

'Rich by Nature, Poor by Policy': The premature birth and quick death of commercial brewing in Canada, 1667-1675

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Introduction

In March 1667, the energetic Intendant of the colony of New France, Jean Talon, wrote to his superiors in Paris, France. As Intendant of New France, Talon was in control of the colony's entire civil administration and charged with stimulating the economic development of the beleaguered colony. To that end, he proposed building the colony's first commercial brewery. 'The conditions here are ideal,' Jean Talon optimistically wrote, 'for the production of the weaker drink.' By the 'weaker drink,' Talon meant beer. And under his mercantilist watch, commercial brewing was induced into existence.

Every advantage was given to this first child of Canadian commercial brewing. Fully state-owned and controlled, the *Brasserie du Roy* operated in a protected environment devoid of competition and with unlimited access to raw materials, capital and markets. Yet in less than a decade commercial brewing came, and then just as quickly vanished from the

Canadian landscape. The question that this article seeks to explore is: why?

There is an enduring debate in Canadian historiography over the effects of State activism in the economic life of the nation. For many, state intervention has been beneficial to development. Some have even gone so far as to argue that State activism defines the spirit of Canadian capitalism and ultimately has shaped the Canadian identity.¹ '[W]e have experimented in another method of providing public services,' the historian Frank Underhill stated in 1929, 'than that of trusting to the private capitalist in search of profit'.² A similar sentiment was echoed approximately fifty years later. 'The Canadian dialectic never allowed for the dynamic of free enterprise culture,' the public thinker Herschel Hardin trumpeted, 'to take hold at the centre of the country's life'.³ Without the state's activist impulse, the nation's canals, railroads and airlines would not have come into existence; the Canadian West would not have been settled; manufacturing would not have emerged as early as it did; and certain industries would not have existed at all. Instead, Canada would have remained an eco-

* This article has undergone peer review.

conomic hinterland on the periphery of the Empire; a nation exploited, dependent and underdeveloped. Indeed, according to the most nationalistic of this school of thought, Canada might not exist today as a sovereign transcontinental geo-political entity if it wasn't for state activism many decades ago.⁴

While this perspective is contentious, few deny the claim that government has played a more active role in shaping the economy in Canada than it has elsewhere, specifically in the United States. Fewer still dispute the fact that Canada is a nation 'rich by nature.' On a per capita basis, Canada has more natural resource wealth than almost any other nation on the face of the globe. What is debated, however, is the *effect* of government intervention on the economic life of the nation. Opinion vociferously differs as to the consequence of the economic acts of past Canadian governments; since the Second World War Canada's public policy has yawed from *dirigisme* to neo-conservatism on the issue of the state's place in the economy.

What follows enters into this ongoing debate by looking at the state's role in the birth of commercial brewing in Canada during the *Ancien Regime*. The paper argues that Jean Talon's rigid adherence to the monopolistic dictates of mercantilism produced a stillborn child, one insensitive to local tastes and lacking any intuition of the working of a diversified, *sui generis* economy.

'Rich By Nature': A land of barley, hops and fresh water

With perfect prose and penmanship, Jean Baptiste Colbert, the French Minister of Marine and the foremost mercantilist of his era, responded to Talon's letter of April 1667.

I share in your confidence that all the necessary ingredients for making that drink are to be found abundantly in the area and that soon the colonists will find their commodity to be beer...⁵

Colbert's statement demonstrated the emerging faith in Canada as a territory which was 'rich by nature'.

While it was the quest for an elusive North-West passage to the Orient that first brought European adventurers to Canada's shores in the 16th century, it was the abundance of natural resources that kept them coming back. When the French explorer Samuel de Champlain entered the mouth of the St. Lawrence in 1603, he was initially optimistic that he had found a route to the Far East. But the rapids at Lachine quickly dashed his hopes. Awestruck by the natural beauty of the area and the potential fortune to be made from the exploitation of natural resources, he returned in 1608 to found Quebec City. Over the next 150 years, the French battled it out with their European rivals for control of the vast natural wealth of North America.

