ They could easily understand that the Sweezey project would mean the drying of the original bed of the Fleuve, which would thus shut down their own hydroelectric plants.

The second group was the Beauharnois rural inhabitants themselves. No one knew how they would react to the eviction of a fifth of their farmers and the severing of the county into two artificial halves. Sweezey had realised in Lac Saint-Jean that hydroelectric projects could encounter strong resistance in peasant communities, even when the project had been formally adopted by the Assemblée législative du Québec. In 1927-28, it appears that an important element of Sweezey 's strategy was discretion. If no one knew about the project, no one could react before the law was voted by the Assemblée législative. By March 1928, very little had surfaced in Québec newspapers.²⁶

²⁵ The MLH&P owned the Cedar Rapids Manufacturing and Power Company located at the Les Cèdres village, and had a heavy hand in the decisions of the Canadian Light Heat & Power at the Saint-Timothée village and the Provincial Light Heat and Power Company situated east of Les Cèdres village. The MLH&P president also sat on the Board of Directors of the Montréal Cotton Company, which operated the hydroelectric dam at Valleyfield. Regehr, *The Beauharnois ...* p. 27.

²⁶ A very large sampling of three of Montréal's most important daily newspaper, (*The Montréal Star*, *La Patrie*, and *La Presse*) has found one article discussing the project before March 1928. The sampling was made in the following way: from January 1920 to December 1929, every 5th week, beginning with the first full week of the year, was thoroughly analysed for any content related to electricity (production, distribution, rates, politics) in all three journals. Moreover, every month of January and February was entirely searched for the same content. These journal were not politically neutral. *La Presse* was

What would the Beauharnois people know about the project before it was sanctioned by the lawmakers? Apparently very little. A vigilant and lucky Beauharnois resident could have read in the Montréal *La Presse* of 25 January 1928 that a big hydroelectric project was announced in his county, but very few details were given about its scope and design.²⁷ Much more likely, since it was winter and Montréal was 40 kilometres away, inhabitants subscribing to the Comté weekly journal - *Le Progrès de Valleyfield* -, read on 26 January a sibylline legal notice in which the BLH&P's lawyers asked the provincial government to amend the company's charter regarding the exact location of the entrance and exit of the canal and the extent of its expropriation powers.²⁸ It would have been quite surprising that anyone then remembered anything about the existence of the BLH&P company; it had been incorporated 26 years earlier and had never done any

sympathetic to the Liberal Party in the 1920s and 1930s, but it was neither financed nor directly controlled by this party. *La Patrie* was bought by financiers supporting the Conservative party in 1925 but was sold to *La Presse* in 1933. However, *La Patrie* developed a reputation of neutrality in partisan politics in the 1930s. The *Montreal Star* was close to Montréal anglophone financiers and generally presented staunch Canadian nationalist opinions. Newspaper politics certainly played a role in the diffusion of information and opinions about the hydroelectricity business in Québec but it is impossible to make in depth propositions on this matter within the context of this thesis. What can be said at this point is that the most popular French and English Montréal newspapers spoke very little of the Beauharnois project before 1929. For more information on these newspapers consult André Beaulieu and Jean Hamelin, *La presse québécoise des origines à nos jours. Tome deuxième, 1860-1869* (Presses de l'Université Laval, 1975), 114-115, 288-289; *Tome troisième, 1880-1895* (Presses de l'Université Laval, 1977), 72-74.

²⁷ "Un nouveau pouvoir hydraulique gigantesque", *La Presse*, 25 January 1928.

²⁸ *Le Progrès de Valleyfield*, 26 January 1928.

work. It had existed since then as a legal entity having rights on the land but it had no financing, employees, or immovable or movable property.

Two months later, in March 1928, the proposed modifications to the charter were discussed in the Comité des bills privés of the provincial Assemblée législative.²⁹ That the premier himself, liberal Louis-Alexandre Taschereau, and a future premier, conservative Maurice Duplessis, sat on this permanent committee highlights its importance in Québec political life before the Second World War. The project did generate debates in the committee because the MLH&P lawyers attending its meetings – the audiences were held at the Parliament in Québec city – strongly opposed the modifications to the charter. They argued the BLH&P would dry the natural bed of the river and force the closing of the existing power plants. Sweezey had not been very successful at keeping his competitors in the dark.

At first, the debates were not purely centred on the MLH&P's interests, and some provincial elected representatives expressed worries about the general impact of the project in Beauharnois. Each time they were told that only a partial diversion of the Saint-Laurent was planned and only a small canal was needed. Liberal Members of

²⁹ Every potential law of the Québec Assemblée nationale (and then Assemblée législative) is first discussed in one of the permanent committees of the assembly. These committees are composed of members of parliament in proportion to the political parties represented in a given legislature. For the contemporary version of the assembly's rules, Consult the Assemblée nationale's website at <http://www.assnat.qc.ca/>.

Parliament Avila Farand, from adjacent Comté de Soulanges (the county facing Beauharnois, on the north side of the Fleuve Saint-Laurent) and labour MP William Tremblay from the Comté de Maisonneuve (in downtown Montréal) had obviously heard otherwise because they asked about the real dimensions of the canal. Conservative MP Pierre-August Lafleur from Comté de Verdun directly confronted the BLH&P representatives by accusing them of lying about their project: it entailed a “gigantesque” canal to divert the Fleuve Saint-Laurent fully, and the latter would eventually become dry in the Soulanges-Beauharnois region!³⁰ The BLH&P’s lawyer, Aimé Geoffrion, reiterated that this was not true and that the canal would be a small one. Premier Taschereau most probably knew this was deliberate misinformation.³¹ When the

³⁰ Considering that these three MPs were, respectively Liberal, Labour, and Conservative representatives, their questions suggest that the fate of rural communities confronted by a major hydroelectric project could potentially be a matter of political importance for all politicians. Otherwise, these politicians are essentially unknown to historians. According to a search in *Amicus*, the online Canadian National Catalogue Library research tool of the Library and Archives Canada, none of them has been studied individually and the literature I have consulted for this thesis does not mention them. Refer to Jean Cournoyer, *Le petit Jean. Dictionnaire des noms propres du Québec* (Stanké, 1993) or the Assemblée Nationale’s website (<http://www.assnat.qc.ca/>) for basic biographical information.

³¹ Sweezey had first approached Taschereau in 1927 about his project and, in December 1928, the latter explained to prime minister Mackenzie King that he supported the BLH&P project because its gigantic scale permitted a low cost of production per kilowatt. These facts strongly suggest that Sweezey told Taschereau from the beginning that he hoped to divert the entire Saint-Laurent. See T.D. Regehr, *The Beauharnois Scandal...*p. 36-38. What is absolutely certain is that Sweezey had decided as early as spring 1927 that his project was about the full diversion of the Saint-Laurent. See Frederick B. Brown, *Report on*

discussion apparently became too heated, he reoriented the debate in another direction, therefore leaving unchallenged the company's false statement about the local impact of its project.³² Part of these debates were published in one article of *Le Progrès de Valleyfield* so people could at least know about the existence of the project but they had also read that nothing like a "gigantesque" canal was in the blueprints.

A couple of weeks later, a second article in *Le Progrès de Valleyfield* reported on the continuing discussions at the Committee. However, Taschereau had been successful at steering attention away from the local impact of the project because the members of parliament debated exclusively the technical consequences of the BLH&P canal upon the MLH&P local power plant.³³

2.3. The New Charter of the BLH&P and Expropriation in Québec

In June 1928, Taschereau had the water diversion issued emitted and the Beauharnois Light Heat & Power's charter modified in the Assemblée législative du Québec so that the company now enjoyed *extensive* expropriation rights to build its remedial works, canal and power plant. The permits enabled the diversion of only a fraction of the entire Fleuve Saint-Laurent, but the expropriation rights covered an area large enough to build a canal holding the entire river. Thus, the expropriation rights granted by the province

Proposed Hydro-Electric Power Development On The St. Lawrence River Between Hungry Bay on Lake St. Francis and Melocheville On Lake St. Louis, May 3rd 1927.

³² *Le Progrès de Valleyfield*, 1 March 1928.

³³ *Le Progrès de Valleyfield*, 22 March 1928.

clearly indicated that the project was about the complete exploitation of the Fleuve even though the first water diversion permit was limited to a fraction of its water.

Expropriation rights are extraordinary legal measures because individual property rights are fundamental in Québec civil law. They can only be granted by the legislature in specific and limited circumstances. As such, when expropriation rights are granted to a public or private body, it is an important political event that announces a partial reorganisation of property structure of local or provincial scope. This section analyses the political meaning of the BLH&P expropriation rights.

The 1866 Civil Code of Lower Canada, and its accompanying Code of Civil Procedures (1867) stated in article 406 that ownership is “the right of enjoying and disposing of things in the most absolute manner”.³⁴ The only limitation to this “absolute” right to dispose of things was the primacy of the public interest. The code therefore included provisions making possible the expropriation of owners from their landed property when the public good called for it. This, the code stated clearly in article 407, could be decided only by the House of Commons in Ottawa, the Assemblée législative in Québec, major cities such as Montréal or Québec, and school boards according to their respective constitutional jurisdictions or civil responsibilities.³⁵ As the provinces are constitutionally responsible for natural resources development in general, and, moreover, as the BLH&P

³⁴ George S. Challies, *The Law of Expropriation* (Wilson & Lafleur Limited, 1954), vii.

³⁵ *idem*

original charter had been incorporated in Québec, only the Assemblée législative could modify the company' legal rights by granting it larger expropriation rights.³⁶

Formally, the public interest was therefore defined by the people eligible to vote for the Members of Parliament at the provincial level. Until the mid 20th century, that excluded many people, most notably women, who had also lost the limited voting rights they enjoyed before the mid 19th century.³⁷ The final 1928 charter of the Beauharnois Light Heat and Power was duly debated and approved by the Comité des bills privés, a body of the Assemblée législative that represented the whole province. In that sense the interest of all eligible masculine voters of Beauharnois had been formally respected. However, the debates were mainly limited to the question of potential conflicts with pre-existing water-use rights by hydroelectricity producers on the Beauharnois stretch of the Fleuve Saint-Laurent; the specific interests of the peasants of the Comté were never directly addressed as I have shown in the preceding section.

³⁶ However, the Saint-Laurent is also a navigable river and navigation is a federal responsibility. In the case in the BLH&P project, Ottawa would make certain that navigation could continue unimpeded on the Saint-Laurent but it had no say in the overall design of the BLH&P project or the expropriation rights necessary for its construction.

³⁷ Women regained the right to vote at the federal level in 1918 but the BLH&P rights were essentially determined at the provincial level. On the losing of voting right of women in Québec see Bettina Bradbury, *Les grandes conférences Desjardins*, "Wife to Widow: Class, Culture, and Family in Nineteenth-Century Québec", no 1, (Programme d'études sur le Québec, Université McGill, 1997), 16-17.

This was not a surprising political act from the Taschereau government. The premier had always shown an unwavering faith in powerful capitalists' commitment to the public good and he also thought that hydroelectricity, by fostering Québec's industrial growth, would help the prosperity of all citizens.³⁸ The fate of rural communities in general seemed to have been a minor factor when pondering the political pros and cons of a large scale hydroelectricity project. Two years earlier, he had not hesitated to grant permits for the realisation of the Lac Saint-Jean hydroelectric project. The hundreds of farmers affected learned about their fate only when the lake slowly inundated their land, but heavy industry would now grow rapidly in the Saguenay region.³⁹ The Beauharnois episode was one more example of such an attitude.

Moreover, Taschereau would gain politically in two ways from granting the modifications to the BLH&P's charter as quickly as possible, notwithstanding the interests of the Beauharnois inhabitants. First, the federal government was at the time contesting Ontario's and Québec's jurisdiction over the Fleuve Saint-Laurent on the basis that this river was a navigable watercourse. It claimed that it had power production prerogatives on the Saint-Laurent. Toronto and Québec responded by affirming that the

³⁸ For an example of this reasoning, see *La Presse*, "L'énergie hydro-électrique doit rester dans le province. L'hon. M. Taschereau annonce une vigoureuse politique pour la conservation de nos ressources naturelles. - Invitation faite aux Américains de venir s'établir ici", 14 January 1925, p. 9-11. The analysis of this political discourse will build through this thesis. I will come back to it especially in section 3.2 of this chapter, section 3 of Chapter 4, and all through Chapter 5.

³⁹ Massell, *Amassing Power...* p. 195.

federal jurisdiction was limited to assuring navigation on the Saint-Laurent. Granting the modifications to the BLH&P was creating a *fait accompli* within the context of this constitutional contest.⁴⁰ Second, the premier had lots of political capital to gain in the Grand Montréal by recreating competition in its energy market. The powerful MLH&P was more and more seen as choking Montréal's consumers and economy through unduly high electricity tariffs and many intellectuals and politicians then accused Taschereau of implicitly protecting this trust.⁴¹ In light of such goals, the wishes of rural communities of Montréal's hinterland counted for little.

2.4. The Scope of the Project

In June 1928 the Assemblée législative adopted the amendments to the original 1902 BLH&P.⁴² They formally granted the company a 40,000 cubic feet per second (1080 cubic metres) water diversion from the Saint-Laurent. The canal would be built large enough to contain the whole Fleuve from the start and it was understood that only the power plant would be built in different steps as more and more diversion permits would

⁴⁰ See Chapter 8 of Christopher Armstrong, *The Politics of Federalism. Ontario's Relation with the Federal Government 1867-1942* (University of Toronto Press, 1981).

⁴¹ Clarence Hogue, André Bolduc, and Daniel Larouche, *Québec, Un siècle d'électricité* (Libre Expression, 1979), chapters 4 to 7.

⁴² Statutes of Québec, 1902, chapter 72, 1902; amendment to former chapter 77, 1910; amendment to former, chapter 113, 1928 (Loi, Qc 23 June 1928).

be granted by the province.⁴³ No new information about the revised project was published in *Le Progrès de Valleyfield* in the following months. Sweezey's syndicate was far from inactive from April 1928 to March 1929 but it had to wait for the federal government's authorisations on navigation matters before starting any kind of work. In March 1929, the Company obtained the federal authorisations and from that moment on Sweezey began to make offers to buy the *terres* of the *agriculteurs*. Most, if not all, the notaries of the region were hired to make offers on behalf of Sweezey's syndicate to the *agriculteurs*.

When the company started to make its initial offers to the peasants sometime in the late winter of 1929, the rural communities must have been quite confused about the scope of the project. On the one hand, Sweezey's legal representatives had forcefully argued a year earlier in the Comité des bills privés that its canal would be a small one. This description was also conveyed in the rare articles describing the Beauharnois project in *Le Progrès de Valleyfield*. For example, a reporter wrote in March 1929 that the canal would be 600 feet wide at the bottom but he was unable to find the total width of the structure. At least he could tell his readers that no more than 40,000 cubic feet per second (1080 cubic metres) would be diverted from the Saint-Laurent while privileged people knew that the Company really sought to build a 200,000 cubic feet per second canal (the whole flow of the river or 5400 cubic metres). Rest assured, the reporter continued, there will be plenty of water left in the Fleuve Saint-Laurent for navigation.⁴⁴ That was a

⁴³ Frederick B. Brown, *Report on Proposed Hydro-Electric Power Development On The St. Lawrence River Between Hungry Bay on Lake St. Francis and Melocheville On Lake St. Louis*, May 3rd 1927.

⁴⁴ *Le Progrès de Valleyfield*, 21 March 1929.

crucial matter for the inhabitants of these riverside communities. The only way the Beauharnois and Soulanges people could cross the Saint-Laurent was by ferry, and the exchange of people and goods seems to have been quite intense since the boat crossed the river at every hour of daytime from late April to early November.⁴⁵ On the other hand, the corporation had, by January 1929, started to portray its canal as a Herculean wonder of modern engineering in the Montréal newspapers.⁴⁶

Over the next months the Company did nothing to clarify the size of the canal to the Beauharnois *agriculteurs*. Although an article in the *Progrès* in May does suggest, without giving any details, that the canal would be “gigantesque”, a company advertisement in August reported that only an “étroite lisière” – a narrow strip of land – was needed for the canal. Be careful, the company’s ad proclaimed, the Company was willing to buy the whole *terres* of the *agriculteurs* concerned but those refusing to sell voluntarily would be dragged to the expropriation board and would be forced to sell only the narrow band needed, therefore seeing their estates cut in smallish halves which would be difficult to exploit simultaneously.⁴⁷ The Company was deceiving the farmers in this statement: it needed a 3km wide belt of land and no *terre* of the county was long enough to be cut in two.

⁴⁵ *Le Progrès de Valleyfield*, 25 April 1929 and 7 November 29.

⁴⁶ The same newspaper sampling that was mentioned earlier (see footnote 26 of this chapter) reveals that the earliest mention of the massive scale of the project was a journalist’s report published on 14 January 1929 in *La Presse*: “Le gigantesque projet de la Beauharnois Power”.

⁴⁷ *Le Progrès de Valleyfield*, 8 August 1929.

2.5. “Most People Have Sold”

When the company started making offers to each *cultivateur* in March 1929, most people were expecting a rather small canal and no major changes in their individual or collective lives. But Swezey’s syndicate wanted to take possession of 650 lots, adding to a total of 86.9 km² of land,⁴⁸ which far exceeded what anyone could expect for a smaller canal. The company hired at least six notaries⁴⁹ of the county to make as many simultaneous offers as possible to the farmers. Judging from the Beauharnois notaries’ ads published regularly in the *Progrès de Valleyfield*, the company probably hired all the notaries of the county. These are important characters in Québec rural life.⁵⁰ Moreover, the local clergy

⁴⁸ Municipalité Régionale de Comté de Beauharnois-Salaberry, *Impact de la construction du canal Beauharnois dans les municipalités* (MRC de Beauharnois-Salaberry, 1996), p. 31.

⁴⁹ I have identified six local notaries during the sampling of the selling contracts. Since three-quarters of the selling contracts were not analysed, there could have been more notaries employed by the company.

⁵⁰ In contrast to English legal culture, notaries played a crucial role in the French legal tradition. In the Canadian context, they have been surprisingly understudied (Louis Lavallée, “La vie et la pratique d’un notaire rural sous le régime français: le cas de Guillaume Barette, notaire à La Prairie entre 1709 et 1744”, *Revue d’histoire de l’Amérique française*, 47, 4 (1994) : 499-501). Under the Coutume de Paris – the civil body of laws for New France –, they were “recognised by the courts as qualified to draw up binding agreements that could not be challenged in court” and “were also deemed the equivalent of judges in some cases”. They dealt primarily with property and family law (John Dickinson, “Law and courts in New France” in De Lloyd J. Guth and W. Wesley Pue ed. *Canada’s Legal Inheritances*, (Canadian Legal History Project / Faculty of Law - The University of Manitoba, 2001) p. 43-44). Notaries in rural Québec were not necessarily rich – some even had to work the land or do artisanal work in order to maintain a

was apparently neutralised with gifts and promises of monetary compensation from the loss of taxable members of their parishes.⁵¹ As I explain in Chapter 2, members of the clergy could easily rally people in rural Québec communities.

The simultaneous approach to all *agriculteurs* and the enlisting of the local elite reduced the opportunity for the inhabitants to discuss the situation, to realise how many people had been approached, to compare the sums they were offered, or to rally around local leaders. In short, much was done to prevent inhabitants from realising what was collectively happening to them and their landscape. This diminished the likelihood of a united front against the changes taking place in their community and landscape. As part of the purchasing tactics, the notaries signed many on-the-spot “selling options” by the owners. The peasant who signed a selling option immediately received, within the day, a

minimum level of material wealth – but they were nonetheless usually considered local worthies and appear not to have been considered peasants. By the 1920’s, the notarial profession was partly recovering from a long and profound crisis. Their social role as arbiters of wealth had first been attacked in the years after the Conquest – the profession was simply abolished along with the Coutume de Paris in 1760-3. They were reinstated, simultaneously with the Parisian law, under the 1774 Québec Act and recovered most of their past functions. However, they were apparently reluctant to adapt their practice to capitalism in the second half of the 19th century. As a result they lost prestige compared to other professions. In the late 1910s they tried to reorganise their legal practice and professional organisation, now embracing the new economic mode (André Vachon, *Histoire du notariat Canadien 1621-1960* (Presses de l’Université Laval, 1962), 4, 153-5, 187. Hughes’ remarks about the notaries of Drummondville in 1937 suggest that their individual economic lot varied greatly in this period. See Everett Charrington Hughes, *French Canada in Transition*. (University of Chicago Press, 1971), 97.

⁵¹ T. D. Regehr, *The Beauharnois Scandal* (University of Toronto Press, 1990), 8-9.

very large sum in cash. It often reached a thousand dollars.⁵² In exchange, the man or woman agreed to sell his or her estate with no further negotiation. Instantly, then, the territory was punctuated by a few binding selling contracts making the pressure to sell more acute for the vast majority who refused the initial offers.

As early as May 1929, the BLH&P claimed to have acquired most of the properties it needed to build the canal and power plant. The company deplored, in another ad published in the *Progrès de Valleyfield*, that a “few” selfish “propriétaires [essayent] de retarder la construction en demandant des prix plus élevés que [ceux qui leur ont été] offerts pour leurs terrains situés sur le passage du canal projeté, qui contribuera si largement à la prospérité et au développement industriel du district de Valleyfield”.⁵³ In reality, only 2 out of 54 proprietors in my sample had sold by May.⁵⁴ In an August 1929 advertisement, the company continued to pretend publicly that most farmers had sold although no more than 6 out of 54 land owners had actually sold by then.⁵⁵ Interestingly, a third of these sellers were women although they represented only 21% of my sample. This could indicate their economic and political vulnerability.⁵⁶

⁵² For example, Mireille Payant received \$1500 when she signed her selling contract. “Drawing B-3. Title Record Plan. Development properties. Beauharnois Land Companies. Beauharnois Light Heat & Power. Parish of St-Cecil County of Beauharnois” (Montréal, 1937).

⁵³ *Le Progrès de Valleyfield*, 23 May 29.

⁵⁴ Please refer to section 2.9 of this chapter for more details about the sampling.

⁵⁵ *Le Progrès de Valleyfield*, 8 August 1929.

⁵⁶ The meaning of this and other related facts about women proprietors will be explored later in section 2.9 where I discuss the price at which the Beauharnois *terre* were sold.

2.6. “Beware of Expropriation”

After March 1929, the company became increasingly more explicit about its determination to use its expropriation rights. Through ads in the pages of *Le Progrès de Valleyfield* the Company warned that those who refused to sell, and who “délibérément s’efforcent d’entraver une entreprise d’intérêt public”, would be expropriated. Be careful, it then said to the readers, you could very well get much less money in an expropriation than from the Company’s initial offer. It cited a case of a proprietor who, in a completely unrelated case of expropriation, had asked for \$7,740 from the Commission des services publics. The Commission des services publics was the provincial body dealing with expropriation settlements from 1920 to 1937. The individual, the BLH&P ad said, only received \$252. The message was clear: accept our money or run the risk of bankruptcy through the expropriation procedures. Since the Commission has never been studied, it is impossible to establish the accuracy of this claim.⁵⁷

⁵⁷ *Le Progrès de Valleyfield*, 23 May 29. Next to nothing is known about the history of the Commission des services publics. Its files are now regrouped in a fonds called *Fonds Tribunal de l’expropriation - 1922-1970* (E49) at the Québec city bureau of the Archives nationales du Québec. The descriptive notice of this fonds states that the Commission expanded its responsibilities to municipal related expropriation procedures in 1920. This implies that the Commission existed before 1920. Expropriation procedures were transferred to the Québec superior court in 1937 and then given to a new body called the Régie des services publics in 1940. Archives nationales du Québec, “notice biographique/ histoire administrative” of the *Fonds Tribunal de l’expropriation - 1922-1970* (E49), taken in Pistard <http://www.anq.gouv.qc.ca/index.htm> on 21 February 2005.

In early August the Beauharnois Power Corporation issued public notices listing the estates that they it would soon expropriate and these notices were posted on the front doors of each of the parish church in Beauharnois.⁵⁸ The expropriating party was legally bound to do this as part of the process for bringing those who refused to sell to the Commission des services publics.⁵⁹ No doubt these notices created lively discussions in the communities. In Catholic parishes the church, and even more specifically, the stairs in front of the Church's main doors, the "perron", were a crucial meeting ground of the peasants. Indeed, the fact that expropriation decrees had to be posted there demonstrates the importance of that forum. Before and after Sunday mass – which everyone attended whether one was a devoted Catholic or a radical liberal suspected of atheism – the *perron* was the most important public agora where news was exchanged, politics was discussed, animals or tools were auctioned, and *terres* were sold.

For example, anthropologist Montpetit reports that *agriculteur* Charles X negotiated the buying of his father's farm on the *perron* of the Church of Saint-Louis-de-Gonzague in 1941.⁶⁰ Negotiations of movable or immovable property were often mediated by the

⁵⁸ *Le Progrès de Valleyfield*, 8 August 1929.

⁵⁹ See for example the decision of Judge Halsh in the expropriation of the property of Orphir Pilon (in Saint-Louis-de-Gonzague, Comté de Beauharnois) by the BLH&P, where the judge states that the expropriation is legal because (among other things) the BLH&P announced its intention to expropriate Pilon by naming his property on a list which was placed on the front door of the parish church. Archives Nationales du Québec, TP11, S25, SSS25 Vol 10 (1926-32), p. 786-790, paragraph 50.

⁶⁰ Christiane Montpetit, "D' "habitant" sédentaire à émigrant... p. 226.

“crieur” (the town crier) who was in any case always present to proclaim public announcements. The *crieurs* had existed since the Nouvelle France period and they still existed in the 1920s as social scientist Horace Miner witnessed in the village of Saint-Denis. The parish secretary might also be present and make announcements.⁶¹ In Arendt’s words, the *perron* was a central place of *inter-est*, a place where the participants of these rural societies negotiated “the matters of the world of things” according to the values and rules to which they were accustomed.⁶² Had the Beauharnois corporation really wanted to act in the public interest of these local communities, this is one of the places where they should have spoken about and debated their hydroelectric project. Instead, the *agriculteurs* were confronted with the company’s desires through a silent piece of paper foretelling their expropriation.

The impact of these notices must have been quite profound. Did the menace of expropriation come as a surprise to some *agriculteurs*? The question is worth asking although no definitive answer can be given. The fact is that the period ranging from late May to late September is the height of the agricultural season. Farmers worked during all the daylight hours, or under the light of the full moon.

⁶¹ Hughes: Chapter X, p. 93; Horace Miner, *St-Denis, A French Canadian Parish*, (University of Chicago Press, 1967) , 115-116. The role of the town crier after the mass might have been stipulated in the Coutume de Paris because a section of this civil code is dedicated to describe “les criées” (articles 345-362: Yves F. Zoltvany, “Esquisse de la Coutume de Paris”, *Revue d’histoire de l’Amérique française*, 25, no 3 (1971): 367)

⁶² Hannah Arendt, *The Human Condition* (University of Chicago Press, 1989), 182.

2.7. The Weapons of the BLH&P

An extremely interesting article in *Le Progrès de Valleyfield* is to be found two weeks later in August 1929. The paper did not regularly publish editorials but, on occasion, it offered its readers an article on the front page that went beyond the reporting of news and offered opinionated comments on matters of local importance. This editorial-like article is a veiled but harsh critique of the company's project and its behaviour in the county. The anonymous article, printed on the first page, is titled "Les armes de la Beauharnois Power". This phrase can be read in two ways because "armes" has two different meanings in this context. On the one hand, "armes" can be read as "heraldic arms", and its translation would then be "The heraldic arms of Beauharnois Power". This interpretation seems to be reinforced by the printing of the Beauharnois' self-attributed heraldic arms within the same article.⁶³ But "armes" can also mean "weapons" and the title would then mean "The weapons of Beauharnois Power". This interpretation is reinforced by the charge that is made in the introduction of the article and restated in the conclusion: the Beauharnois Power Corporation is pretentious, seigniorial in attitude, and bent on intrigue politics.

What is at stake in this article is the surprising fact that a modern industrial corporation may have thought it important to drape itself in the trappings of medieval aristocracy. In the author's story (and the tone of the article leaves no doubt that it is a story or a tale),

⁶³ Please refer to appendices 11 and 22 to see the BLH&P self attributed heraldic arm.

the origins of heraldic signs came from illiterate medieval Europe that had not yet known universal public education. Merchants needed symbols to make themselves recognisable to their clientele and “les plus prétentieux adoptèrent un blason”. He then goes on : “La Beauharnois Power Corporation a aussi adopté un blason et se joint au rang de ces corporations qui croient que ce traditionalisme a de la valeur non seulement au point de vue esthétique, mais encore comme moyen d’augmenter la bonne volonté du public”.

This pretentious traditionalism pays off in “les affaires modernes” – modern business – because “le public sait qu’une direction qui se sert d’un emblème déploie plus d’imagination que [ses compétiteurs]”. And more imaginative companies attract greater support from the “public”. The conclusion is a cunning warning. Of course, the BLH&P would from then on benefit from an easily recognisable trademark. But the emblem could also become a two sided blade: “[le blason] rappellera [aussi] à la mémoire l’historique ... des Cours royales; des cérémonies; voire même d’intrigues qui forment toutes parties de la chaîne de causes et d’effets qui développèrent ce pays en général et conduisant en particulier à ce développement gigantesque du St-Laurent”.

This article calls for at least three comments. First, the conclusion reads, in retrospect, like an omen to the energy business in Québec. The succession of scandals and public inquiries in the 1930s convinced the vast majority of Québécois to nationalise the whole Montréal Light Heat & Power monopoly (which included the BLH&P after 1933) and to tightly regulate the remaining privately owned electricity industry in Québec. This will be sketched out in more detail in the conclusion of this thesis. At some point, it seems that

that Québec voters had enough of the constant “intrigues” of the electricity business. Had the BLH&P and its competitors read the voters’ feelings more accurately, maybe they would have changed their practices or chosen a lower public profile.

Second, one wonders what the author meant exactly by the “public”. The word, in French as in English has had, and still has, many meanings. It is doubtful, though, that by “public” he referred to the people of the Comté de Beauharnois since I have never found any expressions of excitement or gratitude toward the company by the inhabitants. In all likelihood, the writer was implying that the public relations strategies of the BLH&P aimed at attracting support not from the local people but from the general public opinion of the entire province or, more specifically, the political elite who had legislated in favour of the project and the business elite who could finance it.⁶⁴

Finally, the fundamental question asked by the author is still very relevant to historical analysis: Why would 20th century capitalist entrepreneurs wish to associate themselves symbolically with European nobility, especially in North America? Was that peculiar to Canada or was this common in the United States too? The second question would need

⁶⁴ One example of such people can be found in the photograph F2-700 092 B332-9-23-30 (Appendix XIII). Other photographed visitors from the most powerful circles of North American society include executives of the Aluminium Company, Canadian National Railways, National Electric Light Association, Canadian Pacific Railroads; bankers and insurance people from Toronto; and members of the International Joint Board. All of these pictures can be found in file F2 700-092.

more research than can be done in the context of this thesis.⁶⁵ But a tentative response to the first question can be proposed. As Marc Bloch remarked about the early origin of the medieval aristocracy, wealthy elite in newly formed societies feel the need to justify their power in discourses of self-sacrifice for the public good. This nobility could in turn justify power over the lives of the people and over the exploitation of a society's specific set of natural resources.⁶⁶

That some capitalist entrepreneurs tried to articulate their social power in terms of European nobility could have been a sort of cultural shortcut to justify their own immense and disturbing power over the public life and natural resources in Québec. Instead of creating a new indigenous and original form of nobility, why not, after all, copy the symbols and trappings that had been attached to the European aristocracy over many centuries? The problem with such an attempt is that it went against important North American values concerning the foundations of public life. In the United States, for example, the notion that the middle class rules the nation has been fundamental to the political apparatus of the country, notwithstanding the reality of this affirmation.⁶⁷ That

⁶⁵ In the Canadian context, Brian Young appear to be a good starting point to explore the capitalists' fascination with European nobility. See in particular Brian Young, *George-Étienne Cartier, bourgeois Montréalais* (Boréal Express, 1982).

⁶⁶ Marc Bloch, *La société féodale*. (Éditions Albin Michel, 1989). See book two : "Les classes et le gouvernement des hommes", chapters one "Les nobles comme classe de fait" and four "La transformation de la noblesse de fait en noblesse de droit".

⁶⁷ Howard Zinn, *A People's history of the United States, 1482 – Present* (HarperCollins Publishers, 2003), Chapter 5.

many capitalist entrepreneurs did act like brutal lords in the last third of 19th and first third of 20th century North America is an unquestionable fact, and one that was forecasted by Tocqueville early in the 19th century. But this capitalist elite failed to create for itself a lasting cultural justification for its immense power, as Tocqueville had also foreseen.⁶⁸ Coming back to the BLH&P, its association with European nobility failed to defuse Québécois' expressions of anger toward the electricity business.

2.8. Politics by Other Means: Ceremonials and the Death of the Peasant World

By the beginning of October 1929, only 9 out of 52 sampled peasants (17%) had sold their land, in spite of the fact that they had been under enormous pressure for more than six months and had been given contradictory and deliberately confusing information about the nature of the project for more than a year.⁶⁹ To recapitulate the chronological reconstitution so far, they first were told between January and March 1928 in their county newspaper that the coming project was small in scope. Second, in March 1929 a wave of notaries offered substantial on-the-spot cash advances in exchange for a binding agreement to sell at a fixed price. Third, as early as May 1929 they were untruthfully told that most of the fellow *agriculteurs* in the Comté had sold. Fourth, the company became increasingly explicit in its intention to use its expropriation rights between May and August 1929. Moreover, it did not hesitate to suggest that the Commission des services

⁶⁸ Alexis de Tocqueville, *De la démocratie en Amérique II, Deuxième partie, Influence de la démocratie sur les sentiments des Américains*, Chapitre XX "Comment l'aristocratie pourrait sortir de l'industrie".

⁶⁹ In total, 274 selling contracts were signed for this project. See footnote 75 for more details.

publics offered ridiculously small amounts to the expropriated or that an expropriation might result in the cutting in two of their *terre*, both possibilities meaning nothing short of bankruptcy for those families.

As the editorial of August 1929 discussed in the preceding section suggests, many people in Beauharnois had understood by late summer the real scope of the project and the interests that were at stake: a modern corporation, backed by the different levels of government, had decided to build a gigantic hydroelectric and navigation canal in their county. However, Swezey's corporation was encountering strong passive resistance from Beauharnois peasants. To use the words of this editorial, many Beauharnois peasants evidently lacked any "bonne volonté" (good will) to sell their land and see it transformed into an industrial structure. Formal approval from the provincial and federal governments and intense pressure on the peasants had failed to make the huge transfer of property unproblematic.

Interestingly, the corporation decided to orchestrate a spectacular ceremony only a few weeks before the scheduled start of the works even though very few peasants had, in spite of the six months of the pressure, sold their *terre*. It is difficult to state, judging from the existing literature, if these ceremonies were common on big hydroelectric construction sites and, if such was case, their cultural origins and usual political messages. What can be proposed here is that one of the corporation's goals was quite probably to finally convince the *agriculteurs* to sell en masse.

The ceremony attempted to discredit the peasant mode of production and invited the inhabitants of Beauharnois to join the working class by suggesting that a bright future awaited them in the labouring class and the industrial world. In the words of H. V. Nelles, the corporation would celebrate the industrial organisation of society and nature through “politics by other means”, that is by translating their particular vision of what human - nature relations should be into “performance art”.⁷⁰ This performance was enacted on 12 October 1929 by no less than the highest political and religious characters of the country: the Governor General of Canada, Lord Willington; the Vatican’s apostolic delegate (the pope’s direct representative) to Canada Mgr Andrea Cassulo; Montréal’s archbishop Georges Gauthier; and many federal and provincial senators, Members of Parliament, ministers and high ranking public servants.⁷¹

The ceremony began around eleven o’clock in the town of Valleyfield (which is next to the western extremity of the canal), where Mgr Andrea Cassulo blessed the whole construction site works from a podium decorated in the colours and symbols of the Vatican. In his speech (delivered in French), he praised the Dominion’s impressive industrial growth, an accomplishment that other nations envied. He felt confident in his remarks for he had blessed many industrial centres in the recent past.⁷² What had always

⁷⁰ This discussion is greatly inspired by Henry Vivian Nelles, *The Art of Nation-Building; Pageantry and Spectacle at Québec’s Tercentenary* (University of Toronto Press, 1999). See especially p. 11-15

⁷¹ *Le Progrès de Valleyfield*, 17 October 1929.

⁷² This suggests these ceremonies were common and that high representatives of the Catholic Church regularly attended them.

rejoiced his heart was to see the degree to which “Capital” and “Travail” (Labour) mingled harmoniously in Canada. Moreover, governments were wise and encouraged industrial initiatives. Indeed, his participation was a real pleasure, and he happily provided this capitalist endeavour the best of all guarantees for success: divine benediction.

A few hours later, the Governor General of Canada headed another ceremony, 25 kilometres further, at the eastern extremity of the future canal, in between the small Melocheville town and the town of Beauharnois. In his address (delivered in English), he also rejoiced at the industrial progress of the Dominion of Canada which augmented the power and glory of the British Empire. And yes, Mgr Andrea Cassulo was entirely right: Capital and Labour are on the best terms possible in this country and this was partly thanks to the “maternel” (motherly) care of the great Catholic Church which had always guided its flock, across all nations, toward peace and harmony. Other speeches followed, one especially by Oliver Sweezey who told his audience that he felt a great burden upon his shoulders: his real duty, he said, was toward the development of this region and this gigantic project would lead Canada toward an era of progress without precedent in Canada. Shortly afterwards, the Governor General of Canada pressed a button and a gigantic explosion shook the ground and blasted tons of rock high into the air: the construction of the power plant next to the town of Beauharnois had begun despite the fact that most of the land needed to build the canal still belonged to the peasants.⁷³

⁷³ *Le Progrès de Valleyfield*, 17 October 1929.

This day-long ceremony (a reception was held afterwards in Beauharnois's town hall) was a momentous event. And if the blasting was spectacular, its sociocultural impact was probably much more important. In the three following months the peasants sold their *terres en masse*. Why? Two reasons explain this. Most immediately, the sight of tons of rock flying into the air right next to your land bears an air of inevitability. A corporation powerful enough to do that will most probably manage to build its power plant, the best thing to do is to move out of the way.

More fundamentally, these Catholic peasants had been emphatically told by the most prestigious religious and political representatives that their world was dead: heavy industry was the future and their role in this new world was to be workers. The *classe agricole* was not even mentioned in the speeches of the prestigious guests. In that sense, they were as invisible in the speeches as they were on the map of the Comté de Beauharnois drawn by the BLH&P to attract investors (see Figure 1 at the beginning of this chapter). God, the King, the Nation all agreed on one thing: prosperity and progress lay within the industrial capitalist exploitation of nature and in the harmonious relation of capitalists' leadership and workers' obedience. Such ostensible endorsement of the new mode of production – finance capitalism – by the highest political elite of the country rendered attempts to legitimise peasant resistance much more difficult.

The fact that the Vatican's delegate, the Montréal's archbishop, and the Valleyfield bishop expounded the same message made resistance next to impossible. As I detail in section 3 of Chapter 2, Québec's *classe agricole* was generally respectful of the Catholic

hierarchy, and only two years before the *agriculteurs* had forfeited their project of a non-denominational rural party for the province in good part because they did not want to be condemned by the Québec Catholic Church. As I have also explained then, Québec peasants could rebel if their action was endorsed by the local clergy. However, support could not even be found at the regional level: the Valleyfield bishop played a leading role in the ceremony and, in the following years, not a single piece of evidence suggests that he might have supported the Beauharnois *agriculteurs* in their reluctance to sell or when they confronted the BLH&P to be compensated for the degradation of their environment. He would not follow the example set by Mgr Victor Tremblay in Lac Saint-Jean only three years earlier. It sealed the fate of any form of organised reaction from those rural communities and, in the short term, they may have effectively become “a reservoir of English and French young men and women well suited temperamentally to industrial employment”, as one promotional brochure of the corporation described them.⁷⁴

Changes in modes of production are first and foremost cultural revolutions. Nature does not drive economic change; rather, transformations in values, power relations, knowledge, and techniques change the environments in which humans live. In the case of finance capitalism, it had totalising ambitions: all humans should be divided in two groups: workers (followers) and capitalists (leaders) as I have observed in this chapter. This shrinking of the social structures into two groups would necessarily have its expression on the landscape. The capitalist mode of production also required that

⁷⁴ Beauharnois Power Corporation Limited, *Beauharnois. An Ideal Location*, (September 15th, 1930) p. 9.

A copy is filed in F2-2154-2.

landscape dynamics be subordinated to the creation of industrial natural resources and modern energies such as hydroelectricity as it will be argued in Chapter 4.

However, capitalists' ambitions were constrained by social dynamics which existed independently of their world. In the case of Beauharnois, official authorisations had to be obtained, and somehow the entrepreneurs had learned that brutally and illegally removing the peasants from their land (as other entrepreneurs had done in Lac Saint-Jean a few years before) was risky. "Public opinions" other than the well known figures of the Montréal financial district or the Comité des bills privés of the Assemblée législative might have not tolerated that kind of take-over of the Québec landscape again. The BLH&P may have had privileged access to the financial and political elite but it also needed to conquer the realm of values and symbols to set their mode of production on solid and lasting ground. Hoping to achieve this, it organised a form of cultural war in which the weapons were stages, flags, and speeches. If the peasants were convinced that their class and their way of relating to nature were dead (the company's map and speeches did not even mention their existence), and if Québec's other public opinions were convinced that a bright future lay in industry, local resistance would wither away and the transfer of land would be successfully completed. The ceremony was a show of force: a new industrial world is upon us, everyone in Canada agrees to embrace it, even God sees this in a good light. The implicit message is: how would you dare resist this? In the following weeks most peasants, in effect, dared no more and sold their *terres*.

2.9. The Cost of Leaving

What kind of price were they finally given in exchange for their *terres*? To explore this question I sampled 54 contracts of sale out of the 274 needed to construct the BLH&P project.⁷⁵ This sample was built from the 26 mapped lists of transactions made by the BLH&P in 1937.⁷⁶ The lists follow approximately the numerical order of the lots. Closely numbered lots are therefore adjacent and each list is accompanied by a map of a group of property. The sample is not random from a strict statistical point of view because it was not blind. However, the transactions were selected on a first appearing (to the reader of the transactions lists) first taken basis, which showed no obvious biases. The selection was based on 3 criteria: first, the probing was made in three different subregions of the construction site: next to the entrance of the canal, in Saint-Louis-de-Gonzague right in

⁷⁵ The number of selling parties and sold lots can be found in: Municipalité Régionale de Comté de Beauharnois-Salaberry, *Impact de la construction du canal Beauharnois dans les municipalités* (MRC de Beauharnois-Salaberry, 1996), p. 31.

⁷⁶ “Drawing B-3. Title Record Plan. Development properties. Beauharnois Land Companies. Beauharnois Light Heat & Power. Parish of St-Cecil County of Beauharnois”, Montréal, 1937; “Drawing B-10. Title Record Plan. Development properties. Beauharnois Land Companies. Beauharnois Light Heat & Power. Parish of St-Louis de Gonzague. County of Beauharnois”, Montréal, 1937; “Drawing B-13. Title Record Plan. Development properties. Beauharnois Land Companies. Beauharnois Light Heat & Power. Parish of St-Louis de Gonzague. County of Beauharnois”; “Drawing B-17. Title Record Plan. Development properties. Beauharnois Land Companies. Beauharnois Light Heat & Power. Village of Lac St-Louis. Parish of St-Clement. County of Beauharnois”, Montréal, 1937; Montréal, 1937; “Drawing B-18. Title Record Plan. Development properties. Beauharnois Land Companies. Beauharnois Light Heat & Power. Village of Lac St-Louis. Parish of St-Clement. County of Beauharnois”, Montréal, 1937. These records are kept by Hydro-Québec, Division TransÉnergie, Unité expertise immobilière, Équipe inventaire immobilier.

its middle, and in between the Saint-Clément and Melocheville parishes at the emptying extremity of the canal; second, the sampled lands were not to be in an obvious village area (judging from the shape and location of the lots on the maps); and third the transaction was to involve only one selling party in order to be sure of the total price paid per arpent. This last criterion excluded many transactions because collective ownership of a single lot was predominant. I have not made a precise calculation but I would say that around half of the farms had multiple owners.

Using my sample, the average price paid per arpent⁷⁷ is 169.42\$.⁷⁸ Compared to what could be reconstructed of that local land market, the average of \$169.42 per arpent seems to have been significantly above the average market price. As a starting point a comparison, the 1931 Canadian census states that the average price per *acre* is \$124.90. Translated in arpents, this amounts to a price of \$105.52.⁷⁹ However, this is an average

⁷⁷ An arpent in French Canada has a length of 58.47m or \approx 191.1 foot; an area of 34.20 “ares” or approximately 36802 foot² which is close to one acre: Office québécois de la langue française, *Grand dictionnaire terminologique* (<http://www.oqlf.gouv.qc.ca/>, visited in January 2004); A Rey and J. Rey-Debove dir., *Le petit Robert* (Société du nouveau Littré, 1981).

⁷⁸ This computation exclude 3 entries out of the 54: the Commission scolaire de la paroisse de Saint-Louis-de-Gonzague, James Worlmal, and Henry C Matthews. These estates are very small and their abnormally high prices quite certainly prove that these lots are essentially composed of valuable buildings.

⁷⁹ An acre, the area measure used in the 1931 federal census, is bigger than an arpent: acre = 4840 yards² or 43 560 feet², while the arpent is 36 802 feet²): Office québécois de la langue française, *Grand dictionnaire terminologique* (<http://www.oqlf.gouv.qc.ca/>, visited in January 2004); A Rey and J. Rey-Debove dir., *Le petit Robert* (Société du nouveau Littré, 1981).

price calculated almost two years after the company bought close to a fifth of the farms⁸⁰, or 26% of the area of the affected municipalities.⁸¹ This price could thus include an increase in the value of the arable land resulting from its increased scarcity in the region. Considering other evidence, an average of \$75 to \$85 per arpent before the arrival of the Beauharnois hydroelectric project seems quite plausible. For example, two anonymous peasants from Grosse Île were trying to sell their *terre* in 1927 for \$8000 and \$9000 respectively.⁸² Considering that the average area of the farms in the Comté de Beauharnois was 107.46 arpents⁸³ these farms were probably valued by their owner at \$74.45 and \$83.75 per arpent.

Six years later, in 1933, two legal inquiries made by Henri Baby, the BLH&P chief notary, on the value of the farms in the County reinforces the 75\$ to 85\$ estimate for the

⁸⁰ “Tableau 80. Fermes occupées par superficies, et subdivisions de comté, 1921”, *Recensement du Canada, 1921. Volume V Agriculture*, p. 134; “Tableau 21. Population. Nombres de fermes, superficie et état de la terre en 1931; travailleurs de fermes, 1930, par comtés, Québec”, *Recensement du Canada, 1931, Volume VIII Agriculture*, p. 209, line 14.

⁸¹ Municipalité Régionale de Comté de Beauharnois-Salaberry, *Impact de la construction du canal Beauharnois dans les municipalités* (MRC de Beauharnois-Salaberry, 1996), p. 31.

⁸² *Le progrès de Valleyfield*, 28 July 1927.

⁸³ This average area is based on my sample. The computation exclude 3 entries out of the 54: the Commission scolaire de la paroisse de Saint-Louis-de-Gonzagues, James Worlmaid, and Henry C Matthews. This average is confirmed by the 1931 census which indicates average area per farm of 85.8 acres: “Tableau 21. Population. Nombres de fermes, superficie et état de la terre en 1931; travailleurs de fermes, 1930, par comtés, Québec”, *Recensement du Canada, 1931, Volume VIII Agriculture*, p. 209, line 31.

late 20s. Looking into the last transactions of some of the farming lots of the Comté, he found the following sale prices⁸⁴:

- Estate sold 25-2-1905 at 43\$/arpent.
- Estate sold 13-9-1908 at 59\$/arpent.
- Estate sold 17-02-1915 at 63\$/arpent
- Estate sold 16-11-1915 at 131\$/arpent.
- Estate sold 30-9-1917 at 50\$/arpent.

This averages to \$69 per arpent between 1905 and 1917. This is a very small sample. Moreover, Baby found that a great many *terres* had never been given a monetary value because they had been donated from generation to generation. Nevertheless, it does give a rough indication of land prices for the Comté de Beauharnois ten years before the hydroelectric project. Ten years of inflation later, that \$69 had probably risen to the \$75-85 range.

In summary, it appears that the *agriculteurs* received high sums for their real estate in the context of the local market for arable land. Proprietors received on average \$169.42 per arpent for their *terre*, and thus approximately doubled (or increased by 100%) the monetary value of the land they had worked upon. This was by no means public information but even the local rumours circulating in the villages in the following decades stressed the fact that these owners received large sums of money for their land.⁸⁵

⁸⁴ Data compiled from: Henri Baby, "Memorandum to Mr. R.A.C. Henry", F2/2158, 16 November 1933; and Henri Baby, "Memorandum to Mr. R.A.C. Henry", F2/2158, 26 February 1934.

⁸⁵ Abbé Omer Séguin, *Souvenir du centenaire. Saint-Louis-de-Gonzague 1847-1947* (Paroisse de Saint-Louis-de-Gonzague, c1947), 33.

This is further proof that they were not at all eager to leave and that they would do so only at a high price.

However, women proprietors who sold their *terre* to the BLH&P received much lower prices per arpent than their male counterparts. Men obtained \$173.25 per arpent on average while women received \$129.42 per arpent. This means that women obtained only 74.7% of the price paid to men proprietors.⁸⁶

These are interesting results but they raise more questions than they can answer about the role of women in the peasant mode of production, or the about the impact of the BLH&P project upon their lives. The mere fact that around a fifth of the proprietors of my sample are women is interesting in a society where civil law was undeniably patriarchal. In fact, women could hardly own immovable property at all under Québec Civil Code of 1866.⁸⁷ The fact that women in rural Beauharnois still owned farms as late as 1929 could be a

⁸⁶ There are 42 clearly identified selling contracts signed by men in my sample. The computation about land value for men exclude 2 entries out of the 54: James Worlmaid and Henry C Matthews. There are 10 clearly identified selling contracts signed by women in my sample. This computation include the entry called "Ledeandre Laderoute, Mrs Dominique Lecompte" and excludes one entry "Laberge, Elise (fiche 18)" out of 11 female proprietors. Élise Laberge was paid 415.82\$/arpent, an exceptionally high price for all proprietors.

⁸⁷ On the patriarchal nature of the 1866 Civil Code see Brian Young, *The Politics of Codification. The Lower Canadian Civil Code of 1866* (McGill-Queen's University Press, 1994). The legal, economic, and political subjugation of women in Québec in early 20th century can be studied in general terms with Micheline Dumont and others eds, *L'histoire des femmes au Québec depuis quatre siècles* (Le Jour, 1992).

remnant of the original Canadien peasant society. From the 17th century to 1866, this society was governed by the Coutume de Paris. The civil code left no doubt about the capacity of women to own and acquire goods through their whole life, even though, as wives, their capacity to manage their wealth was limited.⁸⁸ Unfortunately, testing this hypothesis about the evolution of gender relations within the Canadien peasant mode of production is impossible with the sources used in this thesis.⁸⁹

Beyond the basic question of why there were women proprietors in the Comté de Beauharnois lies a series of other important questions that also remain without answers.

⁸⁸ Yves F. Zoltvany, "Esquisse de la Coutume de Paris", *Revue d'histoire de l'Amérique française*, 25, no 3 (1971), 366-367, 370, 373-4; Bettina Bradbury, *Les grandes conférences Desjardins*, "Wife to Widow: Class, Culture, and Family in Nineteenth-Century Québec", 1, (Programme d'études sur le Québec, Université McGill, 1997), 6-7, 9-10, 35.

⁸⁹ Such an inquiry should certainly be based on oral testimonies and notarial archives. Other relevant works to this matter are Pauline Desjardins, "La Coutume de Paris et la transmission des terres - Le rang de la Beauce à Calixa-Lavallée de 1730 à 1975", *Revue d'histoire de l'Amérique française*, Vol 34 No 3 (1980); John Dickinson, "New France: Law, Courts, and the Coutume de Paris, 1608-1760", *Manitoba Law Review*, 23,1&2 (1996); Diane Gervais "Haut risque d'exclusion : le Comté de Verchères de 1870 à 1970", Gérard Bouchard, John A. Dickinson et Joseph Goy (ed.), *Les exclus de la terre en France et au Québec (XVII^e-XX^e siècles) La reproduction familiale dans la différence*, (Septentrion, 1998) ; Diane Gervais "Succession et cycle familial dans le Comté de Verchères, 1870-1950", *Revue d'histoire de l'Amérique française*, Vol 50 no 1, (1996); France Parent, *Entre le juridique et le social. Le pouvoir des femmes au XVIII^e siècle*, (Cahier de recherche du GREMF, no 2, Université Laval, 1991); Sylvie Savoie, *Les couples en difficultés au XVII^e et XVIII^e siècles: les demandes de séparation en Nouvelle France*, (M.A Thesis, Université de Sherbrooke, 1986).