At the same time, the English were making their presence felt on the continent.

Without the access to New World gold of many of their European competitors, they exploited the natural wealth of North America and traded their way to riches. From the northern half of the continent, they extracted fish, furs, timber, and wheat.

Looking back on this formative period, historians have generally emphasized the role played by natural resources in the early development of Canada. The giant of the second generation of professional economists in Canada, Harold Adam Innis (1894-1952), formulated a 'staple thesis' to explain Canadian growth and economic integration. The pattern and pace of early Canadian development, Innis and his many disciples maintained, was determined by the pursuit of primary products - fish, fur, timber and wheat - and their export to foreign markets.⁶ According to Innis, growth and development was best explained by the dynamics of the staple trades. Even those historians who have recently become skeptical of the universality of Innis's conclusions do not deny the basic fact that Canada has been 'rich by nature'.⁷ The more perplexing question is whether public policy has made the nation poorer than nature had intended.

Certainly at the time of Talon's letter in 1667 there was good reason to believe that the region had the natural gifts necessary to produce beer. Four key natural ingredients were needed to manufacture the product: water, barley, hops and yeast.

The single biggest ingredient in beer is water, it comprises more than 90% of the brew. Canada has an abundance of fresh water. Indeed, the expansive northern nation is near the top of water-rich countries, trailing only Brazil, Russia and China. Estimates of Canada's supply of fresh water vary from 5.5% to 20% of the world's total.⁸

Thus, Canada has a great deal of water and it has facilitated the economic development of the nation. The arrangement of streams and rivers flowing into Hudson Bay and into the Mackenzie and St. Lawrence Rivers, for instance, permitted canoes to travel west and north across the length and breadth of the land that became Canada. 'It is no mere accident,' Innis stated, 'that the present Dominion coincides roughly with the fur-trading areas of northern North America'.⁹ A few years after Innis's pronouncement, the eminent Canadian historian Donald Creighton echoed the sentiment. Speaking specifically of the river system that flowed below Talon's proposed brewery at Quebec City, Creighton stated that the St. Lawrence 'was a force in history, not merely because of its accomplishments, but because of its shining, ever-receding possibilities'.¹⁰

Some of these same waters would go into making the first beers of the nation. Later, other brewers would find their wellspring for success in the numerous aquifers of the region (i.e. the underground formations of permeable rock or loose material which can produce useful

quantities of water when tapped by a well). Thus Canada was blessed when it came to the first essential ingredient in beer. But the blessings did not end there. When Talon sent his scouts out to scour the colony for the key components necessary for making the 'weaker drink', he emphasized the need to have good grain. Grain was to beer what grapes were to wine. Without grain, the production of beer was impossible. Yeast fermented the sugars from grain to create alcohol. Thus if Talon was to brew beer, he had to have grain.

The most popular grain used in beer production was and is barley. Barley is a basic cereal grain that is not particularly good for milling into flour for making bread or bakery goods. But it is perfectly suited for making beer. As the food and beverage authority P.R. Ashurst attests, the best barley grows in the northern hemisphere between latitudes of 45° and 55°. ¹¹ Situated at 46.8° latitude, Quebec City is perfectly placed to produce a barley crop. The fact was not lost on Talon, who wrote at length about New France's agricultural potential and the possibilities of cultivating diverse crops such as barley and hops.

Hops were the last ingredient necessary for the production of beer. By the 16th century they were commonly used as a flavouring and stabilizing agent in brewing. One major change in the history of beer and brewing, which has been recently and richly detailed by Richard W. Unger in *Beer in the Middle Ages*

and the Renaissance is that of beer replacing ale, by which the former was reinforced, made more durable, and given a deeper flavour by the introduction of hops. This transition, while having roots dating back to Carolingian Europe, took place during the 14th century. ¹² Previously, the vast majority of brewers had made use of a variety of bitter herbs and flowers (e.g. dandelion, heather, marigold and burdock root) to offset the sweet taste of the fermented grains. But hops proved superior to these other additives because of their preservative powers. Hops contained resins that helped prevent contamination of the beer by bacteria and thus helped beer last longer and travel better. Not all exported beer was necessarily made with hops, but hopped beer was more likely to survive transportation over any distance. ¹³