Were the *terres* owned by women intrinsically less valuable than those of men because of their location, state of improvement, or immovable assets? If not, why did women receive lower prices? Were *terres* owned by women systematically under-priced in Québec rural society regardless of their real value? Was the BLH&P convinced that women should be paid at a lower price than men? I can only propose two solid statements about these findings at this point. On the one hand, women were systematically discriminated against in early 20th century rural society because they owned only a fifth of the properties.⁹⁰ On the other hand, women who were forced to sell their land to the BLH&P either had less wealthy agricultural lands or were systematically extorted by the company.

3. Further Reflections

3.1. What Kind of Attachment to the Territory?

That the peasants resisted selling their *terres* seems quite clear from the chronology of events. While this demonstrates a form of attachment to their property, what was the exact nature of this attachment? Were they trying to get the most return from their initial capital investment in estate property? Were they hoping to stay on their land and perpetuate their way of living? These are not necessarily contradictory ways of thinking. One may wish to stay in a cherished landscape and try to get the most capital out of it if he or she is forced to leave. But these are nevertheless two quite different attitudes towards the environment. In the absence of direct testimonies from the Beauharnois

⁹⁰ Please refer to the introduction of Section 4 of Chapter 4 for a complementary discussion of women's situation within the Beauharnois episode.

cultivateurs the answer to this question must be built from contextual evidence and secondary sources.

For the sake of the argument, let us suppose first that the farmers acted in a capitalist way, that their main motive was to speculate on the land and that the delay in selling was only a strategy to augment the prices. This first suggestion is weak for many reasons. In order to speculate one must be in a position of strength and the peasants were not. What they had to sell, they knew that one day they would be forced to cede by expropriation and they had no idea when that moment would come. One cannot speculate when he or she does not control the agenda to some extent. Moreover, the peasants were told that the corporation would only expropriate a narrow band of land to build the canal and that this would sever their *terres* in two, as we have seen in section 2.4 of this chapter. One wishing to speculate therefore had to live with the grave risk of losing the better part of many generations of familial work on the land if he did not sign the contract in time.

On the other hand the *agriculteurs* may have resisted mostly out of attachment to their specific land and to their peasant mode of production. As we have seen in section 3 of Chapter 2, recent research suggests that peasant values were still central in rural Québec at the turn of the 20th century. One of these values was to perpetuate their way of living and to establish at least one of the sons on a *terre*. Thus, the delay in selling would spring more from refusal, frustration, and the time needed to find another good *terre* – if they ever found one – to move to and perpetuate their way of living, rather than mere speculation.

This chapter has also provided two good contextual pieces of evidence to support this reconstruction. The first is the numerous instances of lands that had never been sold but instead donated from one generation to the next generation as we have seen in section 2.9. Indeed one of the principal problems of the BLH&P chief notary, Henri Baby, had been to establish the value of many *terres* in Beauharnois because they had never been given a monetary value since their clearance for agriculture 3 to 5 generations earlier. This finding corroborates Diane Gervais' thesis that the Québec rural world rested on strong intergenerational solidarity values.⁹¹ That many parents still *donated* their land to their children, the oldest and least commercialised Canadian peasant inheritance practice, reinforces the idea that these communities did not yet essentially belong in their minds and practices to a capitalist agriculture in the late 1920s.⁹² The second clue is the

⁹¹ Diane Gervais, "Succession et cycle familial dans le comté de Verchères, 1870-1950", *Revue d'histoire de l'Amérique française*, Vol 50 no 1, (1996), 91.

⁹² Lise Pilon-Lê distinguishes three stages of legal transmission of farm units in Québec: 1) the "donation entre vifs" in lightly commercialised and subsistence economy 2) the "vente père-fils" in more commercialised but still diversified agriculture 3) the company mode in specialised agriculture. Capitalist agriculture in which, among other things, farms were sold essentially to non family members occurs only after the Second World War in Québec according to Pilon-Lê, Christiane Montpetit, and Michel Morisset. See Lise Pilon-Lê, "La transmission des fermes spécialisées au Québec" in Jacques Franquen ed. *Agriculture et politiques agricoles au Québec. Transformations Économiques et sociales* (Éditions de l'Harmattan and Presses de l'Université du Québec, 1990); Christiane Montpetit, "D' "habitant" sédentaire à émigrant. Migration, Économie et transformations agricoles à Saint-Louis-de-Gonzague (1861-1931)", Doctoral Thesis in Anthropology, (Université de Montréal, 2000); and Michel Morisset, *L'agriculture familiale au Québec* (Éditions de l'Harmattan, 1987).

collective ownership of a single *terre* I discovered in the BLH&P compilations of selling contracts. Collective ownership of the same tract of land points toward intra-familial or intra-peasantry forms of wealth exchange, not capitalist ones.

In sum, the most solid conclusion to draw is that in the Beauharnois *agriculteurs* in the 1920s and 1930s were still part of a peasant mental universe, even if that peasant world was going through changes in its practices and wealth stratification. These *agriculteurs* would have been less interested in increasing their financial return than in offering to their family an autonomous, stable, and prosperous way of living from the land. Being forced to leave good *terre* on such short notice, and furthermore in a Comté which was suddenly losing a fifth of its arable land, could only have generated stress, indignation, and resistance from the inhabitants.

There is no need to imagine the Beauharnois *agriculteurs* as absolutely opposed to any industrial projects in their Comté, but they could have asked that the taming of the Fleuve Saint-Laurent be done within its natural bed, a technical possibility that had been studied and even formerly recommended by the Canadian-American Joint Board of Engineers in 1926.⁹³ That would have at least preserved their *terre*, even if the entire landscape would still have gone through significant changes. However, the land canal design enabled more electricity generation (because its single powerhouse would create an artificial fall 25 metres high while many smaller powerhouses upon the natural bed would concentrate less kinetic energy) and Sweezey convinced the investors and the people of the Comité

⁹³ T. D. Regehr, *The Beauharnois Scandal* (University of Toronto Press, 1990), 47.

des bills privés that the maximum exploitation of the river – or the fight against energy “waste” as *conservationist* thinking would have phrased this – was the paramount criterion for the “public interest”. But let us leave aside conservation philosophy for now: I will provide more thoughts about conservation in the next chapter. What is central to my inquiry now is the idea that another “public interest” had existed in the *perrons*, “fabriques” (church councils), and town councils of the Comté de Beauharnois but, this public good was not relayed to the Assemblée législative and thus did not influence the legal framing and design of the BLH&P hydroelectric canal.

As historian Roger Chartier noted about pre-revolutionary France, modern societies are made of competing and often contradictory “public goods”. He defines a “public good” as an “attitude critique” able to “débattre de la défense des intérêts partagés”⁹⁴, a notion very close to Arendt’s *inter-est* and these are chiefly shaped by the environmental and economic projects of each sociocultural milieu. The capitalist class had in this period clearly identified ideas of what the public good should be: the maximum industrial exploitation of nature led by private capital, driven by the search of rapid profits, and protected by guarantees from the state. Québec’s peasants hoped to perpetuate to each generation a way of living and prosper on a landscape they fully owned and controlled, as free as possible of state or private creditors. Considering the hydroelectric potential of this stretch of the Saint-Laurent, the possibility for a clash was very high and, when it

⁹⁴ See Roger Chartier. *Les origines culturelles de la Révolution française* (Éditions du Seuil, 1990), 226, 184-186, 192-198.

effectively happened, the public good as interpreted by the entrepreneurs weighed much more in the lawmaking process.

3.2. The Worth of the Land – Agriculture vs Industry

As we have seen, the *cultivateurs* got significantly higher prices for their land than the market average for arable land in Beauharnois. In section 2.9 I proposed that the average price per arpent before the arrival of the BLH&P was in the \$75-85 range. Based on my sampling, men obtained \$173.25 per arpent on average while women received \$129.42 per arpent. That is an increase in worth of the land by about 100% and 60% more for men and women proprietors respectively. To fully understand the transformation brought by the project, these prices must also be compared to what the same arable land was to be worth once it would be transformed into industrial infrastructures. As such, it is interesting to see if the 100% or 60% increase in capital assets of the farmers corresponds to the increase in Sweezy's and his associates' personal fortunes. In other words, and leaving aside the issues of different class economic projects and forms of attachment to the land for the moment, were the private interests (understood in strictly financial terms) of the *cultivateurs* and the hydroelectricity entrepreneurs equally served in this energy production project? No, they were not.

By April 1928, Sweezy and his financial associates had personally invested \$1,369,000 in the first and second Beauharnois syndicates. In July of 1931, a House of Commons inquiry Commission in Ottawa established that Sweezy and his associates had since then made a profit of \$2,189,000 in cash and were collectively the holders of \$4,000,000

worth of shares of the Beauharnois Power Corporation. They had therefore made a profit of 452% or, proportionally speaking, 4.5 times more than men proprietors and 7.5 times more than women proprietors. Moreover, these profits had been made purely through the numerous financial reorganisations of the BLH&P. Once the company began electricity production, they would also receive dividends. The return on their capital investment would thus increase further over time.⁹⁵

This large difference in monetary value for the exploitation of the same environment is, I propose, a testimony to the basis of the hierarchy of land uses in Québec during the 1920s and 1930s. It indicates that industrial use was worth much more than agricultural exploitation, even on highly fertile land. This is both consistent with what is known of that era and surprising. On the one hand, the federal government economic policy had been, from its very foundation in 1867, to promote agriculture in the Canadian prairies and industry in Ontario and Québec.⁹⁶ The Québec Liberals had also always sought to accelerate the industrialisation of the province since 1897, the start of their political reign.⁹⁷ Both at the federal and provincial levels then, industry was the preferred land use for the province of Québec.

⁹⁵ Regehr, *The Beauharnois ...* p. 33-34, 88-90, 142.

⁹⁶ Vernon C. Fowke, *Canadian Agricultural Policy. The Historical Pattern* (University of Toronto Press, 1978), Chapter VII.

⁹⁷ Paul-André Linteau, René Durocher and Jean-Claude Robert, *Histoire du Québec contemporain. De la Confédération à la crise (1867-1929)* (Les Éditions du Boréal, 1989), chapters 24 and 32.

On the other hand, agriculture was still praised by many as the great endeavour of the Canadian people. The powerful Catholic Church and conservatives of all shades in 19th century Québec had always praised the agricultural way of life as the only true destiny for the Canadiens. This was a two-sided project: the preservation of the old country and the rural colonisation of the Québec territory outside the valley of the Saint-Laurent. In the words of one bishop, agriculture preserved in the people “son indépendance et sa dignité, sauvegard[e] la simplicité de ses mœurs, le maint[ient] sobre et honnête”, while colonisation assured the nations’ future. In 1923, the bishops of Québec wrote a collective letter informing *agriculteurs* that it was their duty to stay on their ancestral land.⁹⁸

This ideology was labelled “agriculturaliste”⁹⁹ or “clerico-nationaliste”¹⁰⁰ by historians. It revolved around the ideas of agriculture seen as the best way of life and a promising economic project, the extolling of the Catholic religion, and the fight for the preservation of the moral core of the nation in face of a modern world of industry, depraved cities, and atheist ideas. In the first third of the 20th century, the Church at times celebrated industrial capitalist development in unambiguously enthusiastic terms as my sources showed in the

⁹⁸ These information are taken in Jean Hamelin and Nicole Gagnon, *Histoire du catholicisme québécois. Volume 3. Le XXe siècle. Tome 1, 1898-1940* (Boréal Express, 1984), 278-279. Unfortunately, the exact origin of bishop’s declaration is hard to establish judging from the references Hamelin’s and Gagnon’s text.

⁹⁹ Robert Migner, *Quand gronde la révolte verte* (Les éditions de La Presse, 1980), Chapter 18.

¹⁰⁰ Paul-André Linteau, René Durocher and Jean-Claude Robert, *Histoire du Québec contemporain. De la Confédération à la crise (1867-1929)* (Les Éditions du Boréal, 1989), Chapter 35.

case of the Beauharnois ceremony. This partial integration of the industrial project in the Church public discourse has been acknowledged in the literature.¹⁰¹ Nevertheless, Robert Migner, the most informed historian in this matter, stresses that the “agriculturaliste” program still dominated in the Church discourse at least until the end of the 1920s.

This ideology was articulated first and foremost by the Church and conservative thinkers but liberal politicians in Québec appear to have regularly promoted it. Taschereau declared in 1922 the Canadian peasant was the “rempart de notre nationalité”, and agriculture minister Joseph-Édouard Caron proclaimed in 1926 that “L’agriculture doit passer avant l’industrie.”¹⁰² I have found similar declarations by Taschereau and his ministers in 1928 and 1930 in the weekly newspaper *Le Progrès de Valleyfield*.¹⁰³ It is curious to observe such a common use of this ideology for a political party generally described by historians as promoters of material progress and economic development.¹⁰⁴ This apparent contradiction calls for further exploration of the economic thinking of these liberal politicians. More generally, it is surprising that high quality arable land in Québec could be worth more when sacrificed to industrial use if conservative thinkers and all politicians praised the rural life. After all, there was plenty of non-arable land that could

¹⁰¹ W.F. Ryan, *The Clergy and Economic Growth in Quebec (1896-1914)* (Presses de l’Université Laval, 1966).

¹⁰² These excerpts are taken from Robert Migner, *Quand gronde la révolte verte* (Les éditions de La Presse, 1980), 136-137.

¹⁰³ *Le Progrès de Valleyfield*, 5 January 28, and 9 January 30.

¹⁰⁴ Paul-André Linteau, René Durocher and Jean-Claude Robert, *Histoire du Québec contemporain. De la Confédération à la crise (1867-1929)* (Les Éditions du Boréal, 1989), Chapter 35.

have been used for industry. At the very least, this shows that energy production was a special and preferred type of industrial land use, even at the expense of good arable land.

Arable land is one of the rarest ecological assets on earth. Only 11%¹⁰⁵ of the emerged land mass is suitable for long term agriculture and such rarity should theoretically make it one of the most valuable goods or natural resources there is. Although most people in 1929 were not as aware of this scarcity as we are now, they could still understand it to some extent. The Fleuve Saint-Laurent fertile valley had been cleared of forest and sculpted by the plough quite rapidly after the 1760 Conquest.¹⁰⁶ Beauharnois had been cleared from 1820 to 1880, which made it one of the last highly fertile regions of the valley to be transformed by the peasantry. In less than a century, then, the potential arable land was fully exploited, and the new generations were only left with marginal and ungrateful lands in the Laurentian plateau¹⁰⁷ to the north or the foothills of the Appalaches to the south¹⁰⁸ As we have seen, Hubert Guindon called this congestion the

¹⁰⁵ *Science et Vie*. Special issue titled : "La planète est-elle vraiment malade?" *Science et Vie*. 1020 (2002) : 124.

¹⁰⁶ To provide one example of how rapidly this transformation from one landscape to another could be done, the Comté de Beauharnois was cleared of almost 60% of its forest from 1851 to 1881.

¹⁰⁷ The foothills of the geological formation of the Canadian shield. In Québec, these foothills parallel the Fleuve Saint-Laurent to the north.

¹⁰⁸ Linteau, Durocher and Robert, *Histoire du Québec contemporain...* p. 138. For a description of the agro-ecological conditions of the Appalachian foothills and the kind of land use the *Canadiens* had there, see Léon Gérin "L'émigrant déraciné", *Le type économique et social des Canadiens* (Fides, 1948), 159-161.

“demographic contradiction”.¹⁰⁹ With the help of environmental history, it could also be called the ecological contradiction in the *Canadien* peasant mode of production. It forced massive waves of youngsters from the 1850s and on to leave the valley to work in the Montréal and New England factories for want of land to colonise. In the following half century, the urban centres of Québec grew so rapidly that the province was not even self-sufficient in terms of agricultural production, notwithstanding its oft sung rural prosperity.¹¹⁰ Interestingly, the newly cleared and fertile land of the Comté de Beauharnois and those of the Lac Saint-Jean shores were among the first regions sacrificed for gigantic hydroelectric project in the province. The apparent ease with which these *terres* were sacrificed for energy production remains intriguing and calls for further analysis of the interplay of class relations, national representations, and politics. Parts of this analysis will be sketched in the conclusion.

4. Conclusion

The transfer of property from the peasants to hydroelectric entrepreneurs was not a swift process in Beauharnois. The analysis in Section 2 linked the chronology of the sales to the company’s public relation strategy to show that peasant households were reluctant to sell their *terre*. This reaction fits into the mental logic of members of a peasant class that hoped first to maintain control over their means of production and to reproduce itself.

¹⁰⁹ Hubert Guindon, “The Social Evolution of Québec Reconsidered”, *Canadian Journal of Economic and Political Science*, Vol 26, 4 (1960) : 541.

¹¹⁰ Esdras Minville dir., *Études sur notre milieu. Agriculture* (Fides, 1943).

Section 3.1 proposed additional and independent evidences suggesting that the Beauharnois *agriculteurs* were indeed peasants.

An especially interesting dimension of this transfer of land was that the company thought it important to organise a major ceremony that sang the virtues and promises of the finance capitalist world. In light of the chronology of the land sales, this shows minimally that the promoters, financiers and politician supporting the project could only definitely break the Beauharnois inhabitants' resistance with a symbolic show of force. After all, when the Pope, the Québec Catholic Church, the King, the Nation, and the Canadian and Québec governments all give their blessing to a project, there is not much room to manoeuvre for organising a political protest. All of these entities said to the Beauharnois inhabitants that they cautioned the finance capitalist mode of production inherent to the BLH&P project. I also propose that this ceremony expressed a fundamental idea of the finance capitalist revolution: society should be entirely reorganised around the labouring and entrepreneurial classes. This would be the social dimension of this mode of production. Its environmental sides would be the reorganisation of landscapes to serve industrial purposes first. The next chapter is dedicated to analysing this proposition.

CHAPTER 4: “REHABILITATING THE WHOLE LANDSCAPE BETWEEN
VALLEYFIELD AND BEAUHARNOIS [:] A RELATIVELY SIMPLE PROJECT”:
SHAPING QUÉBEC’S RURAL LANDSCAPE IN LIGHT OF HEAVY INDUSTRIAL
SOCIETY

The reorganisation of society into workers and capitalists was a defining idea of the finance capitalist revolution. I have explored this in chapter 3, where it was explained that independent rural producers were forced to sell their means of production and were encouraged to join the industrial world and become workers. In the eyes of the entrepreneurs leading the BLH&P project, the residents of this rural county were first and foremost, as stated previously, “a reservoir of English and French young men and women well suited temperamentally to industrial employment”.¹

Chapter 4 examines the transformation of landscapes by the BLH&P canal and argues that the entire region’s 400 km² was transformed into an industrial system for hydroelectricity production and navigation.² This, I suggest, is part of a larger trend wherein the finance capitalist revolution essentially reorganised non-urban landscapes to produce natural resources for industry and modern energies such as hydroelectricity. In

¹ Beauharnois Power Corporation Limited, *Beauharnois. An Ideal Location*, (September 15th, 1930) p. 9. A copy is filed in F2-2154-2.

² As I have already explained in the introduction, the BLH&P canal was designed to be simultaneously a hydroelectric production facility and the first section of a navigation infrastructure. I focus my attention on hydroelectricity production because the project was driven by hydroelectric entrepreneurs and hydroelectricity politics in Québec.

other words, finance capitalism did not only create manufactures and working class or bourgeois neighbourhoods. It profoundly reshaped fields, forests, and rivers in order to make them produce industrial natural resources and new energies at the highest possible output. I propose that the industrialisation of all landscapes (not merely the cities) is the second driving idea of the capitalist mode of production, whereby the landscape mirrored what was happening in society. “In the fifteen mile stretch along the southern bank of the river, the Beauharnois Power Corporation is building an industrial region” rightfully claimed a 1930 promotional brochure for international investors.³ It is to this claim and the complex consequences of its physical implementation in the rural Comté de Beauharnois that I now turn my attention.

This chapter is divided into six sections. First, I take some time to reflect upon the nature of the photographs taken on construction sites and upon that of the engineering articles, the central sources I use to understand the transformation of the Beauharnois landscape between 1929 and 1948. Second, I sketch the long term history of this landscape. This is helpful to analyse the claim of the BLH&P corporation that the area was empty before the construction of the canal and to assess the nature of its impact once constructed. Third, in accordance with my project of a cultural history of modes of production, I explore the origins of the design of the canal. The production of hydroelectricity in this region was made possible by a combination of construction techniques and knowledge on how to manipulate large rivers. However, the overall design of the project was guided by

³ Beauharnois Power Corporation Limited, *Beauharnois. An Ideal Location* (September 15th, 1930). A copy is filed in F2-2154-2.

ideas concerning the correct way to transform nature in the industrial age. In particular, I argue that the specific redesigning of the entire landscape by the canal was in concordance with the notions of conservation held both by the BLH&P engineers and major political figures in Québec. Fourth, I explain the construction of the three major components of the BLH&P project: the river dams, the canal and the power plant. Taken together, these components transformed the Comté de Beauharnois into a predominantly industrial landscape. In the fifth section, I explore claims by the BLH&P engineers that their project was simple along with their surprising desire to associate themselves with rural aristocratic imagery. Finally, I delve further into two dimensions of the transition to an industrial landscape: the sensory changes experienced by the Beauharnois inhabitants and the ecological problems created by the BLH&P infrastructure.

This chapter sometimes includes descriptions, especially sections 4 and 6. However, these are essential to understand the deep ecological and social impact of the whole project. For example, Section 4 explains the logic of the project's engineering to make it clear that the dams, canal, and power plant constructed by the BLH&P are components of a same system. These descriptions can become complex at times, and the reader is invited to use the synthetic maps of the Beauharnois region I constructed (Appendices 37 and 38) to have a bird's eye view of the transformations. Also, Section 6 reviews the most important ecological problems created by the BLH&P project. This is essential to understand the analysis in Chapter 5. In short, this chapter is a first step towards understanding the industrialisation of the Beauharnois environment. It lays the foundations for an exploration of the fundamental changes in the landscape. Chapter 5

will provide more reflections on the consequences of these changes, specifically on how the Beauharnois peasants perceived their relation to the transformed environment and on the meaning of the Beauharnois episode for the history of modes of production in Québec.

1. The Sources

1.1. Engineering Journals and Photographs

Two primary sources will be used extensively in this chapter: articles from engineering journals dealing with the BLH&P project and photographs of the progress of the work on the building sites. Taken together, they provide a rich perspective of the transformation of the landscape. The written texts enable the researcher to understand the inner logic of the industrial project. This understanding facilitates the extraction of meaning out of the thousands of photographs.

Indeed, seeing a picture of a strange machine scraping the soil to form a mound called a “pilot dyke” in the legend of the photo is mostly uninformative if the observer of the picture does not know what the strange machine, the mound or the “pilot dykes” were. However, the same picture enables the researcher to get a much more visual sense of what was happening on the land once the general logic of the construction is understood. The dykes holding the water of the canal cease to be abstract ideas and become imposing masses of freshly turned earth cutting through roads and blocking lines of sight for the local inhabitants. When viewed in conjunction with a knowledge of the basic dynamics of the landscape which is being transformed, these photographs become extremely rich

sources because they allow us to see the remnants of the former landscape and therefore to interpret the revolution in the landscape. I hope that the reader of this thesis, helped by the appendices, will also go beyond schematic ideas of what a canal is and better imagine something that approaches what the Beauharnois inhabitants experienced many years ago.

The following is basically the methodology that I forged along the way to make sense of the fascinating visual archives of the BLH&P fonds. First, I read the engineering journals to understand the technical logic behind the construction of the project. I then looked at the thousands of photographs and selected those that provided the richest visual information concerning the works. Finally, I re-interpreted these pictures aided by knowledge of the basic elements of the *Canadien* rural landscape. This three-step process was not linear, but it was necessary to read a significant number of engineering articles first. This was made much more easier by the fact that the Centre d'Archives d'Hydro-Québec had previously identified and collected all the engineering articles written about the Beauharnois project.⁴

Before going into the analysis of the transformed landscape, it is worthwhile to question the historical value of articles of engineering journals and work progress photographs as primary sources. An important author to discuss both sources is David E. Nye, who has

⁴ These articles are collected in Pierre Gaudreau and Andrée Lefebvre, *Dossier d'information sur les aménagements hydroélectriques et barrages de la région Maisonneuve* (Secrétariat général, Service Bibliothèque, Services aux usagers, mai 1988).

worked extensively on corporate photography and the social meaning of technologies in the United States.⁵ Using his work, I will first reflect upon the engineering journals that described the BLH&P project. Following this, I will also use Nye's work to ponder on the interpretation of the photographs of the BLH&P fonds.

Engineering journals in the United States promoted a very specific worldview and the style of the writing, the photographs, the graphs, the maps and the overall editing all supported that mental world. According to Nye, the *General Electric Review*, founded in 1903, was the prototype for most of the 20th century's engineering publications. The aim of that review was "to cultivate the appearance of scientific objectivity [while they] in

⁵ The literature on corporate photographs is rather scant and Nye is one of the rare authors to have examined them with a theoretically sophisticated and historically informed approach. His major works are David E. Nye, *Image worlds : Corporate Identities at General Electric, 1890-1930* (MIT Press, 1985); *Electrifying America : Social Meanings of a New Technology, 1880-1940* (MIT Press, 1990); *American Technological Sublime* (1994); *Narratives and Spaces : Technology and the Construction of American Culture* (University of Exeter Press, 1997); *Consuming Power : a Social History of American Energies* (MIT Press, 1998). Foundational works for studying photographs more broadly are Barbara Rosenblum, *Photographs at Work* (Holmes and Meier, 1978) and Pierre Bourdieu *Un art moyen: essai sur les usages sociaux de la photographie* (Les Éditions de minuit, 1965). I personally think of James Ryan's *Picturing Empire: Photographs and the Visualization of the British Empire* (University of Chicago Press, 1997) as highly stimulating. Finally, one profits by looking into the deeper pictorial traditions upon which photography was developed. A fascinating book to begin this research is Simon Schama's *Landscape and Memory* (Vintage Books, 1995).

fact served to restrict comprehension of the social dimension of the electric revolution.”⁶ Concretely, this means that all pictures and texts taken from electrical engineering journals – such as the journals reproduced and analysed here – are strictly limited to a logic of engineering and are oblivious to the broader dimensions of electricity projects. Neither social changes (economic structures, organisation of work in the factory, and class relations) nor spatial transformations (of rural and wild ecosystems and of urban landscapes) are raised in these articles. Rather, only the internal mechanical logic of a project is presented: resistance of a dyke; permeability of a certain type of soil; slope of a landscape; capacity of a certain type of generator; etc. Also, these journals clearly portrayed engineers as members of a professional class distinct from and above the working class.⁷

Though I use these engineering journals, I am fully aware of their limited perspective. However, they remain crucial to understanding the inner logic of the BLH&P project and, by extension, of the industrial landscape created in the Comté de Beauharnois. In fact, the ecological and social consequences of the Beauharnois project are much harder to understand if one is ignoring the thinking behind the new landscape. Thus, my goal is not merely to understand the design and construction process of this hydroelectric system but to use this as a starting point to understand its human and natural impacts.

⁶ David E. Nye, *Image Worlds : Corporate Identities at General Electric, 1890-1930* (MIT Press, 1985), 60-61, 70.

⁷ Nye, *Image Worlds...*p 68.

Historians are especially fortunate to have access to a large set of photos of the works at Beauharnois as they provide rich documentation about the changing landscape. They were taken in part by independent professional photographers.⁸ The exact aim of these pictures has to be inferred since I have not found the contracts between the photographers and the Beauharnois syndicate or the directives to the possible company photographers. Also, it is not clear if the corporation's management ever intended to publish any photographs in promotional material. One thing is certain: I have found none of them reproduced in promotional documents or pamphlets. It seems reasonable to assume that these pictures were used for internal purposes only (progress of work, insurance claims, commemoration) and that their consciously designed, political and economic content is minimal, if not totally absent.

Probably because of these facts, the aesthetic palette of these photographs of the works at the Beauharnois project appears significantly less typified and more complex than that encountered by Nye in the General Electric archives. He identified in this corporate archive only four exclusive categories of photographs, all of them taken by the corporation's own photographers under the strict directives of the upper management. The first group, destined for engineering journals, was designed to promote a restricted understanding of "scientific objectivity" that blinded the reader to the social reality of the

⁸ One series of photos was taken by independent photographers according to the research tool of the F2 fonds (Hydro-Québec, Centre d'archives, *État général du fonds Beauharnois, Light, Heat and Power Company (F2)*, printed from the Centre d'archive's computers on December 15 2003) but it is not clear which. The series I have consulted (F2-1503-02 / 700755) might very well be the one because I have found the following signature on some photos: "S. J. Hayward, photograph, Montreal".

“electric revolution”. A second category was intended to illustrate the company’s internal workers’ magazine, which aimed at “distracting and pacifying workers [and] presumably reduce the number of strikes and work stoppages and increase profits as a result”. The third type functioned to translate into images the corporation’s ideal conception of a good manager, which was “to find economic meaning in the factory’s order; human relations [being] reserved for those initiated to the [managers’] tribe”. Finally, the last set of photos and collages was directed towards consumers and thereby hoped “to obscure class difference, [to] promulgat[e] ... a national rather than a regional definition of American culture, [to] rejec[t] ethnicity in favour of homogeneous Americanisation, ... to increase electrical consumption, and [to] redefin[e] .. the role of women.” Collectively, these photographs, or so it was hoped, would provide every class and social group in the United States with a symbolic world justifying the emerging corporate and capitalist socio-economic order spearheaded by General Electric.⁹

In the case of the BLH&P fonds, the topics covered by the photographs were much narrower (the principal topic was by far the progress of the works), but the overall impression is that the photographers could construct their pictures as they pleased, no clearly recurring political message having been identified. The most striking results of this apparent liberty are that they displayed a real artistic creativity and that the emotions of the people portrayed seem quite genuine. Moreover, many of the photographs have a wide angle view which allows one to see both the industrial work on the landscape and the larger rural landscape which is being spectacularly remoulded. As such, the BLH&P

⁹ Nye, *Image Worlds...* p. 5, 70, 90, 111, 134.

photographers seem to have acted as witnesses and artists rather than as visual technicians serving the strict canvas and political messages of big American corporations, or “powerful communicator[s]”¹⁰ as Nye also named them.¹¹

About a quarter of the approximately 10 500 pictures in the Beauharnois fonds¹² portrays the ongoing works between 1929 and 1932. In many cases, the photographers added an artistic dimension to otherwise utilitarian shots. The visual balance – the dynamic composition of lines and masses – of picture F2-700023 B107-4-11-30 (Appendix 2) for example, is striking. The image is divided into two large and equal masses: the ground below and the sky above, providing the picture with a great sense of stability. But this stability is not inert, for the road and the pipeline are angled, pointing slightly higher to the right of the frame. Moreover, the houses and the three biggest trees just behind the road are progressively more staggered horizontally, creating a visual rhythm when scanning the picture from right to left or vice versa. Picture F2-700085 B295-9-22-30 (Appendix 9) is more dynamic. Again, the horizon is in the middle of the frame, but the road (the Rue Larocque of Saint-Timothée, near Lac Saint-François) draws our attention to a vanishing point at the very right of the frame. This powerful, eccentric point of attraction is balanced to the left by the gray mass of the boat and the dark mass of the land. In addition, the last electric pole to the left and the upward structure at the rear of

¹⁰ Nye, *Image Worlds...* p. xi.

¹¹ The BLH&P did act as a “powerful communicator” in other circumstances. The inauguration ceremony might be seen in this light.

¹² The majority of the pictures are regrouped in series F2-1503-02 / 700755; F2-1503-02 / 700800; and F2-1503-02 / 700801. But many photos are scattered in the various work progress reports.

the boat combine to make a strong vertical line to the left which also acts as a counterpoint to the road at the right. Photographs F2-700033 B152-5-20-30 (Appendix 4) and F2-7000276 B802-10-1-31 (Appendix 28) are also small wonders of dynamism and balance. Other pictures, such as F2 700277 B804-10-2-31 (Appendix 29), are interesting because of their composition of sinuous masses of different shades and textures.

This pictorial creativity sharply contrasts with the rigid and static conventions Nye encountered in the General Electric photographs. For example, the numerous photographs of machines (either in isolation or in the factories) drew from the techniques of mechanical drawing, which enabled designers and engineers to depict machines abstractly.¹³ The question therefore arises: which pictorial tradition were these Beauharnois photographs based upon? It seems reasonable to argue, as a working hypothesis, that the photographers worked, at least in part, within the old pastoral landscape tradition, first developed by Dutch painters and imported in Britain in the late 16th century.¹⁴ The search for equilibrium and rhythm in pictures F2-700023 B107-4-11-30 (Appendix 2), F2-700085 B304-9-23-30 (Appendix 10) and F2-700113 B383-11-20-30 (Appendix 19) support such a thesis. The irony is that most of these pictures testify to the industrialisation of the landscape, not its pastoralisation. Other pictures, however, are much more abstract – such as F2 700277 B804-10-2-31 (Appendix 29) or F2 700 0085 B304-9-23-30 (Appendix 10) – and could have drawn from modern tendencies in art.

¹³ Nye, *Image Worlds...* p. 66.

¹⁴ Schama, *Landscape and Memory...* p 10-11.

The other much smaller but still significant series is the numerous individual and group portraits. This series can be further divided in two: testimonies of the numerous on-site visits of political and financial elites – see F2-700092 B332-9-23-30 (Appendix 13), F2-700092 B336-10-4-30 (Appendix 14) and F2-700104 B365-11-3-30 (Appendix 18) – ; and records of workers posing with their tools and machines or next to a recent accomplishment – see F2-700113 B430-2-3-31 (Appendix 20), F2-700203 B627-6-17-31 (Appendix 24), F2-700265 B770-9-17-31 (Appendix 26) and F2-700093 B342-10-17-30 (Appendix 15). In both cases the composition is usually quite static and the emphasis is on people's self-representations.

To say that these pictures convey people's self-representation is a delicate judgement to make but good reasons support this statement. First, these photographs were apparently not destined for large distribution. Thus, the photographers were much less likely to look for supposedly happy employees or respectable bourgeois to put into company publications for the employees or public relation campaigns. As such, people were probably not forced to be in the picture, they did so of their own free will. Also, people evidently knew that they had to pose to appear focused in the photograph. They either knew this from previous experiences of being photographed, or were told to stay still by the cameraman. Indeed, those who failed to stay still, or who were probably not aware that a snapshot was being taken (as the person on the balcony of the second house from

the right in F2-700023 B107-4-11-30, Appendix 2) appeared blurred.¹⁵ The fact that most people photographed are willingly and spontaneously posing in a relaxed, happy, or proud manner supports the idea that these pictures are more about their personal self-representation than about a preconceived, corporate message. In this sense, the individuals' reflexes when posing for the camera probably drew from the old portrait tradition in European painting in which people were displayed with crucial social markers such as their personal tools and clothes.

1.2. The Fundamental Meaning of the BLH&P Photographs and the Use of Photography in Environmental History

Taken together, these thousands of photographs provide a rich testimony of a landscape undergoing a rapid and fundamental transformation. Before 1929, the Beauharnois landscape was largely rural; by the time the first phase of the power plant was finished in 1948, at least a third of the area had been transformed into heavy industrial infrastructures and what remained of the rural landscape had been disrupted and fragmented. In this manner, the historian witnesses a moment of landscape succession within the same territory; in a specific place, a new system of relations to the environment unfolds before the critically informed eye.

¹⁵ Except in photographs taken in blazing sunlight such as F2-700 093 B342-10-17-30 (Appendix 15) where moving people appear clearly. This is a result of the slowness of the chemical reactions in some photographic film of the period. These required intense lighting or long exposure to be properly exposed.

Beyond the case of Beauharnois, it might very well be that photographs are one of the best sources to do landscape archaeology in the heavy industrial era. In the late 19th and 20th centuries, Westerners have had a constant obsession with taking photos of their environment. There are literally billions of photographs of cities, suburbs, parks, industrial plants, forest, and lakes in archives waiting to be analysed by historians. It would be a great loss to ignore such a rich record of the past, mainly because this love affair with the camera reveals so much about the 19th and 20th centuries' visual culture and notions of the environment.

For the environmental historian, however, I would argue that the necessity of this source operates at a more fundamental level. In the age of dynamite, artillery barrages, caterpillar bulldozers, gigantic concrete dams, and aerial pesticides, entire landscapes and ecosystems can disappear overnight with little or no traces of their existence left.¹⁶ One of the rare testimonies historians can then use to reconstruct the former landscapes are the thousands of photographs taken by the engineers, government officials, and soldiers involved in these quick successions of environments.

Surprisingly, it appears that few environmental historians of the industrial era have yet taken advantage of this historical source. For example, the paperback edition of Donald Worster's book on irrigation in the American Far West does not contain a single

¹⁶ For interesting reflections on the industrial construction site see: Brian Black, "Construction site: Environment, Region, and Technologies in Historical Stories", *Technology and Culture* 40.2 (1999): 375-387.

photograph.¹⁷ William Cronon's masterful study of the Chicago's continental hinterland includes telling maps, drawings, photographs, and pictures but they are not a major primary source of the book.¹⁸ For environmental historians, the groundbreaking book in the use of visual sources was certainly *Uncommon Ground. Toward Reinventing Nature*, published in 1995.¹⁹ The book is punctuated with "galleries" of "found objects": newspaper articles, photographs, brochures, etc. However, this collective work is mainly preoccupied with identifying and analysing "environmental ideas in American popular culture", and showing that these representations of nature are embedded in every artefact of society (milk cartons, newspapers, television shows). As such, the pictures in this book are most often used to reconstruct the ideas of nature held by modern men and women and do not serve as clues to reconstruct specific landscape succession.

One recent book deals with the landscape of oil booms in southern late 19th century United States and its publication suggests that this line of inquiry is now being actively pursued by environmental historians of the industrial world.²⁰ The analysis of photographs in this book sometimes provides information about the transformations of the landscapes in this region, but the focus remains on the mentality that facilitated the destruction of this environment for oil production. To sum up, it appears that the

¹⁷ Donald Worster, *Rivers of Empire. Water, Aridity, and the Growth of the American West* (Pantheon Books, 1985).

¹⁸ William Cronon, *Nature's Metropolis : Chicago and the Great West* (W.W. Norton & Company, 1991).

¹⁹ William Cronon ed. *Uncommon Ground Toward Reinventing Nature* (W.W. Norton & Company, 1995).

²⁰ Brian Black. *Petrolia: The Landscape of America's First Oil Boom. Creating the North American Landscape* (Johns Hopkins University Press, 2000).

following analysis of the transformation of the Beauharnois landscape through the use of construction photographs constitutes a new approach to environmental history of the industrial era.

2. Ecosystem and Landscape Successions in the Beauharnois Region from the Last Ice Age to the 1920s

The BLH&P profoundly transformed the rural landscape of the Comté de Beauharnois and the adjacent stretch of the Saint-Laurent. This landscape was itself the result of a long natural and social history that will be detailed in this section. This will serve three ends: first, a basic understanding of the region's geology helps to understand its agricultural possibilities and the building techniques of the BLH&P project. Second, this landscape history will allow us to examine the company's public messages which presented the region as empty before its arrival. Finally, this overview will provide a reference point to qualify the nature and the scale of the geographical impact of the BLH&P canal.

To get a bird's eye view of the region before its transformation, the reader is urged to examine Synthetic map A (Appendix 37). This county of approximately 400 km² includes the Fleuve Saint-Laurent – and its numerous islands – and, to the south, the plateau that stretches down to the Rivière Châteauguay. This section of the Saint-Laurent was a succession of rapids created by a drop of 25 metres in land elevation within the riverbed. For the sake of clarity, it is worth mentioning that one of the islands – Grande Île – is so big that the Saint-Laurent seems to divide itself in two from Valleyfield to Saint-Timothée. The north arm is considered a section of the “Fleuve Saint-Laurent”

while the south arm is variously called the “Rivière Saint-Charles”²¹, the “Lost Channel”, or “Back Channel”.²² The whole Saint-Laurent is called a *fleuve* in French. A *fleuve* is defined as a major river that empties into an ocean.²³ The Beauharnois plateau stays at a more or less constant level. It is also the watershed of the small Rivière Saint-Louis that crossed it in the middle before the building of the canal.

Geologically, this stretch of land between the Saint-François and Saint-Louis lakes is part of a vast depressed zone, which, from the Great Lakes in the centre of North America to the Bas-Saint-Laurent east of Québec City, collected the water of the melting glaciers of the last Ice Age. The eastern part of that now vanished reservoir is called the Champlain Sea (for a representation of the maximum area covered by this sea, refer to Figure 2) and covered a region ranging from the present day Lake Ontario to the west, the Rivière Ottawa watershed to the north, the Bas Saint-Laurent to the east, and the Lac Champlain to the south. This huge sea eventually emptied itself into the Atlantic and, in the process, dug the riverbed of the Saint-Laurent. The river is geologically very young (12 000 years), its course is not levelled and it alternates between flat sections and rapids such as those in the Beauharnois region. The retreat of the Champlain Sea also created a

²¹ Hydro-Québec, *Plan des propriétés d'Hydro-Québec. /BEAUHARN/MAP001.DWG*, mai 1996 (révisé le 25 août 1998). This is a detailed map of landed property and hydroelectric equipment in and around the Comté de Beauharnois.

²² These two English designations arise in numerous maps of the area drawn by the BLH&P.

²³ Office québécois de la langue française, *Grand dictionnaire terminologique*, http://www.oqlf.gouv.qc.ca/ressources/gdt_bdl2.html, visited on October 24 2003.

multitude of smaller water courses that all flow into the main outlet. The small Rivière Saint-Louis and the bigger Rivière Châteauguay are examples of these.

Since the last Ice Age, the temperature has continued to rise and the region, which was once covered by an ice sheet three kilometres thick, is now characterised by mild continental weather.²⁴ Before the sea disappeared it left behind it a thick layer of marine deposit (sometimes more than 10 meters deep in the Comté de Beauharnois) upon the rocky surface of the Canadian Shield. These organic deposits transformed into various types of clay. This is an organically rich soil that makes for good arable land. However, it is at times almost completely impermeable, thus creating problems for the drainage of cultivated fields. These same characteristics, seen in the light of 20th century construction technologies, enable the building of earth structures impervious to water. The BLH&P would take advantage of this in building its canal.

²⁴ Jean-Claude Robert, *Atlas Historique de Montréal* (Art Global Libre Expression, 1994), 18-19.

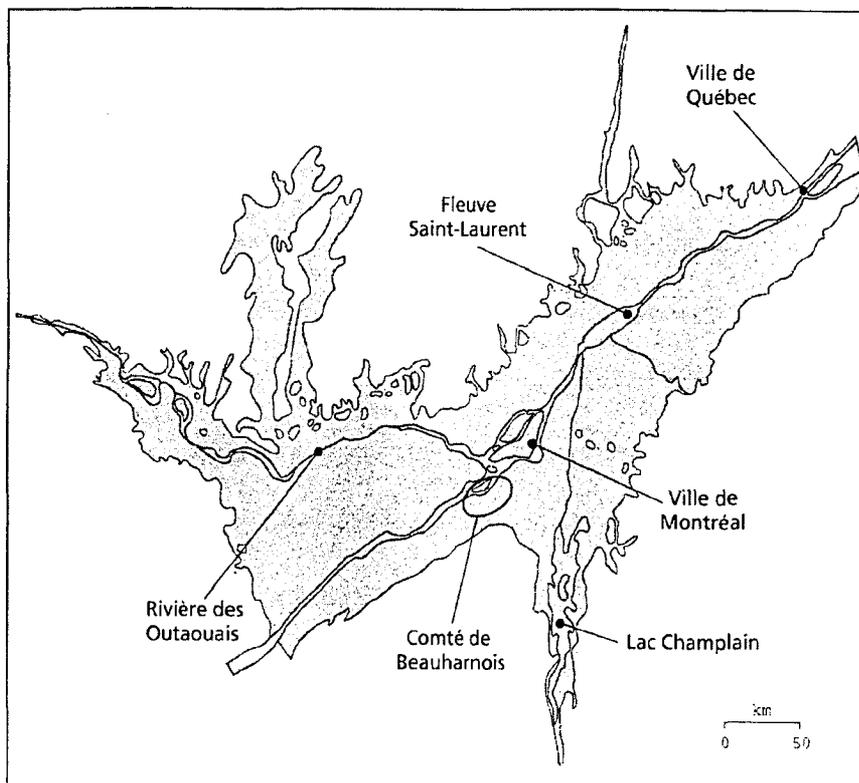


Figure 2. Representation of the Champlain Sea that formed after the last Ice Age. The sea created the Saint-Laurent and its valley when it emptied into the Atlantic Ocean. Illustration taken from Jean-Claude Robert, "Tracé de l'aire maximale occupée par la mer de Champlain", *Atlas Historique de Montréal*, Art Global Libre Expression 1994, p.18-19. Names of rivers and cities were added by the author.

From a human point of view, the lakes, rivers, soils, and temperatures resulting from the emptying of the Champlain sea have been an exceptional basis for three crucial activities: fishing, agriculture and travel. These activities have been incarnated through this environment in various ways, which can be synthetically regrouped as 3 different landscapes. First, Iroquoian cultures thrived from Lake Ontario to Québec City from 2500–2000 BC up to first contact with Europeans in the 16th century. They developed complex farming societies and put themselves at the centre of pre-Colombian North-

American political networks and trade routes. They practised a mixture of agriculture, gathering, hunting and fishing to assure their development and the region was not completely cleared of its forests.²⁵ When Samuel de Champlain explored the Saint-Laurent valley early in the 17th century he found that these Iroquoian peoples had recently disappeared for reasons that remain unknown to this day. The French colonists quickly took advantage of the same fishing, farming (especially interesting since the Iroquois people had left cleared tracks of land), and commercial opportunities of the region (albeit using vastly different techniques), and introduced a new use for the rivers: the tapping of their mechanical power. In 1685 40 mills were already in operation in French Saint-Laurent valley and by 1831 close to 1000 mills variously sawed lumber, ground grain, or boosted the fires of forges.²⁶ The late 18th and early 19th century also witnessed a demographic explosion of the descendants of the French colonisers (the *Canadiens*) which meant that most of the valley was cleared of its forests for agriculture. Since the 18th century, the successive French and English colonial authorities also embarked on many canal projects within this stretch of the Saint-Laurent which sought to facilitate the powering of mills and navigation. Linking these two revolutions in the *Canadien* landscape, the abundant and ancient forests provided easy access to fuel and building materials.²⁷

²⁵ Jean-Claude Robert, *Atlas Historique de Montréal* (Art Global Libre Expression, 1994), 20-21.

²⁶ Marcel Bellavance, "La puissance de l'eau" in Claude Boudreau, Serge Courville, Normand Séguin, *Atlas historique du Québec. Le territoire* (Archives nationales du Québec et Presses de l'Université Laval, 1997), 85-86.

²⁷ Boudreau, *Atlas historique du Québec. Le territoire...* p. 55-6, 67.

When our story begins in the late 1920s, cultivated fields were still by far the dominating feature of the Beauharnois landscape.²⁸ The old forests had been cleared quickly during the decades following the first stages of colonisation (in the 1820s and 1830s). The trees had served as fuel and building material and by the 1920s only small and isolated wood lots remained.²⁹ The landscape was organised around the Canadien farmers' households whose moral economy I have described in Chapter 2. They still practised a mainly traditional, non-industrial agriculture (few chemical fertilisers and motorised machines³⁰, partial autonomy in food and clothing³¹). The arteries of this rural landscape were the particular Canadien country roads called "rangs"³². A *rang* was the generic name given to most rural roads in New France. In Québec the *rang* became a central component of the Canadien cultural landscape.³³ People soon differentiated between different types of

²⁸ See photographs F2-2174-23 A1048.40 (Appendix 31) and F2-2174-23 H.A.524.15. (Appendix 30) These aerial photographs were all taken by the Royal Canadian Air Force. Most construction photographs reproduced here also show the rural landscape in the background.

²⁹ Photographs F2-700 038 B165-6-12-30 (Appendix 5), F2-700 269 B776-9-19-31 (Appendix 27), and F2-2174-23 H.A. 524.15 (Appendix 30) demonstrate the small space occupied by trees in this landscape.

³⁰ Boudreau, *Atlas historique du Québec. Le territoire...* p. 58, 61.

³¹ Christiane Montpetit, "D' "habitant" sédentaire à émigrant... p. 251.

³² For a survey of this landscape artefact, see "Le rang, forme dominante du paysage rural québécois" in Claude Boudreau, Serge Courville, Normand Séguin, *Atlas historique du Québec. Le territoire* (Archives nationales du Québec et Presses de l'Université Laval, 1997), 40-1. My discussion of the *rang* is based on this work.

³³ For an analysis of the resilience and dynamism of this spatial arrangement even after severing from the French Empire, see Colin M. Coates, *The Metamorphoses of Landscape and Community in Early Québec* (McGill-Queen's University Press, 2000), 3-5.

rangs, - “rang simple”, “rang double”, “premier rang”, “deuxième rang”, “rang du fleuve”, “rang de l’arrière-fleuve”, “rang de la rivière”– all of these describing different micro-environmental realities. The name and the landscape reality it represents still have echoes in contemporary rural Québec. In popular arts, literature, painting and cinema it has epitomised the *Canadien* peasant culture.

Beyond the road *per se*, the name describes the French ecological, economic, and legal strategy to colonise North America. The *rangs* are long and straight roads that run parallel to the local rivers – most notably the Fleuve Saint-Laurent in the early days of the colony – along which the local Seigneur allocated deep and narrow agricultural lots (called *terres* as I have explained in Chapter 2) to the immigrating peasants. In our case, the Beauharnois rang indeed ran parallel to the Saint-Laurent to the north and to the Saint-Louis and Châteauguay rivers to the south. This pattern gave to the *cultivateurs* access to a water course, essential for transportation of people and goods at a time when the road system was embryonic, and easy access to fresh water for humans and herds. In Beauharnois, the *agriculteurs* still used the rivers for transportation and watering their herds in 1920s and 1930s as I will show in detail in the next chapter.³⁴ To see the pattern created by the organisation of *rangs* and narrow *terres*, consult appendices 30 and 31.

The Comté counted half-a-dozen small rural villages which served as the locus of social life for the parishes. For example, we have seen in section 2.6 of Chapter 3 that the

³⁴ Moreover, I have already explained in section 2.4 of Chapter 3 that a lot of traffic moved by ferry across the Saint-Laurent.

Sunday mass was a gathering of spiritual, economic and political importance. The town of Beauharnois, on the shore of Lac Saint-Louis in the eastern end of the county, was already much bigger. It was a regional marketplace for the surrounding rural economy. The town of Valleyfield, however, did not grow out of the rural economy. This industrial town, located in the western extremity of the Comté, had been created during the construction of the first Beauharnois canal in the mid-19th century. Once the canal had been completed – called the *vieux canal de Beauharnois* in the early 1920s – most of the men who had worked on it were employed to build a large textile factory. Valleyfield was therefore vastly different from the dominant rural landscape.³⁵

Although the Beauharnois landscape in the late 1920s was still largely rural and the Saint-Laurent and Saint-Louis rivers were still essentially intact, there were scattered artefacts of the industrial age in the area. I have already mentioned the special cases of Valleyfield and the first Beauharnois canal. Also, two railway lines crossed the Comté: the New York Central and the Canadian National Railway.³⁶ The canals and railways had been constructed to accelerate commercial exchanges between the Canadian and American West, Ontario, Québec and the international markets. Moreover, six small hydroelectric plants were built to take advantage of the mechanical power of the Saint-

³⁵ This can be easily seen on photograph F2-2174-23 A1048.47 (Appendix 32).

³⁶ The 'old Beauharnois canal' can be seen both on synthetic map A and on photographs F2-2174-23 A1048.40 (Appendix 31), F2-2174-23 A1048.47 (Appendix 32), and F2-2174-23 H.A.524.15 (Appendix 30); the 2 railways can be seen on composite map A.

Laurent and the Saint-Louis.³⁷ Three were located on the north shore: one was a few kilometres east of Côteau-du-Lac, another was in the village of Des Cèdres and the last one further east. On the south shore were another three plants, one at Valleyfield, one next to Saint-Timothée; and a third and smaller one was located on the Rivière Saint-Louis in the village of Saint-Louis.

3. The Cultural Origins of the BLH&P Project

The fundamental difference between the scattered industrial structures built before the 1920s and the BLH&P canal is that the latter completely reorganised the Beauharnois landscape. The BLH&P project dammed the Fleuve Saint-Laurent, cut the county in two, changed its hydrology, created hills, diverted many roads, and separated municipalities and parishes. From 1929 on, every dimension of the landscape was subordinated to the demands of a structure producing the maximum power output from the Fleuve Saint-Laurent in this region. To understand the design of this canal we must first explore the ideas, values, and technical knowledge of the engineers who drew the blueprints and supervised the works, and of the political elite that gave the authorisations necessary to build the project.

The engineering logic of the BLH&P project was often expounded using the keywords of the North American conservation movement. Interpreting the origins and design of the

³⁷ Please refer to the map “Électrification de la région montréalaise vers 1920” in Jean-François Larose, *L'électrification de la région montréalaise – Synthèse historique* (Vice-présidence Environnement – service d'exploitation, région Maisonneuve – service appareillage, mai 1991) and reproduced as Appendix 39 in this thesis.

BLH&P canal thus requires an understanding of the conservation philosophy. Gifford Pinchot – the most articulate and influential conservation advocate in the early 20th century United-States – stated that the movement’s “first principle” was “the development, the use of the natural resources now existing on this continent for the benefit of the people who live here and now”. The second principle was that “waste” should be avoided, and thirdly, that “natural resources must be developed and preserved for the benefit of the many, and not merely for the profit of a few.”³⁸ The first principle is decisive because it defines ecosystems primarily as reservoirs of commodities to serve the industrial economy. This can be fully grasped by examining the definition of what constituted “waste” for early 20th century conservationists: 1) the selection of a destructive extraction method *if* a less destructive method is available 2) not obtaining the maximum sustained yield from the resources, 3) not exploiting the by-products of the extractive process, and 4) not using energy sources to their full potential.³⁹ This understanding of the “use of natural resources” is thus far ranging in its consequences because it pushes for the maximum exploitation of nature⁴⁰ and can easily be interpreted as systematically excluding non-industrial uses of the environment.

There exist difficulties in providing a single definition of the conservation movement because many groups with different perspectives claimed their adherence to this set of

³⁸ Shepherd Krech, *The Ecological Indian: Myth and History* (W. W. Norton, 1999) : 24-25.

³⁹ Krech, *The Ecological Indian...* p. 25.

⁴⁰ For a telling example of conservation policies which lead to ecological disaster through the search for maximum yield, see Arthur F. McEvoy, *The Fisherman's Problem : Ecology and Law in the California Fisheries, 1850-1980*, (Cambridge University Press, 1986), 368.

ideas in the late 19th and early 20th centuries. But all these brands of “conservationists” i) constructed nature as a store of industrial resources and ii) stressed that these commodities should not be wasted – that is, all industrially exploitable natural elements should be extracted from their ecosystem. The contending elements were, on the one hand, the pace at which the extraction should be done and the precise definition of what constituted “the benefit of the many”. As such, all conservationists adhered to a form of industrial modernity, the most frequent sort being capitalist, in North America.⁴¹

This was certainly the case with conservationists in the province of Québec up until the BLH&P project: they were industrialist and dominantly capitalist. The movement may have been born in the United States but it immediately generated enthusiasm in Québec’s sociopolitical elite. In the late 1890s and early 1900s, prominent political figures such as sir Wilfrid Laurier (prime minister of Canada 1896-1911), Simon Napoléon Parent (premier of Québec 1900-1905), Lomer Gouin (premier of Québec 1905-1920), and Mgr Clovis Kemmer Laflamme (scientist and principal of the Université Laval, 1893-1910) were all publicly supporting conservation’s principles and policies.⁴² In the province of Québec, these ideas generated wide support in the urban press, and the conservationists’ most articulate critics emerged from groups of intellectuals who thought that the

⁴¹ Furthermore, the social consequences of such a program varied considerably according to the subtle definitions assigned to the notion of “the benefit of the many”. About the difficulties of regrouping Canadian conservationists into one analytical category, see: H. V. Nelles, *The Politics of Development: Forest, Mines and Hydro-Electricity Power in Ontario, 1849-1941* (Archon Books, 1974), 202.

⁴² Jacinthe Plamondon, “Élaboration d’une perspective environnementale dans le secteur de l’électricité au Québec, 1890-1939”, M. A. Thesis in History (Université du Québec à Trois-Rivières, 2002), 23.

implemented conservation policies were not going far enough.⁴³ With regard to policy making, conservation was incarnated in different regulatory or territorial management bodies such as the *Commission des eaux courantes* or CEC (stream and river commission) of the Assemblée législative. It had been created in 1910 because, as the legislator saw it, "... au point de vue ou nous en sommes la nécessité s'impose de jeter les bases d'une politique large et prévoyante de *conservation*. Et l'on entend par là, quand il s'agit de ressources naturelles, non pas seulement de *protection*, mais aussi leur *utilisation* bien comprise, dans l'intérêt public ; l'une autant que l'autre".⁴⁴

In the CEC's first report, the "intérêt public" is defined as encouraging and facilitating primarily "l'utilisation des forces hydrauliques" (i.e., mainly hydroelectricity) while trying to conciliate this with existing agriculture, industry, forestry and the interests of landowners.⁴⁵ The definition of the public interest in the second report is already much narrower : a river is of public interest if it can serve as a transportation route. Such rivers

⁴³ Joseph Levitt, *Henri Bourassa and the Golden Calf; The Social Program of the Nationalists of Quebec*. (Édition de l'Université d'Ottawa, 1969); Louis-Raphaël Pelletier, "Nationalisme et libéralisme dans la pensée de Jules Fournier (1904-1917)" M. A. Thesis, Université de Montréal, 1999.

⁴⁴ The italics are from the original text. Assemblée Législative, (III George V, 1912) , Documents Sessionnel No 15, Commission du Régime des Eaux Courantes, *Premier rapport* (Novembre 1912), 13. See also, p. 4, 11, 17.

⁴⁵ Québec (prov.). *Commission du régime des eaux courantes de Québec. Rapport de la Commission du régime des eaux courantes de Québec* (L.-V. Filteau, 1912), 4.

cannot be privately owned while all others can.⁴⁶ In fact, this definition implied that the vast majority of the rivers could be privatised because even the biggest rivers in Québec (and there are dozens of extremely powerful rivers in the province) are impossible to navigate because of the omnipresence of rapids and falls created by the morphology of the Canadian Shield. Therefore, the effort towards building reservoirs was aimed at regulating rivers which were already privately owned or which could eventually be owned or managed by industrial private interests. This was straightforwardly stated in the 7th report preface (1918):

De toutes les activités qui sont dirigées vers la conservation de nos ressources naturelles, il n'en est guère de plus importante que celle qui a trait à la conservation des eaux. Les conditions favorables de débit qu'elle crée dans les rivières où on la pratique, donne une plus-value considérable aux chutes d'eau, et rendent celles-ci plus attrayantes pour les capitalistes.

The Province of Québec was certainly among the first regions in North America to experiment with a conservationist approach to hydroelectric production. There was a strong political will behind the creation of this regulatory and management commission and one of its mandates was to supervise the creation of large regulatory works (mostly dams and reservoirs) upon Québec's rivers. In the 1910s and 1920s, the CEC erected a series of dams on at least six major rivers⁴⁷, one of which was the Rivière Saint-Maurice located deep in the boreal forest north-west of the town of Trois-Rivières. This particular

⁴⁶ Québec (prov.). *Commission du régime des eaux courantes de Québec. Rapport de la Commission du régime des eaux courantes de Québec* (L.-V. Filteau, 1913), 27-29.

⁴⁷ Olivier Lefebvre, "Les forces hydrauliques de la Province de Québec", *Revue trimestrielle canadienne*, vol 12, (1926), 141-151; --, "La Commission des eaux courantes", *Revue trimestrielle canadienne*, vol 13, (1927), 275-286.

project created a huge artificial reservoir of 5876.6 km² that served to regulate the flow of the Rivière Saint-Maurice and thus generate a predictable level of electricity at the Shawinigan Water and Power power plant located near the town of Shawinigan. At the time, premier Lomer Gouin declared that it was the biggest artificial reservoir in the world.⁴⁸ This project, completed in 1918, was also one of the early instances of community displacement for hydroelectricity because Attikamek (a Native American people) villages were flooded by the new artificial lakes. The Attikamek had not been warned. These reservoirs still exist to this day and are now called the *Réservoirs Gouin*.⁴⁹

By the mid 1920s, many early advocates of conservation had passed away and the CEC had halted the building of control works upon rivers. Some interpret this as a sign that the conservation movement was rapidly disbanding.⁵⁰ It may be true that those years witnessed the disintegration of conservation as a well organised network of politicians, professionals, and technocrats, but this does not mean that the ideas of conservation had disappeared from the public sphere. Quite to the contrary, conservation appears to have been fully integrated in the thinking and actions of the most powerful public actors. For example, premier Taschereau's 1925 New Year's speech was described by a journalist as announcing a conservation policy for all natural resources. More specifically, the best

⁴⁸ Paul-André Linteau, René Durocher and Jean-Claude Robert, *Histoire du Québec contemporain. De la Confédération à la crise (1867-1929)* (Les Éditions du Boréal, 1989), 696.

⁴⁹ Olivier Lefebvre, "La Commission des eaux courantes", *Revue trimestrielle canadienne*, vol 13, (1927), p. 282. John Harkness Dales, *Hydroelectricity and industrial development: Quebec 1898-1940* (Harvard University Press, 1957), 57, 69-70, 89.

⁵⁰ Plamondon, "Élaboration d'une perspective... p. 80.

economic policy available for Quebec was “une vigoureuse politique de conservation de notre énergie [...] hydraulique” in the eyes of the premier.⁵¹

Two years later, Sweezy hired three engineers with great experience in hydroelectricity production to design his hydroelectric canal:⁵² T. H. Hogg, chief hydraulic engineer of the Ontario Hydro-Electric Power Commission, hydroelectric engineer Frederick Baylis Brown from Montréal, and William States Lee, consulting hydroelectric engineer for the Duke Power interests⁵³ and vice-president of the Southern Power Company in North Carolina. Lee and Brown drew most of the BLH&P plans.⁵⁴ Lee was one of the first and most ambitious champions of the maximum hydroelectric exploitation of rivers. He went

⁵¹ *La Presse*, “L'énergie hydro-électrique doit rester dans la province. L'hon. M. Taschereau annonce une vigoureuse politique pour la conservation de nos ressources naturelles. - Invitation faite aux Américains de venir s'établir ici”, January 14 1925, p. 9-11.

⁵² Frederick B. Brown, *Report on Proposed Hydro-Electric Power Development On The St. Lawrence River Between Hungry Bay on Lake St. Francis and Melocheville On Lake St. Louis*, May 3rd 1927. This report includes letters from Hogg and Lee testifying to the soundness of the design of the whole project.

⁵³ J. B. Duke of North Carolina was the entrepreneur behind the Île Maligne hydro-electric plant, in the Saguenay-Lac Saint-Jean region, built in the mid 1920s. W.S. Lee had been the chief engineer in this large scale project. See David Massell, *Amassing Power. J.B. Duke and the Saguenay River, 1897-1927* (Montréal, McGill-Queen's Press, 2000) p. 107-8.

⁵⁴ See file F2-2194-2. In the original company filing system it was titled “Remedial and Control Works. Correspondence With Lee and Hogg”. It mainly consists of letters exchanged between Brown and Lee. To my knowledge, Hogg never signed a drawing alone while Brown and Lee often did so. In the Fall of 1929, an engineering article lists only Brown and Lee as supervisors of the project. See “A Start Has been Made on the Beauharnois Power Development”, *Electrical News and Engineering*, Vol. 38, no 20, (October 15, 1929) : 40.

as far as to conceive the water potential of entire watersheds instead of isolated rivers. In this manner, many rivers linked in a single watershed could be industrially exploited with maximum output and predictability. He had himself designed at least one of these comprehensive hydroelectric watershed systems – the 12 plants of the Catawba river in the United States.⁵⁵ Thus the BLH&P project was designed by a leading thinker of the maximum exploitation of an energy source. Sweezy and his associates were proud to say their power plant would use *all* the hydroelectric potential of the Saint-Laurent as opposed to the already existing smaller power plant in the region which left most of the water “flowing down the river to waste”.⁵⁶ All in all, the BLH&P and its engineers adhered fully to the fight against waste as defined by the conservation philosophy.

To produce the maximum mechanical power from the river in the Beauharnois region, the three engineers concentrated, at a single hydroelectric dam, a 25.3 metres drop in the Fleuve Saint-Laurent that naturally stretches over 20 km, between Lac Saint-François to the west and Lac Saint-Louis to the east.⁵⁷ To achieve this, they needed a canal that would artificially maintain the elevation of the diverted waters from the Saint-Laurent until they reached the power plant, right next to the town of Beauharnois, at the head of

⁵⁵ Massell, *Amassing Power...*p. 108.

⁵⁶ *The Engineer*, “the Beauharnois canal and the hydro-electric power scheme”, 13 February 1931. For another example of the use of the notion of ‘waste’, see *Electrical World*, “Beauharnois Harness St. Lawrence for 2,000,000 Hydropower” November 14, 1931.

⁵⁷ For the sake of uniformity and clarity, all measurements are expressed in the metric system. However, many of the primary sources are given in imperial units. The factors of conversion are 1 mile = 1.61 kilometres; 1 yard = 0.91 meters; and 1 foot = 0.3 meters.

Lac Saint-Louis. The canal (24.8 km long and up to three kilometres wide at times⁵⁸) was to be built on the southern side of the Saint-Laurent through the Comté de Beauharnois, permanently severing it in two. The Comté remained at a constant elevation compared to the natural bed of the river and therefore formed a plateau which ended in the east by a slope plunging into Lac Saint-Louis (See Synthetic map A, Appendix 37). The engineers, therefore, rather than digging into the soil, decided to elevate embankments the equivalent height of buildings two to four stories high to keep the diverted waters at the desired level until they reached the power plant at the head of Lac Saint-Louis. There would be digging in the canal but this was essentially to create a deep-sea navigational corridor within the canal. The power plant itself would require large scale dynamiting and rock digging in order to be built into the slope next to the village of Beauharnois.⁵⁹

Before they began work, the Beauharnois syndicate obtained permission from the Québec government to divert 1080 cubic meters of water per second (1080 cms) of the flow of the Saint-Laurent (about one fifth of its waters) as we have seen in Chapter 3. The first stage of the hydroelectric dam was therefore designed to make use of this quantity of water.⁶⁰ But the promoters demonstrated absolute confidence⁶¹ that they would

⁵⁸ Raoul Blanchard, *L'Ouest du Canada français. Province de Québec. Tome premier: Montréal et sa région* (Librairie Beauchemin limitée, 1953), 129.

⁵⁹ F2-700 074 B259-8-25-30 (Appendix 8) shows the carving of the power plant seat in the slope next to the Beauharnois town.

⁶⁰ Statutes of Quebec, 1902, chapter 72, 1902; amendment to former chapter 77, 1910; amendment to former, chapter 113, 1928 (Loi, Qc 23 June 1928). The diversion permit is expressed in cubic feet per second: 40 000 cbs. 1 foot³ = 0.027 meters³ (0.3m * 0.3m * 0.3m).

eventually acquire water rights for the entire flow of the Saint-Laurent from the provincial government (5940 cms on average⁶²). This was not a risky gamble, knowing the importance of conservation philosophy for the Québec political elite. As we have already seen, Taschereau had declared conservation to be the best economic policy for Québec in a new year speech only two years before. Moreover, contextual evidence suggests that Taschereau gave his personal assurance to the BLH&P entrepreneurs that he would eventually grant the complete diversion of the Fleuve Saint-Laurent.⁶³ And so, while the first stage of the hydroelectric dam was planned to make use of 1080 cms, the canal was designed for the eventual diversion of the whole flow of the river. The Beauharnois company would simply have to enlarge the power plant with new turbines as they secured more rights over the river, while the canal would already be big enough to hold the additional water.

It must be noted that the BLH&P project differed significantly from the one put forward by the Joint Board of Engineers in November 1926. This Canadian-American body had proposed plans for the construction of the Great Lakes St. Lawrence Seaway System.⁶⁴ These plans did not call for the construction of a canal in the Beauharnois region but only a series a locks to allow large ships to cross the Beauharnois rapids. This approach would

⁶¹ Frederick B. Brown, *Report on Proposed Hydro-Electric Power Development On The St. Lawrence River Between Hungry Bay on Lake St. Francis and Melocheville On Lake St. Louis*, May 3rd 1927.

⁶² Raoul Blanchard, *L'Ouest du Canada français. Province de Québec. Tome premier: Montréal et sa région* (Librairie Beauchemin limitée, 1953), 129.

⁶³ See section 2.2 – especially footnote 31 – of the preceding chapter.

⁶⁴ T. D. Regehr, *The Beauharnois Scandal* (University of Toronto Press, 1990), 47.

not have made it possible to build as powerful a hydroelectric power plant as the BLH&P project and was therefore much less attractive for hydroelectric entrepreneurs wanting to ensure the maximum return on their investment and publicly professing the ideas of conservation. The only hesitation on the part of Swezey's engineers was about the most economical strategy to achieve maximum power output. The original 1927 plans proposed that "the southerly embankment would be ... finished in such a way as to permit its economic removal [for] later extension."⁶⁵ In other words, the canal would gradually be enlarged as the company would be granted new water diversion permits. This strategy was not selected in the end, and the southern embankment was built at a location and in such a manner as to make the canal capable of containing the entire flow of the river from the very first stage of the works. Only the power plant would be built in distinct stages.

The canal and the hydroelectric dam were two of the three major components of the project. The third and last component of the whole infrastructure was a complex system of dams, dikes, and sluices into the natural bed of the river; called by the company's officials "remedial" or "control" works. These were needed to maintain the level of Lac Saint-François and to protect preexisting water use rights on the Saint-Laurent.⁶⁶ As the BLH&P would get additional water use rights, less and less water would flow through the natural river bed. This would have two consequences if no control works were done on

⁶⁵ Brown, *Report on Proposed Hydro-Electric Power Development...*p.14.

⁶⁶ M. V. Sauer, "St. Lawrence River Control and Remedial Dams – Soulanges Section", *The Engineering Journal*, (December 1943).

the Saint-Laurent. First, the combined artificial and natural water outlets would quickly empty the Lac Saint-François beyond its natural refilling process and thus diminish the height of its banks. This was not a possible option since the lake, being a boundary between Canada and the United States, was regulated by international agreements, which specified specific shore water levels.⁶⁷ Secondly, water use rights for the purpose of hydroelectricity production had already been allocated by the Québec government on this stretch of the Saint-Laurent. Three small hydroelectric power plants had been built on the river and they were still in operation.⁶⁸ The BLH&P had to secure these rights until their extinction even while they lowered the flow in the natural bed of the river. The “control” or “remedial” works function was therefore to reduce – and eventually stop – the flow of water flowing in the natural riverbed and, secondly, to redirect the remaining water into the existing hydroelectric plants.

To sum up, the BLH&P project was designed to exploit the maximum mechanical power of the Saint-Laurent in the Beauharnois region. Doing this required blocking the water flowing through the natural bed of the river and forcing it into a infrastructure 3 kilometres wide at some points, which itself divided a county first organised to serve the interests of the Canadien peasantry. In other words, a 12 000 year old river and a landscape shaped over the last century and a half by Canadien *cultivateurs* would be

⁶⁷ Treaty of Washington, 1871; Boundary Water Treaty 1909.

⁶⁸ These three hydroelectric dams were owned by the Soulanges Power Company, the Cedar Rapid Manufacturing, Canadian Light Heat and Power. Minutes of the public hearings held on January 15th 1929 by the Committee of the Privy Council about the Beauharnois project held in the office of the Minister of Public Works, NAC: RG11, col. 4225, 804-1-C.

completely reorganised in the span of a few years for hydroelectricity production. This project was therefore fundamentally different in scale than the previous industrial artefacts that had been built in the region before the 1920s. These much smaller power plants, railway lines, or navigation canals had left most of the river and the agricultural landscape unaltered. I have shown it to be critically important to notice that this design fit perfectly with the principles of conservation professed both by the BLH&P people, the premier of Québec, and important governmental bodies. It was all about, in Pinchot's words, "the development, the use of the natural resources now existing on this continent" and the fight against "waste" which, in this case, translated into the exploitation of an energy source to its full potential (over this particular stretch of the river).⁶⁹

4. Constructing *Beauharnois I*: The Industrialisation of the Beauharnois Landscape

Before 1929, the Comté de Beauharnois was still mostly a rural landscape with scattered industrial structures as we have seen in section 2. By 1948, however, *Beauharnois I* was finished and the county was now predominantly industrial: the rural landscape had been cut in two and disorganised; massive industrial buildings were visible from afar and the natural riverbed of the Saint-Laurent was radically altered. The 14 turbines of *Beauharnois I* were generating 742,000 horse power, approximately a third of the potential electricity production of the completed project. However, the canal embankments were already finished and as much as 75 percent of the Saint-Laurent water

⁶⁹ Krech, *The Ecological Indian...* p. 25.

ran through the artificial river (the canal).⁷⁰ *Beauharnois 2* (completed in 1953) and *Beauharnois 3* (completed in 1961) consisted mostly in augmenting the power plant *per se* and in completing the digging of the Beauharnois section of the Great Lakes St. Lawrence Seaway System within the canal which opened in 1959.

This section of the current chapter explains the fundamental material transformations of the region. It is primarily descriptive and focuses on such exotic things (at least for most historians) as draglines, embankments, earth permeability, concrete auxiliary plant, blasting operations and the like. These engineering realities are discussed because they have had a major and multidimensional impact on the people and ecosystems of Beauharnois. Without a basic grasp of their nature, the understanding of the Beauharnois' inhabitants complaints during the 1930s and 1940s (examined in Chapter 5) along with today's major ecological problems involving the Fleuve Saint-Laurent would be impossible.

⁷⁰ The original water use rights granted to the Beauharnois syndicate by the Québec Government in 1928 consisted of 1080 cubic metres per second (cms), which amounted to approximately a fifth of the river flow. In 1929, the BLH&P acquired the Montreal Cotton – located in Valleyfield – water diversion rights, an additional 353 cms. In 1940 the BLH&P, by then a subsidiary of the MLH&P, obtained an additional 810 cms; and in 1948, this time as a property of all Quebecers through Hydro-Québec, the plant was granted a massive 2160 cms, for a cumulative total of 4403 cms. Maurice Legault, *Récit chronologique des aménagements hydroélectriques et des voies navigables dans la section Beauharnois-Soulanges*, (Hydro-Québec, 1968) p. 24-25.

The footnotes often refer to Synthetic Maps A and B and photographs contained in the appendices. The reader is urged to take a close look at them. They provide considerable help towards understanding the complex construction techniques. They also give a visual feeling of the profound transformation of the Comté. Finally, this constructed visual knowledge also provides a reference point to understand the ecological and social changes analysed in the remainder of this thesis. In truth, working on the Beauharnois episode has convinced me that an important characteristic of industrial landscapes is the invisibility of many of its dynamics to the unaided eye. In Beauharnois, the core components of the hydroelectric and navigation canal are so far apart that they cannot be seen simultaneously, wherever one stands. Flying in an airplane might allow the observer to see all the components of the BLH&P project, but knowledge is still necessary to even realise that these elements are technologically related. Joy Parr's work on nuclear power plants also points toward this observation.⁷¹ Radiations are invisible and require sophisticated technological tools and much knowledge to be "felt". Other types of landscapes certainly have invisible dynamics too, but they appear to be a main characteristic of industrial ones.⁷²

⁷¹ Joy Parr, untitled paper given at the National Museum of Science and Technology, Technology and the Body Conference, Ottawa, 5 Nov 2004.

⁷² In retrospect, the ground breaking book for the invisibility of industrial landscape might very well be Rachel Carson's *Silent Spring* (Houghton Miffling, 1962). She did not provide a cultural geography based analysis of contemporary landscapes but she analysed in details how contemporary industrial chemicals accumulate in underground water, soils, and animals. These chemicals are invisible but they alter species and ecosystem in drastic and often unpredictable ways.

The innumerable physical modifications of the county can be divided into two broad categories. On the one hand, the alteration of the rural landscape by the canal and power plant and, on the other hand, the transformation of the Fleuve Saint-Laurent by a system of dams. The countryside and the river were reshaped by the introduction of three major and interrelated components, each major component being itself a complex system of works. First, a series of interconnected and adjustable **dams** in the Fleuve Saint-Laurent in order to force the water into a gigantic **canal**, the second component. The canal served two functions: conveying the water at a regular and predictable rate in order to move the turbines of the power plant and to allow navigation. The **power plant**, located right next to the town of Beauharnois, generated the electricity and poured the water back into an enlargement of the Fleuve called Lac Saint-Louis.⁷³

The company often used building materials taken from the Beauharnois environment or recuperated “by-product” materials created in one construction step or the other. There probably were self-evident, economical reasons for doing this. Nevertheless, this is another pattern which takes on cultural meaning if we situate it within the conservationist mental framework. As we have seen at the beginning of section 3, not “exploiting by-products of the extractive process” was considered wasteful. One of the major exceptions to this use of local materials was the use of wood, which was extracted far away. This

⁷³ The reader is invited to take some time to familiarise herself with synthetic maps A and B in the appendices of the thesis. The first map offers a reconstitution of the region before the project and the second map shows the transformed region. The canal is self evident in map B. The location of the dams (“Dams, 1, 2, 3, 4” and “Îles Juillet dams”) and the power plant are highlighted by blue shaded circles.

became necessary because the Beauharnois region no longer harboured forests, as already observed in section 2.

This massive project brought heavy machinery, new mounds, and auxiliary plants to the county. It also changed the county's social dynamics by attracting thousands of workers. The BLH&P workers – along with their culture, organisation, and working environments – are not a central concern of this thesis. Still, they were the ones who physically transformed the land, and to ignore their massive presence would be to obscure the reality that even in advanced industrial economies, reshaping entire ecosystems requires the work of thousands of hands. From October 1930 to October 1932, employee numbers often neared 3000 and as many as 1500 lived on the Beauharnois camp,⁷⁴ 700 on the Valleyfield camp, and 300 on the Saint-Louis camp.⁷⁵ It appears that many more lodged within rural households.

An estimate of the number of employees living in the Comté de Beauharnois was impossible to obtain through the sources I consulted because one finding suggests that many more BLH&P employees lived in private houses. One report from an engineer mentions that a single family living next to the erecting canal lodged seven workers and that daughters of this family were tending to them.⁷⁶ This points toward major transformations in the lives of these young women. However, the limitations of my

⁷⁴ F2-700 047 B195-7-30-30 (Appendix 6).

⁷⁵ Beauharnois Construction Company, *Labour Chart Showing Daily Number of Men Employed*, 31 January 1932.

⁷⁶ F2/2138/3 Letter from Herbert Cantwell to F. S. Molson, November 6, 1931.

sources and the underdeveloped state of the literature about women in rural Québec makes it impossible to speculate on the nature of these changes.⁷⁷ Who received money

⁷⁷ The works of Léon Gérin are a good starting point to study this question. He offers a wealth of details about the social life and the environment of peasant families. He also pays close attention to women's roles in the family. He was especially impressed by what he described as the wives' nearly equal status with their husband within the household. Concerning intra-familial relations, the women's authority was almost as strong as that of their husbands. Wives were seen as "associée[s]" (partners) in managing the farm and also played a important role in succession matters. Léon Gérin, "Le cultivateur progressiste, au croisement des routes de la vallée", *Le Type Économique et social des Canadiens* (Fides, 1948) p. 119-121. Gérin's somewhat rosy picture must be balanced by gender-informed contemporary analysis. Gérard Bouchard proposes that within the confines of the peasant family, many wives held a significant degree of authority in managerial and succession matters, even though macro-social institutions (especially the legal system and the Catholic Church) were unambiguously patriarchal. See Gérard Bouchard "Through the Meshes Of Patriarchy: The Male/Female Relationship In The Saguenay Peasant Society (1860-1930)", *History of the Family* 4, 4 (1999) : 414. Other works provide scattered insight into the question of women's power in Québec peasant society in the 19th and early 20th century but they do not provide, overall, a convincing portrayal of the life of rural women. See, for instance, Martine Tremblay, "La division sexuelle du travail et la modernisation de l'Agriculture à travers la presse agricole, 1840-1900", *Revue d'histoire de l'Amérique française* 47, 2 (1993) : 222, 244. Tremblay studies the agricultural press, which was mostly telling farmers what they should have been doing rather than reporting what they were actually doing. One research paper that does offer limited insights into the productive world of peasant women is David-Thierry Ruddel, "Domestic Textile Production In Colonial Quebec, 1608-1840", *Material History Bulletin* 31 (1990) : 39-49. It is a synthesis of everything that was known about the subject in 1990 and highlights how productive activities can be attributed to different sexes over time. Before the 19th century, weaving was mostly a masculine task but was later associated to the feminine productive universe. Concerning the early 20th century one might consult Normande Simard-Vasil's *Femmes, prise de décision et pouvoir: analyse des relations entre les époux dans la famille chicoutimienne pour la première moitié du XXe siècle*. Master's

for this service. The father, the mother or the daughters? Were these young women sacrificing valued work in the fields and at the farm to cater to the workers in the house? Assuming they received the money, did they see this as a an opportunity to quit a rural world they despised and move to the city? In short, I cannot provide deeper insight into rural women's roles within the socioenvironmental changes of the Beauharnois episode. I can only point towards probable transformations and their concrete relations to the environment and their aspirations.

4.1. The Canal

If all the components of this project were gigantic in scale, the canal clearly left the biggest imprint on the people's minds. This was as true for the inhabitants as for the on-site visitors and the virtual ones who imagined the site through the company's propaganda material (corporate journal and newspaper articles and, a few years later, a 15 minute short film). If the canal was so impressive from the outset, it was because it was built wide enough, from the beginning (1929-1932), to hold the entire flow of the river: 1 kilometre from shore to shore and 25 kilometres long. To give a first impression of its size, it is worth reproducing a present-day photograph of the canal (Appendix 33) The picture was taken from the north bank looking west. The south shore (the tree line at the

Thesis in Regional Studies, (Université du Québec à Chicoutimi, 1983). Simard-Vasil describes a harsh situation wherein women were essentially exploited and could barely succeed in influencing the management of the farm. For the period following the Second World War, an interesting study about women's economic roles on the farm is Frances M. Shaver's "Women, Work, and Transformations in Agricultural Production", *Canadian Review of Sociology and Anthropology* 27, 3 (1990) : 341-356.

left of the photograph) is so far away that no details can be distinguished. The mass of water at the centre is Lac Saint-François.

As you will note in the following paragraphs, the canal had two major impacts on the landscape. First, it severed the county and the Rivière Saint-Louis watershed in two. Secondly, massive amounts of dredged material were created and dumped in the nearby rivers. The purpose of the canal was to divert the Saint-Laurent and maintain the water height of Lac Saint-François until it reached the power plant. This was accomplished by means of elevated embankments which are gradually higher as they approached the power plant on the shore of Lac Saint-Louis. This enabled a single drop of 25 meters to move the turbines of the power plant at the eastern extremity of the canal. Holding 5940 cms of water above the ground level is no small feat and the north and south embankments are impressive artificial systems in themselves. They were built using the surrounding soils, principally composed of different sorts of clays as I have explained in section 2. For the most part, they incorporate⁷⁸ three components: 1) an inner earth dyke (composed of what the engineers called “yellow clay”); 2) an outer earth dyke (composed again of yellow clay); 3) and in-between a core of impervious clay (made of “blue marine clay”). These different elements of the dyke system can be seen in Figure 3.⁷⁹ The blue clay filling assures the impermeability of the embankments while the earth dykes (also called “pilot dykes” by the engineers) maintain the whole construction in place. All of these materials were extracted from the Beauharnois soils, principally by means of

⁷⁸ The present verb tense must be used here because the canal is still in function.

⁷⁹ Other similar plans can be viewed in Appendices 35 and 36.

scraping and dredging. From one ground extremity to the other, the embankments' entire structure was, on average, 60 meters wide.⁸⁰

⁸⁰ J. A. Knight, "First Stage of the WORLDS'S LARGEST POWER PLANT Nears Completion", *Electrical News and Engineering*, Vol 40 No 24, (15 December 31), 42. Beauharnois construction Co, *Progress Chart. Canal Section No 1*, (1932); Beauharnois construction Co, *Progress Chart. Canal Section No 3*, (1930) (appendices 35 and 36).

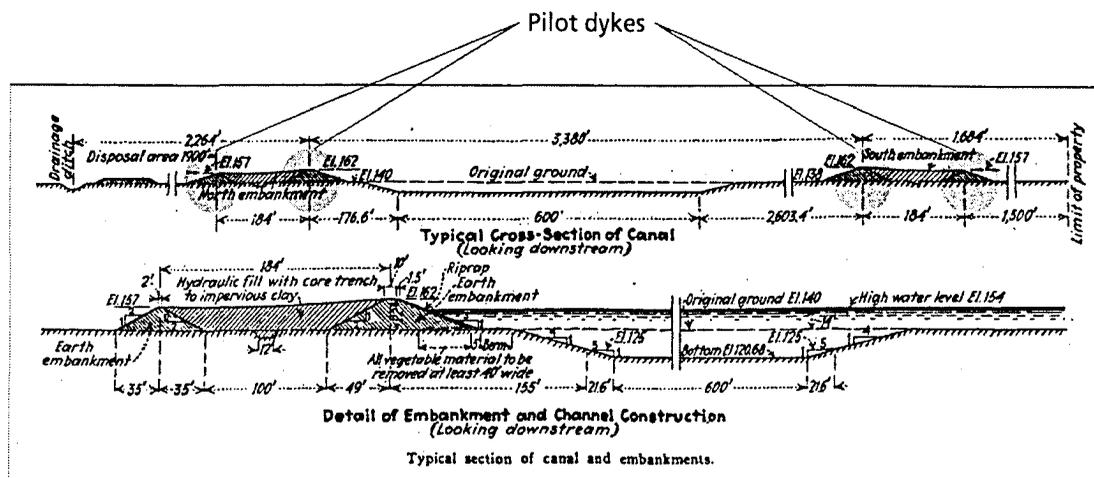


Figure 3. Cross section of the BLH&P canal showing, in particular, the structure of the embankments. The structures labelled "pilot dykes" (which hold the embankments together) are mentioned in the article, but highlighted on this reproduction by the author. Taken in J. A. Knight, "First Stage of the WORLD'S LARGEST POWER PLANT Nears Completion", *Electrical News and Engineering*, Vol 40 No 24, (15 December 31), p. 42-43.

The pilot dykes (two on the north and south sides of the canal), the disposal area dykes (one on each side), and the drainage ditches were all built by different types of draglines. A dragline is a machine scraping the soil by dragging a bucket toward itself, the bucket being driven by a system of cables. The draglines would pile up the yellow clay on the designated sections of the dykes by scraping the top layer of the ground around them.⁸¹ The impervious blue clay was also extracted on the site, this material being found just 2 to 12 feet below the top yellow clay strata. However, it was displaced by a "hydraulic dredge" (a boat with a dredge fixed in front of it⁸²) which literally cut its way through the

⁸¹ The largest of these draglines (the "tower excavator") can be seen on photograph F2-700 032 B143-5-12-30 (Appendix 3).

⁸² F2-700093 B342-10-17-30 (Appendix 15), F2-700085 B295-9-22-30 (Appendix IX).

land while the dredged material was discharged either in between the pilot dykes or, when they were full, in the disposal areas.

From the Saint-François lakeshore to the Canadian National Railway crossing, some 5 miles below, smaller draglines were used. The dykes were elevated to a height of approximately 4.2 metres. Toward the end of this stretch, boulders were encountered in the ground and were recuperated by larger draglines to be used as stabilising material (because of their large weight) for the embankments or for the pillars of the new railway bridges.⁸³ The Beauharnois syndicate was legally bound to build new railway bridges to insure normal activity for existing railway companies in this region. The canal would cross the New York Central line twice and the Canadian National Railway once, which forced the Beauharnois syndicate to build three bridges.⁸⁴ In this way, the BLH&P was very respectful of the transportation privileges of its fellow corporate citizens in the Comté. We will see in Chapter 5 how it was much less diligent in this area with the Beauharnois inhabitants.

The eastern half of the canal required a different type of dragline. The company used a "tower excavator".⁸⁵ This exceptional machine was needed because the rocky bed nearly surfaces in this area. In other words, the top layer of clay in this area is very shallow (60

⁸³ Various steps in the construction process of the railway bridges can be viewed in photographs F2-700276 B802-10-1-31 (Appendix 28), F2-700 188 B601-6-1-30 (Appendix 23), and F2-700 269 B776-9-19-31(Appendix 27).

⁸⁴ Refer to Synthetic map Beauharnois (Appendix 38).

⁸⁵ F2-700 032 B143-5-12-30 (Appendix 3).

centimetres). Moreover, extra soil was needed to erect the higher dykes of the eastern half of the canal.⁸⁶ To accumulate more earth in an area where the organic soil is thinner the company needed to scrape over a much bigger surface. These tower excavators could drag earth over 240 meters, as can be seen in photograph F2-700 038 B165-6-12-30 (Appendix 5).⁸⁷

Finally, the embankments closest to the power plant were erected by bulldozers which rolled the clay in thin layers to obtain a very dense structure.⁸⁸ At this point, some sections of the embankments are nearly 13.5 metres high.⁸⁹ A railway was also constructed along the canal and the power plant to transport boulders from the canal digging and powerhouse carving to a crushing plant which made sand for concrete.⁹⁰

⁸⁶ See Appendix 35: Beauharnois Construction Co, *Progress Chart. Canal Section No 1*, (1932); Appendix 36 Beauharnois Construction Co, *Progress Chart. Canal Section No 3*, (1930). These plans show that the Beauharnois plateau dropped from 152 feet to 140 feet above sea level from its western side in Lac Saint-François to its eastern side near the town of Beauharnois. The embankments must therefore be 10 feet, or 3 meters, higher on average at the eastern half of the canal.

⁸⁷ The photograph was taken from the operating cabin within the tower. The machine at the other end of the cable is essentially a moving pulley that allows the entire machine to move laterally once a section has been fully scraped.

⁸⁸ J. A. Knight, "Construction Progress at Beauharnois", *The Engineering Journal*, Vol 15, No 5 (May 1932) : 264-70. F2-700 277 B804-10-2-31 (Appendix 29).

⁸⁹ William S. Lee, "Beauharnois Development of St. Lawrence River", *Electrical Engineering*, Vol 52, no 6 (June 1933) : 378.

⁹⁰ F2-700 033 B152-5-20-30 (Appendix IV) and F2-700 074 B259-8-25-30 (Appendix 8). The wagons in appendix 8 are just below the huge tower at the left of the picture.

Adjacent to the embankments the company built large “disposal areas” (approximately 600 metres wide, although they varied greatly in width along the canal). These areas received a part of the enormous amount of dredged material (various kinds of earth and plenty of water) coming from within the canal, but some of this material was thrown directly into Lac Saint-François.⁹¹ The exterior barrier of these disposal basins are lower earth dykes. Taken together, the bed of the canal, the embankments and the disposal areas were, on average, 3 kilometres wide, and the embankments were 4 to 10 meters high. This massive structure was therefore impossible to cross except by bridges and thus destroyed a space where people used to move through easily, across a dense network of roads. This I will explore at length in the next chapter. Moreover, it cut the Rivière Saint-Louis watershed in two.

The preceding description of the disposal area calls for some explanation of the dredging operations. The company designed and built the canal in such a way that it could also be a section of the Great Lakes St. Lawrence Seaway System project. The Beauharnois canal therefore included a channel, within its bed, wide and deep enough (180m by 10.2m) to receive deep sea vessels. This required major excavation works. Excavation was also necessary in some places to control the speed of the water in the canal. These two aspects

⁹¹ Beauharnois construction Co, *Progress Chart. Canal Section No 1*, (1932) (Appendix 35); Beauharnois construction Co, *Progress Chart. Canal Section No 3*, (1930) (Appendix 36). On these charts, the settling basins are the geometrical areas adjacent to the aerial view canal. Look to the left side of picture F2-700 085 B304-9-23-30 (Appendix 10) to get a more truthful impression of the massive dimensions of the disposal areas.

of the whole Beauharnois project required enormous quantities of displaced earth so that the final shape of the bottom was only completely carved out by 1965.⁹² To offer a glimpse of the hugeness of this aspect of the project, it is worth mentioning that by 1964, it had required more displacement of soil (169 940 972.37 cubic metres) than the Panama Canal.⁹³ Interestingly, the BLH&P used one of the machines used in Panama (a “hydraulic dredge” owned and operated by a Baltimore company) to complete the dragging of its own canal in the 1930s. Much of this dredged material was dumped in the Saint-Laurent and the small Rivière Saint-Louis, which polluted these rivers and greatly affected how people could use these watercourses. This constitutes the second major impact upon the Beauharnois landscape.⁹⁴

4.2. The Power Plant

The BLH&P power plant was by far the biggest industrial building in the county in 1932. It is located at the eastern extremity of the canal, next to the town of Beauharnois. This comes as no surprise: the plant was among the largest industrial buildings of Québec at the time. The buildings gave a much more industrial feeling to the town of Beauharnois which had essentially been a rural marketplace before 1929. The rocky structure of the Canadian Shield is very high in this location, being less than a metre below the organic

⁹² Hydro-Québec, *Plan général montrant les ouvrages dans la section Beauharnois – Soulanges*, dernière mise à jour: 14 mai 1968.

⁹³ Maurice Legault, *Récit chronologique des aménagements hydroélectriques et des voies navigables dans la section Beauharnois-Soulanges*, (Hydro-Québec, 1968), p. 32.

⁹⁴ This information was provided by engineer Antoine Rousseau who supervised the operations of the Beauharnois works in the late 1940s. I interviewed him in Montréal in June 2003.

soil. The first step of the construction was to create an opening wide and deep enough in the bedrock to seat the whole structure. This was mostly done by dynamiting and jackhammer drilling. Drilling was required so that the first explosive charges could be inserted deep into the soil, down to a maximum depth of 18.3 metres. The first explosion, fired during the inauguration ceremony described in chapter 3, used 77 tons of dynamite. The pulverised rock from this explosion and from the jackhammer drilling was then loaded in train wagons by gigantic electric shovels.⁹⁵ The whole process must have been extremely noisy.

The tons of excavated rock were put to use. The company built a crushing plant that reduced the boulders into sand which was then used in the mixing of cement for subsequent construction. The cement was also mixed on the spot. Both the crushing and mixing plants were located near the power plant and the material was transported back and forth in train wagons.⁹⁶

Once the seat of the power plant was carved into the slope, the workers started to pour the cement for the foundations. It can be seen in Figure 4 that the power plant has three main sections: the *bulkhead*, which takes in the water from the canal; the *substructure*, which holds the turbines; and the *bridge*, which directs the water to the tailrace (the outlet into

⁹⁵ The result of one of the major dynamiting operations can be seen on F2-700 012 B60-3-20-30 (Appendix 1). The recuperation of the pulverised rock by the electric shovel can be seen on F2 700 074 B259-8-25-30 (Appendix 8). One of the trains transporting the boulders can be seen on F2-700 033 B152-5-20-30 (Appendix 4).

⁹⁶ F2-700033 B152-5-20-30 (Appendix 4) .

Lac Saint-Louis). Because of the intricately complex forms of the inner structure of the foundation, the cement was poured in a succession of blocks of various shapes. The steps of the pouring and the shape of the different blocks can be seen in figure 4. The shape of each block was supplied by a wooden mould. The creation of this titanesque three-dimensional concrete puzzle required a total of 120,000 metres of timber to build the wooden moulds. Since the forests in the area had been cleared long ago, this timber had to be cut elsewhere.⁹⁷

⁹⁷ J. A. Knight, "Construction Progress at Beauharnois", *The Engineering Journal*, Vol 15, No 5 (May 1932) : 264-70. Thus the advent of concrete structures did not imply that wooden constructions were no longer needed.

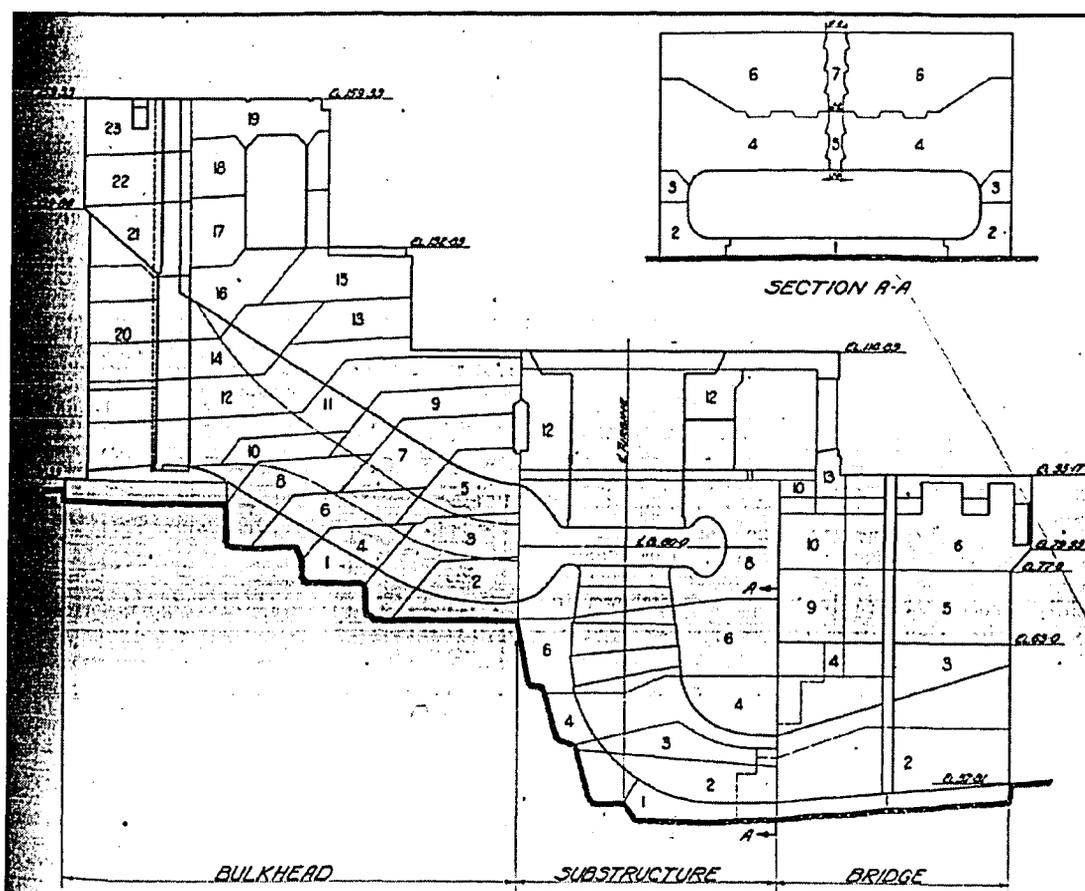


Figure 4. Drawing of the base structure of the power plant showing the succession of cement pouring. Taken in J. A. Knight, "Construction Progress at Beauharnois", *The Engineering Journal*, 15, 5 (May 1932).

Concurrently to the digging and then pouring of the foundation, the tailrace (the corridor that redirects the water into the Fleuve after exiting the turbines), was excavated by a huge drill installed on a scow (a large floating platform).

The upper structure of the power station was erected upon the foundations.⁹⁸ It houses the generators, the control rooms, the office space and the workers' resting places. The roof

⁹⁸ F2-700 0160 B525-4-29-31 (Appendix 21).

supports the transformers and gate lifts. Generation of electricity began as early as October 1932 with six turbines and the power plant already being 300 metres wide.⁹⁹ In 1934, 1935, 1936, 1939, 1941 and 1948 new turbines were added for a total of 14 in 1948, thus completing *Beauharnois 1*. By that time, the power plant was generating 742,000 horse power, making it one of the biggest in North America.¹⁰⁰

4.3. The Saint-Laurent Dams (the “remedial works”)

Between 1933 and 1943, The BLH&P built a complex system of dams in the Beauharnois stretch of the Saint-Laurent. These barrages are kilometres away from the power plant or the canal. As such, they are invisible to one standing on the powerhouse or the shore of the canal. Interestingly, they were never labelled as being spectacular elements of the project, while the canal and the power plant often were, as I will explain later in the thesis. However, they were essential to the whole project and they cannot be ignored. Their function was to control the level of Lac Saint-François, to force the water through the canal, and to make certain that what was left of the water in the natural riverbed passed through the already existing power plant there (the Cedar Rapids Manufacturing hydroelectric station). These control works radically altered the currents in the natural riverbed. By the completion of Beauharnois 3 in 1961, less than 15% of the original current still ran through the natural riverbed.

⁹⁹ J. A. Knight, “First Stage of the WORLDS’S LARGEST POWER PLANT Nears Completion”, *Electrical News and Engineering*, Vol 40 No 24, (15 December 31) : 42-43.

¹⁰⁰ Maurice Legault, *Récit chronologique des aménagements hydroélectriques et des voies navigables dans la section Beauharnois-Soulanges*, (Hydro-Québec, 1968), p. 14-15.

One group of dams consists of *Dam No 1*, *Dam No 2*, *Dam No 3*, and *Dam No 4*, located in between *Grande Île*, *Thorn Island*, *Île Beaujeux* (Known as *Maple Island* in English, the name seen in Figure 5¹⁰¹), and *Île Léonard*.¹⁰² This first group controlled the water passing through the natural riverbed, thus stabilising the level of Lac Saint-François and making sure that enough water went into the canal. *Dam No 1* was built in 1933, *Dam No 2* in 1934, *Dam No 4* in 1940 and *Dam No 3* from 1942 to 1943.¹⁰³

¹⁰¹ M. V. Sauer, "St. Lawrence River Control and Remedial Dams – Soulanges Section", *The Engineering Journal*, (December 1943), (p.661-670) : 662.

¹⁰² Most of the French names of the Islands are drawn from "Drawing B-21. Title Record Plan. Development properties. Beauharnois Land Companies. Beauharnois Light Heat & Power..." Montréal, 1937; "Drawing B-22. Title Record Plan..."; "Drawing B-23. Title Record Plan..."; "Drawing B-24. Title Record Plan..."; "Drawing B-25. Title Record Plan...". These maps are held by Hydro-Québec, Division TransÉnergie, Unité expertise immobilière, Équipe inventaire immobilier. Since the vast majority of the population in the Beauharnois and Soulanges counties was French speaking, it seemed appropriate to use these French names, when available. All of these BLH&P property maps are an extremely rich toponymic source. There is a discrepancy between the maps originating from the BLH&P and the topographic maps from the Federal Government (used to build composite maps A and B) about the names of these three islands. I use the names provided by the BLH&P because they are based on notary records.

¹⁰³ M. V. Sauer, "St. Lawrence River Control ... p. 670; Hydro-Québec, *Plan général montrant les ouvrages dans la section Beauharnois – Soulanges*, dernière mise à jour: 14 mai 1968.

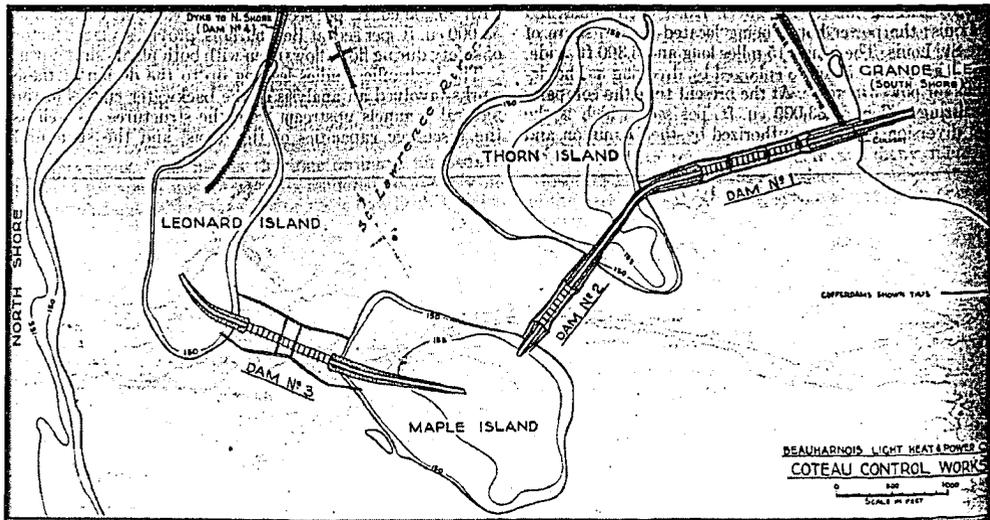


Figure 5. Map showing the detailed location of dams 1, 2, and 3 in the Saint-Laurent. Refer to Synthetic Map B (Appendix 38) to situate this group of dams within the larger Beauharnois region. Taken in M. V. Sauer, "St. Lawrence River Control and Remedial Dams – Soulanges Section", *The Engineering Journal*, (December 1943),

A second group consists of *North Dam* and *South Dam* on both sides of the *Île Juliet* (also known as *Île Gachet* or *Île d'Iberville*).¹⁰⁴ These two dams diverted what was left of the water toward the Cedar Rapid power plant. The *South Dam* was built in 1940, and the *North Dam* in 1941. However, a temporary submerged weir was built as early as 1934.¹⁰⁵

¹⁰⁴ M. V. Sauer, "St. Lawrence River Control ... p. 663.