Like barley, the hop plant grew best under specific climatic and soil conditions - all of which prevailed in New France. A minimum of 120 frost-free days was needed for the flowering of the hop plant. Direct sunlight and long day length (15 hours or more) were also necessary. Thus hop cultivation was limited to those geographical areas, like New France, which were situated between 35° and 55° latitude. Shortly after making the decision to build a brewery, Talon planted 6,000 poles of hops on his *seigneurie*, which he stated, manifesting his European mindset, 'produce as much fruit as well and as good as that of hops in Flanders'. ¹⁴

Thus, when it came to the natural ingredients necessary for producing the 'weaker drink', they could all be found within the confines of the colony. Canada was indeed a land wealthy by nature. What was now needed was some reason, be it practical, moral and/or economic, to transform Mother Nature's gifts into beer.

Brewing before Talon

In a corner of the world not naturally given to producing wine or brandy, beer was made not for want, but out of necessity. In colonial times milk and even water were full of dangerous microorganisms that often caused people to get seriously ill. But beer was relatively free of such dangers. Its unique combination of high acidity, hops and alcohol was a brew in which harmful bacteria rarely survived.

The first brewers in New France were domestic; they were people like, Canada's first pioneer, Louis Hébert who had come to New France to plant and harvest the land. Hébert arrived in the colony in 1617 and immediately planted wheat for bread and barley for beer. Born and bred a Parisian, Hébert would have preferred to have made wine, but the climatic and soil conditions in New France were such that it made vinification practically impossible.¹⁵ Like many of his fellow settlers, Hébert and his wife brewed beer in their kitchen, usually in the same pot or kettle that they used for preparing the family's meals. Beer required few ingredients and only basic equipment: a

few handfuls of grain, some water, and a pot or a kettle were enough to get the process started. While skimmers and tubs were ubiquitous utensils in the first half of the 17th century, no household with surviving estate records possessed the more sophisticated mash vats or coolers, which were standard pieces of equipment in the brew houses of Europe. Often colonists like Hébert added a combination of their favorite ingredients to their beer; things like molasses, dandelions, ginger, maple syrup, spruce boughs, checkerberries, sassafras roots, and hops.¹⁶ There are very few written records on these domestic brewers, but we know that the colonial authorities tried, especially in the 17th century, to encourage production of domestic beer in New France.¹⁷

Three years after Louis Hébert landed in New France, the Récolletes founded a convent on a parcel of land near the Saint-Charles River in Quebec. As the first superior of the Canadian Récollet mission, Denis Jamet was responsible for provisioning those under his watch. With wine being scarce and expensive to import, Jamet turned to brewing. In 1620 he optimistically wrote that

in a couple of years, we shall be able to feed twelve persons without begging anything whatsoever from France, because we shall raise enough grain for making bread and beer.¹⁸

But the project did not come to fruition as soon as had been expected. Indeed the

brewery was still not complete in 1634 when Father Le Jeune announced to the Provincial Superior of his Jesuit order that he intended to build a brewery in order to supply his community with a healthy beverage.

Since their arrival in New France, the Jesuit Fathers had been deprived of a daily ration of wine, to which they had been accustomed in France. Without wine, they also turned to beer. 'As for drinks, we shall have to make some beer; but we shall wait until ... a brewery is erected'.¹⁹ It was a long wait. The brewery, which was built at Sillery, near Quebec, was not completed until March of 1647. Like all of the breweries of the early seventeenth century it was a small operation, in this case involving a single brewer. *Le Journal des Jesuites* recorded that 'Our Brother Ambroise had made it [i.e. brewing] his occupation from the first to the twentieth day of that month.' Father Ambroise's brew was exclusively for the wine-deprived Fathers.