¹⁰⁵ M. V. Sauer, "St. Lawrence River Control ... p. 661, 670.

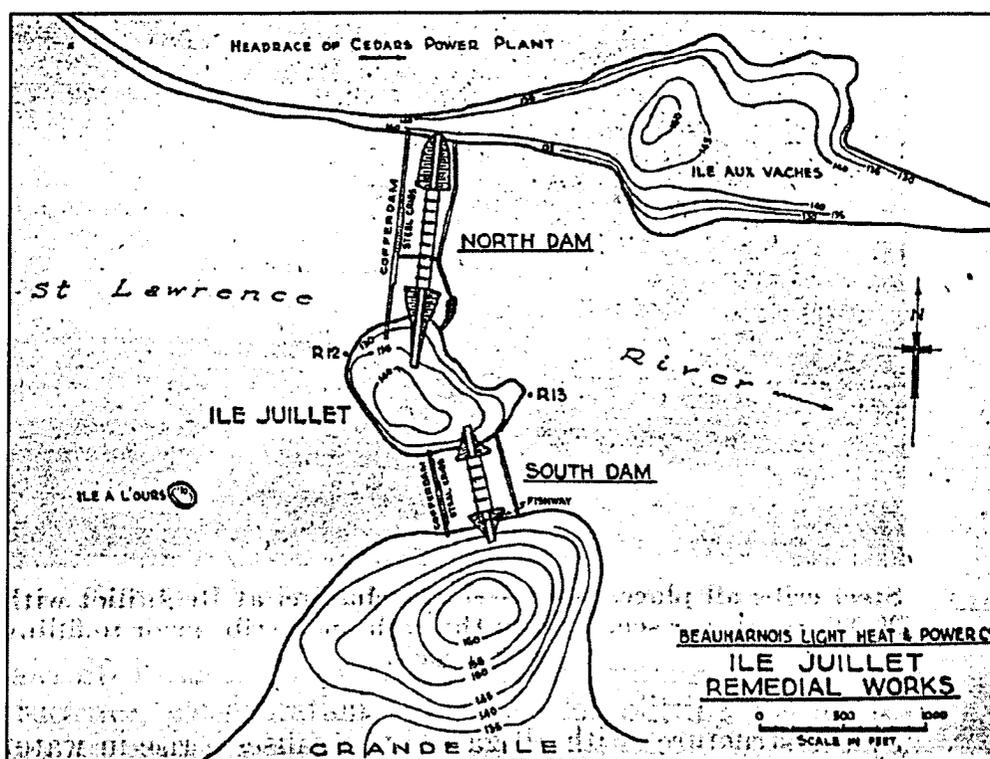


Figure 6. Map showing the detailed location of the North and South dams in the Saint-Laurent. Refer to Synthetic Map B (Appendix 38) to situate this group of dams within the larger Beauharnois region. Taken in M. V. Sauer, "St. Lawrence River Control and Remedial Dams - Soulanges Section", *The Engineering Journal*, (December 1943),

All of these permanent dams are concrete structures which support a series of steel gates (except *Dam No 4* which is made of boulders only) which move up or down to either block the water, let a portion of it flow, or let it flow freely. In all, the system has 58 sluice gates, which can be seen in Figure 7, to control the flow of the Saint-Laurent.¹⁰⁶ Managing this artificialised riverbed was in itself a complex matter and some gates were operated as often as twice a day. Each day, the managers of the dams had to take into account the water mass the Beauharnois and Cedar power plants wished to exploit; the

¹⁰⁶ M. V. Sauer, "St. Lawrence River Control ... p. 669.

incoming water (of which they were informed by a Federal Government gauging station at Iroquois in Ontario); and the local temperature (especially to avoid the formation of “frazil ice”, small crystals of ice causing damage to the hydroelectric turbines). The operation was not without risks. Some gates were crushed by big ice sheets while others could be immobilised by a breakdown in their motors. The immobilisation of the gates at dams 1, 2, and 3 in 1942 and 1943 forced the managers to substantially augment the flow in the Beauharnois canal. As a result, the bridge of Road No 3 – located in the tailrace, east of the power plant and next to the town of Beauharnois – was destroyed because it could not support the stress of the augmented flow.¹⁰⁷



Figure 7. Picture showing the adjustable gates on one of the dams built on the Saint-Laurent. Taken in M. V. Sauer, “St. Lawrence River Control and Remedial Dams – Soulanges Section”, *The Engineering Journal*, (December 1943), (p.661-670) p. 662.

¹⁰⁷ Maurice Legault, *Récit chronologique des aménagements hydroélectriques et des voies navigables dans la section Beauharnois-Soulanges*, (Hydro-Québec, 1968), p. 27. Refer to synthetic Map Beauharnois to locate the Road No 3 Bridge over the tailrace.

Constructing these complex sluice dams proved difficult in a “river where the ordinary minimum flows are greater than even the flood flows of most rivers”.¹⁰⁸ Essentially, the engineers temporarily “unwatered” the area in which a dam would be built by installing lines of gigantic cofferdams. Cofferdams are cubic structures filled with rocks, the structure being either built from steel or wood beams. The cofferdams were laid down one next to the other, starting from one shore, until they reached the other shore (see left photograph below). Once this delicate operation was completed, the concrete structures of the dams were built upon the riverbed, which is solid rock in this stretch of the Saint-Laurent (as can be seen in the picture on the right).



Figure 8. Picture showing the technique of drying part of the bed of the Saint-Laurent in order to build dams across it. Taken in M. V. Sauer, “St. Lawrence River Control and Remedial Dams – Soulanges Section”, *The Engineering Journal*, (December 1943), (p.661-670) p. 662.

5. The BLH&P Engineers’ Paradoxical Relation to the Land they Transformed

The industrialisation of the Beauharnois landscape was designed, planned and supervised by a team of engineers. They were responsible for designing the Beauharnois landscape

¹⁰⁸ M. V. Sauer, “St. Lawrence River Control ... p. 667.

revolution. One could thus posit that they were unconditional champions of industrial imagery and symbols. However, careful study of the corporation's promotional material shows a more complex reality that blends medieval imagery and industrial landscapes. It would seem that this surprising mix reveals fundamental but rarely highlighted aspects of the finance capitalist revolution. This fifth section of Chapter 4 is devoted to the exploration of this matter.

A careful study of the company's public representation reveals two interesting contradictions. The first is that the engineers clearly saw themselves as heirs of a medieval rural aristocracy while they worked daily for the massive industrialisation of a rural landscape, as the previous section has explained. The second contradiction is their surprising insistence on the fact that the gigantic projects were simple and easy to build. Again, the preceding analysis demonstrates how complex the construction process was. Reflecting upon the engineers' view of nature allows an explanation for these apparent contradictions.

A strong message in the high level management's self-representation is its wish to be associated with a rural and aristocratic world. Almost every engineering article in 1929 and 1930 and most of the promotion material described the whole project as a supposed continuation of the dreams and endeavours of the Governor of New France in the early 18th century, Charles de Beauharnois, also Seigneur of the land that eventually became the Comté de Beauharnois. The recurring formulation was that "one authority says [that

the] Marquis de Beauharnois was the first to originate a Beauharnois power project”.¹⁰⁹ This authority is never identified and I have found no mention of this project in the very brief exploration of the life of Charles de Beauharnois that I have conducted.¹¹⁰ To make sure that the people understood the project’s self-asserted aristocratic origins, the very logo of the Beauharnois syndicate was derived from the Governor’s armorial bearings.¹¹¹

Beyond words and pictograms, the engineers and the company’s officers living on the site were given charming rural houses and they were fond of being photographed in front of them, happily smoking pipes with their beautiful dogs calmly sitting by their sides.¹¹² However, the reconstitution developed in this chapter demonstrates that the whole project profoundly disorganised the rural landscape which they professed to cherish. Even the aristocratic world they referred to was originally based on rural society.

The engineers’ single explicit aesthetic preoccupation for the Comté de Beauharnois focused on the design of the power plant. In their view, the challenge was to “design a

¹⁰⁹ “A Start Has been Made on the Beauharnois Power Development”, *Electrical News and Engineering*, Vol. 38, no 20, (15 October 1929) : 40.

¹¹⁰ S. Dale Standen, “Beauharnois de la Boiche, Charles de, Marquis de Beauharnois”, *Dictionary of Canadian Biography*, Vol III 1741-1770 (University of Toronto Press and Les Presses de l’Université Laval, 1974), p. 41-51.

¹¹¹ F2-700165 B539-5-4-41 (Appendix 22).

¹¹² F2-700090 B323-10-11-30 (Appendix 12). Curiously, one of the extremely rare photographs which has no relevance at all to the project is of the old seigniorial manor (F2-700113 B383-11-20-30, Appendix 19), but it is impossible to know if anyone in the company ordered that shot or if it was the photographer’s initiative.

power house of this magnitude that will be architecturally pleasing".¹¹³ Consulting engineer William States Lee was, in his view, "justifiably anxious" to have a power station that was pleasing to the eye. This necessity stemmed from the fact that the power plant was "close to a large city and the popular interest in such an immense and important section of the St. Lawrence development" was high. As such, everything from the external texture and design to the forms and painting of the generators and metal beams inside the powerhouse were considered by the company's "draftsmen" and "artists".¹¹⁴ Apparently, they were successful in achieving this, at least in the eyes of the engineering community, seeing as other engineers praised the architectural balance of the powerhouse.¹¹⁵

To sum up, engineers and top level management hoped to situate themselves publicly in an aristocratic lineage, and they seemed to enjoy a rural aristocratic imagery in private life, even though their economic projects were about heavy industrialisation – at the cost of destroying rural landscapes.

The second surprising aspect of the engineers' discourse is the alleged simplicity of the whole project. A gigantic natural river was diverted into an artificial waterway and

¹¹³ "A Start Has been Made on the Beauharnois Power Development", *Electrical News and Engineering*, Vol. 38, no 20, (15 October 1929) : 39-43.

¹¹⁴ W.S. Lee, "Beauharnois Development of the Soulanges section of the St. Lawrence River", *Transaction AIEE*, (December 33) : 1056-1067.

¹¹⁵ W.S. Lee, "Beauharnois Development of the Soulanges section of the St. Lawrence River", *Transaction AIEE*, (December 33) : 1056-1067.

electricity generating system, and a rural county was chopped in two, but engineers professed that “the Beauharnois project is *simply* a plan to develop the full 80 feet drop of the river”.¹¹⁶ Indeed the whole project was “simple and safe”¹¹⁷ because “the hydraulic calculations for the canal or waterway have been computed following recognised authorities and based on experience of other similar works”¹¹⁸ and “the terrain ... lends itself admirably to such a scheme of development”.¹¹⁹ Indeed, “[n]ature was unusually kind in many respects in connection with this project”.¹²⁰ In the most candid and yet euphemistic description of the impact of the project, one article stated that the power plant would be “rehabilitating the whole landscape between Valleyfield and Beauharnois” but immediately reassured the reader, stressing that it was “a relatively simple project”.¹²¹

Again, the reconstitution provided here should have demonstrated that there was nothing simple in a project that used the heaviest machinery available in the world and tens of

¹¹⁶ “Beauharnois Hydro Power Development”, *The Canadian Engineer*, vol 58, no 1 (January 1930) : 101-3.

¹¹⁷ The Canadian Engineer. “Proposed Beauharnois Power Project”, *The Canadian Engineer*, Vol 57, No 6, (August 6, 1929) : 289-90

¹¹⁸ Frederick B. Brown, *Report on Proposed Hydro-Electric Power Development On The St. Lawrence River Between Hungry Bay on Lake St. Francis and Melocheville On Lake St. Louis*, May 3rd 1927, p. 16.

¹¹⁹ *Engineering News-Record*, ‘Beauharnois Power Plant on St. Lawrence River Designed for Full Flow of the Stream’, (December 11, 1930) : 916-22.

¹²⁰ “Beauharnois Harness St. Lawrence for 2,000,000 Hydropower” *Electrical World* (14 November 1931) : 860-5.

¹²¹ Beauharnois Harness St. Lawrence for 2,000,000 Hydropower” *Electrical World* (14 November 1931) : 860-5.

thousands of employees over three decades. In a similar line of thought, the plans of the embankments' systems suggest a neat, perfectly ordered new environment.¹²² Yet, the photos show a deeply disturbed and messy environment: dirt, mud, gigantic holes reminiscent of trench warfare, and waste littered all over the site characterised this portion of the land throughout the years of construction.¹²³

The sources consulted in this thesis provide some insight into how the Beauharnois engineers thought of themselves and their work. I suggest that these apparent contradictions in their public self-representations and the description of their work can be grasped by further analysis. I have already explained in Chapter 1 that all actions upon nature are embedded in culture. They are not objective acts upon the environment: values and knowledge always guide someone's hand. William Cronon promotes a similar approach to environmental history when he suggest that there is no virgin nature to human eyes. Humans interpret a tract of land with their background and within this interpretation lies the embryo of a project, of something that ought to be done with that

¹²² See the following plans in appendix: Beauharnois construction Co, *Progress Chart. Canal Section No 1*, (1932) (Appendix 35); Beauharnois construction Co, *Progress Chart. Canal Section No 3*, (1930) (Appendix 36).

¹²³ Photos F2-700 038 B165-6-12-30 (Appendix 5), F2-700 074 B259-8-25-30 (Appendix 8), F2-700 101 B355-10-31-30 (Appendix 16); F2-700 103 B363-10-21-30 (Appendix 17), F2-700 188 B601-6-1-30 (Appendix 23),

land. To Cronon, nature is always nature-as-something.¹²⁴ What, then, was the *nature-as-* of the Beauharnois engineers? Extrapolating from section 3 in which we have seen that the whole design of the project corresponds to the industrial project of conservation, I suggest that the engineers saw Beauharnois as nature-as-conservation.

There are several primary sources in this thesis which suggest this pattern of thought. I have already discussed Figure 1 in Chapter 3. It is once more worth mentioning that this map represents the entire county as a desert, save for the already existing industrial infrastructures such as the railways and the other small power plants. Tens of thousands of rural inhabitants, over a thousand agricultural exploitations and half a dozen villages are literally invisible! Another telling representation of this world view is photograph F2 700 088 B320-10-9-30 (Appendix 11). Its representation of the Comté follows the same logic: it is oblivious to the preexisting rural landscape. The only novelty are the vignettes of the gigantic machines the engineers used to remould the land.

To the engineers actively promoting and working for this world view, the massive industrialisation of the Beauharnois landscapes *was* natural because nature was nature-as-conservation in their eyes. It was ‘natural’ according to the two possible meanings of the word. On the one hand, it was evidently, or naturally, desirable for the whole of society. We have already seen this in Chapter 3, where all Beauharnois inhabitants were invited to

¹²⁴ For a stimulating reflection on the meanings of the word ‘nature’, see William Cronon “In Search of Nature” in William Cronon ed., *Uncommon Ground Toward Reinventing Nature*, (W.W. Norton & Company, 1995).

join the working class of the new industrial society, for the benefit and growth of their Canadian nation. On the other hand, their project sprang from, or originated from, the non-human world of nature. When they spoke of the simplicity of their project, they did not think of the ease of building such a massive work but rather of their certainty of knowing and understanding all the natural laws of the Beauharnois environment and how they could be manipulated. Thus, they could assert that the Fleuve Saint-Laurent in this region was “destined” for hydroelectric development, or that the geological composition of the Beauharnois plateau “naturally” called for the construction of a canal.¹²⁵ Their entire project was “simple and safe”.¹²⁶ The Beauharnois engineers were not naïve enough to think that their construction left the area virgin. On the contrary, they were

¹²⁵ For example, see “Beauharnois Hydro Power Development”, *The Canadian Engineer*, vol 58, no 1 (January 1930) : 101-3.

¹²⁶ The Canadian Engineer. “Proposed Beauharnois Power Project”, *The Canadian Engineer*, Vol 57 No 6, (August 6, 1929) : 289-90. There is a growing literature about the notions of safety and risk in advanced industrial society. These notions are secondary to my analysis of the hydroelectricity politics and history of modes of production in Québec. Therefore, I cannot embark onto a detailed analysis of this subject here. Mary Douglas and Aaron Wildavsky were the first to give a theoretical framework for this topic and influenced many subsequent works. (Mary Douglas and Aaron Wildavsky *Risk and Culture : an Essay on the Selection of Technical and Environmental Dangers* (University of California Press, c1982)). Ulrich Beck is now thought of as the most interesting theorist on this matter (Ulrich Beck *Risk Society : Towards a New Modernity* (Sage, 1992) and *Ecological Enlightenment : Essays on the Politics of the Risk Society* (Humanities Press, 1995)). The work of Charles Perrow has also had a large audience (Charles Perrow, *Normal Accidents : Living with High-Risk Technologies* (Basic Books, c1984)).

“rehabilitating the whole landscape between Valleyfield and Beauharnois.”¹²⁷ However, the very word “rehabilitating” implies that they viewed Beauharnois before their arrival as either imperfect or incomplete. They would remedy this because they knew how to organise society and nature at its best.

This can in turn explain why they could see themselves as aristocrats. I suggest they were attempting to relate to the imagery of the knowledgeable and wise lord who knew how to administrate the wealth of the land and to have his subjects benefit from his thoughtful husbandry. Thus, they hoped to recuperate for themselves the imagery of the noble and benevolent mediaeval aristocracy as they simultaneously fuelled a revolution in modes of production that destroyed much of the peasant world within which that former aristocracy had developed.

6. Furthering the Analysis of the Landscape Revolution : Industrial Stimuli and Ecological Problems

The first four sections of this chapter have argued that the BLH&P project opened up a new era in the history of the Beauharnois landscape: the large scale industrial exploitation of nature. The new spatial organisation now served first and foremost to create as much hydroelectric power from this environment as possible, a logic which corresponded perfectly to the precepts of conservation. The remainder of this chapter furthers the study of the transition to a predominantly industrial landscape by looking into the sensory

¹²⁷ Beauharnois Harness St. Lawrence for 2,000,000 Hydropower” *Electrical World* (14 November 1931) : 860-5.

impact the transition had on the Beauharnois inhabitants and by explaining the most important ecological problems it generated. Some of these human and ecological consequences have already been hinted at in the first four sections of this chapter. They will now be expounded in more detail.

For the sake of clarity, this discussion is divided into two sections. Section 6.1 explores the sensorial changes resulting principally from the construction process. Landscapes are, by definition, human occupied environments and it struck me as important to try to understand the bodily impact of a construction process so impressive in its machinery and its methods. After all, being able to blast a whole cliff, as was necessary to build the power plant, was new in human history. What were the most basic sensorial consequences for people living in this environment? Section 6.2 highlights the ecological problems engendered by the BLH&P project. Some of these problems resulted directly from the construction process and were transitory in nature, while others were permanent consequences of the BLH&P project. This knowledge is paramount to understand the analysis in chapter 5, where I take a close look at some Beauharnois peasants trying to perpetuate their mode of production in a radically altered environment.

6.1. Stimulus of an Industrial World

It is one thing to describe the design and construction methods of this hydroelectric project and its environmental consequences on the region but it is another to reconstruct the atmosphere, the basic physical experience of the people in the area. That is, to explore

the physical stimuli created by the company employees' activity.¹²⁸ This analysis is not absolutely essential to support the argument that the Beauharnois landscape was transformed to satisfy heavy industrial objectives first. However, my photographic sources are so rich in detail that I was compelled to propose an analysis of what someone might have felt while living in the Comté de Beauharnois when it was going through a radical transformation. More importantly, I believe this analysis adds human depth to a chapter that has shown a rather technological dimension up to this point. Moreover, it helps to understand some of the ecological changes explained in the next section. Animals also have senses and it is quite possible that the stimuli engendered by the project affected them to the point of causing ecological damage. Finally, it offers me another opportunity for proposing thoughts on the characteristics of industrial landscapes.

The numerous photos and plans shown thus far should have suggested the heavy visual impact on the landscape. In the canal section, a series of large crests rose out of the land and blocked the view of what had essentially been flat and open land,¹²⁹ with the exception of the small hills and the occasional lots of forest. The huge area scraped by the draglines and the even larger settling basins changed the colour of the land from the browns, greens, and yellows of agricultural activity to a more or less uniform muddy-

¹²⁸ For a highly stimulating reading about the inclusion of the senses in industrial Canada see: Joy Parr, "Note For a More Sensuous History of Twentieth-Century Canada: the Timely, the Tacit, and the Material Body", *The Canadian Historical Review*, Vol. 82 No 4 (December 2001) : 720-745.

¹²⁹ F2-700 038 B165-6-12-30 (Appendix 5).

brown. Colonising plants¹³⁰ quickly grabbed a hold on the freshly erected dykes, and thus the green colours of vegetation reappeared there, but photos of the very large settling areas of watery mud show no plants at all.¹³¹ This settling mud was probably too dense for most plants to grow roots in. Together, the crests and the settling basins created physical and visual barriers for communities that used to meet and see each other along the *rangs* and in the village. Moving along the erected dykes, the trains and draglines were in themselves noticeable visual objects. The tower excavators were 40.5 metres high,¹³² and most of the machines spewed black fumes into the sky.

The powerhouse construction site next to the town of Beauharnois was smaller in its dimensions but the activity there was more diversified. The different workshops, workers' buildings, and the crushing and mixing plant (the latter being 4 storeys high), radically changed the landscape of what had been an agricultural town. Train tracks, scaffolds, and waste which were spread all over the area completed its transformation to an industrial landscape.¹³³

Another noticeable visual aspect of the construction were the night lights. All operations were conducted 24 hours a day from the early spring of 1930 to the late fall of 1931. This

¹³⁰ F2-700 085 B304-9-23-30 (Appendix 10); F2-700 230 B692-8-4-31 (Appendix 25); F2-700 277 B804-10-2-31 (Appendix 29).

¹³¹ The left side of the dyke in picture F2-000 085 B304-9-23-30 is one of the settling areas. Notice that colonising plants have had no difficulty growing roots on the dyke itself.

¹³² F2-700 032 B143-5-12-30 (Appendix 3).

¹³³ F2-700 033 B152-5-20-30 (Appendix 4), F2-700 160 B525-4-29-31 (Appendix 21).

was made possible by the electric lighting of the different construction sites and by equipping all machines with powerful spotlights.¹³⁴ Lines of spotlights were also laid next to the dykes and railway bridge erection sites.¹³⁵ In an epoch when powerful night lighting was still a novelty, and one limited mostly to cities, this must have seemed strikingly new to anyone staying there overnight. At night, light invaded the workers' camps, farmers' houses, and thousands of stars suddenly disappeared from the sky.

Most visual and written sources encountered in this thesis do not testify to this, but it can be inferred that the whole construction site must have been very noisy. This must have been especially true of the powerhouse site. On and around it, powerful dynamite explosions shook the ground while the jackhammers, the crushing and mixing plants, the constant loading, unloading and moving of the trains created a constant and penetrating rumble. One journalist attending the inauguration ceremony on October 1929 did report that the first blast "resounded far down the St. Lawrence Valley"¹³⁶, suggesting that the ecological impact of the noise pollution affected wildlife and humans not only in the Comté de Beauharnois but all across the Lac Saint-Louis.

In the same line of thought, it can reasonably be argued that the whole project changed the smell of the air in the region. The sudden new mass of water in the canal, the

¹³⁴ Notice the circular dishes on the tower of the dragline in photograph F2-700 032 B143-5-12-30 (Appendix 3). These are spotlights.

¹³⁵ F2-700 071 B254-8-18-30 (Appendix 7).

¹³⁶ *Ottawa Evening Citizen*, 14 October 1929. Cited in T. D. Regehr, *The Beauharnois Scandal* (University of Toronto Press, 1990), p. 6.

displaced soils and the settling basin probably brought new smells and augmented the ambient humidity. In addition, the excavating machines (except for the electric shovels), the trains, and the industrial plants and shops generated carbon based smoke and exhaust.¹³⁷

I have observed, on a few occasions, that understanding the complete reorganisation of the Beauharnois landscape is impossible, using our mere senses. The core components of this industrial system are too far apart to be seen simultaneously by someone walking in the Comté. However, this transition to the industrial age undeniably engendered industrial sounds, smells and sights. We are thus left with an interesting paradox. Judging by the Beauharnois case study, it appears that industrial landscapes are simultaneously invisible and ostensible realities. The spatial reorganisation of the Comté de Beauharnois and the Saint-Laurent cannot be fully grasped without engineering explanations and maps but the construction process of the entire system and the still standing power plant are unambiguously material expressions of the industrial age.

6.2. Immediate Ecological Impact on the Beauharnois Landscape

The project had a major ecological impact on the region. One primary aspect of this was the transformation of the hydrology of the Beauharnois plateau. Even though the plateau ends to the north with the Saint-Laurent, most of the waters in the area naturally percolate southward toward the small Rivière Saint-Louis. The canal, having been built halfway between the north border of the plateau and the Rivière Saint-Louis, meant that a large

¹³⁷ F2-700188 B601-6-1-31 (Appendix 23).

portion of the percolating water would now be blocked against the north embankment. This created pockets of stagnant water north of the canal and deprived the Saint-Louis of some of its waters. In order to mitigate this problem, the company dug a drainage ditch at the foot of the northern embankment to capture the water and redirect it towards Lac Saint-Louis to the east. This, it was hoped, would prevent the accumulation of water in the ground north of the canal.¹³⁸ However, it is clear that this did not help arable lands that were already difficult to drain of excess water, and in the sources I consulted, engineers never considered this potential impact upon the remaining agricultural land.

Moreover, the muddy water dumped by the hydraulic dredge into the settling basins located north and south of the canal added massive amounts of water into the soil. This was exacerbated by the fact that the water did not have much space to settle in, for the simple reason that the ground, a few meters below the surface, is composed of impermeable blue clay or rock. The amount of water displaced in the dredging was enormous. One 1934 company report states that from 1930 to 1934, 33 278 636 cubic yards of earth mixed with water were dumped into the settling basins.¹³⁹ With nowhere to be absorbed, the water seems to have moved laterally as adjacent farmers complained of water invading their land, rendering it unsuitable for agriculture, as we will see in the upcoming chapter.

¹³⁸ The ditch is identified on Progress chart No 3 (appendix 36). Look for a semi-dotted line immediately next to the northern settling basins. The digging of this ditch can be seen in photograph F2-700 103 B363-10-21-30 (Appendix 17).

¹³⁹ *Report on Canal Excavation by Company Dredge, Season 1934*, February 15, 1935, p 44. F2-2124-34.
Factor of conversion: 1 yard³ = 0.754 meters³.

Regardless of the respective impact of the severing of the watershed or the infiltration of water due to dredging, one thing remains certain: the land bordering the canal became more sodden. A 1951 Federal land survey shows that many stretches of soil north and south of the canal were transformed into marshes.¹⁴⁰ These marshes still exist today¹⁴¹ and some were transformed into swamps to welcome migratory birds, an ingenious attempt at making a wildlife reserve out of an industrial structure.¹⁴²

The soil was also deeply disturbed. Some of it disappeared for good under the artificial water course. In addition, a great deal of earth was variably displaced, piled up, compressed by bulldozers, mixed with water and poured into settling basins, all of which most certainly permanently altered its mechanical, chemical and biological composition. As contemporary scientists are increasingly realising, soils are very dynamic, complex phenomena. Most importantly, they are living environments in which insects, bacteria,

¹⁴⁰ Aug. Mailloux, Gér. Godbout, *Carte des sols, Comté de Beauharnois*, (Gouvernement du Canada, Ministère de l'Agriculture, Service de la Grande culture, 1951).

¹⁴¹ For further details about these marshes today, consult Denis Gervais, Claire Lachance, Marthe C. Thébert, *Plan d'action et de réhabilitation écologique 'Entre 2 Lacs* (Comité ZIP du Haut Saint-Laurent, March 31, 2002), p. 1.8 and "Carte du territoire, Figure 2".

¹⁴² Photo DSCF0194 (Appendix 34). These marshes have been expanded and managed since 1978 by "Canards illimités Canada", a conservation organisation.

fungi and decomposing vegetation accumulate to make up the major part of the Earth's biomass.¹⁴³

Finally, the reorganisation of the topography of the land, the loud noises and impressive night lighting that I have described in the previous section, and the massive influx of workers probably caused important stress to the indigenous fauna of this agricultural landscape. For example, biologists have recently begun studying the impact of nocturnal light pollution on insects and wild animals and they now estimate that artificial lighting can be as harmful to them as most other forms of pollution.¹⁴⁴ However, the sources examined thus far do not allow me to explore this matter here. The building sites in themselves have also transformed the floral dynamics. The construction created huge

¹⁴³ *Science et Vie*, No 1020 (September 2002), Special issue titled "La planète est-elle vraiment malade?", see section "La terre" p. 124-132.

¹⁴⁴ This was the recurring conclusion of the participants of a conference entitled "The Ecological Consequence of Artificial Night Lighting" held in Los Angeles February 23-24, 2002, organised by the Urban Wildlands Group. See: Ben Harder "Deprived of Darkness. The unnatural ecology of artificial light at night", *Science News*, Vol. 161, No. 16 (Week of April 20, 2002), <http://www.sciencenews.org/20020420/bob9.asp>.

For further reference, please look into to the Urban Wildlands Group web site (and especially pages <http://www.urbanwildlands.org/conference.html> and <http://www.urbanwildlands.org/projects.html#anchor1216405>. Both sites were consulted in the fall of 2003. The International Dark-Sky Association website is also a good resource (particularly page <http://www.darksky.org/links/enviro.html>)

tracts of land for colonising plants which were otherwise prevented from growing by the farmers' crops.¹⁴⁵

The impact on the Saint-Laurent aquatic ecosystems was certainly no less significant, but also difficult to evaluate from the primary sources used in this study. Nevertheless, it is important to stress the highly disruptive consequences of the completion of the canal and dam system on the Saint-Laurent's natural riverbed. First, it meant that from then on the level of Lac Saint-François would, on the one hand, be controlled by humans rather than natural hydrological and meteorological dynamics and, on the other hand, be maintained at a more or less constant level in order to have water reserves at all times to produce electricity. This is very damaging to aquatic and riverside ecosystems because of their dependence on seasonal and long term water level variations to provide feeding and breeding grounds for numerous plants and species.

Second, the dams in the natural riverbed are barriers to exchange between fish populations living in the Fleuve Saint-Laurent both upstream and downstream. The gates of the dams were not necessarily closed at all times, but some of them always were, and in the event of a complete closing of all sluices at the *North* and *South* dams, simply no passage at all was left to fish and insects since neither the turbines of the Cedar power plant nor those of the Beauharnois power plant could be safely crossed.

¹⁴⁵ F2-700085 B295-9-22-30 (Appendix 9); F2-700230 B692-8-4-31 (Appendix 25); F2-700277 B804-10-2-31 (Appendix 29).

Thirdly, the canal replaced the natural riverbed and this was catastrophic, ecologically, because artificial shores (embankments) cannot support complex aquatic ecosystems. Their slope is too steep, a problem compounded by the fact that the water in a canal runs too fast.¹⁴⁶

Finally, as I have already mentioned in section 4.1, substantial amounts of earth were thrown into the waters, changing them for the worst in transparency and chemistry. I will provide other thoughts concerning the long term ecological impact on the river in the conclusion. Suffice to say that, in essence, the Beauharnois project foreshadowed the quasi-total industrialisation or artificialisation of the Fleuve Saint-Laurent, this through the complete development of the Great Lakes St. Lawrence Seaway System.¹⁴⁷

¹⁴⁶Denis Gervais, Claire Lachance, Marthe C. Thébert, *Plan d'action et de réhabilitation écologique 'Entre 2 Lacs* (Comité ZIP du Haut Saint-Laurent, 31 March 2002), p. 1.7, 1.8 and 1.10; fiche 14. On the ecologically disastrous combined effects of isolating the Saint-Laurent ecological communities, stabilising its water levels, and replacing its natural shore with artificial ones, consult Nathalie La Violette, Denis Fournier, Pierre Dumont and Yves Mailhot, *Caractérisation des communautés de poissons et développement d'un indice d'intégrité biotique pour le fleuve Saint-Laurent, 1995-1997*, (Société de la faune et des parcs du Québec, Direction de la recherche sur la faune, March 2003), p. xxi and 163.

¹⁴⁷ The Beauharnois and Soulanges counties were, in effect, the first communities to be deeply affected by the Great Lakes St. Lawrence Seaway System, even though the rest of the waterway would not be built until the late 1950s. As such, Joy Parr's assertion that the Iroquois village was the first to be transformed by the seaway in 1955-58 is not quite accurate: Joy Parr, "Note For A More Sensuous History Of Twentieth-Century Canada: The Timely, The Tacit, And The Material Body", *The Canadian Historical Review*, Vol. 82 No 4 (December 2001), (p. 720-745) p. 722.

This description of the most important ecological problems created by the BLH&P project ends the analysis of the transformation of the Comté de Beauharnois. The construction process which spanned, essentially, from 1929 to 1948, was a complex but rapid transition period in which this landscape became predominantly industrial. The Beauharnois environment now primarily served the maximum hydroelectric exploitation of the Saint-Laurent. It is important to notice that this landscape organisation is in concordance with the central notions of conservation, such as the maximum exploitation of energy resources. However, the *agriculteurs* did not disappear from Beauharnois. Hundreds remained and strived to cohabit alongside the industrial mammoth, even though the new landscape no longer served their economic activity first. This uneasy coexistence of a dominant industrial structure and the remaining peasant exploitations is the focus of the following and final chapter of this thesis.

CHAPTER 5: “D’APRÈS LE PASSÉ, AVEC PREUVE À L’APPUI, [CE] LOT ... N’A
JAMAIS ÉTÉ À L’ÉTAT MARÉCAGEUX”: PERPETUATING AGRICULTURE
NEXT TO AN INDUSTRIAL MAMMOTH

1. Introduction

Using protest dossiers filed in the BLH&P fonds, this chapter reconstructs the problems faced by the remaining Beauharnois peasants during the transformation of the landscape by the gigantic hydroelectric power plant between 1928 and 1948. It bridges the mostly social analysis of Chapters 2 and 3 to the mostly environmental analysis of Chapter 4 by analysing how the Beauharnois *agriculteurs* tried to perpetuate, in a profoundly changing environment, their productive activity and local social organisation. Here I come to the conclusion it was much more difficult for the peasants to maintain the one and the other because the new Beauharnois spatial organisation and the larger Québec society no longer supported their way of life. The fact that Beauharnois peasants now interacted with inhospitable material and political environments is interpreted as evidence that Québec society had gone through a revolution in modes of production where finance capitalism had become dominant, and other modes of production – such as peasant society – were then secondary.

This chapter does more than integrating the environmental and social analyses by looking into the changing lives of the Beauharnois *agriculteurs*. It provides further observations reinforcing each of the two lines of argument. On the social side, I have already explained that political and economic elites in Québec championed the finance capitalist

mode of production and urged a declining peasant class to join an industrial working class where individuals had little power over the industrial means of production (chapters 2 and 3). This chapter provides additional evidence that the political elite did not favour peasant agriculture, by showing how many difficulties the remaining Beauharnois had when attempting to attract political support to confront the BLH&P. On the environmental side, I argued in Chapter 4 that the BLH&P structure reshaped the entire Beauharnois landscape to serve energy production first, a rapid and large scale environmental change guided by the notions of conservation – seen here as the environmental doctrine of the finance capitalism mode of production – and mirroring the upheavals of class relations in Québec. This chapter provides additional insights into the transformed landscape by showing the environmental problems faced by Beauharnois *agriculteurs* trying to use the agricultural techniques they used before the project transformed the land. In the same vein, it will be seen that the local villages ceased to be the main arbiters of the spatial organisation of the Comté de Beauharnois, also a loss for those wishing to perpetuate the peasant mode of production at the local level.

2. The Scale of Recorded Local Protest

The starting point for this analysis is that the project engendered numerous environmental problems for the peasants and that these problems created considerable local frustration toward the BLH&P. Peasants living close to the expanding infrastructure were generally not satisfied with the new state of the land, and the rural municipalities were frustrated by being cut apart by the 3km-wide canal. *Rangs* were severed and transportation between farms, villages, and local economic centres became much more difficult.¹ Before turning to detailed case studies, it is first necessary to assess the sources which enabled me to make these general observations.

2.1. The Sources

In sheer quantity the number of protest cases within the F2 fonds is important. The company's original complaint series (the "2800" series) contained 88 dossiers relating to local protest cases. Of these 88 dossiers, 73 deal with individual complaints while 12 refer to collective complaints stemming from *ad hoc* peasants' coalitions or municipalities.² Moreover, the final treatment of the F2 fonds by Hydro-Québec archivists identified more collective protest cases dispersed in other sections of the

¹ Photographs F2-700 085 B295-9-22-30 (Appendix 9) and F2 700 038 B165-6-12-30 (Appendix 5) illustrate the severing of the county in two.

² This analysis is based on the index of the original 2800 series.

original filing system.³ All of these protest cases are now regrouped in two series: F2/2138 “Litiges impliquant les compagnies du groupe Beauharnois Light Heat and Power”, and F2/2139 “Réclamation impliquant les compagnies du groupe Beauharnois Light Heat and Power”. Judging from the F2 research tool, 3 new individual cases and 2 protest cases that cannot be classified as either individual or collective must be added. Moreover two other series, F2/2158 “Acquisition de terrains et de servitudes par le groupe Beauharnois Light Heat and Power” and F2/2155 “Relations municipales”, contain still other claims for compensation, most of which were supported by Beauharnois municipalities. However, these last two series were constructed purely chronologically (each new letter or report was piled upon the last one received), making it more difficult to evaluate the number of complaints.

To sum up, individual or collective complaints numbered at the very least around 200 between 1921 and 1959. This might not seem like a lot over such a long period, but the opening dates of the protest dossiers are closely grouped around two peaks: the biggest in 1931-1933 and the second in 1943. They match the most important phases in the work. The 1932 peak corresponds to the construction of the canal *per se* – including the settling basins bordering it – that cut the county in two, and the years from 1940 to 1943 are the ones which saw the construction of most of the dams in the natural river bed. These dams definitely changed the water dynamics in the Saint-Laurent – as I have demonstrated in chapter 4, section 4.3 – thus affecting the people living on its shores. Forcing all that

³ Hydro-Québec, Centre d’archives, *État général du fonds Beauharnois, Light, Heat and Power Company (F2)*, printed from the Centre d’archives’ computers on 15 December 2003

water through the canal also required digging at its bottom to increase its holding capacity. This meant, in turn, enormous amounts of dumped dredge material, much of which ended up in the Saint-Louis and Saint-Laurent rivers despite the availability of the settling basins. The material polluted these rivers, rendering them unsuitable as sources of drinkable water for humans and herds.

One striking aspect of the Beauharnois Light Heat and Power Company fonds (F2) is the clerical meticulousness with which company officers built dossiers or collected testimony and information about frustrated individuals or groups. In one especially complex case, for example, BLH&P officer M. V. Sauer was given a dense and detailed memorandum from BLH&P sales agent W. McCaffrey, in which McCaffrey reported on what was said in a meeting he had with a poor widow whom the BLH&P wished to expel from an island in the Saint-Laurent. The whole memorandum is based upon McCaffrey's recollection of what he, the widow, and the Liberal provincial Member of parliament for Beauharnois, Gontran Saint-Onge (acting as the widow's legal representative), said in the Valleyfield office of Saint-Onge. The document is a succession of "I told Mrs Lecompte...", which "said she understood..." while "Mr St-Onge [sic] then asked me if..."⁴ Many memoranda of this kind appear in the series that I have explored, which explains the voluminous dossiers. As a result, the F2/2138, 2139, 2155, and 2158 series are 431 linear centimetres long and, taken together, they form a surprisingly eclectic compendium of information about the economic, judicial, and political life of the Comté de Beauharnois.

⁴ F2/2158, memorandum from M. V. Sauer to W. M. McCaffrey, 27 January 1934.

The corporation's overriding concern in building these files was rather narrow: they wanted to amass legal arguments to protect the corporation in the advent of lawsuits. A typical succession of pieces in such dossiers begins with a letter from a complaining peasant. In some cases the letter stating the case is written by the peasant himself⁵ and in others by the federal or provincial Beauharnois Member of Parliament. The company officer would then ask a company engineer to inspect the site of the alleged damage to evaluate if – in his opinion – the peasant "...would have a great deal of difficulty in proving a case against us...".⁶ Often included in these documents is a letter from a provincial civil servant or another letter from the Beauharnois provincial or federal MP restating the peasant's complaint and politely asking the corporation "to see if there is some way to give him satisfaction".⁷

The company was building dossiers to be ready to face court challenges, and the information it collected was generally framed in legal language. This does not mean that these archives convey a single viewpoint, only that the company tried to put the most favourable light upon situations in which conflicting views were clashing. The clerical meticulousness and the tendency to record deposition-like declarations by the company representative make them interesting sources that contain enough contradictory or

⁵ I have not encountered, in the Beauharnois archives, protest letters written by women.

⁶ F2/2138/14, letter from B.K. Boulton, superintendent of operation to R.A.C. Henry, general manager.

⁷ F2/2138/3 letter from Maxime Raymond to R.A.C. Henry 11 September 1934.

superfluous information to give historians insights beyond the internal logic of the corporation and into the local society it was upsetting.

What is the long term historical context of these sources? It seems reasonable to suppose that the data-collection practices of the corporation belonged to a long-standing clerical and bureaucratic tradition of the Western world, one which stretched back to the 16th century Catholic Inquisition. Carlo Ginzburg has shown that, in early Modern Europe, the Inquisition's fundamental power was grounded in its extremely detailed interviews with suspected heretics, not in the occasional torturing. These interviews were systematically transcribed and archived, which enabled the inquisitors to frame people's thoughts and beliefs in canonically sinful statements. And because the Catholic Church was simultaneously determining what was canonically right or wrong, it was particularly apt at finding heresy. Nevertheless, Ginzburg also demonstrates that the clerics' obsession with accuracy made these testimonies extremely rich sources about a European popular culture that was essentially oral.⁸

The BLH&P actions in Beauharnois and the building of its archives are in some respects similar to the practices of the Church during the Inquisition. First, the obsession with detailed data collection about local communities is a central aspect of the dossiers' construction and it preoccupied the highest echelons of the corporation. Whatever the original intent of the corporation, historians are left with sources revealing aspects of the

⁸ For a summary of these matters see the introduction of Carlo Ginzburg, *The Cheese and the Worms : The Cosmos of a Sixteenth-Century Miller* (Johns Hopkins University Press, 1992).

social and landscape transformation of the Comté de Beauharnois. Second, the company was in a dominant position to determine what was legally wrong or right. As it will become quite clear in this chapter, the BLH&P was in the best of positions to bend the law or have it rewritten in a way which facilitated the accomplishment of its ultimate goal: maximising its returns to shareholders. Of course, the comparison must not be pushed too far. If the Church was the only body able to write canon law during the Inquisition, the BLH&P was not the only political player trying to influence the writing of civil and private interest laws in early 20th century Québec. Nevertheless, class dynamics definitely placed the corporation in a favourable position in regard to lawmaking and law interpretation. Thus, it had an interest in framing the conflicts in Beauharnois in purely judicial terms, and this pushed the corporation to accumulate information that could eventually be helpful in Québec civil courts.

In the context of this thesis, it would be impossible to study these hundreds of protest cases closely. Environmental history, especially if we take the mode of production analysis, must go beyond one-dimensional analysis (whether it be ideology, economy or ecology) and plunge into the inextricable swirl of dreams, words, human relations and creations, and natural forces which make up the world in which humans live. This is complex, it requires time and lends itself quite naturally, I have found, to detailed case studies instead of a geographical or chronological quantitative analysis. The following analysis is essentially built upon half a dozen individual or collective protest cases out of the more than 200 cases I found in the BLH&P: a first where two peasants complain that their wells were emptied by the works, a second where one peasant is complaining of

invading water in his land, a third where the company was facing a collective action by all the municipalities of the Comté for the restoration of the local road system, a fourth where a single village – Saint-Louis-de-Gonzagues – asked the BLH&P to finish roads that were long due, and a fifth, in which two villages, – Saint-Louis-de-Gonzagues and Saint-Stanislas de Kosta – asked for major improvements on the problematic bridges the company built to allow minimal communication between people on each side of the canal. Nevertheless, close to half of the F2/2138 “Litiges impliquant les compagnies du groupe Beauharnois Light Heat and Power” and the entirety of the F2/2155 “Relation municipales” were at least read once and I refer to them on occasion. This broad but more superficial coverage of files enables me to solidify the generalisations I propose about the causes, nature and political consequences of protest in Beauharnois.

Two final comments about the analysis. First, I was hoping to find the minutes of the municipal meetings of the Beauharnois villages. Unfortunately, numerous phone calls to these municipalities convinced me that their 1930s minutes no longer exist. Second, the Beauharnois landscape was not inhabited only by peasants. The landscape was shaped predominantly by a peasant economy, but peasant economies are themselves made of complex rural societies with many non-peasant individuals. Also, the city of Valleyfield was a small industrial centre inhabited by urban groups. Finally, the Comté de Beauharnois included a small population of summer residents. I have chosen to focus on the peasants, and to leave aside for the moment most of these secondary characters (despite the research that I have done on them), because it was the peasants who dominated the landscape. I regret excluding the non-peasant populations from the

narrative of this chapter because they provide interesting nuances about peasant environmental dynamics. Many such individuals also shed light on the micro-social and environmental consequences of the rapid penetration of urban-industrial dynamics into a peasant landscape. These nuances will have to be integrated into a future research project.

2.2. The Overall Significance of Local Protest

The large number of protest cases in the BLH&P archives shows, at the very least, that local frustration created by the works was high, even though it was not echoed elsewhere in the province. A large sampling of the daily Montréal newspapers *La Presse*, *La Patrie*, and the *Montreal Star* during the 1930s demonstrates that the provincial press did not report the numerous individual or municipal protest cases.⁹

This combination of high local frustration and marginal impact on the Québec public sphere is not surprising considering the very unequal power dynamics between the Beauharnois peasants, their municipalities, and the corporation. Furthering earlier analysis of the politics of Comité des bills privés and the buying tactics of the company – see Chapter 3 for these matters – this chapter explores how this local environmental conflict was marginalised by the general social-political dynamics of Québec in the

⁹ See the list of sources consulted at the end of this thesis for an explanation of the sampling techniques used to study these newspapers. Also, I cannot come to any conclusion on how the political orientation of these newspapers may have influenced their coverage of the Beauharnois episode. See Section 2.2 of Chapter 3 for more details about this limitation of my study.

1930s. However, the very marginality of this conflict is part of its interest. A new generation of environmental historians of the modern period does not accept that “capitalistic economic relations” determined all environmental relations in the last two centuries; instead they try to understand how “contesting classes with their distinct ways of conceptualising the world” “experiment[ed] with a variety of strategies designed to regulate the uses that could be made of [a] region’s natural resources”.¹⁰ This effort is not aimed at questioning the dominant role of capitalism in reshaping human relations with their environment in the last couple of centuries, but rather to stress the resistance it encountered. As such, the different stages of capitalism have been revolutionary in nature, although it must be stressed that these revolutions never succeeded in completely erasing alternative ways of thinking and living the human-nature relationship. This will become even more evident in the conclusion when I will discuss the fate of the private hydroelectric business in Québec during the 1940s.

Many cases of protest will soon be analysed individually, but a single dimension of all these conflicts exemplifies spectacularly how unequal the odds were between most of the Beauharnois inhabitants and the corporation. As I have already stated, the Beauharnois inhabitants rarely resorted to judicial confrontation and thus rarely employed lawyers. When they did, they hired local practitioners such as lawyers J. Georges Laurendeau and Jean-Paul Cossette from Valleyfield, as did Alfred Laberge when he claimed monetary

¹⁰ Karl Jacoby, *Crimes against Nature. Squatters, Poachers, Thieves and the Hidden History of American Conservation* (University of California Press, 2003), 49, 50.

compensation for crops lost because of the inundation of his fields.¹¹ Significantly, the peasant hired the lawyers after many years of troubles and he had, by this time, repeatedly asked the company for compensation.

Conversely, the corporation usually contacted its lawyers immediately after having received complaints. More importantly, the BLH&P employed lawyers such as Aimé Geoffrion and Louis Stephen Saint-Laurent who, in the 1910s and 1920s, had built themselves formidable legal reputations in the Québec province by defending the interests of powerful American electricity entrepreneurs. The “dazzling and arrogant”¹² Geoffrion was the BLH&P's usual lawyer. In 1929, he corresponded directly with Québec's premier, Louis-Alexandre Taschereau.¹³ Geoffrion's associate was J. Alex Prud'homme, himself a well-known lawyer. He could write to the president of the Commission des services publics de Québec – the government body responsible for judging expropriation cases (seen in Chapter 3 section 2.6) – in an intimate and humorous tone about an expropriation case in Beauharnois related to the power plant.¹⁴ Louis

¹¹ F2/2138/14 letter from J. Georges Laurendeau and Jean-Paul Cossette to the BLH&P company, 21 February 1938.

¹² David Massell, *Amassing Power. J.B. Duke and the Saguenay River, 1897-1927* (McGill-Queen's Press, 2000), 258-259 note 19. Massell's corporate history of J. B. Duke's hydroelectric company in the Saguenay region provides many information on these lawyers because they were central players in obtaining authorisations and leases from the Québec and Canadian governments.

¹³ See the entire sub-series F2/2155/16

¹⁴ Archives Nationales du Québec, Centre régional de la Ville de Québec, E49 1981-09-003/10, dossier

Stephen Saint-Laurent was employed less frequently, but one of his legal associates was none other than a brother of premier Taschereau.¹⁵ Louis Stephen Saint-Laurent would one day become Canada's Prime Minister. Thus, the BLH&P had privileged and direct access to the highest political circles in Québec and Canada. This alone shows how difficult it would be for the Beauharnois people to transform their local frustrations into a province-wide public issue.

However, the care with which the protest cases were recorded also demonstrates that company officials sensed that their capacity to act quickly and efficiently depended minimally on formal adherence to the law. In 1925-27, the ruthless and illegal strategies of J. B. Duke's corporation in Lac Saint-Jean had shown that, without these precautions, peasants could form united fronts, and attract support of the leaders of the opposition party at the Assemblée législative and some Montréal opinion makers. The Saint-Jean "affair" had been important enough to be the "only issue which put premier Taschereau on the defensive" in a period of otherwise "high personal stature".¹⁶ As I have already explained, Robert Oliver Sweezey and many of the highest officers of the Beauharnois Power Corporation had worked on the Lac Saint-Jean project. Were they shocked by J. B.

EXP No 746.

¹⁵ See the entire sub-series F2/2210/8

¹⁶ Bernard Vigod, *Québec Before Duplessis. The Political Career of Louis-Alexandre Taschereau* (McGill-Queen's University Press, 1986), 136, 139. See also the debates of the Assemblée législative, 16^e législature, 4^e session (11 January 1927 to 1 April 1927): <http://www.assnat.qc.ca/debats-reconstitues/rd16l4sc/seances.html>

Duke's tactics or did they simply hope to have their Beauharnois project built as quickly as possible? Taschereau, for his part, certainly wished to avoid another hydroelectric "tragédie" in which the *classe agricole* would appear again as the victim of heavy industrialisation.¹⁷ Whatever the exact reasons for the BLH&P executives to act more legally in 1929-1930, they generally tried to follow the letter of the law strictly, even if they rarely followed its spirit (remember purchase of the peasants' *terres*) and sometimes resorted to having the letter rewritten altogether (as I will soon show).

The peasants usually confronted the company on a private basis and they sought help from their local municipal councils and MPs. Understanding why so few protest cases ended up in the courts is difficult. The peasants could have feared that they did not have the legal resources to match the corporation in the courts. Mounting a legal fight against the corporation meant, at the very least, being able to afford a lawyer, paying for trips to Montréal – where some of the cases were heard – and losing working days preparing the cases and sitting in courts. The Beauharnois peasantry was a prosperous one¹⁸ and most could have afforded a local lawyer. But this did not enable them to match the resources of

¹⁷ Researchers suggested that Taschereau personally intervened in the design of one hydroelectric project after the Lac Saint-Jean episode to prevent the flooding of peasants' farms in the Comté de Témiscouata. Bernard Vigod, *Québec Before Duplessis...* p. 276, note 91, and Robert Rumilly, *Histoire de la Province de Québec, Volume XXX. Camillien Houde* (Fides, 1958), 144-146. Vigod takes this information from Rumilly, who does not provide his sources.