Thus in New France, the art of brewing was practiced in the homes and religious houses of the colony. Small-scale and localized, brewing emerged for practical rather than commercial purposes. This was not the case elsewhere in North America where English, Dutch and German settlers brought with them a strong tradition of beer drinking and beer making. Outside of New France, beer was brewed for want as much as necessity. As the New World promoter William Wood stated in 1630, the water in New

England was some of the best on earth, 'yet I dare not prefer it before a good Beere.'²⁰ This appetite for beer gave birth to a nascent brewing industry the likes of which did not exist in New France.²¹ During the *Ancien Regime* imported brandy and wine filled the mugs of most French Canadians. Only when Talon built the *Brasserie du Roy* did commercial brewing begin in Canada. Talon was motivated to induce the birth of the industry for both moral and economic reasons.

The economic imperative to brew the 'Weaker Drink'

On the 117 day voyage from France to the New World, Jean Talon spent much of his time in his cabin tirelessly poring over maps and official documents, all the while making copious notations. As the newly appointed Intendant of the floundering colony of New France, he had his work cut out for him.

On the periphery of France's commercial empire, New France had been plagued with difficulties for decades. Many of the problems stemmed from the fact that the care for the development of the colony had devolved upon chartered trading companies. These fur trading concession holders had been saddled with the obligation to settle, administer and protect New France and they naturally dispensed with these costly duties when they could or made only a token effort to comply with these charter obligations. As a result, the development of the colony progressed

very slowly. To make matters worse, for a quarter of a century, the French-Iroquois war bedeviled the neglected colony, throwing the fur trade - the principal economic activity of New France - into disarray. The population was small - numbering only 3,215 inhabitants in 1665 - and spread out across three settled districts: Quebec, Trois Rivières, and Ville-Marie (i.e. Montreal). Quebec, the chief town, bore the proud title of the capital of New France. Yet it contained barely 70 houses, with about 550 inhabitants. The finances of the colony were in a precarious state, due in large part to an unfavorable balance of trade. New France therefore needed saving.

After the death of his chief minister Cardinal Jules Mazarin in 1661, the King of France, Louis XIV, took the reins of his administration into his own hands. Behind the pomp and ceremony of his court, the *Ancien Régime* was slowly decaying. France's finances, like those of New France, were in tatters and the army, losing ground to the English in North America, was in disarray.

In an attempt to turn things around, Louis XIV appointed Jean Baptiste Colbert to administer France's overseas possessions and set the empire on a sound financial footing. For more than twenty years (1661-1683) Colbert acted as Louis XIV's principal minister. His influence was such that the French coined the term *colbertisme*. At its core, *colbertisme* was a manifesto for an activist, protectionist and interventionist state in the economy.

During his long tenure as Louis XIV's chief lieutenant, Colbert strove to build up France's economic power so as to strengthen the state and to use the state to promote France's economic self-sufficiency and enrich the nation. As the embodiment of the French state, Colbert intervened in virtually every economic activity.²² He issued numerous orders and decrees with respect to the technical characteristics of manufactured items and the conduct of merchants. He fostered the multiplication of guilds with the avowed intention of improving quality controls, even though the real objective was to obtain more revenue for the Crown. He subsidized *manufactures royales*, both to supply their royal masters with luxury goods and to establish new industries. Finally, in an attempt to secure a 'favourable' balance of trade, he created a system of prohibitions and protective tariffs.²³ Very few of these mercantilist measures worked and as a result, when Louis XIV died in 1715, France hovered on the brink of bankruptcy. Nevertheless, before his death in 1683, Colbert never lost faith in the interventionist state. In a mercantilist age, Colbert was the supreme mercantilist.²⁴