¹⁸ According to the 1931 census, Beauharnois' average farm value ranks third among the counties of Québec. See "Tableau 22. Valeurs – Fermes, 1931 produits de la ferme et vente coopératives, 1930, par

a top Montréal lawyer using all the archival and scientific expertise of the corporation and having direct connections with the premier's office. These reasons could explain why peasants turned *en masse* to municipal councils, local Members of Parliament, or Québec public servants to force the company to act.

This approach is rather individualistic in nature. Judging from the sources used in this thesis, the Beauharnois peasants did not band together on a large scale, did not petition the Assemblée législative, did not lobby Members of Parliament from other ridings, did not reach out to peasants who had lived or were living similar experiences (such as those in Lac Saint-Jean), or wrote public letters to newspaper in or outside the Comté.

This rather limited approach of Beauharnois peasants is certainly linked in some way to the larger political situation of the Québec peasantry in the 1930s. I have explained in Chapter 2 that the end of the 1920s saw the collapse of class based rural political parties in the province. The newly formed Union catholique des cultivateurs professed obedience to the Catholic Church and forfeited any form of partisan politics. It would limit itself to organising co-operatives, in order to have some influence over the markets of rural products, and to lobbying the existing political parties to make legislative gains in the Assemblée législative. This is not to say that the Beauharnois inhabitants would have called for exterior help if a peasant party had existed. However, it must be remembered that the larger political environment in Québec during the 1930s did not seem to welcome

comtés, Québec”, *Recensement du Canada, 1931, Volume VIII Agriculture*, p. 219, line 2.

class based political action for the peasants, contrary to what was happening in the Canadian and American prairies for example.

Unfortunately for them, the peasants were probably even more disadvantaged in this kind of individual political battle, both for judicial and political reasons. Judicially, the peasants were in theory rather well protected by laws concerning damages originating from the BHL&P activities. The first provincial emphyteotic lease enabling the Beauharnois corporation to use 1080 cms of water from the Saint-Laurent for hydroelectricity production (issued on 23 June 1928) stated that all previous rights on Saint-Laurent water had to be respected and that the rights of people living on the natural shores of the river should be protected. However, the provincial lease never mentioned the rights of people bordering the canal, who had been transformed into riparian owners of a new, artificial type. The federal authorisations of this period provided even stronger wording in favour of the Beauharnois inhabitants. The 1 March 1932 federal Order in Council confirming the corporation's right to divert up to 1432 cms of water away from the Saint-Laurent's natural riverbed explicitly stated that the company would be legally responsible to compensate for all damages caused by the construction of the canal (including its settling basins), the dams, the power plant, and the various structures related to hydroelectricity or navigation.¹⁹

¹⁹ Deed of Conveyance from the BLH&P to His Majesty the King in the right of the Dominion of Canada, passed before Henry Baby, Notary Public, at the City of Montréal on the 17th day of September 1932, under number 6061 of the minutes of the said Notary, Registered at the Registry Office for the Registration Division of Beauharnois, Province of Québec, on the 20th day of September, 1932, under number 58955.

Thus, the provincial and federal authorisations would have given contesting peasants solid legal bases in the courts, even if this did not automatically make their work of presenting well-documented and well-represented cases less costly and time consuming. That being said, it is not certain people in Beauharnois were aware of these rights. They were not mentioned in the newspaper articles I consulted and the Beauharnois residents' protest letters never refer to the company's specific legal obligations towards them. Again, this contrasts with the corporation's legal resources. The lawyers of the company quite systematically made detailed legal and judicial inquiry for every protest case. If there was a law they could use, the executives of the company soon knew about it.

If the law provided, at least in theory, good protection for the peasants, the prospects of winning a claim through individual political acts were not promising at all. Even though the premier's public speeches often praised the rural destiny of the Québec people (as I have explained in Chapter 3, section 3.2), he also professed the centrality of hydroelectric development in general to foster industrial growth in Québec (see Chapter 4 section 3). Moreover, this specific project helped him in two ways, which I have briefly explained before. First, it would supposedly break the MLH&P monopoly in Montréal's energy market. Taschereau had come under growing criticism for supporting hydroelectricity companies, such as the MLH&P, suspected of using their *de facto* monopoly to demand unreasonably high prices for their electricity.²⁰ Second, it enabled him to assert the

See articles 12 and 28 about the rights of the Beauharnois residents.

²⁰ Clarence Hogue, André Bolduc, and Daniel Larouche, *Québec, Un siècle d'électricité* (Libre

province's jurisdiction over the Fleuve Saint-Laurent against the constitutional claims of the federal government. Indeed, a major conflict had arisen between the federal and provincial governments over the Fleuve Saint-Laurent during the 1920s and 1930s. It revolved around the question of hydroelectric development on the river. The federal government had jurisdiction over the river as a navigable watercourse and it claimed that this jurisdiction extended to power development. The federal government was hoping to collect huge royalties from hydroelectric exploitation. The Québec and Ontario governments virulently disagreed with Ottawa and claimed that all hydroelectric projects within their borders were their exclusive responsibility and that the federal government's only role was to assure that power projects would not impinge on navigation.²¹

To permit the construction and completion of the BLH&P project was for Taschereau to create a *fait accompli* assuring the exclusivity of provincial rights in power resources and, by the same token, he hoped to demonstrate that he did not support the perpetuation of public utility monopolies. He was thus strongly interested in seeing the Beauharnois project go ahead and it was not to his advantage to let a parliamentary controversy erupt on this matter. The premier's enthusiasm for this project was shared by many high-level Québec civil servants²² and the 1934 political Commission Lapointe shows that the

Expression, 1979), chapters four to seven.

²¹ See Chapter 8 of Christopher Armstrong, *The Politics of Federalism. Ontario's Relation with the Federal Government 1867-1942*. (University of Toronto Press, 1981).

²² See what Avila Bédard, head of the Forst Service of the Province, thought of the BLH&P works in the following section 3.1.

enthusiasm for hydro power in general was spreading quickly in Québec society.²³ Indeed, even the Conservative party of Québec, which espoused a discourse which had until then focused on the rural destiny of the province, now partly focused its attention on industrial and urban issues, and attacked the liberals for not attending to these appropriately.²⁴ In sum, there are good reasons to believe that the Québec political elites in the 1930s in Québec were not predisposed to listen to complaints from Beauharnois inhabitants.

The silence of Montréal's newspapers about the troubles in Beauharnois is harder to explain because my sources do not permit me to explore their political motivations. It could be interpreted in two ways. A first hypothesis is that journalists and owners thought that Québec public opinion at large was rapidly moving away from traditional self-representations of rurality, and reporting the troubles in Beauharnois was of no interest to sell their newspapers. A second is that the same people knew this was still an issue of political importance to French speaking Quebecers but did not want to report what was happening. In one case or the other, the silence of the newspapers resulted in cutting off the Beauharnois *agriculteurs* from potentially larger political leverage in French-speaking public opinion. The degree to which Canadiens had abandoned the

²³ The archives of this inquiry commission are held in the Centre d'archives d'Hydro-Québec under the name Commission de l'électricité (PI). I have begun to study its files. Many associations and individuals that deposited reports to the commission described electricity as a "nécessité universelle" and asked that the Québec state intervene to assure its widespread and affordable distribution.

²⁴ See Vigod, *Québec Before Duplessis...* Chapter 5.

representations of the peasant mode of production is impossible to infer judging solely from the actions of the Québec mass media industry.

That being said, these hypotheses about Québec political life should be researched much more. I have already mentioned in the introduction of Chapter 3 that little is known about Québec political history, especially in the first half of the 20th century. These gaps in our knowledge of Québec will again be felt in this analysis. For example, the BLH&P sources demonstrate that the provincial and federal Members of Parliament enjoyed great political legitimacy among their constituents. Beauharnois male and female peasants and municipalities often called upon them to provide assistance in confronting the BLH&P. Unfortunately, there exists no study of the interplay of Comté population and its local MP. This raises many questions because, in the case of the Beauharnois story, these MPs were often powerless in curbing the corporation's actions. Had it been otherwise beforehand? Had MPs been more effective in the past in being arbiters of local conflicts? Did the arrival of the massive industrial projects characteristic of the finance capitalist mode of production lessen their power and authority?

Moreover, you will notice that Liberal federal MP Maxime Raymond was more frequently asked for help than the provincial representatives, all of whom were with the provincial Liberal Party. The former also provided more assistance when called upon than his provincial counterparts. However, the BLH&P had a provincial charter and it was the Assemblée législative that had real power over the company. Fittingly, Raymond often contacted provincial bureaucrats for assistance. How can we interpret this? Did

Beauharnois inhabitants mistrust their provincial Liberal representatives because their leader, premier Taschereau, supported the BLH&P project? Did the provincial MPs restrain themselves for fear of angering their leader? Little in the existing literature helps to answer these questions. Historians do not even have an analysis of the Québec Liberal party that ruled over Québec for almost 50 years before 1945.²⁵

Not surprisingly, then, the biographies of these back-benchers (MPs with no ministerial responsibility) are little known. I will provide some biographical information upon these characters as they appear in my narrative.²⁶ These parcels of political history might not provide many answers within the context of this thesis but they could prepare the ground for subsequent research on the interplay of local politics, parliamentary life, finance capitalism, and changes in modes of production in Québec.

3. Conflicting Production Activities: the Hydroelectric Canal and the Change of Water Dynamics in the Farmed Lands

This section analyses cases where peasants, alone or in small coalitions of neighbours, complained that the productive capacity of their land was diminished by the BLH&P

²⁵ Réal Bouchard, "Évolution politique", in Jacques Rouillard ed., *Guide d'histoire du Québec. Bibliographie commentée* (Méridien, 1993), 152.

²⁶ Basic biographical information was first searched in Jean Cournoyer, *Le petit Jean. Dictionnaire des noms propres du Québec* (Stanké, 1993). Some more information can be gathered with the bibliographical database of the Assemblée Nationale's website (<http://www.assnat.qc.ca/>).

structures. Traditional knowledge and techniques no longer assured good yields from their *terres*. This is a first step in showing the contradictions in the new Beauharnois landscape. It will provide details about the company employees' central concern, that is to answer protest cases only if the damages could be proven in courts, notwithstanding the company's real responsibility for these problems. It will also be seen that peasants could have limited leverage on the rare occasion where they adopted a judicial logic in their confrontation. This section, finally, is a first look into the interplay of Beauharnois peasants, their local MPs, and the corporation.

All of the damages suffered by the peasants relate to the transformation of water dynamics in the Comté. The canal profoundly altered the hydraulic dynamics of Beauharnois, as explained in sections 3, 4, and 6 of Chapter 4. First, the course of the artificial waterway severed the northern half of the Rivière Saint-Louis watershed and water dynamics changed in the soils. Second, the bed of the canal was deepened by dredging, and a significant portion of the mud excavated was dumped in the Saint-Laurent and the Saint-Louis rivers. These rivers were thus polluted. Finally, the water level in the Beauharnois-Soulanges section of the Saint-Laurent fell as more and more water was diverted into the canal.²⁷

²⁷ An example of municipalities protesting the lowering of the water level in the natural bed of the Saint-Laurent, a problem I do not analyse here, is F2/2155/4, copy of a resolution from the municipality of Village Saint-Joseph de Soulanges attached to letter from R.A.C. Henry to G.H. Montgomery, K.C. Brown, Montgomery & McMichael 7 November 1935.

From the early 1930s on, Beauharnois peasants complained of having too little or too much water in the soil of their farmland, or soiled water to pump from the rivers to their stables. Many of them confronted the company and asked to be compensated for these damages. In section 3.1, I will look into conflicts regarding wells and underground water while, in section 3.2, the water saturation in the soils will be studied through one protest case for which archival material was especially rich. I will not detail here the numerous occurrences of *cultivateurs* protesting that they could no longer water their livestock from the local rivers because of mud pollution. This was a major impediment to their methods of production – and thus deserves to be mentioned – but the examples I study are significant enough to show that the productive capacity of the Beauharnois peasants was diminished by the arrival of the BLH&P and the archives about the watering of live stocks were less telling than those about depleted wells and inundated lands.²⁸

²⁸ For the pollution in the Rivière Saint Louis see F2/2138/3 28 report by C. H. Pigot to L. H. Burpee, December 1934; F2/2175/1 Construction progress report for November 1947; F2/2176/4 letter by Mr. Doster to unknown correspondent, 18 October 1950. Engineer Antoine Rousseau worked on the Beauharnois power plant from 1947 to 1952 and confirmed that some of the mud dug in the bottom of the canal was dumped directly in the Fleuve Saint-Laurent, a fact he deplored. The mud, whether it was dumped in the Rivière Saint-Louis or somewhere along the Saint-Laurent, eventually ended up in Lac Saint-Louis, which water was often “dirty” in the early 1930s, see report by E. M. Kennedy to W. W. McCaffrey, 12 May 1933.

3.1. Dried Up Wells

A frequent complaint by peasants was that the works for the canal, the dams or the power plant dried up their wells. For example, peasants Hervey Charrette and Ovila Dumouchel were convinced that their wells had depleted during 1931 because of the construction of the canal. Their *terre* bordered the canal under construction to the north (as a side note, their *terre* had also been inundated because of the canal but this aspect of their conflict with the company will not be explored here). Both said to company employee Herbert Cantwell that their problem could only have been caused by the canal.²⁹ Joseph Aumais, a Grande Île peasant, formulated a very similar reasoning in saying to company representative C. H. Pigot that his well had been affected by the blasting and concrete operations that were done for the construction of *Dam No 1* in the summer and fall of 1933 (see section 4.3 of chapter 4).³⁰ What unites these cases is that peasants postulated that the canal and its related works had to have an impact on deep underground water. The purpose of this section is to argue that the *agriculteurs*' claim was reasonable even if they might have been ultimately wrong.

When confronted with the peasants' claim of a link between the new structures and the drying up of the wells in 1931, the company asked engineer Herbert Cantwell to make a study of the distribution of rainfall over the last decade to assess if there had been enough rain to replenish deep underground water reserves in Beauharnois. He interviewed

²⁹ F2/2138/3 letter of Herbert Cantwell to F. S. Molson, 6 November 1931.

³⁰ F2/2138/3 report of C. H. Pigot to M. V. Sauer, 19 October 1934, attached to letter from M. V. Sauer to

farmers in adjacent counties to know how their wells fared. Many of them had had problems recently and they thought that the cause was the dry weather of recent years. More importantly, in the eyes of the engineer, there were “well known natural laws and definitions” about underground water reserve replenishment and the first part of his report describes these laws and definitions.³¹ Cantwell does not explain the origins of these supposedly certain formulas linking rainfall, water evaporation, percolation into the soil, and water movement within the ground. Nevertheless, he used them to compute data about monthly rainfall compiled by McGill University. His report comes to the conclusion that “the drying up of all the wells is believed to have been caused by three consecutive years of drought...”.³²

Taken out of context, the peasants’ claim might look counter intuitive and the engineer’s analysis more convincing. How can wells on average 10 metres deep³³ be affected by a

general manager R.A.C. Henry 19 October 1934.

³¹ F2/2138/3 Herbert Cantwell – Beauharnois Light, Heat & Power Co, *Investigation of well depletion on the rang double, parish of St. Cecile – County of Beauharnois*, 16 September 1931.

³² I did a rapid search in *Amicus*, the online Canadian National Catalogue Library research tool of the Library and Archives Canada. I used key expressions “underground water” and “hydrology”. I found 314 works published before 1945 which titles included these expressions. The vast majority of these works are papers studying conditions in one specific location in the United States or Canada. There appear to be half a dozen textbooks on this subject. I have consulted one: Cyrus F. Tolman, *Ground Water* (McGraw Hill Book Company Inc, 1937). This author thinks that engineers had very good formulas to understand all underground water dynamics by the late 1930s (see pages 384 – 386).

³³ Average calculated from the data collected by company engineer Herbert Cantwell in his report

hydroelectric canal? The lack of rainfall for these years, as put forward by the engineer, appears more convincing. The following analysis proposes that the engineer's thinking could be less solid than it looks while the peasants' analysis is more reasonable than it seems. The goal is not to determine who was right or wrong in this conflict but to show that it is hard to understand all the environmental consequences resulting from rapid and fundamental changes in a landscape, especially with such invisible realities of underground water.

On the one hand, the BLH&P engineers did not always express certainty about underground water dynamics. A few years later a conflict arose between *agriculteurs* adjacent to the canal and the BLH&P. The peasants claimed that water filtered through the embankments and invaded their soils. This story will be explained in detail in the next section. They are comparable in the sense that both problems concern underground water dynamics and were located within a couple of hundred meters to the northern embankment of the canal. What is important to stress here is that, in this second case, the superintendent of operations, B. K. Boulton, came to the conclusion that "it is exceedingly difficult to say where this water is coming from".³⁴ This shows at the very least that different engineers might have radically different opinions about the validity of the existing formulas in explaining water movement in the soil.

Investigation of well depletion on the rang double, parish of St. Cecile – County of Beauharnois, 16 September 1931.

³⁴ F2/2138/14 letter from superintendent B. K. Boulton to general manager R.A.C. Henry, 3 June 1938.

On the other hand, Beauharnois *agriculteurs* had good reasons to think there could be a link between their drying wells and the new gigantic infrastructure. It must be remembered that massive dragging was done at the bottom of the canal. This dragging was, in part, done for the deep sea navigation channel which had to be 10.2 metres deep. Since the bottom was at ground level, and the embankments were only 4 metres high toward the west, the resulting digging could be 6 meters deep, which only left a 4 metres difference between some adjacent wells and the bottom of the artificial river. Thus, the farmers knew that the canal was quite deep in some sections and they could reasonably assume that this had an impact on ground water.

Moreover, the scale of the Beauharnois works was beyond most early 20th century experience. This was noted by visitors who were otherwise accustomed to large scale industrial projects. For example, provincial public servant Avila Bédard of the Forest Service thought that the “work which is being carried on is simply amazing [...] and should be seen by more Americans as proof that Canadians can beat our neighbours at their own game”.³⁵ Commerce students from Montréal saw the whole power plant as “a splendid achievement”³⁶; and to many high-school teachers showing the BLH&P propaganda film, the recurrent qualifier for the project was “gigantic”.³⁷ And thus the

³⁵ F2/2156/4.1 letter from Assistant-Chief of the Forest Service Avila Bédard to R. O. Swezey, 30 November 1931.

³⁶ F2/2156/4.1 letter from Les étudiants en sciences commerciales (École des hautes études commerciales) to Mr. Scott (Beauharnois Construction Company), 23 October 1931

³⁷ F2/2157/3 See the numerous “records of exhibition” filled by the High School authorities that had

impact on the imagination of peasants familiar with agriculture or small-scale industrialisation must have been quite disturbing.

Assuming that the large-scale industrialisation of a landscape is bound to have ecologically cascading consequences is rational, even though these peasants may have been wrong in assessing these consequences. Indeed, the canal, power plant and the dams in the river had a very important ecological impact in the next few decades – these have been sketched in Chapter 4, section 6.2 and will be discussed again in the conclusion. The peasants, as independent and knowledgeable workers of the soil were predisposed to look at the environment as a system of systems. They read their environment through agricultural lenses and they worried about what could impede their capacity to grow crops. In this, they resembled the 19th century Adirondack countryside populations studied by Karl Jacoby. These people saw the forests of the region as dynamic systems from which one could continue to extract game and edible plants each year at the condition of respecting the “law of the wood”, and who worried about the consequences of hundreds of bourgeois hunters – “sports” – killing animals they did not need, simply for the pleasure of the experience.³⁸

Urban elites in the late 19th and early 20th centuries seem to have often believed that their modification of rural areas simply could not have negative impacts. For example, wealthy huntsmen who came to the Adirondack park at the turn of the 19th century firmly held to

shown the Beauharnois propaganda movie “Miracle at Beauharnois”.

³⁸ Jacoby, *Crimes against Nature*. p. 24, 59.

the idea that game scarcities within the park could not be linked to their own extractive activities. One central aspect of their discourse about the park was that all environmental degradation came from the rural folks of the region. “We believe that more deer are killed by the few scores guides [...] than by all the sportsmen put together,” proclaimed a hunting and fishing magazine in 1874.³⁹ Thus, they always pressed central authorities (to whom they were close) to restrict, as much as possible, the hunting and fishing of the rural population living permanently in – and from – this ecosystem.

Such discourse opposing the urban elite's positive managing of nature to the rural people's inability of long term management of nature or, worse, bent on destroying it, is doubly misleading. First, it assumes that non-urban people did not see their environment as systems that needed knowledgeable care in order to sustain their way of living over the long run. The mere number of protest cases found in the BLH&P should be sufficient to counteract this argument. Beauharnois peasants did care about their environment and protested when they thought it had been degraded in its capacity to produce agricultural products. Second, it suggests that the urban elite were necessarily better than rural inhabitants at understanding natural dynamics. The next section will demonstrate that this was also false.

³⁹ Jacoby, *Crimes against Nature* p. 58. Jacoby found scores of similar declarations by bourgeois sportsmen at the turn of the 20th century in newspapers and specialised journal articles.

3.2. Wet Fields

From a purely economic point of view, each peasant household in Beauharnois was an independent producer of crops and livestock. They fully controlled and owned their means of production (they had the knowledge, they knew how to make and use the tools, and they owned land) and their work-force came from within the household. From what I have seen, claims to damages to means of production or products against the company were usually instigated by individuals. On at least one occasion, however, neighbouring peasants joined in a temporary alliance to confront the Beauharnois corporation. What makes this case especially interesting is that this coalition was acting within a judicial logic. In doing so, it managed to shake the corporation's certainty that it could win its case in court. What was at stake in this conflict is how agricultural producers fought to assure the perpetuation of their economic activity.

On 13 July 1936, peasant Alfred Laberge typed a letter to the BLH&P general manager R. A. C. Henry claiming compensation for water saturation in his fields.⁴⁰ His farm was located north of the canal, almost at its eastern end (close to the town of Melocheville). As I have explained in Chapter 4 section 4.1, the soil strata is quite shallow in the area compared to the whole county; the underground rock formation is at times less than a meter below. Since there are few sources emanating directly from the peasants in the Beauharnois fonds, it is worth quoting it almost entirely to get a sense of the wording and inner logic of their point of view:

⁴⁰ F2/2138/14 letter from Alfred Laberge to general manager R.A.C. Henry, 13 July of 1936.

Monsieur,

D'après le passé, avec preuve à l'appui, le lot 408 du cadastre de St-Clément, faisant partie de la Municipalité du Village du Lac St-Louis n'a jamais été à l'état marécageux à aucun endroit sur ce numéro.

Depuis l'érection du canal servant à l'alimentation de l'usine électrique Beauharnois Light, Heat & Power une certaine partie dudit lot numéro est devenue impropre à l'agriculture. J'ai lieu de croire que cela se produit par infiltration d'eau provenant dudit canal d'alimentation.

Veillez donc désigner un ou des représentants pour venir examiner les lieux afin d'en arriver à une entente, sinon je prendrai les mesures nécessaires pour faire arbitrer les pertes occasionnées par cet état de chose.

Votre bien intentionné, (signed) Alfred Laberge

On reception of Laberge's letter, general manager R. A. C. Henry asked superintendent Boulton and company employee Pigot to inspect Laberge's land. Two weeks later, Boulton and Pigot made their first visit of the farm, inquiring about the life story of Laberge and the nature of the soils of his farm. On cadastral plans, Laberge's farm is identified as lot 408 and it is located very close to the Melocheville train station at the eastern end of the canal, which can be located on Synthetic Map B. They went so far as to make a blueprint of the lots around 408 and on which they sketched crop production and wet spots.

The report states that Laberge had lived on this land for 55 years and that the infiltration of water had begun only three years before. Boulton's first reaction was to try to convince Laberge that there could be no link between the canal and his problems because the north drainage ditch was designed to prevent such infiltration. Moreover, he said, the location of the wet spots was halfway between the new canal and the old one; maybe the old canal

was the problem. Unconvinced by these counter-arguments, Laberge restated that he had never had problems before the construction of the new canal. Well aware of the proximity of the rock formation,⁴¹ he argued that the water that was leaking from waterway, “follows the rock surface and seeps into the affected area”. At the time of the visit, though, Laberge said that the wet spots had been drying lately. Taking a new angle, Boulton said to Laberge that this phenomenon proved there was no link between the canal and Laberge’s problem. Still undeterred, Laberge said that the problem was new and that his neighbours suffered from the same new problem. Probably as a sign of good faith, he invited the company’s representatives to come back in a few weeks after the plowing of his field to see how the situation would evolve, and Boulton agreed to that.⁴²

What happened in the following year and a half is not known, but on 19 February 1938 Laberge wrote a new letter in which he demanded to be given \$360.30 – a “juste demande” – in compensation for lost crops in 1935, 1936, and 1937 due to the infiltration of water on his land.⁴³ A few days later, lawyers J. Georges Laurendeau and Jean-Paul Cossette from Valleyfield informed the company that they were instructed to sue if Laberge was not paid within 5 days.⁴⁴ Again there is a gap in the sources, but Laberge

⁴¹ Remember that the rock formation is only a meter below the surface at the eastern end of the canal. See Chapter 4.

⁴² F2/2138/14 letter from superintendent B. K. Boulton to general manager R.A.C. Henry, 25 July 1936.

⁴³ F2/2138/14 letter from Alfred Laberge to the Beauharnois Light Heat and Power, 12 February 1938.

⁴⁴ F2/2138/14 letter from J. Georges Laurendeau and Jean-Paul Cossette to the Beauharnois Light Heat and Power, 21 February 1938.

was evidently not given satisfaction because federal MP Maxime Raymond wrote to general manager Henry on May 25, demanding that the company act to prevent the flooding of Laberge's land and that he be compensated for past damages. What makes this letter particularly interesting is that five neighbouring *agriculteurs* were now backing Laberge's claim; they too were suffering from water infiltration and were asking to be compensated.⁴⁵

The letter from Raymond had the desired effect and a few days later Henry asked Boulton to visit Laberge's farm again. Boulton's report of June 3rd recognised that "over the past years, indication has been that there is a certain amount of saturation of the area complained of..." but argues, in words we have seen in another context, that "it is

⁴⁵ F2/2138/14 letter from federal MP Maxime Raymond to general manager R.A.C. Henry, 25 May 1938. Maxime Raymond (1883-1961) was Beauharnois federal member of parliament from 1925 to 1949. From 1925 to 1943 he was a liberal representative. He changed allegiance in 1943 to lead the newly formed Bloc populaire canadien. This party based exclusively in Québec rejected conscription during the Second World War. There was a provincial wing to this party led by André Laurendeau. See *Historica. Canadian Encyclopaedia* for limited biographical details about Raymond (<http://www.thecanadianencyclopedia.com>, consulted on 5 April 2005). I have searched his personal archives held by the Centre de recherche Lionel Groulx and found no trace there of his humorous interventions in the conflicts between the BLH&P and the Beauharnois peasants. His life as the leader of the Bloc populaire canadien is better known. Some of his political speeches were published in the 1940s. There are also two studies about the party he led. See Maxime Raymond, *Politique en ligne droite : discours prononcés à la Chambre des communes* (Éditions du Mont-Royal, c1943); Paul-André Comeau, *Le Bloc populaire, 1942-1948* (Boréal, 1998) and Denis Monière *André Laurendeau et le destin d'un peuple* (Québec/Amérique, c1983).

exceedingly difficult to say where this water is coming from". Consequently, and since "the conditions at Laberge's are varying and are improving while the hydraulic conditions of our canal remain practically unchanged, it would seem that Laberge would have a great deal of difficulty in proving a case against us". Moreover, he proposed that "the artificial drainage of Laberge's farm has never been attended to in the first class manner". In sum, Boulton's report admitted that a saturation problem did exist, but that it would probably be easy to negate the company's responsibility in court since it was difficult to establish an unquestionable and direct causal link with the power plant. Consequently, Boulton thought that the company could ignore the protest and wait for Laberge to instigate further legal procedures. In doing so, Boulton's reasoning discarded the 55 years of empirical experience by the peasant as irrelevant information. In addition, he thought the blame could be put on his shoulders because he did not practice, from Boulton's point of view, up-to-date field management. Thus, the engineer's claim of expertise extended to agriculture drainage techniques and was presented as more pertinent than the Laberge's 55 years of empirical knowledge.

It is not known how this conflict between Laberge and the BLH&P was eventually settled. However, a final report in July 1938 by Boulton about the situation of neighbouring *agriculteurs* of Laberge significantly reinforces the latter's original analysis and indicates that the company's officers were then becoming less certain about the solidity of their case. This last report states that Laberge's two immediate western neighbours, occupying lots 409 and 410, now complained of the same infiltration problems and they too insisted that before the erection of the canal their land had been

dry enough for cultivation. One of them had lived there for almost 20 years. To the east, on lot 407, the saturation of the ground was so evident that Boulton described this other case as “genuine”.

Even more interesting, the engineer investigated other lots close to the Melocheville train station (on lots whose proprietors do not appear to have been part of the coalition) and found that in and around lot 294 “there is little doubt that [this] land [...] is affected by saturation due to water escaping from our canal, seeping along the rock surface on the north dyke in this vicinity.”⁴⁶ In that sentence, Boulton clearly espoused the explanation put forward by Laberge two years before, an explanation which he had then discarded because i) the north drainage ditch was supposed to prevent this kind of seepage and; ii) Laberge’s *terre* was supposedly too far away. Seepage, it is now quite clear, occurred along the rock surface at the eastern end of the canal and it is rather hard to see how the “genuine” cases of lot 407 and 294 could have no relation with Laberge’s land, a mere 3 arpents (175.41 metres) to the west in relation to lot 407, or with the claims on lots 409 and 410. Indeed, the wording toward the end of the report is an implicit recognition of the company’s responsibility for the inundation of these *terres*: “we might have some difficulty in refuting [a] claim [for lot 407]” because it was “the worse case of wet land”.

The real trouble in the eyes of superintendent Boulton was the fact that “there are apparently several witnesses who would be ready to swear that it was not [saturated], or

⁴⁶ F2/2138/14 letter from superintendent B. K. Boulton to general manager R.A.C. Henry, 9 July 1938.

at least that conditions are worse than they were originally.” He also informed Henry that all these farmers were keeping close contact with federal MP Raymond. The final remarks of the report are difficult not to interpret as a last attempt to divert the attention away from the company’s responsibility. Boulton repeated his claim that “it is obvious that most of these lots are inadequately drained” and that “it might be a good idea to take Mr. Gosselin, the agronome [*sic*] from Valleyfield, over these properties. As you know, Mr Gosselin has been of help to us at times during the past and it might be of benefit to have him point out to these farmers what they should do to perfect their drainage in an effort to remedy condition”.⁴⁷

This last comment is fascinating because it illustrates the company’s strategy in confronting the peasant when it could no longer argue that its work had no impact on the land. Its strategy was to avert liability by putting exclusive responsibility for the drainage of land upon the peasants’ shoulders, notwithstanding the impact of the Beauharnois

⁴⁷ F2/2138/14 letter from superintendent B. K. Boulton to general manager R.A.C. Henry, 9 July 1938. I have found no other traces of this collaboration between the BLH&P and Beauharnois agronomists. This collaboration between a hydroelectric corporation and an agronomist raises much questions. The last quotes suggest that both parties found the relation mutually beneficial. Why was that? Answering this question would require the study of the Québec agronomists sociopolitical situation, training, knowledge, and the kind of agriculture they promoted, research I cannot do within the context of this thesis. A preliminary research on this topic shows a scanty literature. See Gérard Rivard, *Nicolet et ses agronomes, 1917-1981* (Rivard, c1981); Gilles Saint-Louis, *Nos agronomes dans le Bas-Saint-Laurent : presque 100 ans d'histoire!* (Gilles Saint-Louis, 1996). Interestingly, Adélar Godbout, premier of Québec from 1939 to 1944, was also an argonome. See Jean-Guy Genest, *Godbout* (Septentrion, 1996).

canal upon the soil dynamics in the Beauharnois environment. However, it is certain that attending to “the artificial drainage” of these lots “in the first class manner” – as Boulton described it – meant more work, time, and expenses for the peasants in order simply to recover previous production capacity. The basis of the peasants’ claim (and the wording of the last sentence of the report also proves that many peasants in the vicinity of the canal and power plant claimed compensation for water saturation) was that using traditional techniques and labour force, their field produced better results before the arrival of the power plant and they thought that the company should assume the costs of restoring the land to its previous productive capacity. The company’s answer was first to argue that their responsibility could not be proved beyond any doubt and, when that first strategy had failed, that it was the peasants’ duty to use costlier techniques to farm the land even if simpler means had yielded good results before the company’s arrival.

Moreover, this entire confrontation between Laberge and his neighbours on the one hand and, on the other hand, the BLH&P, shows that these peasants had a very good understanding of ground water dynamics. In the context of agriculture, it was also better knowledge than the Beauharnois engineers. It took two years for superintendent Boulton to understand what Laberge had explained to him in 1936, or if one assumes Boulton was not obfuscating for as long as Laberge did not have a clearly winning court case.

The Laberge case demonstrates that Beauharnois peasants could take a judicial approach and gain leverage toward a powerful corporation when collectively claiming damages to their means and method of production. Indeed, judicial attacks were the most problematic

for the company. The law must be written in such a way as to protect, at least in principle, the more humble, and to make claims against the powerful possible. Otherwise, laws and the political apparatus supporting them lose all legitimacy.⁴⁸ Apparently, the greatest difficulty for the Beauharnois peasants was to realise their potential force in the courts. The provincial and federal leases and permits enabling the construction and operation of the BLH&P hydroelectric canal protected, in theory, other land uses in the Comté de Beauharnois. These governmental authorisations offered Beauharnois peasants legal footholds to contest damages caused by the company and they could make their case very credible by banding together and offering converging testimonies about the reduced capacity of their *terre*.

However, they generally failed to do this. To the best of my knowledge, very few peasants chose Laberge's judicial approach and most claims for damages were addressed directly to the company, on a private basis. When the peasants sought external help, they did so by asking elected provincial or federal representatives to intercede in their favour to the BLH&P. Why did they do so? Did they transfer in their relation to the corporation conflict resolution practices they had developed within the context of peasant social organisation? Did they think these elected representatives had the power to force a the BLH&P corporation to compensate them? Did they mistrust the tribunals? Did they believe the procedures would be too costly? These questions cannot, unfortunately, be answered with my sources.

⁴⁸ E. P. Thompson *Whigs and Hunters. The Origins of the Black Act* (Peregrin Books, 1977), 264-268.

That being said, the transformation of the Comté by the BLH&P did not only result in damages to individual farms. Collective artefacts and institutions, such as roads and municipalities, were also affected by the new reordering of the region. The next section explores these conflict about the overall spatial logic of the Comté. Interestingly, Beauharnois peasants also seemed to have also preferred a non-judicial approach at this collective level. Municipalities made demands to the company and often sought support from their provincial and federal Members of Parliament, but apparently never resorted to judicial contests. Again, this strategy resulted in failure.

4. Conflicts within the Landscape: Losses in Land, Roads, Municipal Taxes and the Sudden Need for Bridges on a Plateau

In the preceding section I have shown how the new shape of the Comté conflicted with the production activities of the remaining rural producers. I also explained that *cultivateurs* often confronted the company on a private basis and that their strategy generally resulted in failure. However, the industrial structure did not only impinge on individual producers. It affected the general logic of the Beauharnois landscape. The BLH&P canal cut a band 3 kilometres wide from one extremity of the county to the other. The county was divided in two halves and, in particular, the road system was profoundly reshaped. This section expands the analysis undertaken in section 3 about the contradictions in spatial organisations within the same territory. The BLH&P project reorganised the Comté for hydroelectricity production first but the hundreds of remaining peasant reacted and fought to keep aspects of the rural environment they had known in

the Comté. Again, the sources show that they did not embark on judicial procedures to achieve this. Municipals councils confronted the company directly and sought help from local MPs or Québec civil servants in doing so. This individual strategy at the municipal level echoes how *agriculteurs* generally acted and it also failed in forcing the company to answer their requests.

The works had not yet begun and people were anxious to know if enough new bridges and roads would be built to keep the lines of communication open. In late August 1929, the council of the City of Valleyfield urged federal MP Maxime Raymond to make certain that the president of the BLH&P – R. O. Sweezy – understood his obligations in this matter. The former wrote personally to Sweezy and informed him that he had forwarded his voters' worries to the "proper authority at Ottawa and Québec".⁴⁹ A week later, a major public servant, Arthur Amos, head of the Service hydraulique of the Département des terres et forêts of the Province de Québec, wrote to Sweezy and asked that Raymond "be kept 'au courant'" about the construction of the new roads.⁵⁰ This

⁴⁹ F2/2155/15 letter of Maxime Raymond to R. O. Sweezy, 16 September 1929.

⁵⁰ F2/2155/15 letter of Arthur Amos to R. O. Sweezy, 24 September 1929. Amos's intervention in a matter relating to public highways is not surprising, even though the Service hydraulique was hardly concerned by public highways. He was one of the most important public servants of the day. He basically defined in the 1910s the kind of leases the Québec government would grant to hydroelectricity companies until the nationalisation of most hydroelectric companies starting with the creation of Hydro-Québec in 1944. He was a central figure in all negotiations between this business sector and the Québec government from the mid 1910s to the 1930s. David Massell portrays him as continuously concerned with the rights and well being of the inhabitants near hydroelectric projects. See David Massell, *Amassing Power*. J.B.

shows that, through Raymond, Beauharnois residents were able to get some support from a high ranking public servant of Québec. However, you will see that this proved insufficient political support to assure satisfactory solutions for the Beauharnois inhabitants.

The stakes were high for these people. No less than 46.2 kilometres of roads and 12 intersections (T, Y, or X shaped) were destroyed to build the canal and power plant. The space occupied by the canal used to be completely crossed by 8 road segments (10 road segments, if the segments that did not cross this area entirely are included).⁵¹ To replace these, the company planned and built only 23.4 kilometres of new roads, 6 intersections, and a mere 3 crossings (bridges) in the 1930s.⁵² Moreover, the building of the “remedial” dams in the Fleuve Saint-Laurent made the crossing of the Fleuve impossible by ferry or

Duke and the Saguenay River, 1897-1927 (McGill-Queen's Press, 2000). Amos is present all along the analysis but consult especially pages 102-107 for short biography of the character and pages 192-93 for details on how he tried, unsuccessfully, to protect Lac Saint-Jean *agriculteurs* from the ferocious ambitions of hydroelectric entrepreneur J. B. Duke. For more details on the history of the Service hydraulique see Jacynthe Plamondon, “Élaboration d’une perspective environnementale dans le secteur de l’hydroélectricité au Québec, 1890-1939”, M.A. Thesis (Université du Québec à Trois-Rivières, 2000).

⁵¹ By a ‘crossing’ I mean a road segment which enters the area of the canal at one point and exits at another.

⁵² F2/2138/2, Frederick B. Brown, “Plan showing proposed location of existing roads & bridges to be closed & new roads & bridges to be opened in the county of Beauharnois”, 6 January 1931. What is more, the eastern bridge (nearing the town of Beauharnois) collapsed in the winter of 1942-43 because its piers could not stand the pressure of the water in the tailrace. It was not replaced for 6 years.

small boat. The dam system (remember dams *1, 2, 3 North and South* dams explained in Chapter 4 section 4.3 and located on Synthetic Map B) lowered water in segments of the natural riverbed and forced the remaining current in narrow corridors of great speed. This had a large impact because the north and south shore economies (the counties of Soulanges and Beauharnois) had always been linked: as we have seen, a ferry crossed the river every hour of the day as long as there was no ice in the water up until 1929.⁵³ Moreover, people regularly crossed the river with small boats to reach villages on the other shore.⁵⁴ Consequently, the building of a bridge over the Saint-Laurent became another pressing issue for all the counties of the region.

Before the arrival of the BLH&P, municipal councils in conjunction with the Conseil de comté were entirely responsible for opening and maintaining the local road system. This responsibility laid in their charters, which were in turn framed by the constitutional powers of the province. Only the province could force the municipalities' hand and impose a given local road layout. Not surprisingly then, the municipalities led the battle to force the company to restore mobility in the Comté once the canal was erected. Few traces are left in the company's archives about the municipalities' reactions during the construction of the canal per se between 1929 and 1932, but two facts are certain. First, the municipalities adopted all the necessary by-laws confirming the road diversions

⁵³ *Le Progrès de Valleyfield*, 25 April 1929.

⁵⁴ F2/2155/4, copy of a resolution from the municipality of Village Saint-Joseph de Soulanges attached to letter from R.A.C. Henry to G.H. Montgomery, K.C. Brown, Montgomery & McMichael 7 November 1935.

suggested by the BLH&P. As I have explained in the preceding paragraph, these modifications greatly reduced mobility in the Comté. Second, all the municipalities of the Comté banded together to try to modify the initial road diversion plans. The company was facing “an action which has been taken to upset all the various by-laws passed by the municipal authorities in the Comté de Beauharnois”⁵⁵. This it could not tolerate. It made it vulnerable to local social and political dynamics and it could have eventually been forced by the Beauharnois inhabitants to build new roads and bridges.

Hugh B. Griffith, the secretary of the Beauharnois Power Corporation before 1932, made the company’s position on this matter very clear to provincial MP Gontran Saint-Onge.⁵⁶ As long as the Québec government did not “pass an Act confirming and ratifying these various by-laws”, “... it may be necessary to withhold payment of certain cash bonuses which are due to certain of the Municipalities”. Griffith, however, expressed his confidence that the provincial government would settle the matter to the advantage of the corporation because “the will of the majority of the people [should not] be held by a few residents of St. Timothee”.⁵⁷ Eventually, the company's wishes were indeed satisfied and

⁵⁵ F2/2138/3, letter of Hughes B. Griffith to Gontran Saint-Onge, 9 October 1931. This is yet another occasion where the BLH&P sources reveal an important event in the Beauharnois story but provides frustratingly few details on its unfolding.

⁵⁶ Gontran Saint-Onge (1898-1968) was Beauharnois provincial member of parliament for the liberal party from 1931 to 1935. He apparently wrote no books and I found no work about him.

⁵⁷ F2/2138/3, letter of Hughes B. Griffith to Gontran Saint-Onge, 9 October 1931

the municipal by-laws were transformed into provincial laws in 1932.⁵⁸ For the Beauharnois communities this was a huge loss in power over the environment because it prevented them from asking for more advantageous roads. They had, in effect, lost their most important negotiating chip with the corporation by losing their right to legislate over the local road system.

In subsequent years, the municipalities focused their efforts on forcing the company to finish, at the very least, the replacement roads that it was legally bound to build, or to improve the diversions that had been constructed. For instance, the mayor and secretary-treasurer of the parish of Saint-Louis-de-Gonzague called the corporation's secretary (from 1932 and on) L. C. Christie on the morning of 4 October 1934 and "pressed strongly for the completion of the new road" to replace "the River St. Louis North Road [that] has been closed for four years". The municipality had since that time been "faced with continuous complaints by the property owners affected" by the lack of roads next to their property.⁵⁹ The three bridges designed to be used by the Beauharnois inhabitants were built more diligently between 1930 and 1932. But they still represented a significant loss in the number of 'crossings' (3 instead of 8) of the space by then occupied by the new canal and they also turned out to be problematic for the local means of transportation: horses.

⁵⁸ All of the municipal, county and then provincial by-laws and laws granting or confirming road diversions are listed in the series of land ownership drawings B-1 to B-25. These drawings are kept by Hydro-Québec, Division TransÉnergie, Unité expertise immobilière, Équipe inventaire immobilier.

⁵⁹ F2/2155/4, memorandum from L. C. Christie to R.A.C. Henry, 4 October 1934.

Two characteristics of these three bridges created fundamental problems for horse transportation. The first is that two of the three bridges supported both regular traffic and trains. The bridge next to Valleyfield and the one next to the village of Saint-Louis-de-Gonzague were built first and foremost to enable train traffic in the Comté. Only the bridge reaching over the tailrace (at the mouth of the canal, the eastern extremity of the canal) was designed exclusively only for inhabitant traffic. This was a major problem because horses could be frightened by the sound and sight of trains. At least one man was wounded in such an accident in 1934. The people of Saint-Stanislas-de-Kosta were angered by this event. They adopted a resolution at their municipal council and forwarded it to the provincial minister of roads and mines, liberal MP Joseph-Édouard Perrault, asking him to press the issue with the Beauharnois corporation.⁶⁰ In a very succinct

⁶⁰ Joseph-Édouard Perrault (1874-1948) was a liberal member of the Assemblée législative du Québec from 1919 to 1936. During his whole parliamentary career he was minister of colonisation but he also held other ministerial responsibilities (mines, fisheries, public highway commission). Colonisation, it must be noted, was one of the hottest political issues of this period in Québec. His responsibilities (and the fact that he was a “good friend and distant relative” of Taschereau) suggest he was a key character of the liberal governments of Lomer Gouin and then Louis-Alexandre Taschereau. He seemed to have favoured colonisation not for the supposedly good moral life it fostered but as a way to open Québec territory to industrial natural resources exploitation such as mines. This raises fascinating questions about the interplay or traditional rural discourse, the Québec liberal party, and the finance capitalist mode of production revolution, but this complex historical phenomenon cannot be studied with my sources. This information are drawn from the only historical work which provides some details on his political life. See the numerous index entries under his name in Bernard Vigod, *Québec Before Duplessis. The Political Career of Louis-*

letter, Perrault invited the Beauharnois company's general manager R.A.C. Henry to take notice of the municipal resolution.⁶¹

The second problematic aspect of the bridges for horse traffic is that the elevated approaches to the new Saint-Louis-de-Gonzague bridge did not accumulate snow well. Consequently, the approaches to this bridge could be bare even in the middle of winter, which made the crossing extremely difficult by sleighs. To solve the problem, mayor J. B. Primeau and two of the councillors of the parish suggested to company subaltern J. P. Chapleau that fences or boards be built on both sides of the bridge approaches to help accumulate snow.⁶² Evaluating the costs at close to 1200\$ for these fences, company resident engineer L. H. Burpee stated to the general manager that "this proposition does not look very attractive from our point of view", especially since he believed "that quite a large amount of this 2" x 12" plank would likely be broken or stolen".⁶³ The general manager's response was to ask Burpee to verify that the company had any real obligations on the matter. According to him, the company had given "a bulk sum" to the

Alexandre Taschereau (McGill-Queen's University Press, 1986). See especially pages 126 and 154. He published a pamphlet titled *La politique libérale et nos ressources naturelles* (1930?).

⁶¹ F2/2177/2.1, letter from Joseph-Édouard Perrault to R.A.C. Henry, 14 February 1934. Considering Perrault's close relation with Taschereau and apparent enthusiasm for industrial development his cool reaction to the complaints of these peasants is not surprising.

⁶² F2/2177/2.1, letter from J. P. Chapleau to L. H. Burpee, 12 February 1935.

⁶³ F2/2177/2.1, letter from L. H. Burpee to R.A.C. Henry, 12 February 1935.

Québec Department of roads “to fix all roads”.⁶⁴ However, this is not what people had been accustomed to in the Comté. Before the arrival of the BLH&P, the two private companies which owned public bridges, the Montreal Cotton Company in Valleyfield and the Canadian Light & Power Company, had both made certain that their bridges were usable for the Beauharnois inhabitants in all seasons.⁶⁵ The Beauharnois people expected no less from the BLH&P with its new bridges, but the company tried in the 1930s to shirk these responsibilities.

In sum, mobility in the landscape of the Beauharnois peasants was significantly impoverished by the loss of roads, junctions and crossings between the artificial north and south halves of the county. Moreover, the peasants had to endure long delays in the reconstruction of the roads and the few bridges built to restore communication between the two halves of the county were unreliable in winter time and generally dangerous for horse transportation.

⁶⁴ F2/2177/2.1, letter from R.A.C. Henry to L. H. Burpee, 13 February 1935. I know nothing more of this deal evoked by R.A.C. Henry.

⁶⁵ F2/2177/2.1, memorandum from L. C. Christie to R.A.C. Henry, 15 March 1935. As complementary note, the BLH&P soon took corporate control over these older bridges. When it did, it stopped removing the snow. The Valleyfield inhabitants protested and asked the company to assume the traditional obligations of the former corporate owners. See the 1934 and 1935 correspondence in the F2/2177/2.1 series.

This loss of local roads for the peasants is even more striking when compared to the work that was done for the railway companies in the Comté. Railway lines were fully restored. These companies did not lose a centimetre of movement in Beauharnois. The two companies had bridges built to cross the canal in the earliest stages of the works.⁶⁶ These other corporations were much better treated than the local population. The Beauharnois space was to be shaped first for continental transportation, not for the mobility of the Beauharnois inhabitants.

However, their gravest loss lay elsewhere: the the local inhabitants had lost much power over the crucial dimension of movement in their landscape to a hydroelectricity corporation. Moreover, this corporation was trying to reduce as much as it could its local responsibilities and its employees demonstrated at times blatant mistrust towards the inhabitants. By building local roads, ditches and other public utilities, these municipalities used to be the most immediate public arbiters of spatial organisation. They were major players for shaping the landscape to serve the local peasant economy. The BLH&P made them lose much of this power by convincing the provincial government to overrun their authority and impose a specific road system providing much less mobility within the Comté.

Municipalities' capacity to act upon the landscape also depended on the taxes that they could levy to build infrastructure. And, as I will demonstrate next, on this matter too the

⁶⁶ Notice that appendices 7, 23, 27, 28 show that the works for these bridges began as early as 1930 and were well advanced by October 1931.

arrival of the BLH&P diminished the capacities of the municipalities. In September 1932, the BLH&P conveyed approximately half of its land property titles in the area (essentially, the areas covered by the canal and the north and south dykes) to the federal government in exchange for perpetual and free use of this land. The detailed political dealings behind this transaction are unclear, but the wording of the deed of conveyance from the BLH&P to “his majesty the king” makes clear that the federal government considered it very important to take full control over watercourses fit for navigation, whether they be artificial or not.⁶⁷ Since it was hoped that one day the Beauharnois canal would be part of the Great Lakes St. Lawrence Seaway System – as we have seen in Chapter 3 section 2.2 – exchanging the company’s property title for a perpetual “right of use”⁶⁸ was a good strategy for Ottawa to assure its jurisdiction over the entire would-be deep sea navigation infrastructure. One thing is certain: the deal was extremely satisfactory for the BLH&P because it meant not paying taxes on approximately 40km² of land. To the parishes and villages of Beauharnois that was a considerable loss in revenues because the federal government paid no taxes to municipalities. For the parish

⁶⁷ Deed of Conveyance from the BLH&P to His Majesty the King in the right of the Dominion of Canada, passed before Henry Baby, Notary Public, at the City of Montréal on the 17th day of September 1932, under number 6061 of the minutes of the said Notary, Registered at the Registry Office for the Registration Division of Beauharnois, Province of Québec, on the 20th day of September, 1932, under number 58955.

⁶⁸ I have not seen mention of this “right of use” in the literature on hydroelectricity, nor have I read about it elsewhere in the legal history consulted for this thesis. I cannot embark on a detailed research upon such a secondary aspect of my thesis but it would deserve further questioning because this legal device could even have, as we have just seen, constitutional consequences.

of Sainte-Cécile this represented 5/6 of its revenues.⁶⁹ Saint-Louis-de-Gonzague lost more than a third of its land taxes.⁷⁰

The common denominator in all of these changes is that the landscape not only become ecologically less suitable for agricultural pursuits, but more importantly that peasants lost much of the political power and material resources needed to shape the landscape to their advantage. On the one hand, municipalities were deprived of much latitude in determining the course of local roads when the province legislated to impose the diversions proposed by the BLH&P. On the other hand, the transfer of land ownership to the federal government permanently reduced the revenues of municipalities, further impinging on their capacity to act upon the environment. The insertion of massive infrastructures belonging to a finance capitalist industrial world into Beauharnois resulted in a major reduction of the functionality of the peasant ecosystems, artefacts, and institutions. The new landscape imposed massive industrial infrastructures and the remaining rural spaces and institutions were fragmented and divided. Large parts of the powers to shape the landscape had been taken away from local communities and transferred to the BLH&P, a corporation in no way devoted to the preservation of any form of agriculture, or to the Québec parliament controlled by a party that enthusiastically supported the BLH&P project.

⁶⁹ *House of Commons Debates. Official Report – Unrevised Edition*, Vol LXX No 69, 11 May 1934, p. 3210. Copy found in the BLH&P archives in F2/2155/4 half way through the year of 1934.

⁷⁰ F2/2155/4, memorandum from L. C. Christie to R.A.C. Henry, 16 June 1934.

5. Conclusion

The arrival of the BLH&P fragmented and disorganised the peasant landscape of the Comté de Beauharnois. The soils were less suitable for agriculture; water in the rivers that used to be pumped for livestock and humans was polluted; some thought that the wells were drying up; the soil in some areas were dampend to the point where agriculture was no longer possible; local mobility of goods and people was greatly diminished; and the municipalities which were responsible for the maintenance of the local transportation infrastructure were impoverished. Peasants protested but generally failed to force the corporation to implement rehabilitation or restoration measures to mitigate the impact of the gigantic hydroelectric infrastructures. Local people could exercise short-term and localised power over the company by using a judicial logic. On the whole, however, peasants failed to force the company to restore the landscape to support the peasant mode of production.

It must be stressed how unequal the confrontation was in Beauharnois. Peasants did not have the networks of high-power lawyers and politicians available to the company's officers. Moreover, their local institutions did not have the money and bureaucracies to match the power of the corporation. Both types of institutions (municipalities and the corporation) were creations of the Assemblée législative, but the BLH&P had direct access to and enormously more leverage upon the lawmakers than the municipalities, if only because the leadership of the political party in power was strongly in favour of hydroelectricity development. This failure by peasants and municipalities to get compensation from the company once the works began is consistent with what had

happened before. The BLH&P designed its project without ever consulting the Beauharnois inhabitants and it dealt directly with the provincial and federal governments to obtain its charter, leases, permits and expropriation rights. In sum, Beauharnois peasants were considered irrelevant both in the planning and implementation of the redesigned industrial Beauharnois landscape. All they were invited to do was to join the working class to work for the new finance capitalist mode of production.

Agriculture did not disappear from the Comté de Beauharnois between 1929 and 1943. But 20% of the farms disappeared in a single Fall as we have seen in Chapter 3, and the remaining *agriculteurs* were destabilised and marginalised. Neither the political elites nor the Beauharnois landscape created by the BLH&P from then on supported the peasant mode of production. This destabilisation of a rural landscape and its communities by a massive hydroelectric electric project was not unique to Beauharnois between 1910 and 1943. The numerous references I have made about the Lac Saint-Jean episode along the thesis show that this was only one example of the rapid industrialisation of rural landscapes by finance capitalist hydroelectric corporations in Québec during this period. I will argue in the conclusion that the Beauharnois episode has other characteristics that makes it more than a good example to study the finance capitalist mode of production revolution in Québec society and landscapes. It could also be the turning point where most French-speaking Québécois definitely embraced the environmental project of heavy industrialisation, but also rejected capitalist entrepreneurs as the leaders of this wealth creation project. In their stead, the provincial state would assume a major economic role through, among other organisations, Hydro-Québec, a publicly owned producer and

distributor of electricity. This large scale social transformation would be marked by a new form of French Québec nationalism. Sketching the role of the Beauharnois episode in this larger story will be the last contributions of this thesis.

CONCLUSION: “CE BILL EST UNE QUESTION DE VIE OU DE MORT POUR LA PROVINCE... ON NE PEUT PAS CONTINUER À VIVRE CETTE SITUATION D’INFÉRIORITÉ ”: BEAUHARNOIS LIGHT HEAT & POWER AND THE NATIONALISATION OF THE ELECTRICITY INDUSTRY IN QUÉBEC

1. A Finance Capitalist Revolution in the Comté de Beauharnois

This thesis in environmental history has examined the heavy industrialisation of the Comté de Beauharnois between 1929 and 1948, which resulted from the construction of the gigantic hydroelectric and navigation canal of the Beauharnois Light Heat & Power corporation. This episode was viewed more broadly as an example of the revolution of the finance capitalist mode of production that occurred in the first half of the 20th century in Québec. The central argument of this thesis is that the values and beliefs which drove the finance capitalist mode of production governed the specific social and environmental reshaping of the Comté.

In Chapter 1 – the theoretical chapter of this thesis – I argued that environmental changes in human inhabited environments (*landscapes*) are driven by societies, and that these societies are themselves driven by their own cultural dynamics. In Chapter 2, and within the rest of the thesis, I discussed the class culture of the principal groups involved in the Beauharnois story : engineers, entrepreneurs, politicians and peasants. I was primarily concerned with their economic projects, their vision of social organisation, and the manner in which they strove to use nature to serve these objectives. This point was

essential to an understanding of what the members of the aforementioned classes wanted to inscribe in the Beauharnois landscape.

Ideas about the economy and society, social organisation, productive activities, and the landscape are intimately linked. In environmental history they are seen as related elements of a system of relations which societies establish with nature. These systems are called modes of production. By looking into the culture of the classes involved in the Beauharnois story I was, in fact, looking into the different modes of production that were competing to shape the Comté.

In chapters 3, 4, and 5, I used the BLH&P corporate archives to determine whose mode of production was indeed inscribed in the society and landscape of Beauharnois. The society and the landscape were the indicators used to test which mode of production became prevalent within this environmental transformation. In both lines of inquiry, I came to the conclusion that the BLH&P was essentially successful in imposing its mode of production, finance capitalism. The peasant mode of production, formerly prevalent in this Comté, was, to a great extent, marginalised.

I will now briefly recapitulate these separate but complementary lines of analysis. I will begin by listing the evidence allowing me to propose that the inhabitants of Beauharnois became more involved in the system of finance capitalist class relations. Then, I will similarly re-explain how the physical transformation of Beauharnois answered first to the demands of heavy industrial purposes.

1.1. Industrialised Society

Most of Chapter 3 is dedicated to the analysis of the social project of the BLH&P executive team and its implementation in Beauharnois. To them, the social origins and economic projects of the tens of thousands of Beauharnois inhabitants were seemingly irrelevant. They were merely “a reservoir of English and French young men and women well suited temperamentally to industrial employment”.¹ These supposedly anonymous and equivalent atoms were invited to join the working class, where they would labour for the alleged material progress of the nation. In this specific case, material progress meant the growth of heavy industry compared to the other countries of the industrial world, as many of the speakers of the October 1929 inauguration ceremony stated. During the same ceremony, we learned that the entrepreneurs’ role was to design industrial projects and manipulate capital. Speakers, all of them entrepreneurs, politicians or Catholic bishops, enjoined both classes to relate harmoniously even though it was quite transparent that the capitalist class would retain full control over the means of production whereas the working class would not. I interpreted this proposition of reorganising an entire society around both classes (workers and capitalists) as the social project of the finance capitalist mode of production.

¹ Beauharnois Power Corporation Limited, *Beauharnois. An Ideal Location*, (September 15th, 1930) p. 9. A copy is filed in F2-2154-2.

The peasant class, or the *classe agricole* as the farmers of Québec called themselves, were not even mentioned in the speeches. They did not fit into this dual class societal project. Peasants, however, made up the bulk of the Comté de Beauharnois population. They were neither workers nor capitalists and, as a social class, they were the ones most affected by the BLH&P project. A full fifth of the farms were very reluctantly sold to the corporation to make space for the canal and its related works. I do not know of the individual fate of these peasants. Some may have been able to buy previously established farms in the Comté or elsewhere to perpetuate their way of living. However, the fact remains that, based on census numbers, about three hundred² family units making their livelihood from agricultural means of production which they owned were forced out of their *terre* and replaced by a single corporate owner whose project was large-scale hydroelectricity production.

To the remaining four fifths of the farms, life also became more difficult as I have explained in Chapter 5. Before the arrival of the BLH&P, many aspects of the local landscape were determined by the municipalities. For example, the local road system was the responsibility of the municipalities and the Conseil de comté. This gave peasants the power to shape their landscape to serve their peasant mode of production. The construction of the BLH&P canal changed that. The massive structure severed the Comté

² “Tableau 80. Fermes occupées par superficies, et subdivisions de comté, 1921”, *Recensement du Canada, 1921. Volume V Agriculture*, p. 134; “Tableau 21. Population. Nombres de fermes, superficie et état de la terre en 1931; travailleurs de fermes, 1930, par comtés, Québec”, *Recensement du Canada, 1931, Volume VIII Agriculture*, p. 209, line 14.

in two, which in turn radically disorganised the local road system. Few road diversions or bridges were planned to restore movement within the Comté. This created significant frustration within the *agriculteurs*. The municipalities tried to force the corporation to build more replacement roads and bridges by voting bylaws to this effect. The BLH&P never complied. It managed to have the Assemblée Législative overrule the Beauharnois municipalities and built only what it had originally planned.

Moreover, the corporation quickly sold most of the lots it had bought to the federal government. Thus, it ceased to pay land property taxes to the Beauharnois municipalities. To these municipal councils this was a net loss, as the federal government pays them no taxes. The village of Sainte-Cécile, for instance, lost five sixths of its revenues! This was a further impediment imposed upon their material capacity to maintain the agricultural integrity of the landscape.

To summarise, the finance capitalist project of the BLH&P corporation did not favour the existence of a class of family owned, independent rural producers who controlled their environments through local power structures. The BLH&P did not buy the *terres* of all the *agriculteurs* in the region. However, it did force a significant proportion of them out and, just as importantly, it diminished the capacity of those remaining to shape their environment through their municipalities. From then on, being an *agriculteur* in Beauharnois was less interesting because they did not control important elements of their landscape. They had lost much of this power to a powerful corporation and to the provincial and federal governments.

1.2. Industrialised Landscapes

Chapter 4 studied the environmental project of the company executives and its implementation during the transformation of the Beauharnois landscape. If the Beauharnois inhabitants were a reservoir of industrial employees destined to join the working class, the Beauharnois landscape was first and foremost an empty area open for the construction of a canal to exploit the full hydroelectric potential of the Fleuve Saint-Laurent. Figure 2 in Chapter 3 and Appendix 11 are visual representations of this mental framework. The project was, in their view, a “rehabilitat[ion] [of] the whole landscape between Valleyfield and Beauharnois”.³

To them, the fundamental problem with the Beauharnois landscape before their arrival was that the already existing smaller power plants in the region left most of the water of the Saint-Laurent “flowing down the river to waste”.⁴ The BLH&P executives boasted that their project would use the full hydroelectric potential of the Fleuve, notwithstanding the impact on other land uses in the region. This reasoning corresponds with the precepts of the *conservation* movement, originally a network of writers, bureaucrats, and politicians that offered ideas on how to interact with nature in industrial societies. This

³ Beauharnois Harness St. Lawrence for 2,000,000 Hydropower” *Electrical World* (14 November 1931) : 860-5.

⁴ *The Engineer*, “the Beauharnois canal and the hydro-electric power scheme”, 13 February 1931. For another example of the use of the notion of ‘waste’, see *Electrical World*, ‘Beauharnois Harness St. Lawrence for 2,000,000 Hydropower” 14 November 1931.

movement promoted the maximum possible exploitation of modern energy sources and of industrial natural resources. This project of relation with nature often resulted in the loss of alternative systems of relation with nature. Building upon recent works in environmental history, and in light of the political speeches and governmental bureaucratic sources I used in this thesis, I suggested that conservation was the environmental project of finance capitalism.

After 1929, many aspects of the Beauharnois landscape were subordinated to the production of the maximum power output from the Fleuve Saint-Laurent. Chapter 4 studied in detail the imposition of this new spatial logic. I have found it especially important to use the numerous photographs of the BLH&P corporate archives to analyse this revolution in the landscape. The construction photographs simultaneously show the former shape of the landscape and the new one being moulded by heavy machinery and thousands of workers. These photographs may have a dramatic effect on the observer. This emotional effect is far from being a distraction to rational historical analysis. It reflects the scale of the upheaval that occurred in this landscape 80 years ago. The large scale industrial projects typical of finance capitalism can transform entire regions almost overnight with the use of caterpillar bulldozers, draglines, explosives, and pesticides. If we are to ponder the legacy of the heavy industrial age, we must first recognise the degree to which our contemporary landscapes have been reshaped to primarily serve industrial objectives.

Unfortunately, we are so used to the actual state of our environment that, I believe, most of us do not realise the fundamental industrial logic behind our landscapes. I hope my use of the BLH&P photographs may have forged a path to rethink the contemporary state of the environments we live in and live from. This source is especially useful to help us re-evaluate contemporary industrial landscapes that were made from natural materials – such as earth embankments – or that have been around for so long that they have been covered by vegetation. The shape of many of our environments is unquestionably industrial and this has many ecological implications. However, a crest a few metres high and a thin film of vegetation is sufficient to hide this fact from most of us.

This new spatial logic being understood, I was able in Chapter 5 to analyse the many protest cases by peasants and I showed how they subsequently had to deal with a landscape which no longer prioritised their production activities. First, the local road system was diminished, as I have already mentioned. What is important to understand, in terms of the Beauharnois landscape dynamics, is that the BLH&P executives and the political authorities supporting them saw the continental and intercontinental transportation infrastructures as primordial, and the local needs of the population as secondary. On the one hand, the corporation was much more diligent in restoring railway lines and, on the other, a significant part of the environmental impact of the BLH&P project resulted from the digging of a navigation corridor within its hydroelectric canal.

This created enormous amounts of mud that were dumped into the Beauharnois environment. This comment leads to a second aspect of the primacy of the industrial

logic in the Beauharnois landscape. All of the watercourses in the region were transformed by the hydroelectric project : the entire Fleuve was redirected through a canal to fuel the hydroelectric power plant and the northern half of the Saint-Louis watershed was cut off from its river. This implied two major consequences. The first was that some areas north of the canal became too damp for growing crops. The fact that the northern half of the Saint-Louis watershed was cut off from its river probably played a role in this, but the most probable cause – judging from my sources – was that a small fraction of water was seeping out of the settling basins and the canal. This did not endanger the whole structure of the canal but even an very small fraction of the 5940 cubic meters of water per second in the canal or of the water contained in 169 940 972.37 cubic metres of mud in the settling basins is quite enough to damage adjacent farm lots. The second major consequence is that the Fleuve and the small Rivière Saint-Louis served as dumps for the mud created by the dragging of the navigation corridor within the canal. Because of these actions, the water in the Fleuve and the Rivière Saint-Louis was often soiled with mud and Beauharnois *agriculteurs* had much greater difficulty watering their herds and families.

The primacy of the industrial logic of the Beauharnois landscape after the construction of the canal had repercussions that went beyond the problems of the remaining peasants. The ecology of the region and of the entire Fleuve was impoverished, as I have explained in Chapter 4. The canal, on average 3 kilometres wide with its complex embankments, was rammed through the Comté de Beauharnois, fracturing it in two. In surfaces only,

26% of the area of the municipalities – mostly rich arable soils – disappeared under water, banks, and immense fields of mud, technically called “settling basins”.

As for the Fleuve itself, the dams considerably reduced the flow in the natural riverbed and almost all the water was forced into the canal. The new artificial shores it was given (the embankments of the canal) proved inhospitable for complex ecosystems, and the aquatic and riverside ecosystems lost in the natural riverbed were not replicated in the artificial waterway. Moreover, the dams in the natural bed of the Fleuve made artificial control of water level upstream possible. Artificially controlled watercourses are generally ecologically poorer because aquatic ecosystems need seasonal and yearly water level variations to sustain every species. The dams also severed the river into two water masses – one upstream and one downstream – almost impermeable from an ecological point of view. For example, fish populations living in the Lac Saint-François could no longer move to the Lac Saint-Louis because the dams are impossible to cross. It is physically possible for these fish to go eastward through the turbines of the Beauharnois or Cedar power plants – which spin at hundreds of cycles per minute – but they are dead when they reach Lac Saint-Louis.⁵ Finally, it is worth noticing that the construction process introduced industrial sounds, smells, and sights to unprecedented levels in the formerly rural Comté.

⁵ Denis Gervais, Claire Lachance, Marthe C. Thibert, *Plan d'action et de réhabilitation écologique 'Entre 2 Lacs* (Comité ZIP du Haut Saint-Laurent, 31 Mars 2002).

To sum up, the entire hydroelectricity production system in Beauharnois (the dams in the natural riverbed, the canal, and the power plant) is today considered a major problem from an ecological point of view. This notion has been seldom discussed in this thesis – partly because of my lack of training in biology – but I have suggested as much as possible the drastic environmental impact the hydroelectric project might have had. Indeed, recent biological research conducted in the Fleuve shows that the entire river is going through an ecological crisis, one which originated in projects such as the BLH&P canal.⁶ What is becoming more and more apparent to river biologists is that the construction of hydroelectric and navigational structures within the river (canals, dams, and channels) has created as much ecological damage as pollutants have. Complex ecosystems cannot live in perfectly geometrical canals ridden by uniformly rapid water. Life needs asymmetry, interconnectedness, accidents, counter currents, still water, rapids of roiling water, unpredictable inundation, drought; all things you will never encounter in the fully controlled water of the Beauharnois canal. Part of the contemporary ecological crisis of the Saint-Laurent is a legacy to the shaping or morphology given to non-urban landscapes by the heavy industrial age. The photographs I used in this thesis enable us to

⁶ Nathalie La Violette, Denis Fournier, Pierre Dumont and Yves Mailhot *Caractérisation des communautés de poissons et développement d'un indice d'intégrité biotique pour le fleuve Saint-Laurent, 1995-1997*, (Société de la faune et des parcs du Québec, Direction de la recherche sur la faune, March 2003); Richard Carignan and S. Lorrain (2000). "Sediment dynamics in the fluvial lakes of the St. Lawrence River: Accumulation rates, and residence time of mobile sediments" *Canadian Journal of Fisheries and Aquatic Sciences*, 57: 63-77. ; Denis Gilbert, Gilles Tremblay, Charles Corbeil, Bjorn Sundby (proposé 2004)].

see and think about the extent of this reshaping we have imposed all around us in the last century and a half.

2. Long Term Interpretation of the Episode: Revolutions in Modes of Production and Politics in Québec, from the mid 19th Century to the Second World War

Analysis of the social and environmental impacts of the BLH&P project reveals that a finance capitalist logic was imposed in the Comté de Beauharnois and that it supplanted the peasant's logic of the former society and landscape. These observations form the core of my thesis and are, in themselves, sufficient to conclude that a revolution in modes of production had occurred in the Comté de Beauharnois. This local rupture has been presented, throughout this thesis, as a case-study of the larger finance capitalist revolution wrought on many rural and forest landscapes by the hydroelectricity business in Québec. This business was not the only industrial sector driving this mode of production revolution but it was a spearhead of the whole movement.⁷

To conclude this thesis I will open the analysis by suggesting a long term, historical interpretation of the Beauharnois episode. In doing so, I will provide tentative answers to two fundamental questions arising in the aftermath of the events in the Comté de Beauharnois. On the one hand, how could it have been so easy to sacrifice so much arable

⁷ According to J. H. Dales, the hydroelectricity industry propelled Québec's economy into the modern era. See John Harkness Dales, *Hydroelectricity and industrial development: Quebec 1898-1940* (Harvard University Press, 1957).

land, in a society with so many ideologues of ruralism and traditional catholic values and moreover in a region dominated by peasants? On the other hand, the BLH&P project was the last great hydroelectric project built by the private sector in Québec (with the exception of the Lac Saint Jean region). From then on, the publicly owned Hydro-Québec would be the master of hydroelectric development and electricity distribution all over the province to this very day; was there a connection between both these facts? Answering the first question could provide the blueprint for a comprehensive analysis of the changes brought to Québec landscapes by the hydroelectricity business and, more generally, about the history of modes of production in the province from the mid 19th century to the Second World War. A satisfactory answer to the second question would provide insight about the subsequent history of hydroelectricity production, environmental change and politics in Québec.

Quite often in this thesis I have provided sociopolitical context to render intelligible the story that unfolded in Beauharnois between 1929 and 1948. Chapter 2 set the backdrop of the political organisations and power of Québec's *classe agricole* in the early 20th century. This context served to shed light on the public speeches of the Catholic bishops, the BLH&P promoters, and the politicians during the inauguration ceremony in October 1929, in Chapter 3. In the same chapter, the importance of the ideologies of rural life in Québec before the Second World War was also outlined. Chapter 5 raised the issue of the inability of the Beauharnois communities to gain political leverage in the provincial Assemblée Législative. Throughout the thesis, the actions of premier Louis-Alexandre

Taschereau resurfaced because he was such a central figure in the legislative processes creating the BLH&P corporation.

All these dimensions of Québec political life lead to this fundamental question: why was it politically so convenient to sacrifice peasant communities and good arable land in the Beauharnois episode whereas the rural way of life was still publicly praised as the 'Canadien' true identity and destiny? The hypothesis I submit is that the Canadien peasant mode of production had been going through an internal and external crisis for a very long time, and an alternative mode of production was avidly sought by the French speaking population of Québec in the 1920s.

In this dissertation, the rural producers of the Comté de Beauharnois in the 1920s and 1930s have been cast as *peasants*. The main purpose of this has been to present them as bearers of a mode of production based on agriculture and organised by independent producers. For this to be historically correct, two sub-notions must be clearly stated. First, the expression 'independent producers' should itself be understood as producers having legal or *de facto* control over their means of production, which are essentially land and arable tools in this context. Independence, in this thesis, does not mean autarchy. The Beauharnois peasants were embedded in complex economic structures of interdependence with their peers and their region. Nevertheless, these households were almost entirely free of economic ties towards the markets of capital, labour, and manufactured goods. They sold their products – in Canada and elsewhere – to urban populations that were decidedly engaged in a capitalist economy but the peasants

generally did not borrow money from banks or governments to increase production, they hired very few hands to work the land, and they still made part of their clothes and tools themselves.

Second, the Beauharnois rural producers belonged to a universe that originated in the social structures of New France, but this did not mean that this peasant economy remained static for two hundreds years. The embryonic literature on the rural economy of Québec in the late 19th century and in the first half of the 20th century shows that this socio-economic world adapted its production to take advantage of the evolving markets of rural products, took advantage of other regional economic activities, underwent important modifications in its social structures, notably the rapid disappearance of small scale exploitations during this period of time, which allowed the concentration of greater wealth in men's hands, and fostered the emigration of most of its youth to the manufacturing centres of Québec and New England. Nevertheless, I contend that it remains historically heuristic to conceive of pre-Second World War rural Québec as being *peasant* in its economy because, within these households, the ideology and reality of independence toward banks and the governments was still the most prevalent. The elaboration of this interpretation has constituted the core of Chapter 2 and was confirmed by my primary sources in the following subsequent chapters.

It is however crucial to understand that this peasant mode of production was living its very last years by the 1930s. From that point on, capitalist economy predominated in structuring Western societies and created most of the wealth. The Province of Québec

was no exception. On the contrary, it became an epicentre of the industrial capitalist revolution in North America. The Great Depression would reveal dramatically how Western societies had become dependant on the capitalist flow of wealth, and Québec was among the hardest hit. Following the Second World War, a new generation of agricultural producers borrowed from the markets of capital to invest in new techniques and machinery. To them, independence was no longer paramount, cash return on the investments became critical.⁸

The Beauharnois peasants who lived during the construction of the Beauharnois project were representatives of a dying world and the interesting question to ask is whether their story can reveal the reasons behind the disappearance of their mode of production. On the one hand, the Beauharnois story does not help us to understand this phenomenon because it spans too short a period of time. The Québec peasant mode of production concealed, over several generations, a very grave ecological flaw: it demanded geographical expansion with each new generation to perpetuate itself and the valley of the Fleuve Saint-Laurent was not infinite.

⁸ Courville [et all] believe that in Québec, the fundamental changes towards an industrial agriculture took place during the 1950s. (Claude Boudreau, Serge Courville, Normand Séguin ed. *Atlas Historique du Québec. Le territoire* (Archives nationale du Québec – Presses de l'Université Laval, 1997), 61). Montpetit confirmed that general statement in interviews with the farmers of Saint-Louis-de-Gonzague who inherited farms following the Second World War. They borrowed heavily to invest in industrial agricultural techniques and they did not consider this act as shameful. See the last chapter of her thesis: Christiane Montpetit, "D' "habitant" sédentaire à émigrant. Migration, économie et transformations agricoles à Saint-Louis-de-Gonzague (1861-1931)", Doctoral Thesis in Anthropology, (Université de Montréal, 2000).

Rural households in Québec had numerous children. Many reasons motivated the parents to do this and one of them was to have working hands for the family enterprise. Once the children reached adulthood, the parents' goal was to establish as many of them on new and independent farms to reproduce their way of life. However, most of the old country organised by the Seigneuries was allotted by the mid 19th century. Scarcely any new good land remained to settle, and many young adults were faced with the prospect of colonising either the marginal and inhospitable areas of the Laurentian rocky plateau to the north or the uneven and shallow soils of the foothills of the Appalachian mountains to the south. Some tried, many gave up, and the greater part journeyed to the cities in search of a more secure economic life. There they integrated new sets of social and economic dynamics which had little in common with the peasant way of life from whence they came. In a sense, the Québec peasant mode of production was working towards its own demise: it relied on the assumption that fresh rural land would be endlessly available to harbour its numerous offspring.

It was not so. Arable land in Québec, as in the rest of the world, is rare and precious. No more than 11% percent of the Earth's dry land is suitable for agriculture. Judging from my sources and from the secondary literature about 19th and 20th century rural Québec, it is impossible to assess how aware Québec peasants were of the growing scarcity of arable land. The only thing certain, is that societies cannot rely on an infinite supply of this ecological resource, and rural modes of production based on expansion with each new generation are bound to face major environmental crises.

Paralleling the ecological crisis of the Québec peasant mode of production, one must mention the rapid growth of a competing economic system: industrial capitalism, which evolved into finance capitalism over the same period. Both in the cities and in far away ecosystems (i.e. forests and oceans), capitalist entrepreneurs were constantly searching for more and more labour to collect new natural resources and transform them into industrial goods in the factories. Thus, the peasants' extra population was continually absorbed into the new competing economic system. Not only were they trapped in an ecological contradiction of their own but they were feeding the growth of an economic system which was antithetic to their own since it rested on economic entities such as companies and corporations, was massively capitalised and hierarchic and hired workers who had no control over the means of production.

The irony is that first industrial, then finance capitalism probably prolonged the life of the Québec rural world, for a while. This should be researched more fully but it strikes me that as long as the New England and Montréal factories welcomed the population surplus of the rural world, the latter had no urgent reason to adapt itself to the new environmental reality and the shortage of unexploited arable land. Families could still have numerous children and there was little incentive to change the ancient techniques. To my knowledge, Horace Miner discussed these dynamics.⁹ Economic adjustments did occur in the rural world, as recent studies have shown. For example, Christiane Montpetit

⁹ Horace Miner, *St-Denis, A French Canadian Parish* (Phoenix Books and University of Chicago Press, 1967).

observed that small rural exploitation disappeared from the Québec peasant world during the last third of the 19th century.¹⁰ This was merely a superficial change. It serves only to illustrate how the failing rural households pulled out of agriculture altogether and were bought out by more prosperous peasant families who repeated the pattern of geographical expansion. The only difference then was that this constituted inner expansion, one which occurred within the old countryside rather than moving outward onto new arable land.

To sum up, the Québec peasant world still appeared prosperous and functioning well at the turn of the 20th century, but in reality it was collapsing. Its perpetuation then rested on an accelerating concentration of wealth: smaller agricultural exploitations were disappearing, those that remained were distributed along starker thresholds of prosperity, and within each family, wealth was being concentrated into men's hands, to the exclusion of women. The former world of relatively equal households and softer patriarchal relations inherited from the original peasantry of New France was imploding.

¹⁰ Montpetit, Christiane. "D' "habitant" sédentaire à émigrant. Migration, économie et transformations agricoles à Saint-Louis de Gonzague (1861-1931)". Doctoral Thesis in Anthropology. Université de Montréal, 2000.

The fatal blow to this world came sometime between the 1910s and 1930s.¹¹ The BLH&P episode illustrates this perfectly. It could even be viewed as a crucial turning point in the history of modes of production in Québec. What is especially interesting in the Beauharnois history is that the obliteration of some one hundred square kilometres of excellent arable land and of hundreds of rural households did not provoke the outrage of public opinion in the French speaking population of the Province. Only three years before the BLH&P project, premier Taschereau had been politically embarrassed by the protest of the Lac Saint-Jean *agriculteurs* who had lost their *terre* to the hydroelectrification of their lake. These were years when the *classe agricole* was still trying to organise a political party to champion its social and environmental project. Indeed, this episode had been the only serious political problem of a government which was otherwise cruising on remarkably steady winds and a still sea. Many people were outraged at such a blow to the *classe agricole* and the only moment where the Québec Conservative Party had some political clout in the first third of the 20th century was when it championed the cause of

¹¹ The following discussion is based on part of the literature used in this thesis so far but three distinct works are especially important: Bernard Vigod, *Québec Before Duplessis. The Political Career of Louis-Alexandre Taschereau* (McGill-Queen's University Press, 1986); Robert Migner, *Quand gronde la révolte verte* (Les éditions de La Presse, 1980); and Clarence Hogue, André Bolduc, Daniel Larouche, *Québec. Un siècle d'électricité* (Libre Expression, 1979). In coming years, I plan to test and substantiate the hypotheses of political history presented in this final section of the conclusion. I will be using the newspaper databank built by the Montreal History Group during the last 5 years. The databank refers to more than 300 newspaper articles in *La Presse*, *The Montreal Gazette*, *La Patrie*, and *Le Canada*, which specifically discuss the business of electricity in Québec between 1910 and 1941.

the farmer class. A scant 30 months later, Beauharnois raised few eyebrows within the public.

The crucial historical phenomenon of the 1930s, from the standpoint of environmental history, is that a consensus crystallised around the idea that French speaking Quebecers had to embrace industrial modernity and that they had to take control over industrial natural resources (hydroelectricity, wood, mineral resources) with the help the state. Indeed, in the 1927, 1931, 1935, 1936 and 1939 provincial elections, the question of public supervision or ownership of the electricity industry was a central, if not the central topic of debates. This period also corresponds to the take-over within the Liberal Party by the progressive wing, led by Adélar Godbout and Téléspore Damien Bouchard. Why did this crystallisation occur in the 1930s? Why not before or after? Three sets of reasons explain this shift.

First the self-representations of the *Canadiens* as peasants had been undermined for the past sixty years at least. By the 1920s, a clear majority of *Canadiens* lived in cities and the peasant self-representations were therefore in good part discredited.¹² If this statement is true, a major symptom of this would have been that the *classe agricole* abandoned all hope to rally itself as a political force in the late 1920s, this after two decades of

¹² For one thing, most French speaking novelists radically rejected positive representations of rural life in this decade. The countryside became either a place where central characters met poverty and suffering or a side note within the context of urban stories. See Jean-Charles Falardeau, *Imaginaire social et littérature* (Hurtubise HMH, 1974).

organising efforts which had yielded few results. Nevertheless, no clear alternative had yet emerged and politicians' public speeches on Québec's economic future were rather unfocused up until the 1930s. For example, the leaders of the Liberal Party were by far the dominating political force in Québec during the first half of the 20th century. They professed both the central role of agriculture for what they described as the moral fibre of the nation and the necessity to rely on capitalist entrepreneurs to drive the heavy industrialisation and the exploitation of industrial natural resources in Québec. These objectives came into conflict, as we have seen in Lac Saint-Jean and Beauharnois.

What the growing majority of people living in cities knew, though, was that urban public utilities (transport, telephone, and, most notably, distribution of electricity) were controlled by a few conglomerates, generally referred to as "les trusts" in Québec. These powerful and monopolistic companies had a far reaching and daily impact in the economy and daily life of the modern urbanite but they were perceived, usually correctly, as making fabulous profits on captive consumers and corrupting municipal politics. The most well-known and criticised of these *trusts* in Québec was the Montreal Light Heat and Power (MLH&P), which held the reins of gas and electricity production and distribution, and tramway lines in the Grand Montréal region. In short, industrialisation through capitalist entrepreneurs was seen more and more as being economically unfair towards the emerging urban majority of Québec.

In the second place, the Great Depression seemed to prove that capitalism, and especially the private and unplanned ownership of natural resources and industries was a failure.

Here it must be stressed that these first two reasons (parasitic utility monopolies and the shock of the Great Depression) were common to all Westerners.¹³ The final and most critical reason for this shift in French speaking Quebecers' favoured economic project was, I propose, the short and tumultuous corporate history of the BLH&P.

The construction of the Beauharnois power plant by the BLH&P had promised to recreate competition in the energy market of Montréal, and therefore should have broken the MLH&P's iron grip on Montréal's consumers and economy. However, the 1929 Crash had made borrowing on the capital markets very difficult and the BLH&P failed to secure extra financing to finish work in 1931 and 1932. The Beauharnois company was in such a bad position in 1933 that it was on the verge of bankruptcy. The MLH&P jumped on the opportunity and financed the completion of the work in exchange for a majority of voting shares in the Beauharnois company. Thus, the company that was supposed to break the electricity monopoly in Montréal served only, in the end, to reinforce it. From then on, the MLH&P was not only one of the biggest monopolies in electricity distribution in North America, but it was also the owner of what would become the biggest hydroelectric power plant on the continent.

¹³ Two essential books to explore the social reaction to the monopolistic utility corporation in North America are Christopher Armstrong and H.V. Nelles, *Monopoly's Moment: The Organization and Regulation of Canadian Utilities 1830-1930* (University of Toronto Press, 1988) and Thomas Park Hughes, *Networks of Power: Electrification in Western Society 1880-1930* (Johns Hopkins University Press, 1983).

In 1934, the political pressure on premier Taschereau to use the provincial state to tame the electricity business' ferocious appetites reached a peak. Public expressions of discontent toward the MLH&P, and the intense lobby of a rising generation of more progressive politicians within the Liberal Party (notably Godbout and Bouchard) converged to force the premier to launch a public inquiry of the entire electricity business in Québec. To prove to Quebecers that his intentions were serious, he asked the most prestigious federal politician in the province, Member of Parliament Ernest Lapointe, to head an investigating committee.

The Commission de l'électricité de la province de Québec, better known as the Commission Lapointe, revealed the extent to which French speaking Quebecers' perception of their relation to nature had changed.¹⁴ The most striking elements of these changes was that all the individuals and organisations which handed in memoirs agreed that electricity had become "une nécessité universelle" – both for economic growth and for domestic life – and that the state should intervene resolutely to insure its fair distribution within society. In other words, French speaking Quebecers seemed, at this time, to have adhered to the project of a heavy industrial society but one led in part by the state, not exclusively by private capital. Many of the documents submitted to the commission stressed that electricity should be made available at much cheaper prices and

¹⁴ The archives of this inquiry commission are held in the Centre d'archives d'Hydro-Québec under the name Commission de l'électricité (P1). I have begun to study it, and the following comments are based on this preliminary work. The final report of the Commission can also be found here: *Rapport de la Commission de l'électricité de la province de Québec au Premier ministre de la province*, 21 January 1935.

not only in big urban markets but also to the farms, in order to help them modernise production techniques. Even conservative opinion leaders, long time champions of Québec rurality, had begun to embrace industrial modernity as being Quebecers' most viable economic future.

The main conclusions of the Commission Lapointe were that the electricity business in Québec was indeed using its monopoly status to demand extremely high prices for a service of inferior quality and that the state should tightly regulate and supervise this business to protect consumers and small businesses. In the spring of 1935, the Liberal government instituted the "Régie de l'électricité" whose mandate was to closely monitor the electricity business in all of its doings. The bill which created the *régie* was written entirely by T. D. Bouchard, a progressive liberal, then Ministre des Affaires municipales, de l'Industrie et du Commerce and second only, in influence, to Taschereau, within the Québec Liberal Party. In the following years, the *régie* conducted detailed inquiries of the assets and financial structure of each electric company, thus further detailing their corporate malpractice. In 1936, Maurice Duplessis and his newly created Union Nationale Party were elected in great part because of his promise to nationalise the electricity business, which he failed to do. The Liberals in the opposition attacked the Union Nationale for not moving towards the nationalisation of electricity. They were back in power in 1939, with a new progressive generation now controlling the party.

In 1940, premier Adélard Godbout began talking openly about the nationalisation of some or all the electric companies. The first one to be publicly mentioned was the then

infodated BLH&P. The electricity business was furious. They launched massive public campaigns to portray the members of the liberal government as liars and communists. Nevertheless, Godbout felt strong enough to go ahead. In 1944, he presented bill 17 in the provincial Assemblée législative. The bill proposed the nationalisation of the MLH&P and its affiliated BLH&P. In his speech to support the bill in the LA, Godbout said that “Ce bill est une question de vie ou de mort pour la province... On ne peut pas continuer à vivre cette situation d’infériorité... Nous voulons que nos ressources naturelles soient exploitées pour le bien de tous”.¹⁵

What these political events show is the crystallisation, during the 1930s, of a new Québec nationalism wherein the future of the economy would be based on state intervention and the industrial transformation of nature, not on peasant agriculture. Quebecers had adopted the environmental project of finance capitalism, heavy industry, but it rejected its social project, a society of workers lead by capitalist entrepreneurs. This explains why it had politically been so easy to sacrifice the arable land in Beauharnois as opposed to the Lac Saint-Jean episode 3 years before. This industrial project occurred during the years of emergence of a new consensus about Québec’s social and environmental future: from then on, French speaking Quebecers would embrace industrial modernity, and in 1942-44 they showed that they would do it through state ownership if necessary. Throughout the following decades, this new system of power relations would structure interactions with nature from arctic ecosystems to the Eastern Townships in southern Québec.

¹⁵ Speech excerpt taken in Yves Bélanger and Robert Comeau ed, *Hydro-Québec: autres temps, autres défis* (Presses de l’Université du Québec, 1995).

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Montreal Star (Montréal, Québec) see below for dates;

During the completion of this thesis, the Montreal History Group searched, using a sampling technique, Montréal city's most important daily newspaper between 1910 and 1970. *La Presse* was not consulted from 1930 to 1935. The aim was to find articles relating to the research interests of members of our group. In my case, more than a thousand articles discussing the electricity business in the Province of Québec were found. I have used but a fraction of these findings in this thesis. The rest will serve to fuel subsequent research projects. The sampling was made thus: every 5th week, beginning with the first full week of the year, was thoroughly analysed for any content related to electricity (key-ideas: "barrage hydro-électrique"; "canal hydro-électrique"; "centrale électrique"; "distribution électricité"; "tarifs / prix électricité"). Moreover, every month of January and February were entirely searched for the same content.

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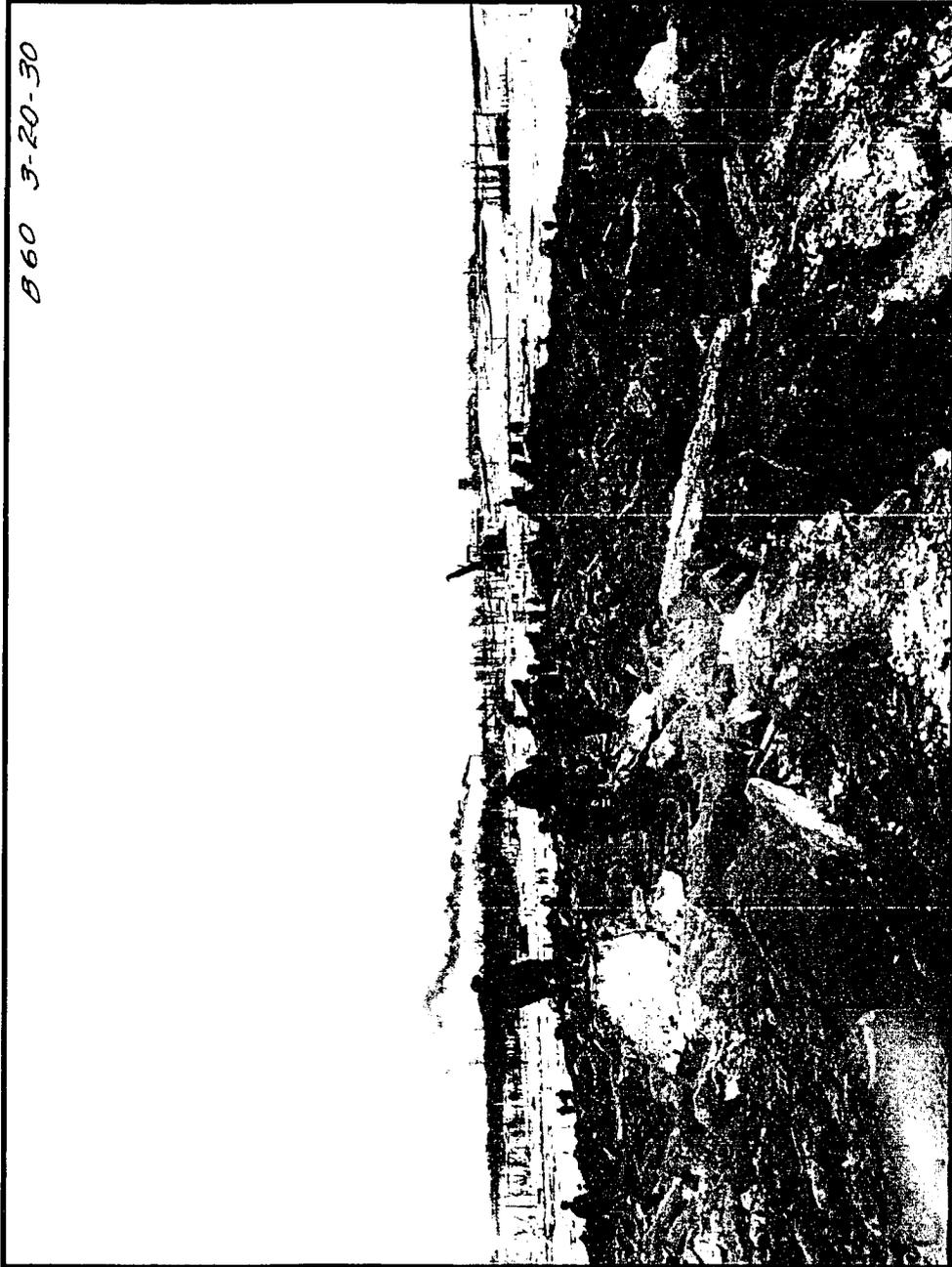
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Beauharnois Power Corporation Limited, *Beauharnois. An Ideal Location* (15
September 1930), p. 18, **p. 332.**

F2-700 012 B60-3-20-30

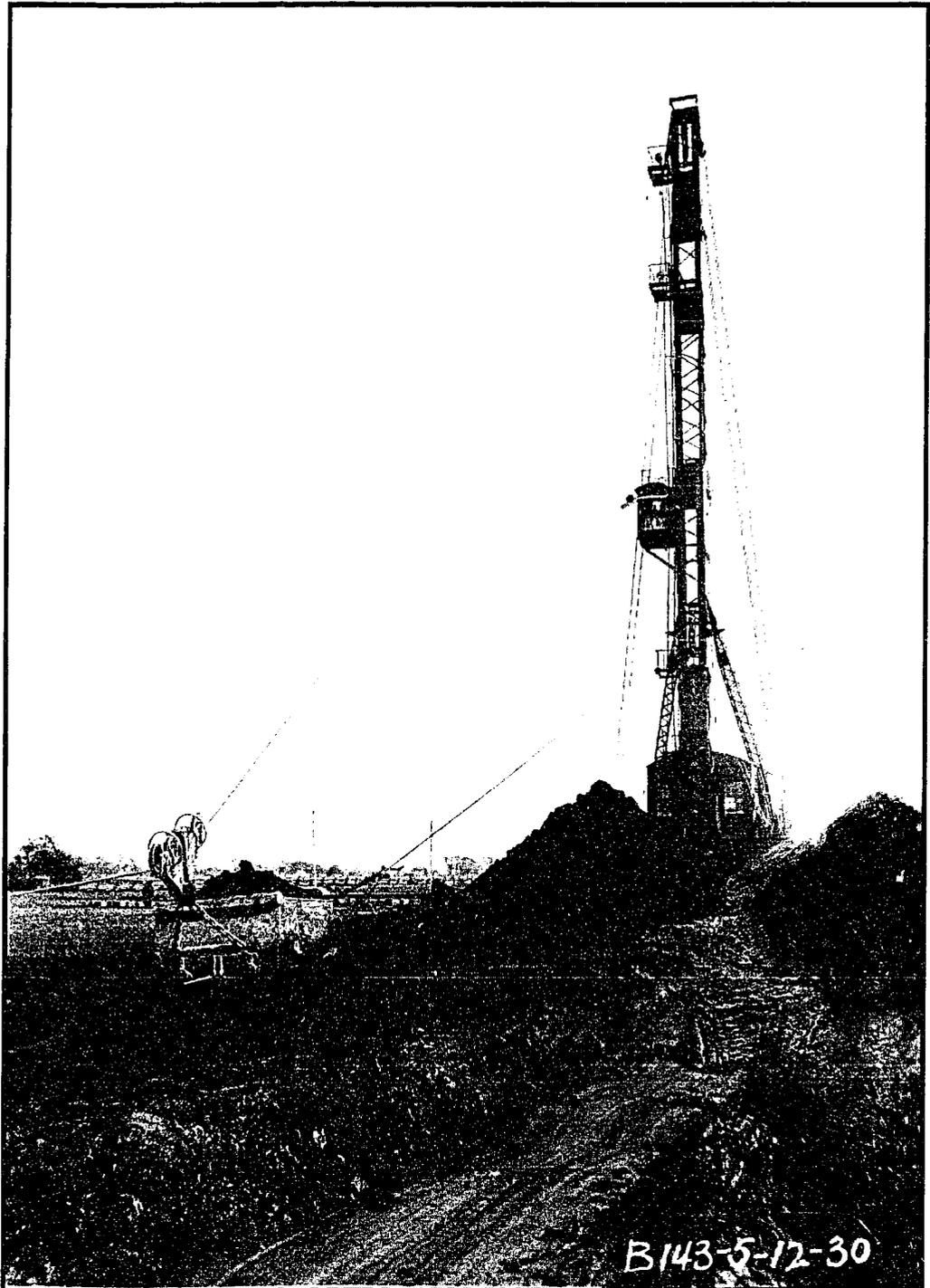


S.J. Hayward. "view of initial tailrace blast after firing"

F2-700 023 B107-4-11-30

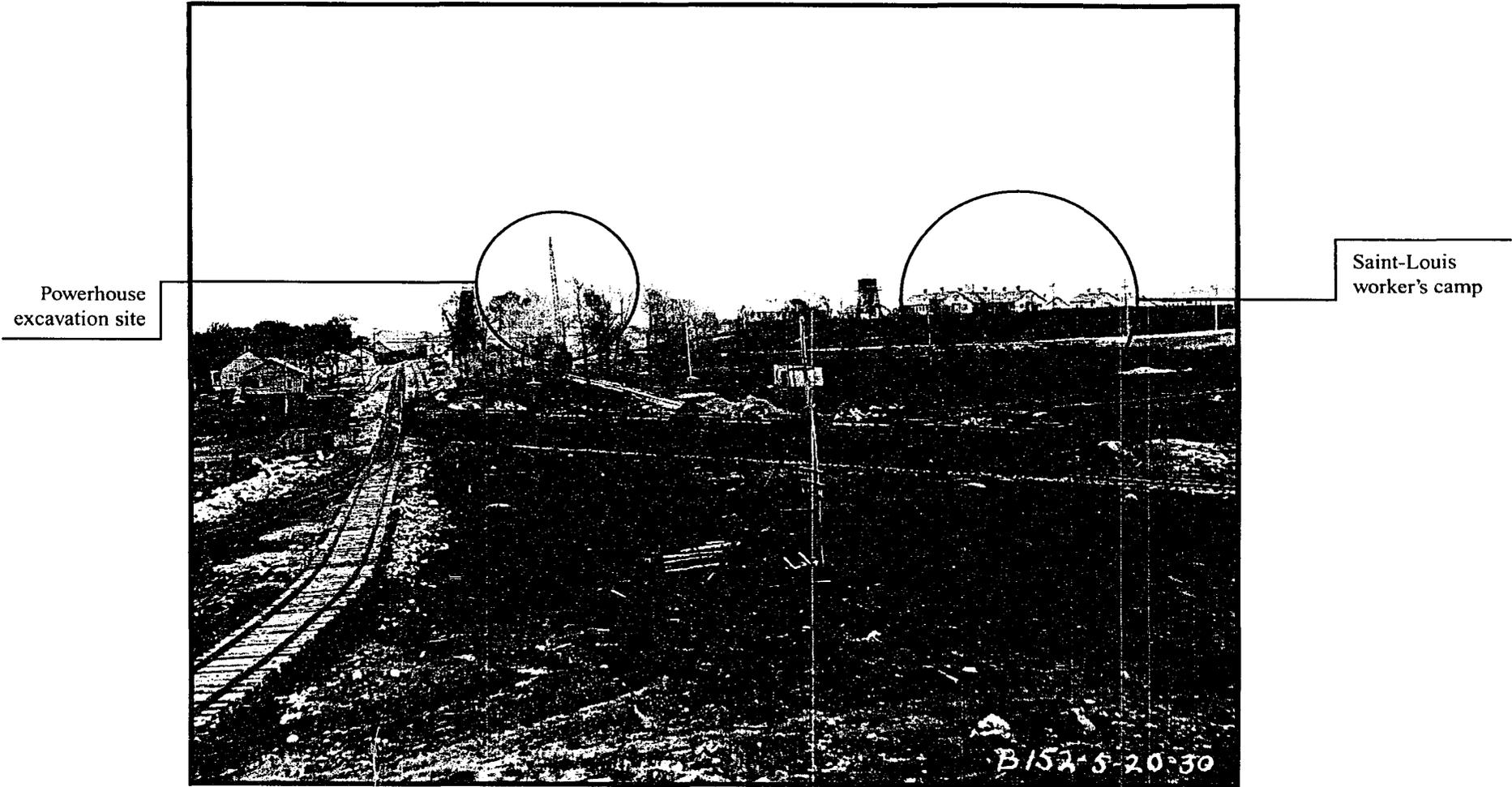


Beauharnois Construction Company. "View of houses moved from tailrace and relocated on highway"



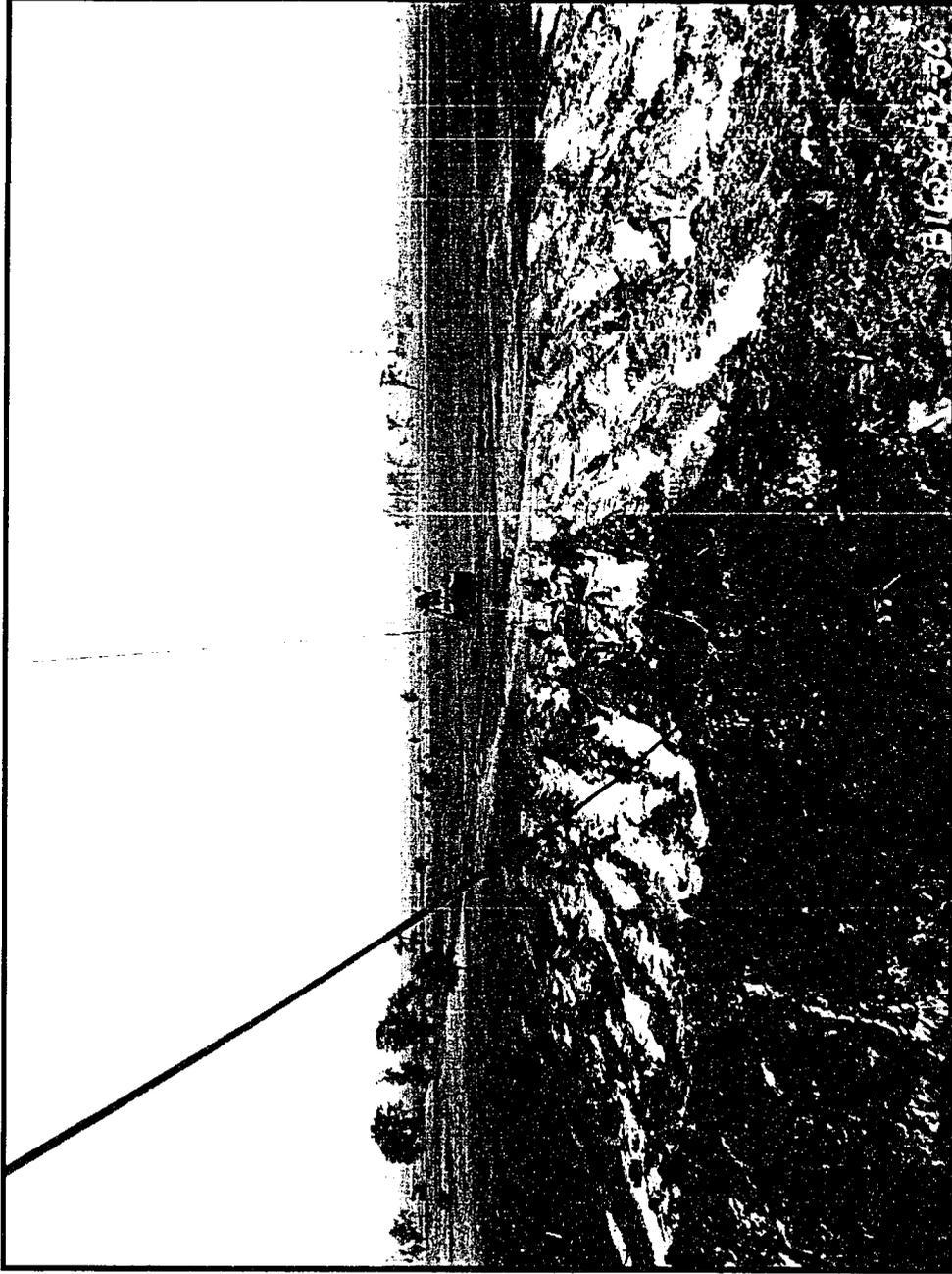
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F2-700 033 B152-5-20-30