What Colbert was to France, Talon was to New France. During his years as Intendant of the colony, he used the full power of his office to foster the development of the colony. Within the system of French mercantilism, the colonies were meant to play a subordinate economic role to the kingdom in Europe, which was

to be made as self-sufficient as possible and less reliant on foreign suppliers of goods. By French standards, Canada was not as valuable as the colonies in the French West Indies because it produced little, apart from furs and salt cod, which could not be obtained at home. Talon sought to rectify this imbalance and often spoke of New France becoming 'an asset to old France'. To ensure that the French colonies continued to be a good market for French manufactures, only the production of essential goods (e.g. housing, food, and certain beverages like beer) was consistently tolerated in the colony. The colonies were to supply cheap raw materials to the manufactories and the consumers of France. One of the more distinctive features of Colbert's form of French mercantilism was that it was relatively relaxed in that it allowed for some secondary manufacturing in Canada, especially if it aided agriculture.

Talon's intendency thus saw a whirlwind of activity, as the king's money seeded his pet projects. Talon usually had a direct interest in the projects, functioning as a combined Intendant-entrepreneur. After two years of work he reported enthusiastically to Colbert that New France was on the path to prosperity and that he would double his efforts to diversify and stimulate the growth of the economy.

With this economic objective in mind, Talon turned his attention to building the colony's first commercial brewery. Talon maintained that the state's investment in

a brewery was economically justified on three grounds.

First, a brewery would diversify the economy. Of the 5.4 million *livres* worth of possible annual resources enumerated by Samuel de Champlain in 1618 - e.g. fish, mines, wood, hemp, cloth and fur - only fur yielded an appreciable return. But the fur trade was often disrupted by war, specifically between the French and the Iroquois. The years after 1650 had been particularly difficult. With the destruction of the Huron by the Iroquois in 1648-50, the fur trade fell into disarray and the economy of New France went into a tailspin. Year after year the wretched colony maintained its struggle for existence amidst deadly perils, receiving almost no help from France, and as a result seemed destined to destruction.²⁵ Talon was worried about having the fortunes of the colony tied so tightly to one or two staple-based industries. A brewery would help diversify the colonial economy.

Secondly, a brewery would improve the colony's balance of trade, according to Talon, by fostering the growth of exports in a value-added product (i.e. beer) and limiting imports of more expensive drinks like wine and brandy. These two popular alcoholic beverages were costly commodities. During the period under review, an imported barrel of wine could cost anywhere between 60 and 75 *livres*, while a barrel of imported brandy could cost from 88 to 100 *livres*. In 1667, Talon calculated that importing brandy and

wine was costing his colonial government 100,000 *livres* a year.²⁶ This was playing havoc with the colonial government's attempts to balance the books and the merchants' ability to engage in trade. The scarcity of good silver and gold coins in New France was a real and persistent problem for those engaged in commerce, be it the state or the colonial merchant. Hard currency was so scarce during Talon's intendency that wheat, beaver pelts and moose skins each attained the status of legal tender.²⁷ The same scarcity of gold and silver led Talon's successor, Intendant Jacques de Meulles (1682-86), to issue card money.²⁸ Within this context, Talon viewed beer as more than just a temperance drink. By substituting locally produced beer for French-made brandy and wine, the state could reduce the expenditures on imported goods and help keep hard currency in the colony. As Talon stated: 'the colonists will find their commodity to be beer, instead of brandy, which is expensive'.²⁹ Furthermore, if the brewery was built on such a scale as to produce more beer than could be domestically consumed, then the surplus could be shipped to foreign markets, specifically the French West Indies, thus helping the colonial government overcome its balance of trade deficit.

And finally, a brewery would act as an outlet for the agricultural surplus of the colony's farmers. Prior to Talon's arrival, farms were dispersed, small, and dangerous places to live. Due to the feudal nature and social function of the farm in

New France, rarely was a surplus generated. The 'French-Iroquois War' further stunted the growth of the farms. Farmers could not hope to farm more than what was absolutely needed when their lives were at risk.³⁰ Having crushed the Iroquois with a massive troop surge, Talon began thinking of additional ways to stimulate the growth of agriculture. If a brewery were constructed, Talon maintained, then local farmers would have a domestic market for their products.