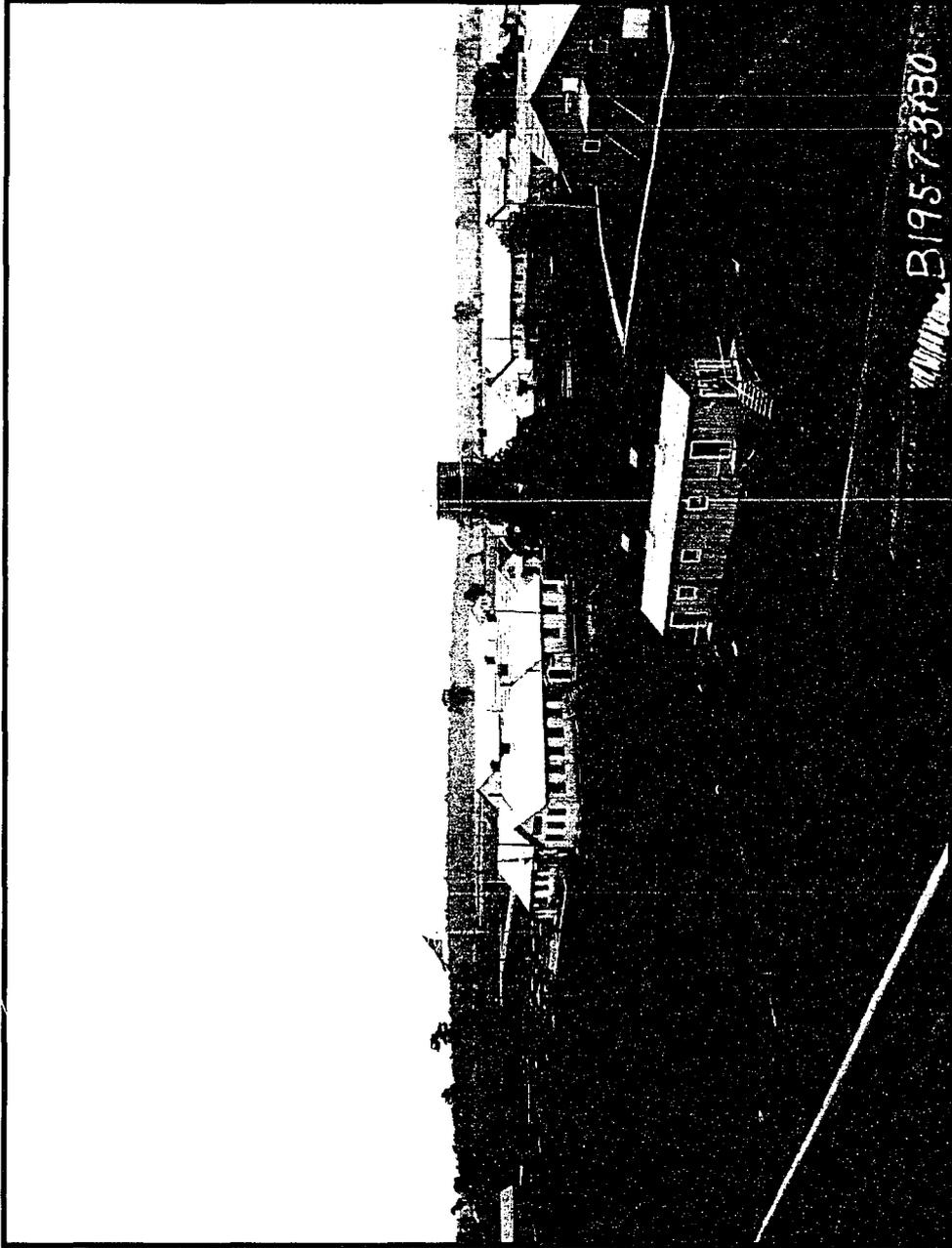
Beauharnois Construction Company. "View of box cut at station 1-82 in tailrace showing well drills drilling section IV at tailrace, excavation"

F2-700 038 B165-6-12-30



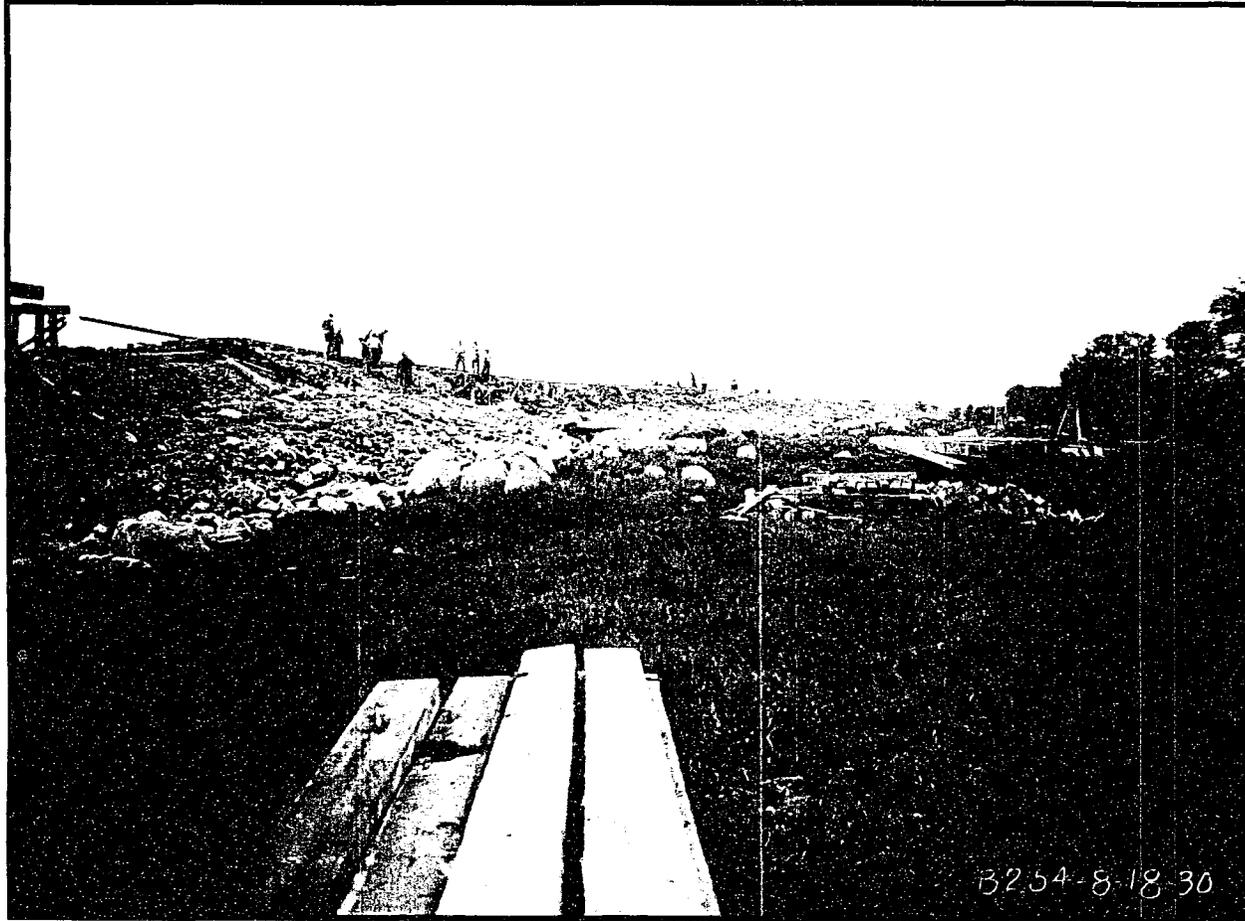
Beauharnois Construction Company. "View from mast of tower excavator no 4 with tower excavator no3 in the back ground"

F2-700 047 B195-7-30-30



Beauharnois Construction Company. "View of camp and office"

F2-700 071 B254-8-18-30



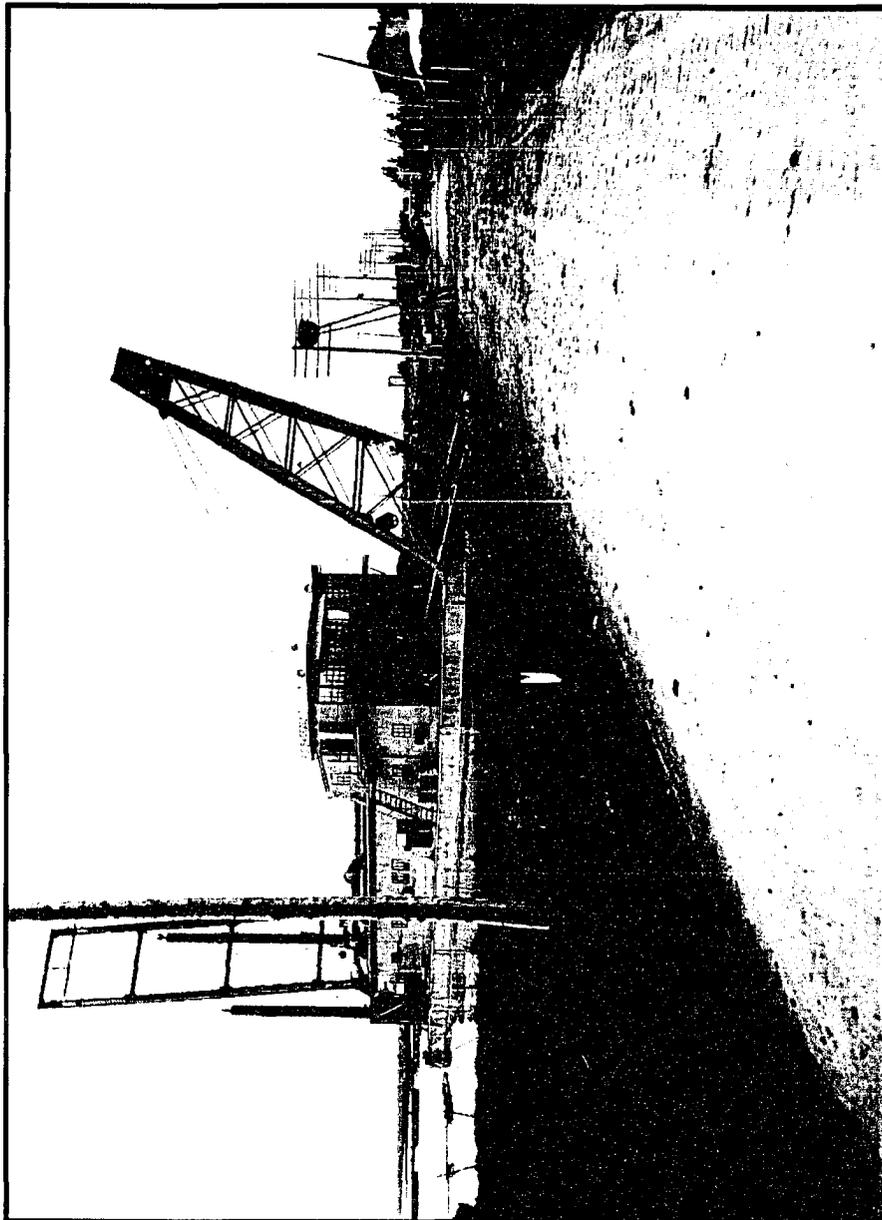
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F2-700 074 B259-8-25-30



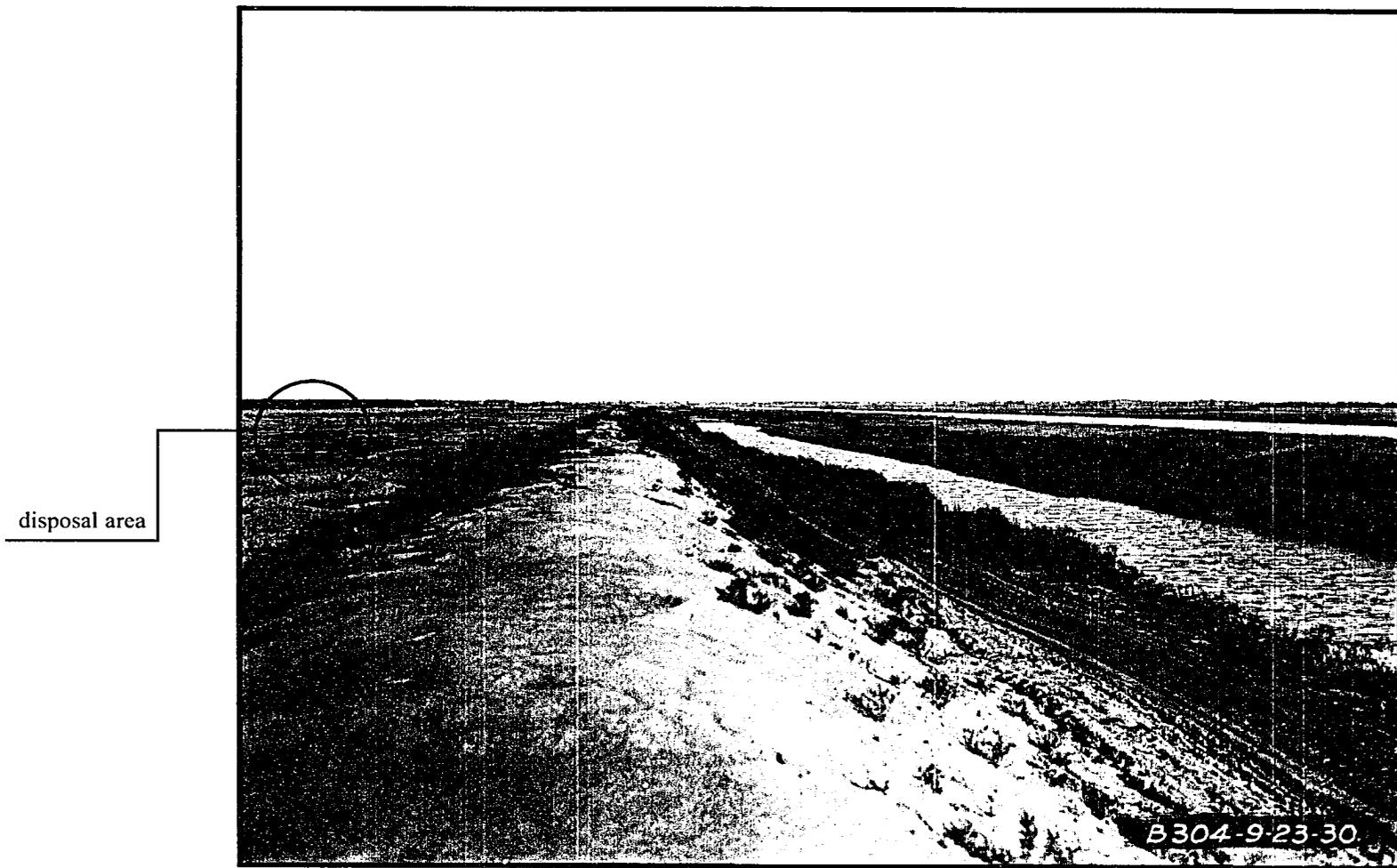
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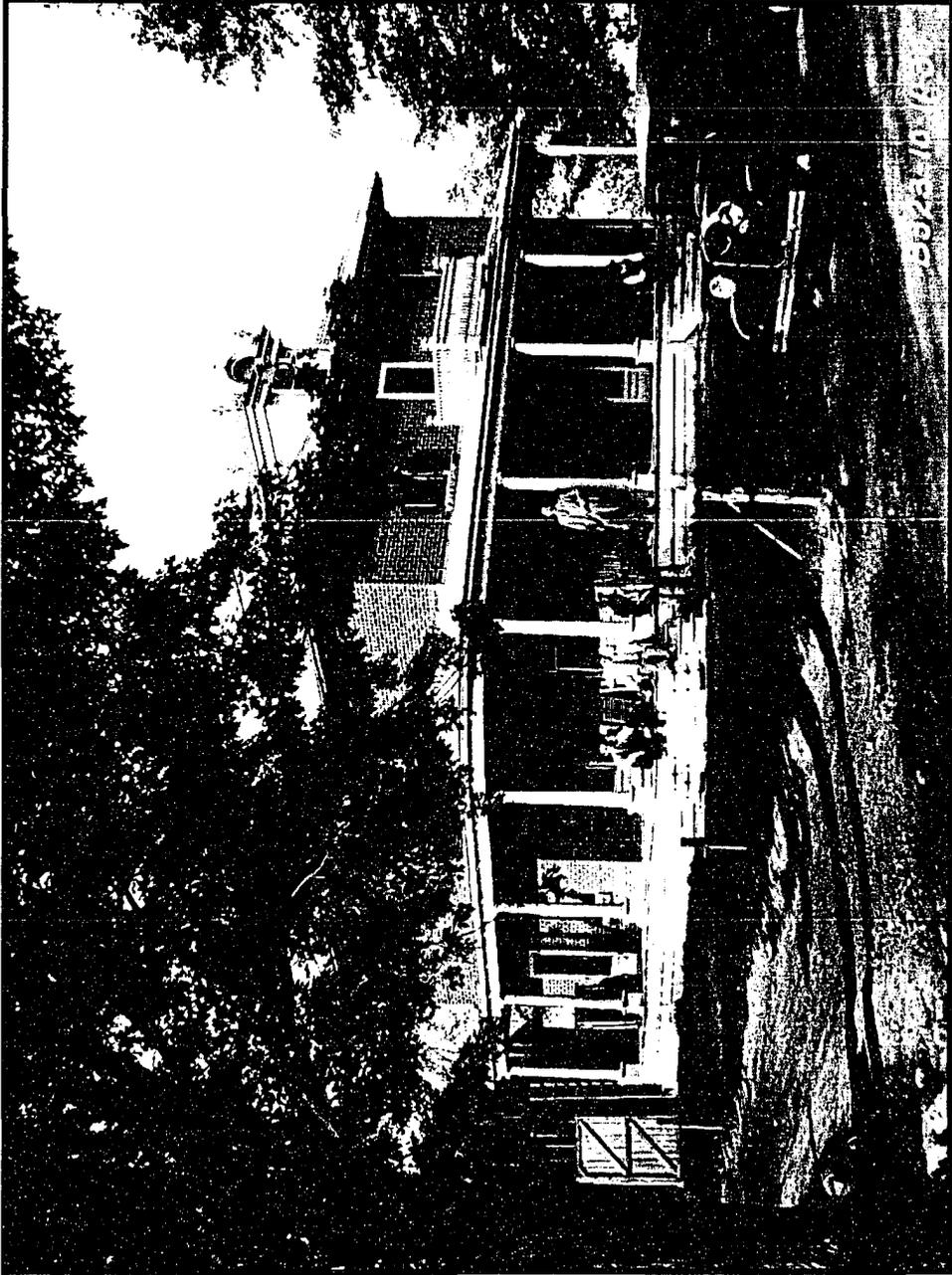
F2-700 088 B320-10-9-30

The advertisement features a central map of the St. Lawrence River and Lake St. Louis region. The map is labeled with 'OTTAWA RIVER', 'ST. LAWRENCE RIVER', 'LAKE ST. LOUIS', 'VALLEYFIELD', 'ST. FRANCIS', and 'ST. MARY'. A large, stylized banner across the map reads 'B.L.H. & P. CO. CANAL'. To the right of the map, there is a vertical text block: 'POWER HOUSE 500,000 H.P.' and 'BEAUHARNOIS CONSTRUCTION CO. BEAUHARNOIS P.Q. 1930'. Below this, there are several inset photographs showing construction equipment and structures. At the bottom of the advertisement, the company name 'BEAUHARNOIS CONSTRUCTION COMPANY' is printed in a large, bold font.

B320 10-9-30.

Beauharnois Construction Company.

F2-700 090 B323-10-11-30



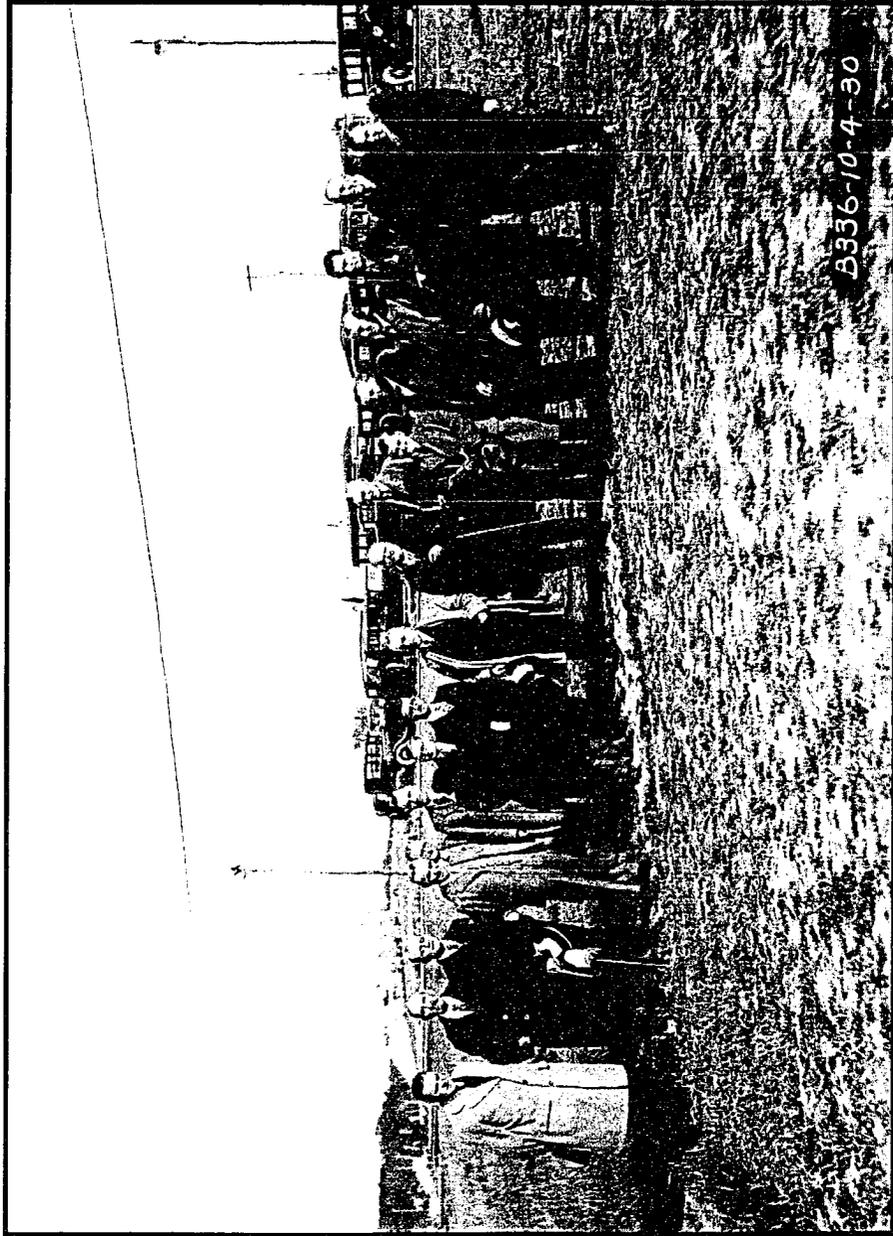
Beauharnois Construction Company. "Engineers' camp at St-Louis"

F2-700 092 B332-9-23-30



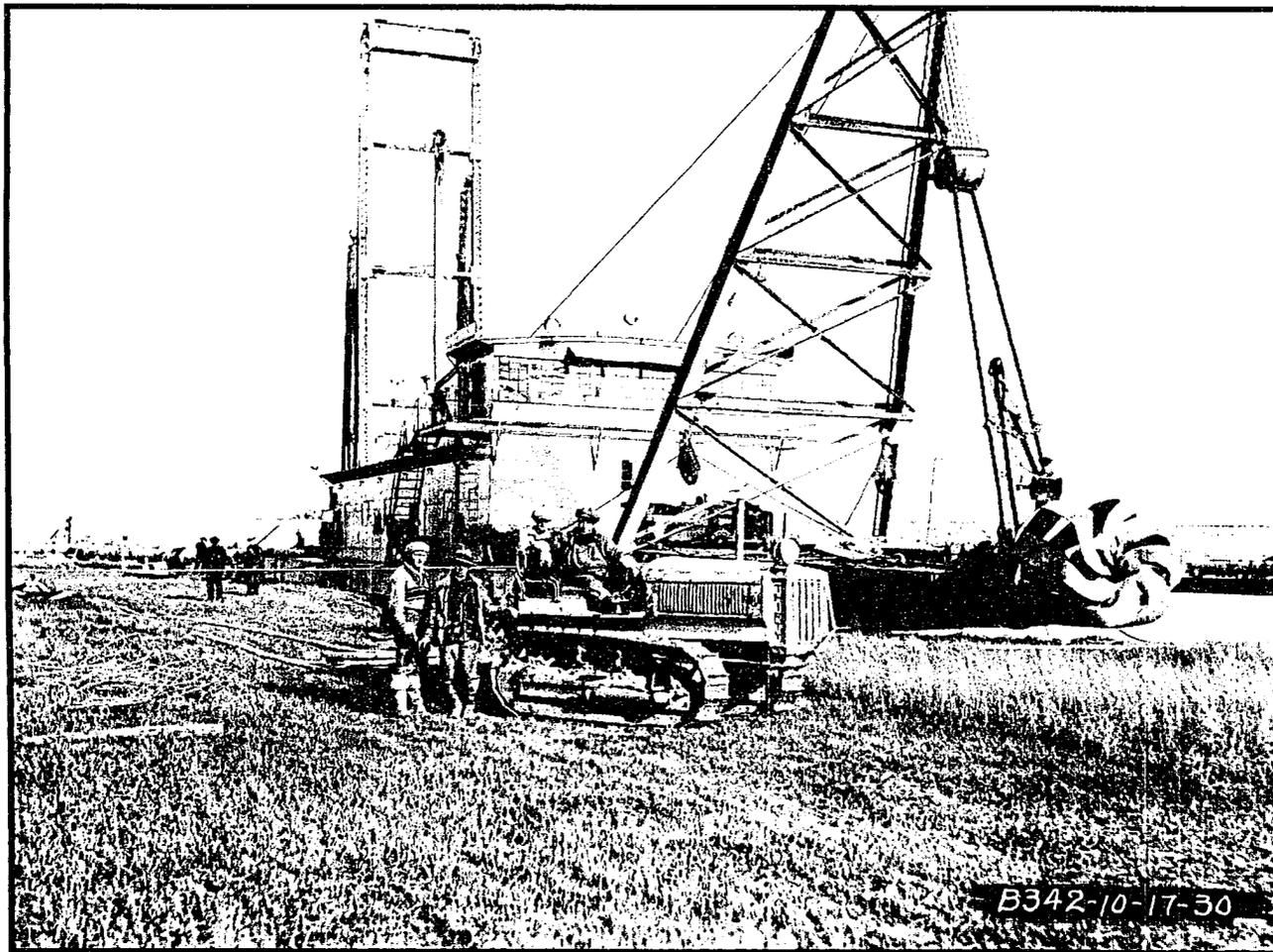
Beauharnois Construction Company. "Group of members of Montreal Board of Trade"

F2-700 092 B336-10-4-30



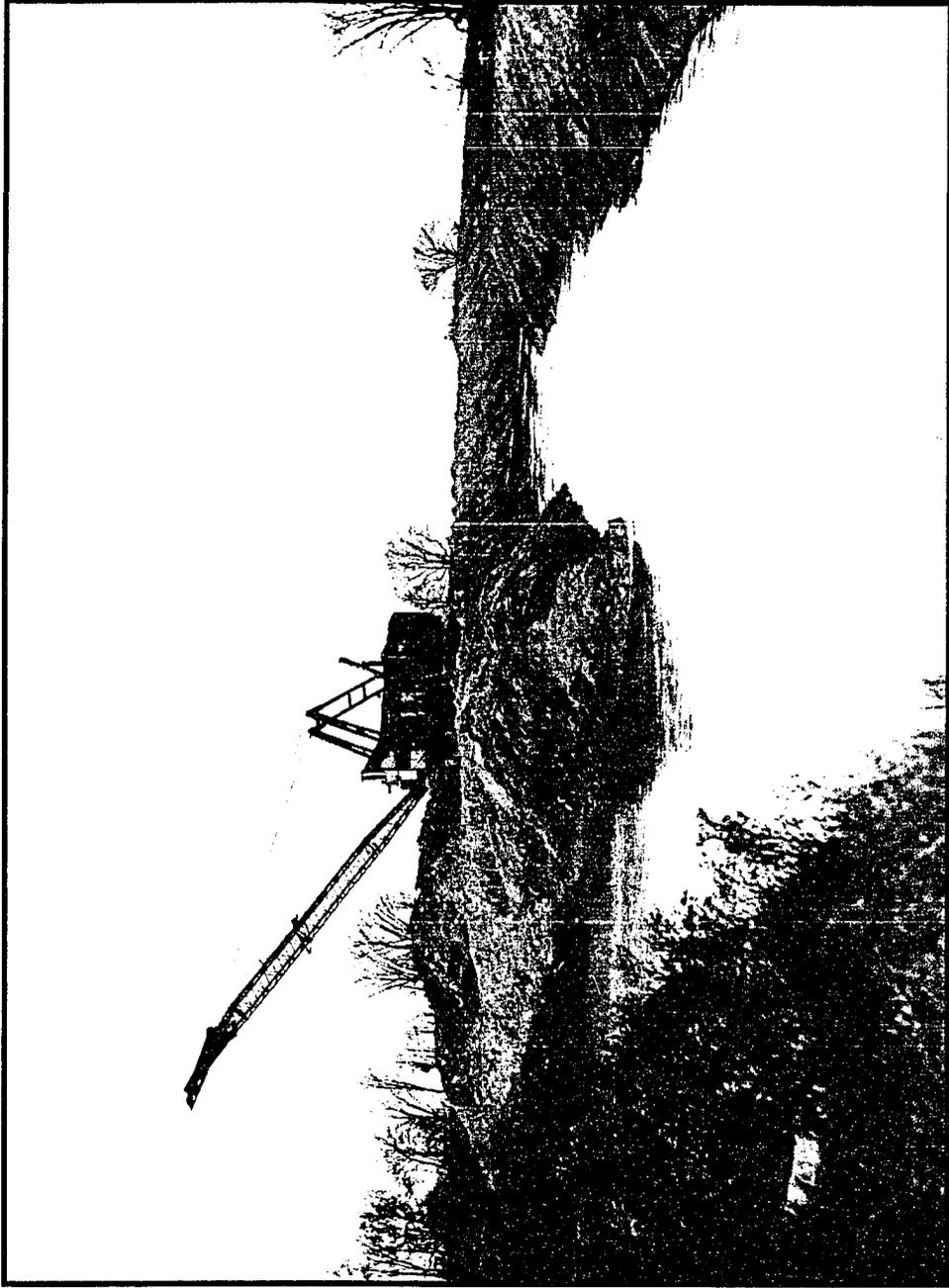
Beauharnois Construction Company. "Group of the Press Gallery from Ottawa"

F2-700 093 B342-10-17-30



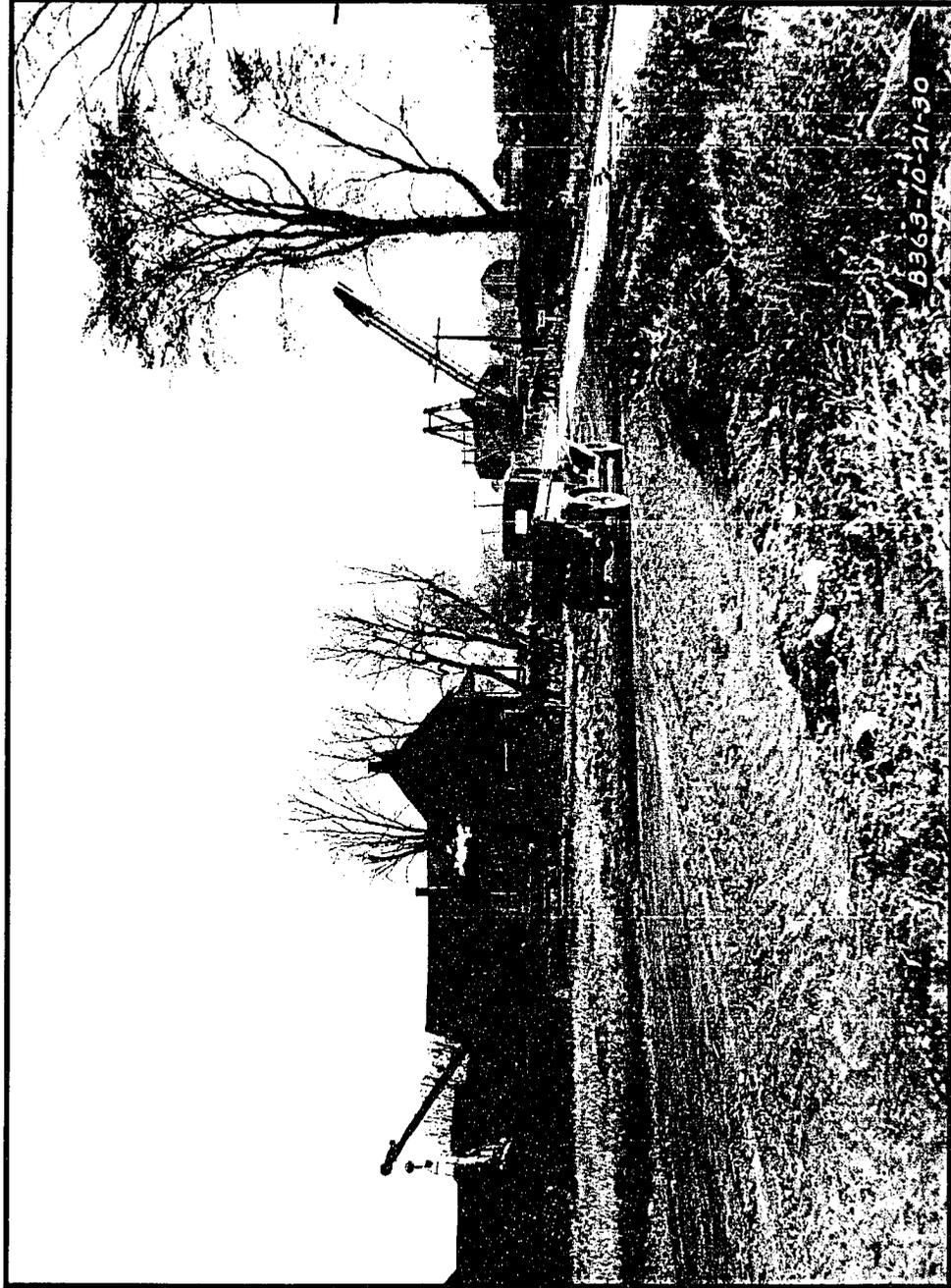
Beauharnois Construction Company. "View of dredge showing method of handling power cable"

F2-700 101 B355-10-31-30



Beauharnois Construction Company. "Mills dragline blocking the St-Louis after having completed the St-Louis river diversion"

F2-700 103 B363-10-21-30



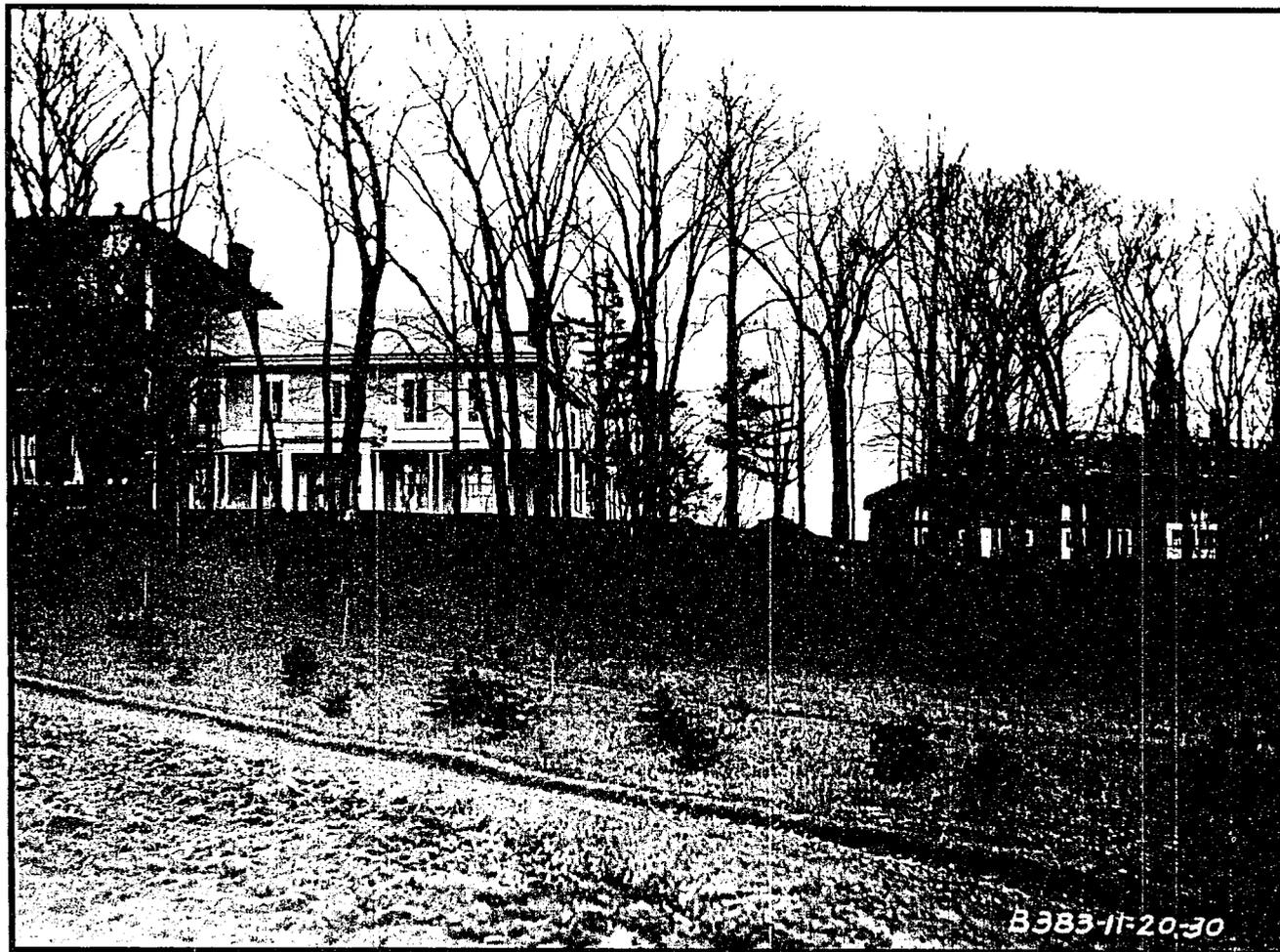
Beauharnois Construction Company. "Construction of drainage ditch near Rang Double, section 2"

F2-700 104 B365-11-3-30



Beauharnois Construction Company. "Messrs R. A. C. Henry, Dr R. J. Manion and son"

F2-700 113 B383-11-20-30



Beauharnois Construction Company. "View of old Seigneurie de Beauharnois"

F2-700 113 B430-2-3-31



Beauharnois Construction Company. "Interior of well drill bit dressing up"

F2-700 160 B525-4-29-31



“Erection of Girder for 200 tons power house [unreadable]”

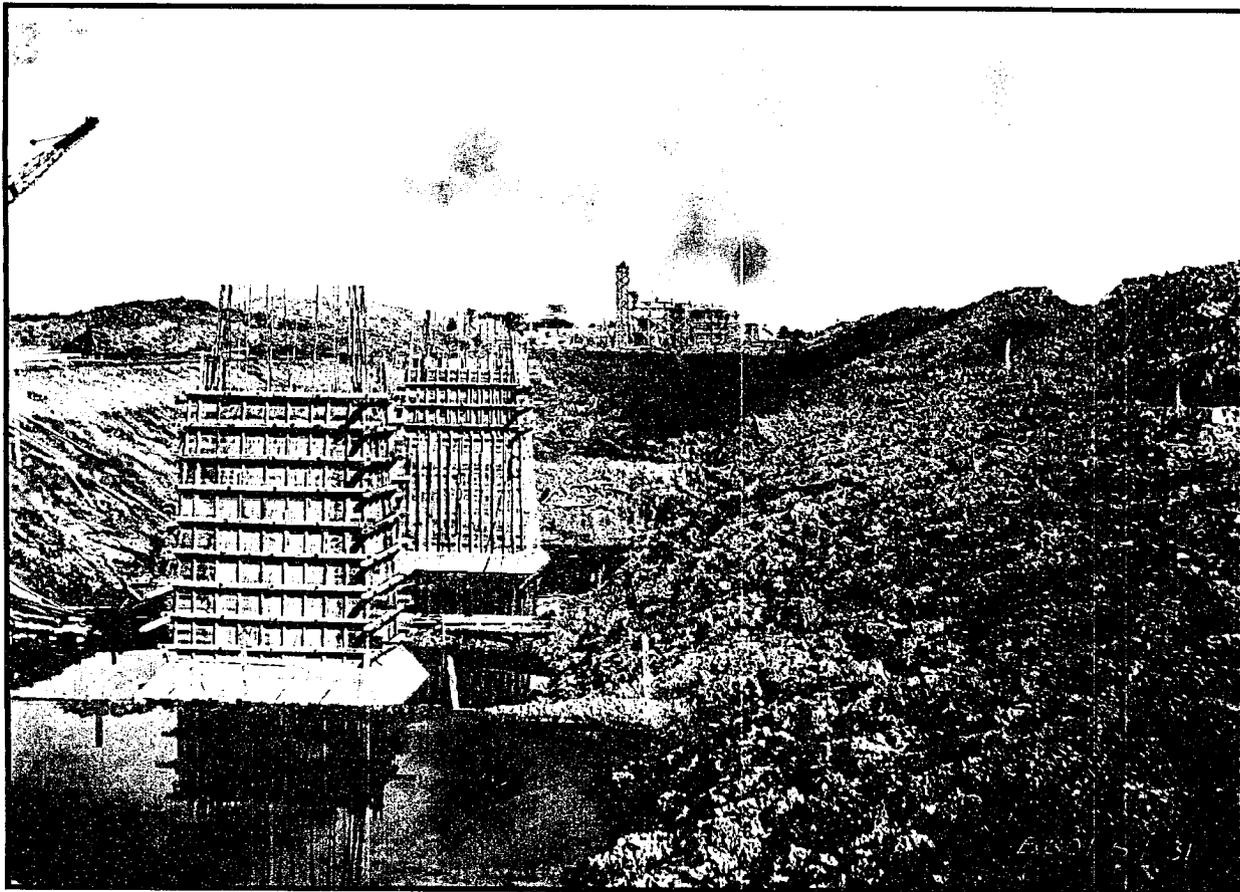
F2-700 165 B539-5-4-31

Modified coat of arms
of the New France
Governor Charles de
Beauharnois



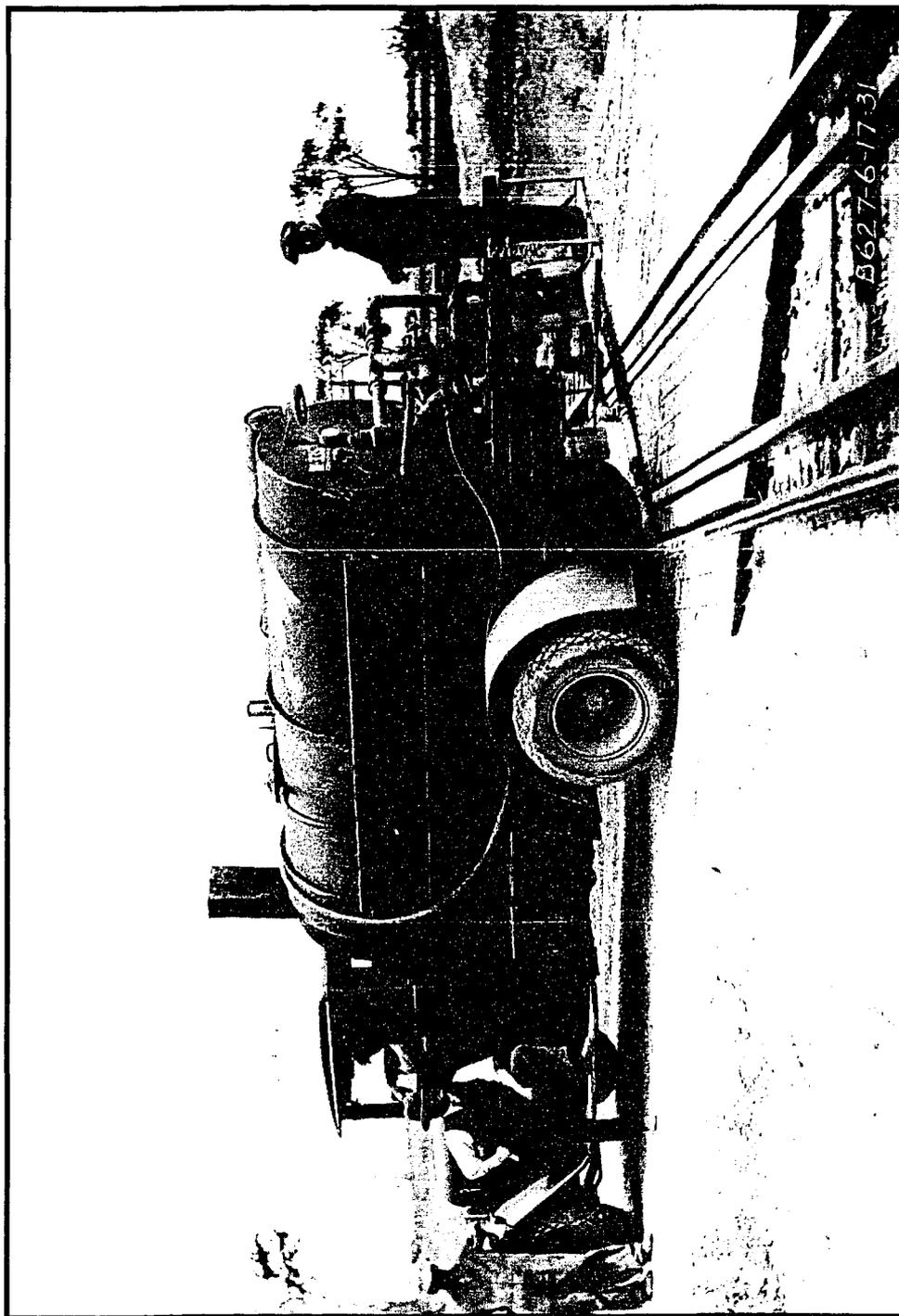
Beauharnois Construction Company.

F2-700 188 B601-6-1-30



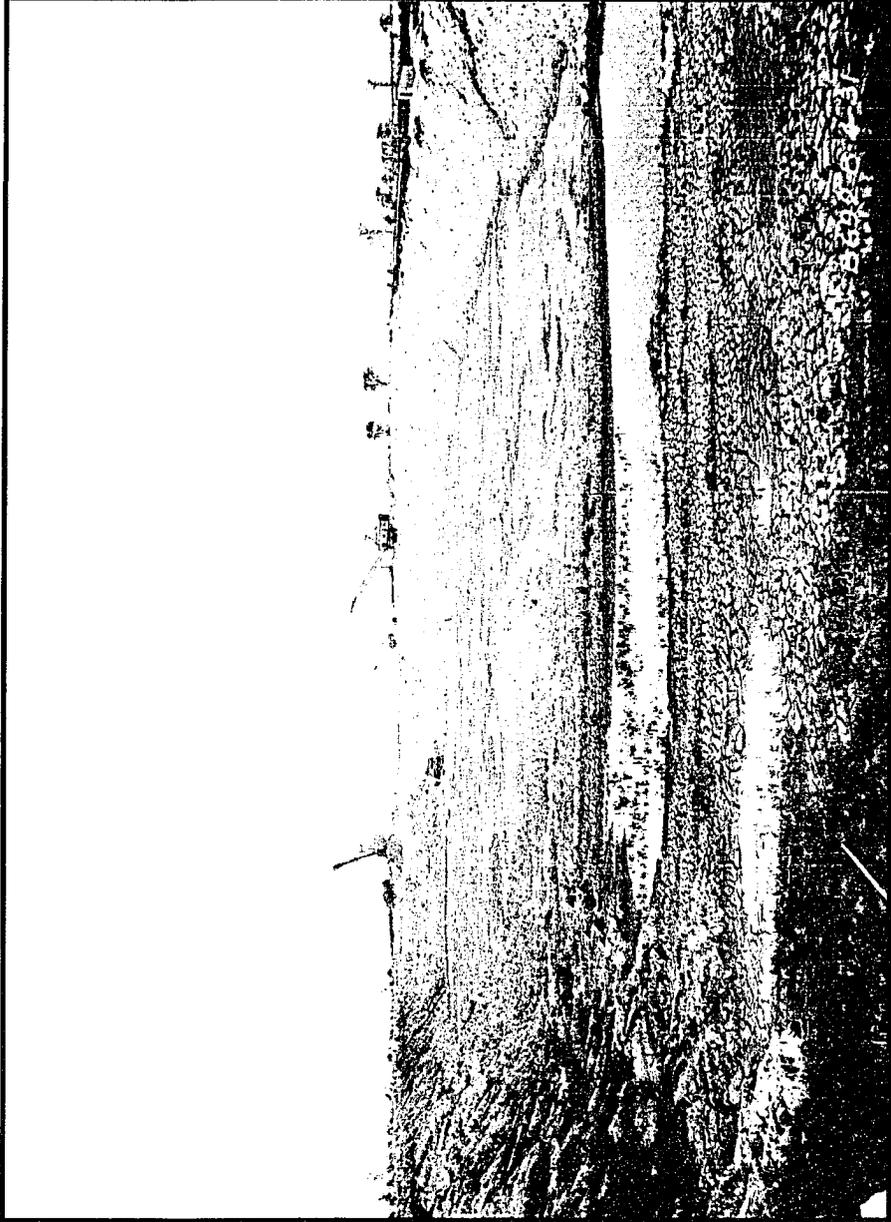
Beuharnois Construction Company. "Construction of piers in deep excavation, lower New-York Central bridge"

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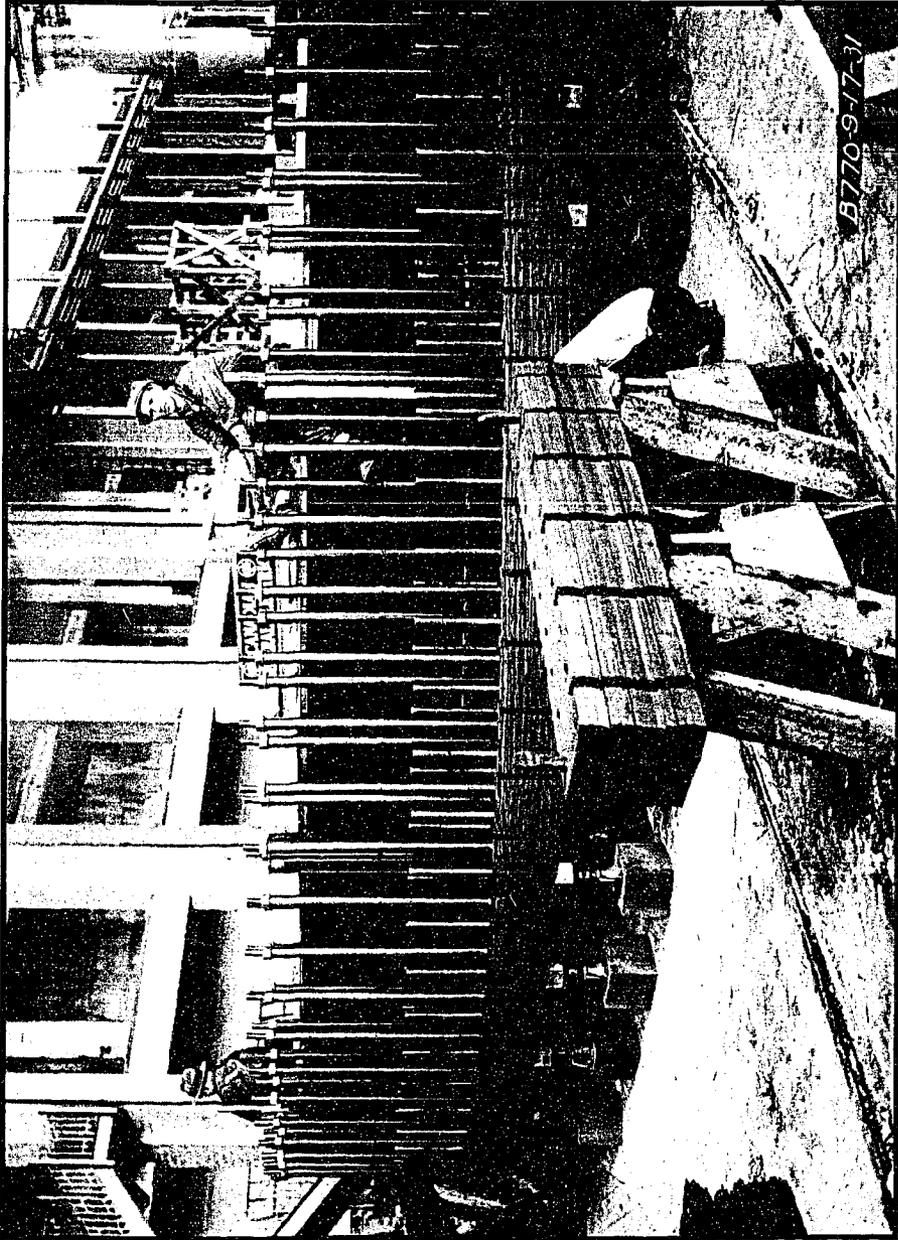
Beauharnois Construction Company. "Asphalt oil wagon for road construction"

F2-700 230 B692-8-4-31



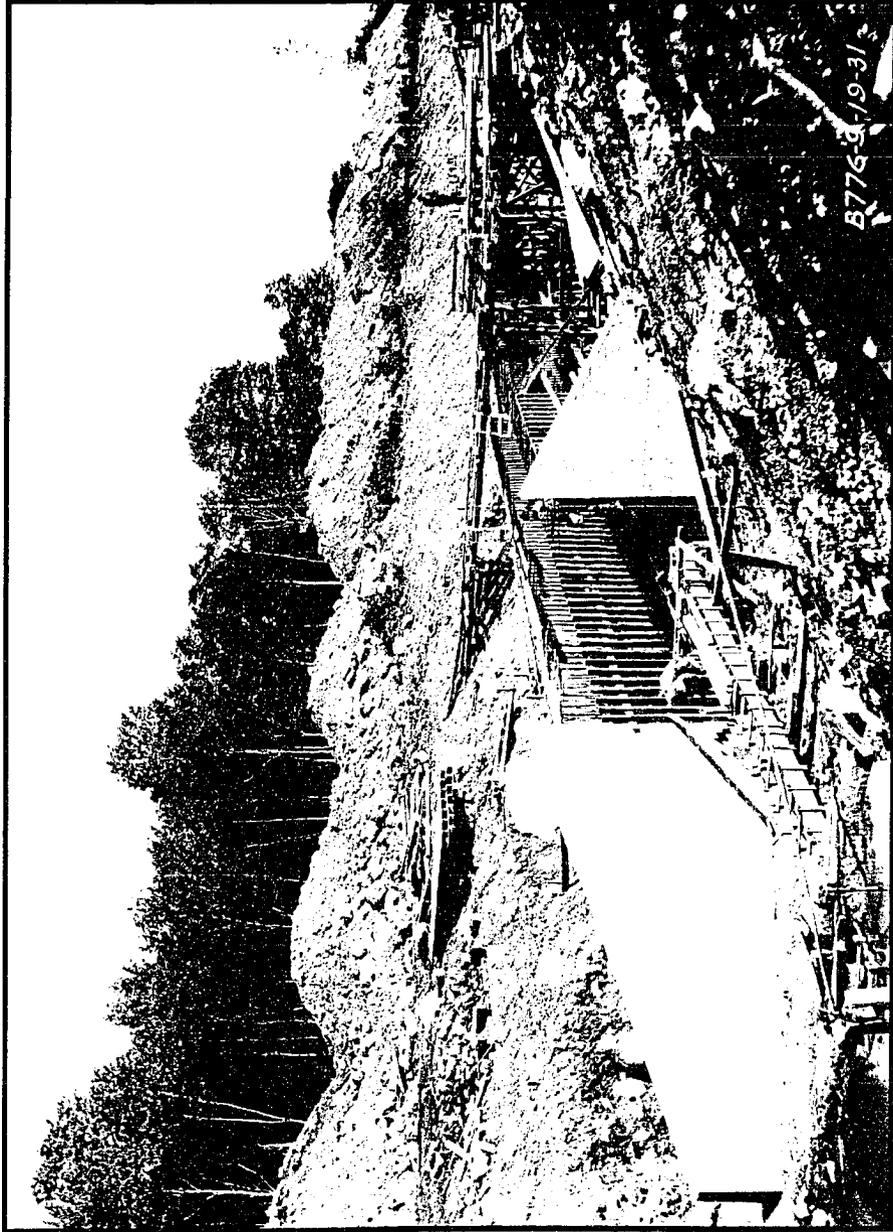
Beauharnois Construction Company. "Progress picture showing excavation in dragline cut"

F2-700 265 B770-9-17-31



Beauharnois Construction Company. "Pressing rotor iron -- 60 cycle main unit"

F2-700 269 B776-9-19-31



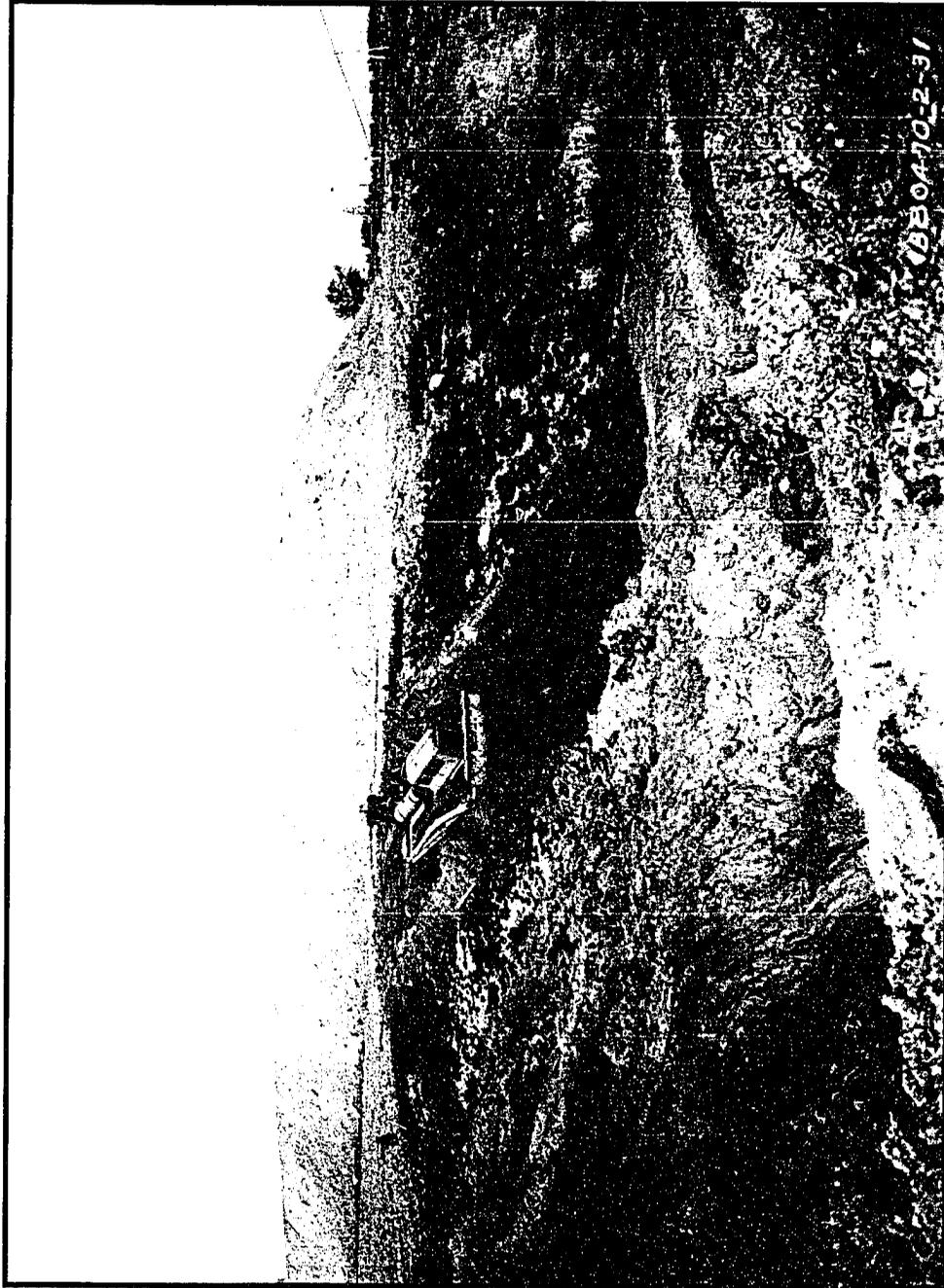
Beauharnois Construction Company. "Construction of culvert over drainage ditch for Canadian National Railway fill"

F2-700 276 B802-10-1-31



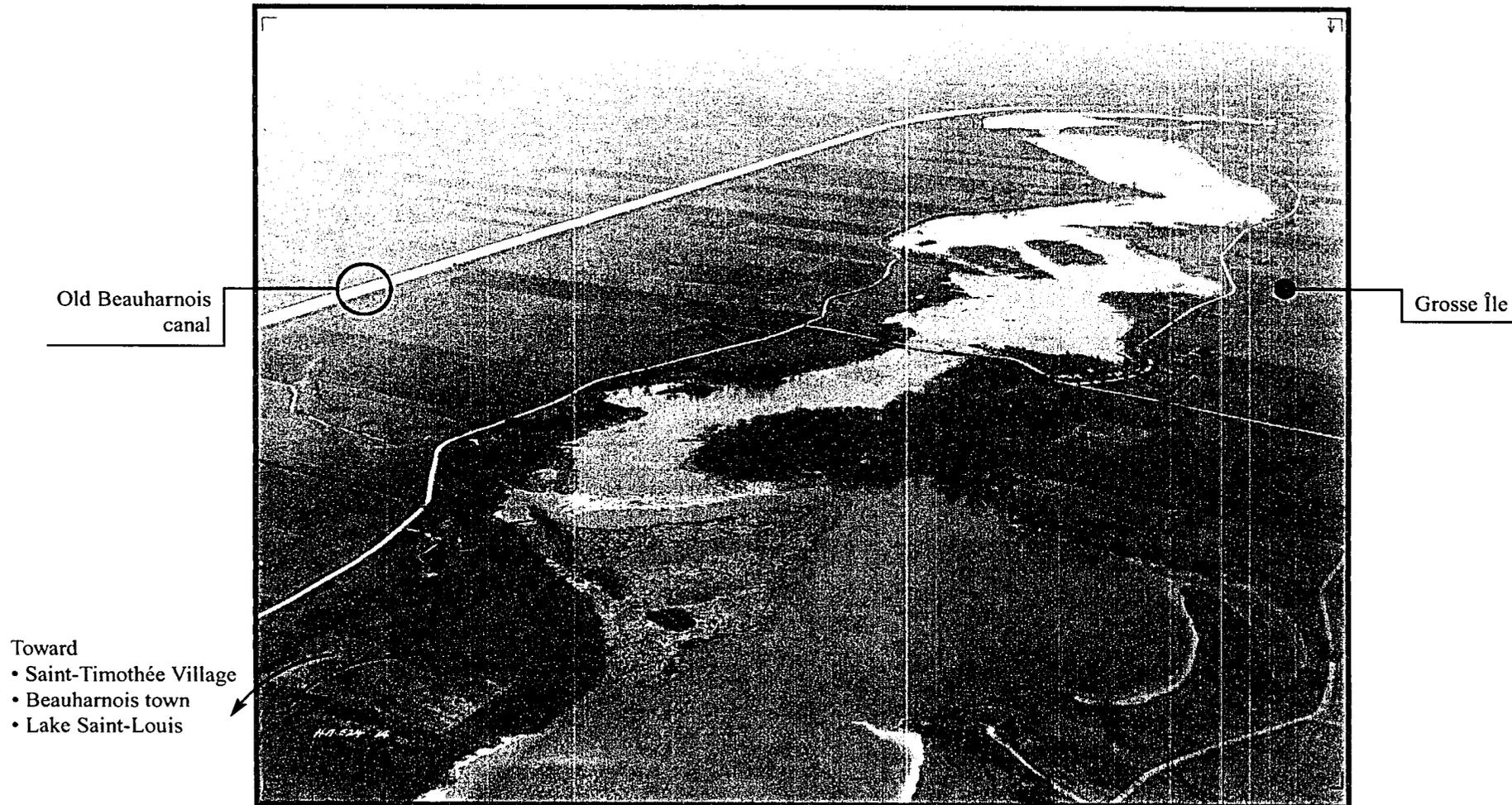
Beauharnois Construction Company. "Progress picture of C. N. R. fill at St-Louis river"

F2-700 277 B804-10-2-31



Beauharnois Construction Company. "Stripping of gully at north dyke near power house"

F2-2174-23 H.A.524.15



Royal Canadian Air Force, circa 1930

F2-2174-23 A1048.40



Grosse île

Old Beauharnois
canal

Royal Canadian Air Force, circa 1930

F2-2174-23 A1048.47



Grosse Île

Old Beauharnois canal

City of Valleyfield

Royal Canadian Air Force, circa 1930

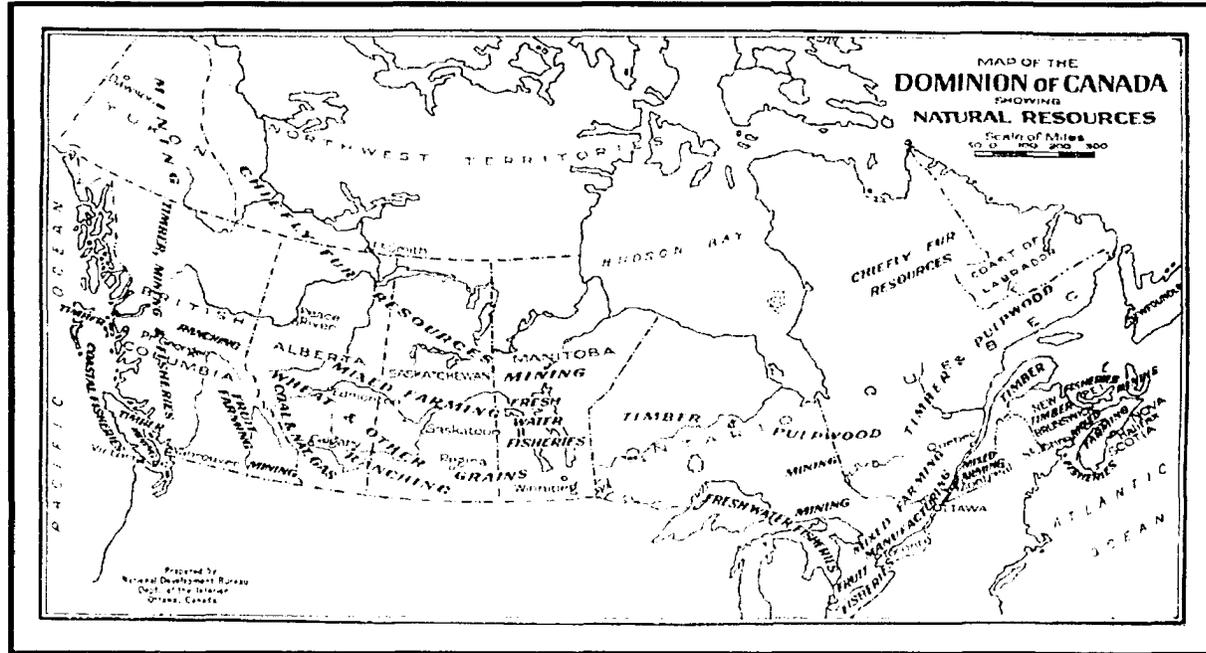


Louis-Raphaël Pelletier, "Full width of the canal seen from the north embankment and looking south-west", November 2002



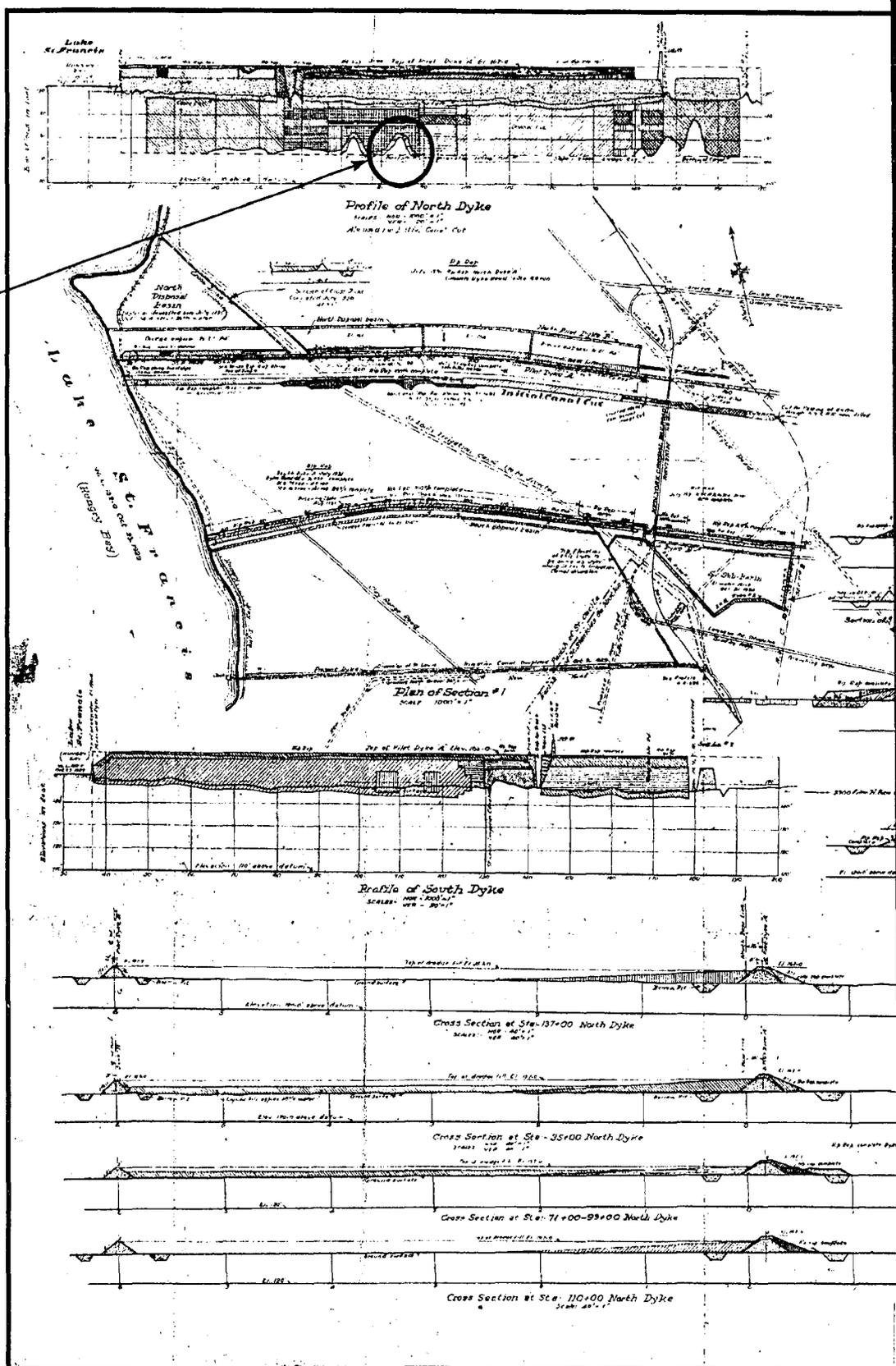
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Map of the Dominion of Canada showing natural resources

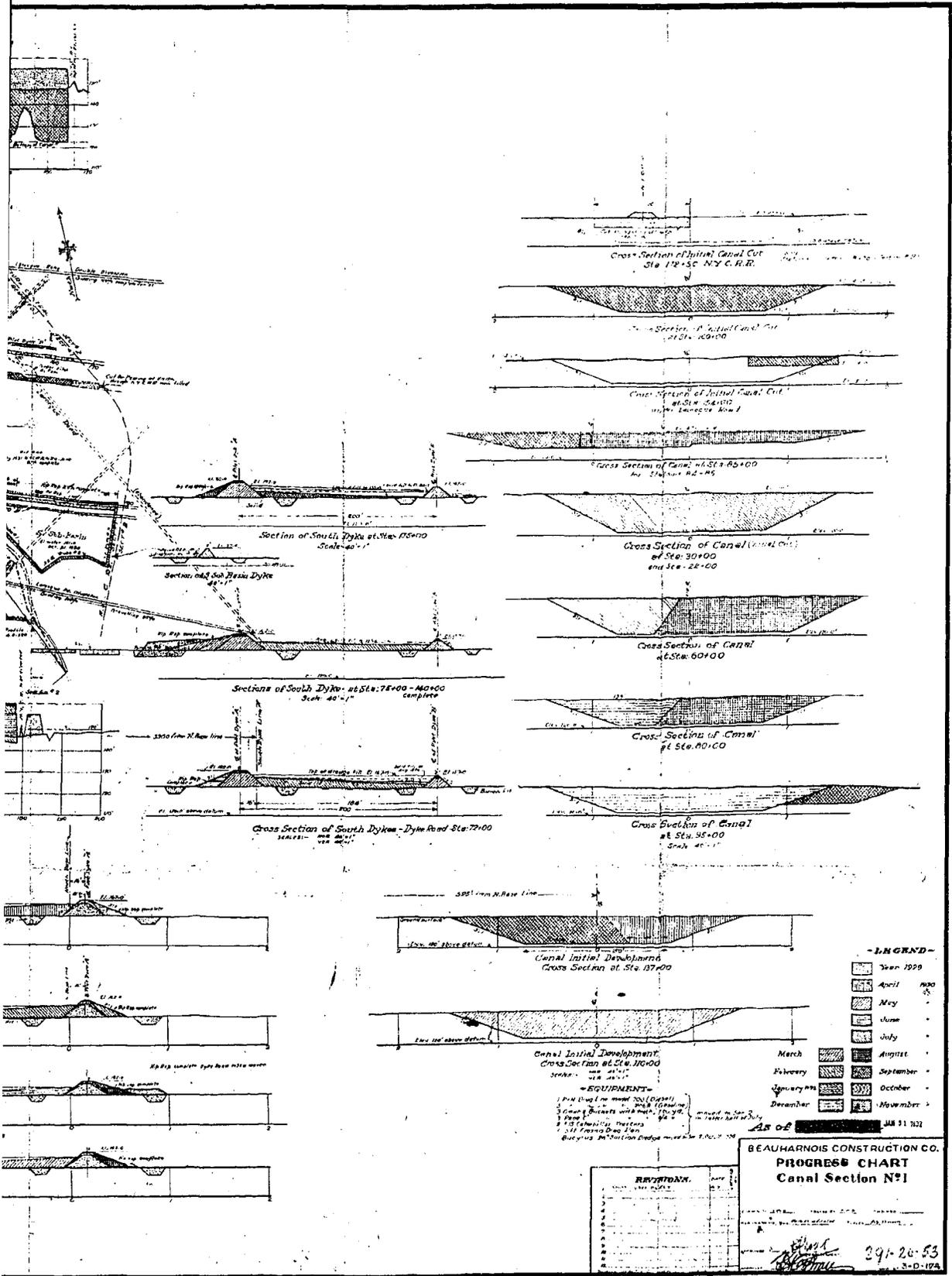


Map taken from: Beauharnois Power Corporation Limited, *Beauharnois. In Ideal Location* (15 September 1930), p. 18. Note that this map was designed by a Canadian federal agency: the National Development Bureau, Department of the Interior

The city of Valleyfield is approximately there



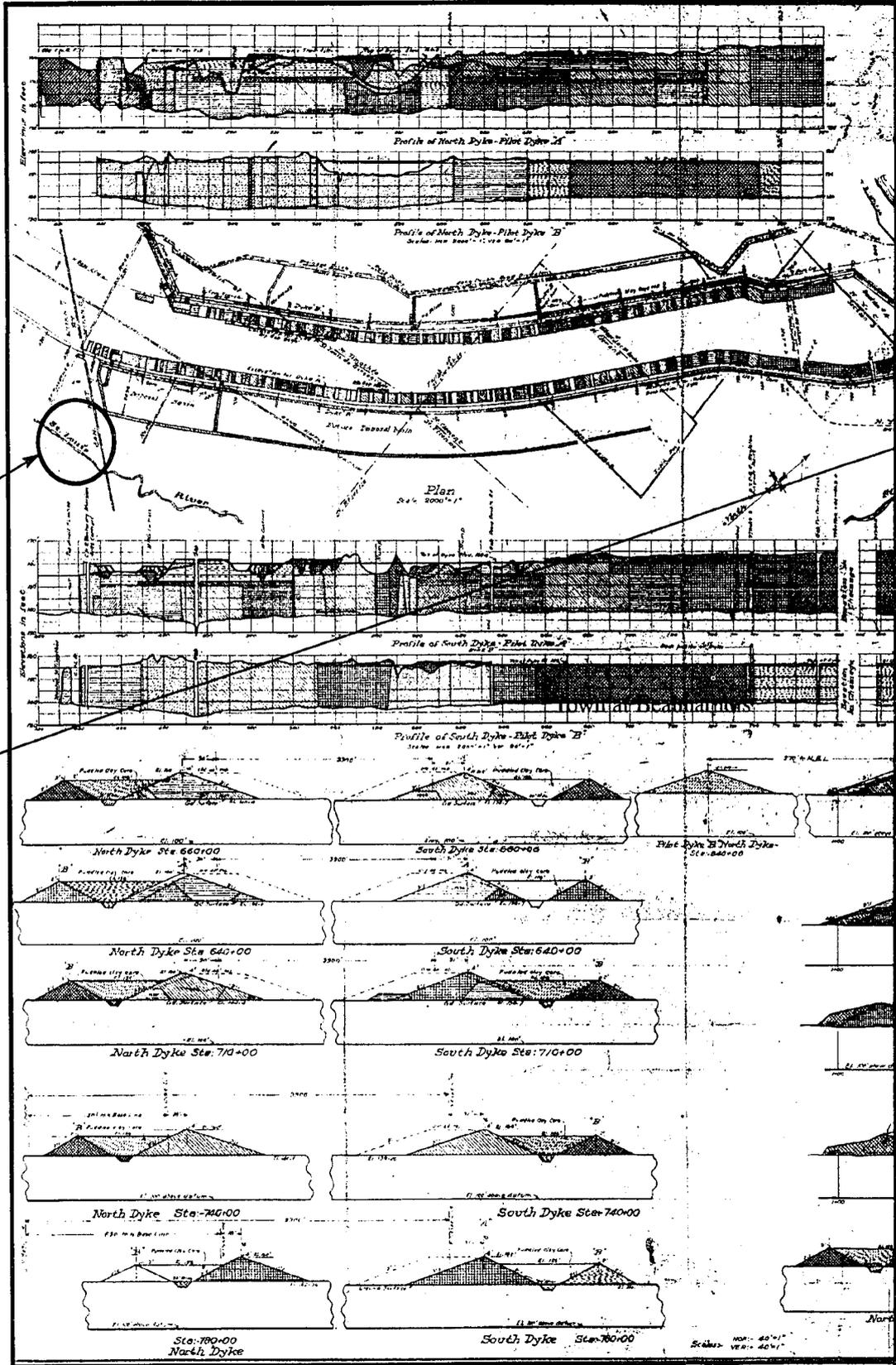
Progress Chart. Canal Section No.1

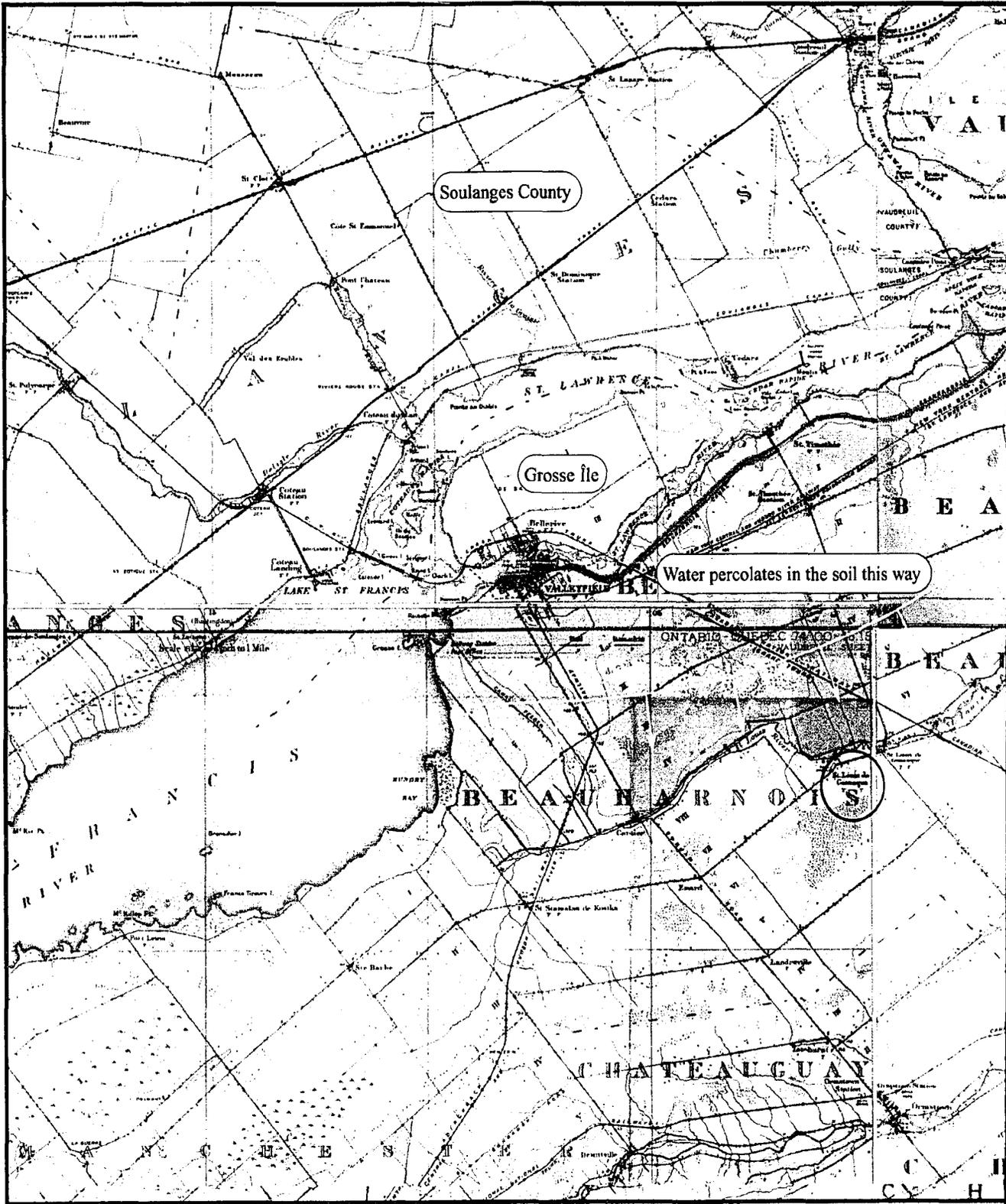


35

Village of
Saint-Louis-
de-Gonzagues

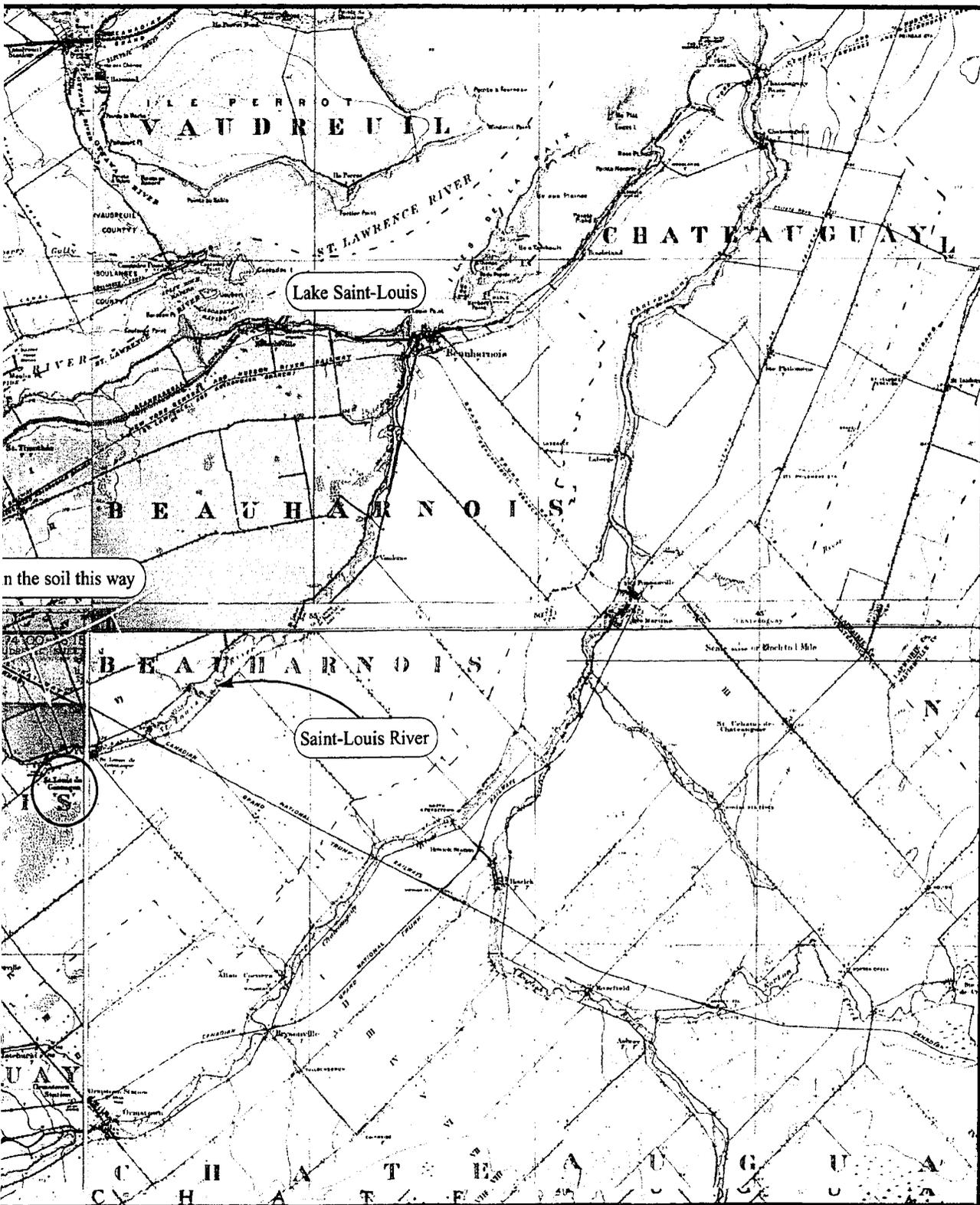
Town of
Beauharnois



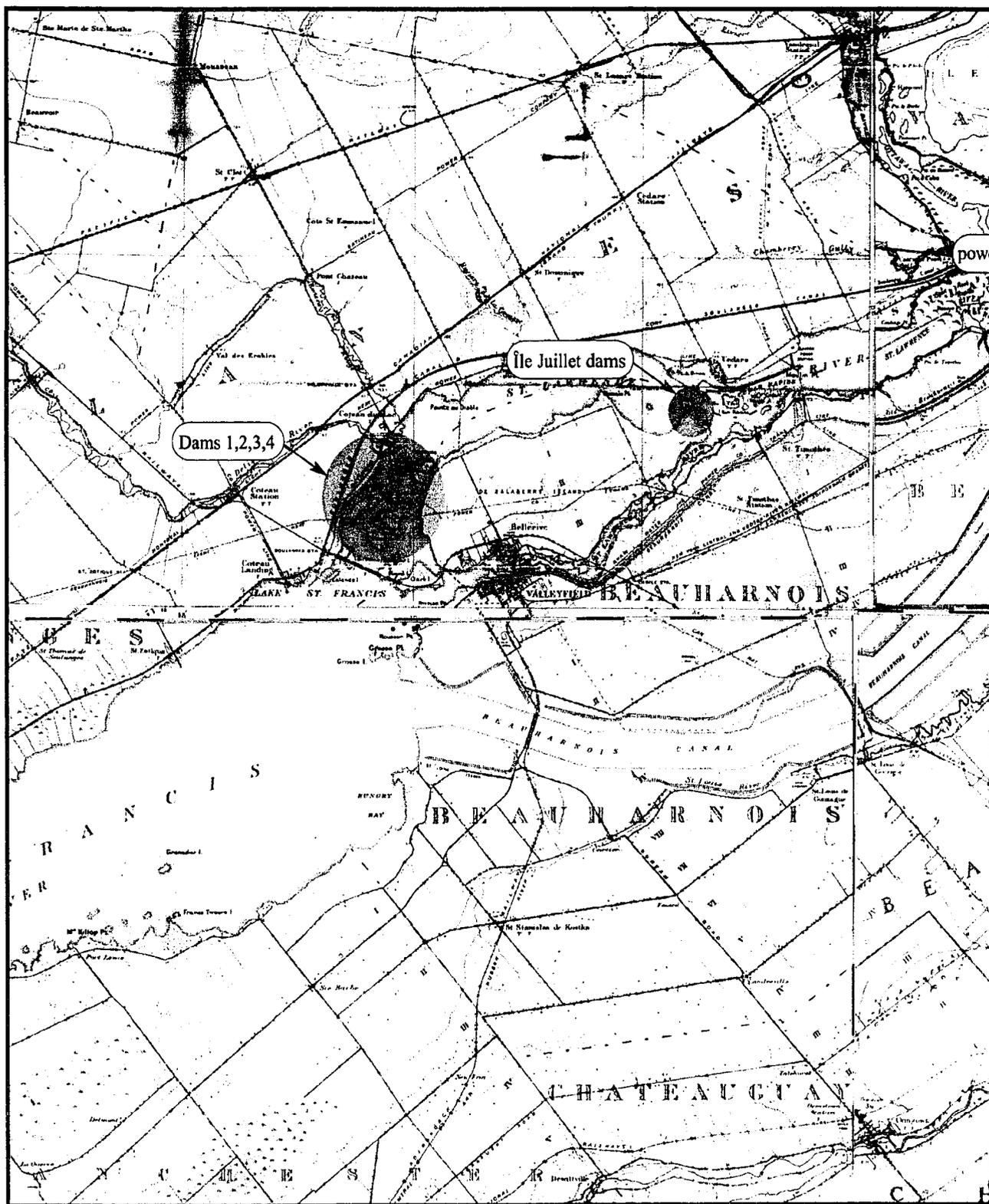


"Map constructed from numerical reproductions of original topographical maps of the Beauharnois region, Oheld Defense, Topographical Map Ontario-Quebec. *Vaudreuil Sheet No 25* (Reprinted with corrections in 1916); 2) De (Reprinted with corrections in 1915); 3) Department of Militia and Defense, *Topographical Map Ontario-Quebec* Defense, *Topographical Map Ontario-Quebec. Chateaugay Sheet*

Figure A: Beauharnois County, Circa 1915-1925"

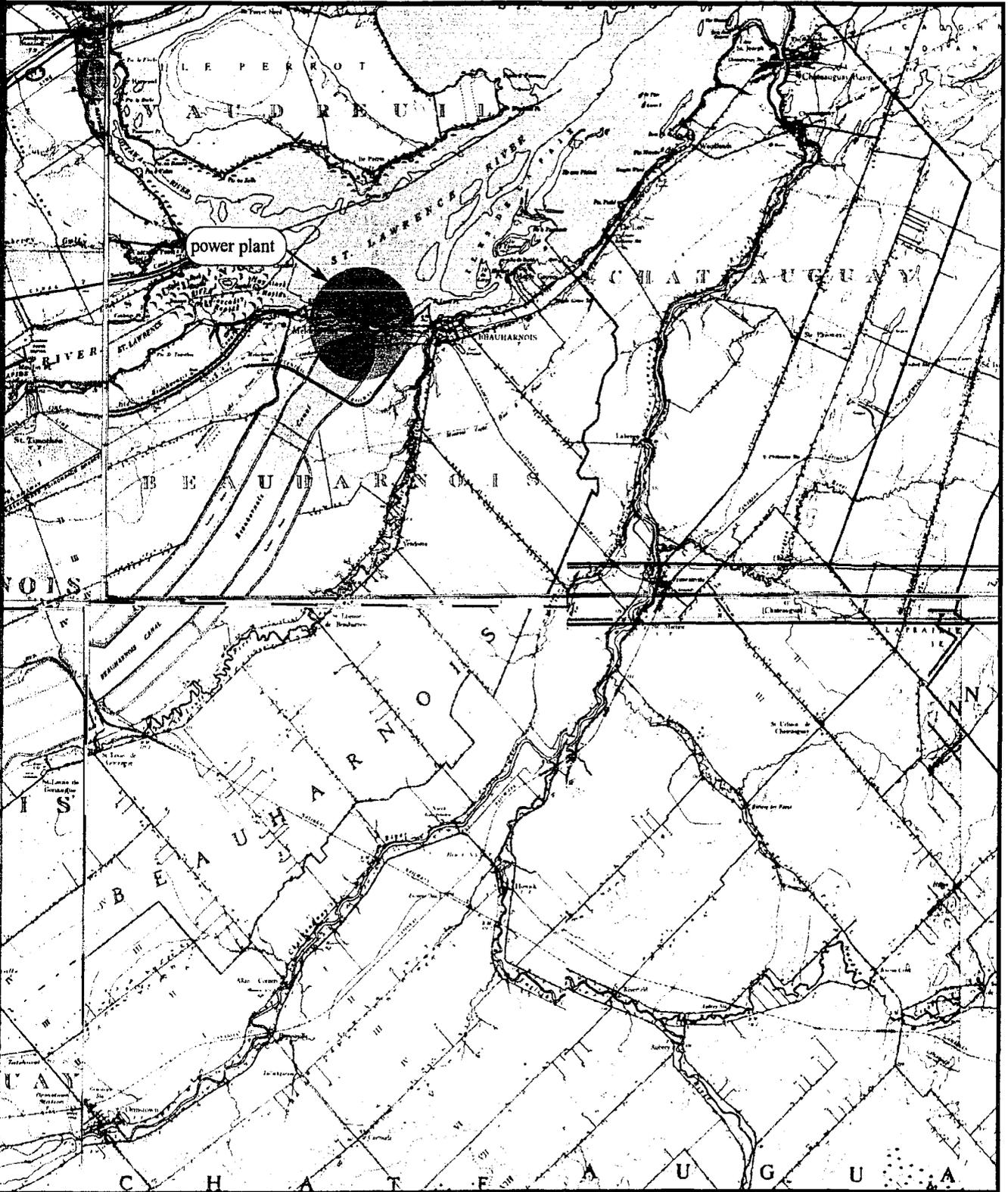


Beauharnois region, Oheld by the Bibliothèque nationale du Québec. The original maps are: 1) Department of Militia and Ordnance (Reprinted with corrections in 1916); 2) Department of Militia and Defense, *Topographical Map Ontario-Quebec. Lachine Sheet No 23* (Reprinted with corrections in 1925); 3) Department of Militia and Defense, *Topographical Map Ontario-Quebec. Huntington Sheet No 21* (Reprinted with corrections in 1925); 4) Department of Militia and Ordnance, *Topographical Map Ontario-Quebec. Chateaugay Sheet No 24* (Reprinted with corrections in 1925).



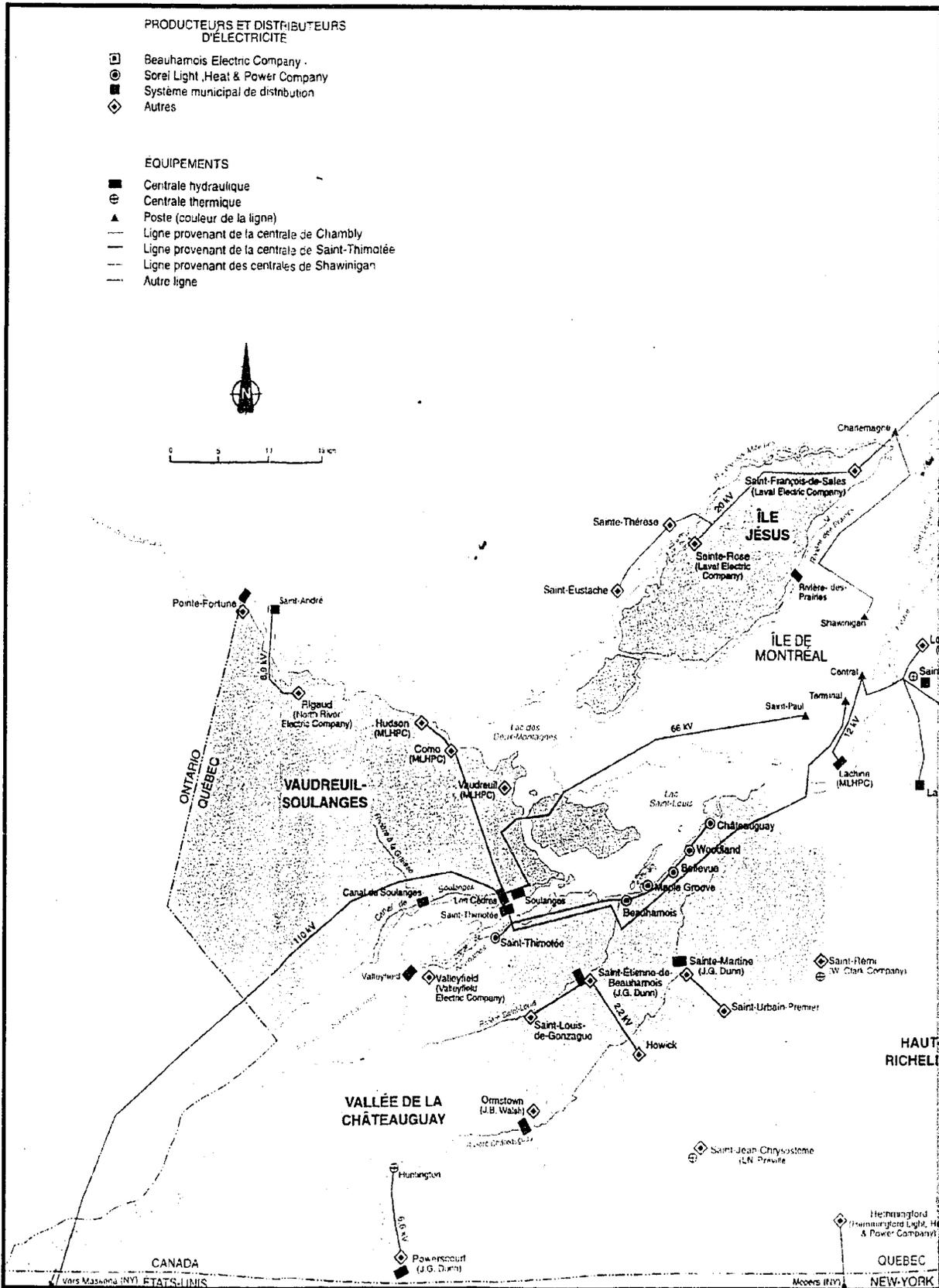
"Map constructed by the author by the assembling of numerical reproductions of original topographical maps maps are: 1) Geographical Section, General Staff, Department of National Defense, *Topographical Map Québec* Section, General Staff, Department of National Defense, *Topographical Map Québec-Ontario. Vaudreuil Sheet.* of National Defense, *Topographical Map Québec-Ontario. Lachine Sheet.* (Printed 1936); 4) Geographical Section, General Staff, Department of National Defense, *Topographical Map Québec-Ontario. Chateaugay Sheet* (Printed

B: Beauharnois County, Circa 1933-1936"



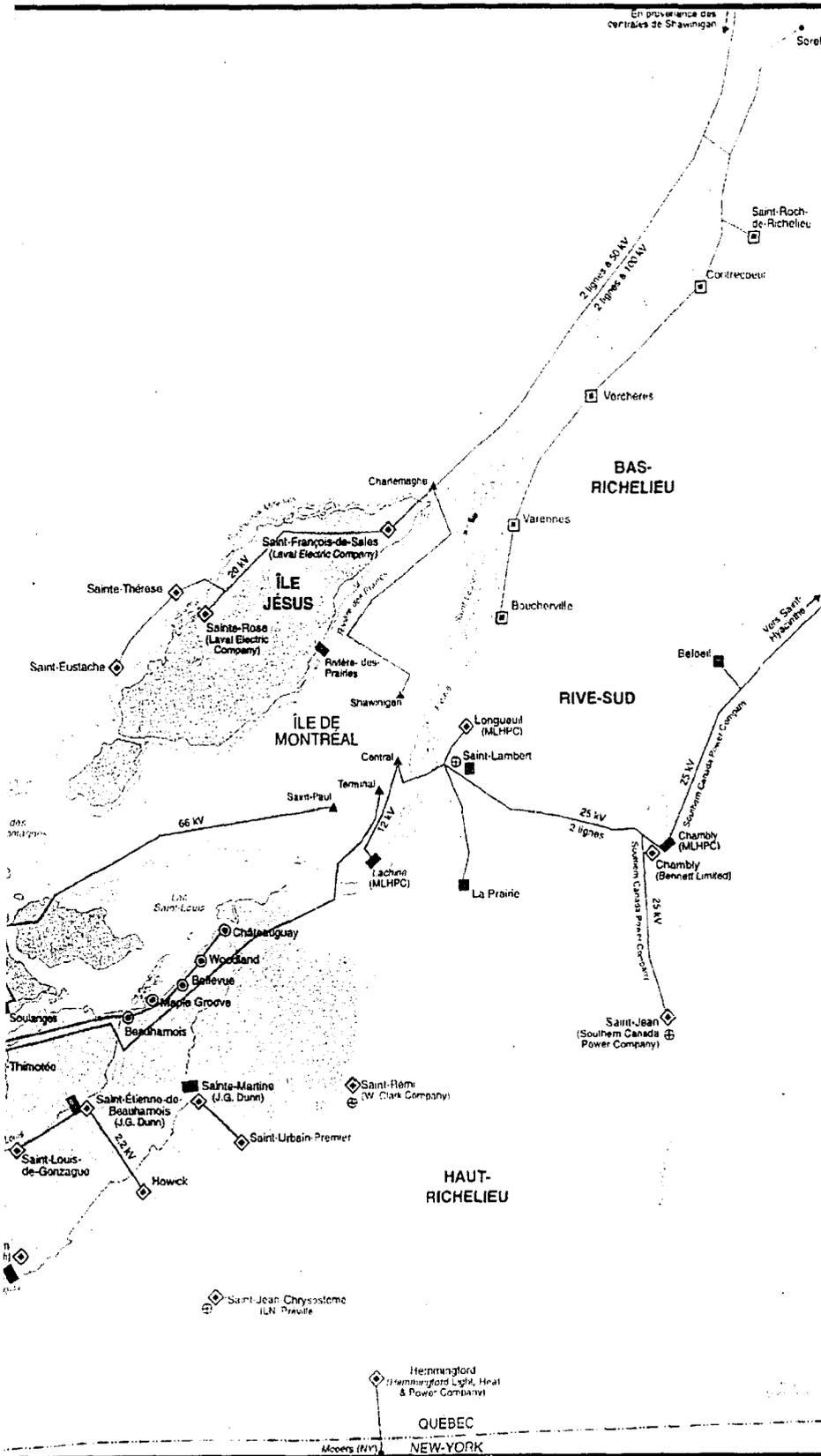
original topographical maps of the Beauharnois region, held by the Bibliothèque nationale du Québec. The original
 1) *Topographical Map Québec-Ontario. Huntington Sheet. Sheet No 31 G/1* (Reprinted 1935); 2) *Geographical Ontario. Vaudreuil Sheet. Sheet No 31 G/8* (Reprinted 1933); 3) *Geographical Section, General Staff, Department of National Defense* (Printed 1936); 4) *Geographical Section, General Staff, Department of National Defense, Topographical Map Québec-Ontario. Chataugay Sheet* (Printed 1935).

"Électrification de la région Montréalaise vers 1920"



Jean-François Larose *L'électrification de la région Montréalaise - Synthèse*
 vice-présidence Environnement - Service Activité d'exploitation, région Maisonneuve - serv

ion de la région Montréalaise vers 1920"



39

trification de la région Montréalaise - Synthèse historique
ctivité d'exploitation, région Maisonneuve - service appareillage, mai 1991

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