It will stimulate the habitants to work on farming the earth, [Talon confidently stated,] because they will be assured that the excess grain will be used for making this drink.³¹

Talon estimated that a brewery would need about 36,000 bushels (12,000 minots) of grain per year. In this sense the construction of a commercial brewery would stimulate the development of the domestic agricultural sector.

According to Talon therefore there were sound economic reasons to justify the building of a domestic commercial brewery. It did not matter to him that he would be the first to engage in commercial operations. It did not matter to him that there was very little brewing of any sort prior to his arrival. In fact, from a moral perspective, this was part of the problem. The lack of a commercial brewery, he maintained, had deprived the colonists of a 'weaker drink', and forced them into the grip of the demon brandy. Thus there was a moral, as well as an economic, imperative to brew beer.

The moral imperative to brew the 'Weaker Drink'

Drunkenness among the population of New France was perceived as a grave problem by colonial authorities. French settlers brought with them a well-established taste for alcohol in their daily lives, specifically for brandy and wine. Throughout the colony alcohol was regularly consumed in the home as a beverage and a tonic.³² It saturated all areas of work and leisure. On the frontier, male workers spent much of their free time and hard-earned money in the colony's numerous taverns and cabarets. Trois Rivières, with its 25 houses, had 20 grog shops; and Quebec and Montreal were just as wet.³³ The inhabitants of New France often ended heavy bouts of work with drinking sprees. This caused Talon no end of concern. 'Our men waste at the cabaret everything that they have just earned,' he lamented.³⁴ Fur traders spent most of what they earned on booze and turned all holidays on the calendar into prolonged drunken binges. On one occasion they managed to burn down a fur-trading post during Christmas festivities. Wherever there was a military garrison to be found in the colony, idle soldiers flowed through tavern doors and carried their rowdy socializing into the streets. According to Talon, it was a disgusting and disgraceful situation and something had to be done.

Colonial authorities were just as concerned about the level of drunkenness among aboriginal people, who received spirits from the French in exchange for

fur. The documents of the *Ancien Régime* are filled with accounts of supposed debauchery, drunken disorders and even alcohol-induced murders by the indigenous peoples. As early as 1644 the Ursuline Marie de L'Incarnation claimed that 'the French having let the Indians taste brandy and wine, find these much to their taste, but they need only drink of them once to become almost mad and raging'.³⁵ A similar sentiment was expressed in 1662 by François de Laval, Bishop of Quebec, when he described the effects of alcohol on the native population in his Pastoral Letter of 24 February:

The village or the cabin where savages drink spirits is an image of hell: fire is flickering about on all sides: they hack away with axes and knives, spilling blood everywhere; everywhere are heard dreadful yells and howling. They are at each other's throats. They rip each other's ears off. The father and mother throw their little children onto hot coals or into boiling caldrons.

A year later, Pierre Boucher, a one-time French soldier who spent much of his later life living among the aboriginal people and learning their ways and some native languages, commented that all 'the savages who are close to the Europeans become destitute drunks'.³⁶ Statements such as this led the Jesuits and Recollets to conclude that the liquor trade was 'one of the most pernicious obstacles that the Demon has given rise to as the French attempt to establish relations with this group of infidels and

barbarians'.³⁷ The evils of the demon brandy were corroborated by the reports of traders and the indigenous population, as well as by letters of Talon and Colbert.³⁸ Brandy, according to Colbert, was the source of 'drunkenness and the vices that generally company it', as well as 'the cause of scandal'.³⁹

Over the course of the 17th century the clergy was increasingly concerned about the devastating effect of brandy upon aboriginal Christians living close to French settlements, and as a result they became extremely critical of the brandy trade. Educated at a Jesuit college and dedicated to the Catholic Church, Talon was sympathetic to this perspective, at least as a guiding moral principle. 'I believe it will be good,' he preached, 'to stop the drunkenness of the savages who are so continually in that state that it prevents them from profiting from our religion'.⁴⁰ But he also understood the economic imperative of his mission in New France. Indeed, Talon, like his sponsor Colbert, was interested primarily in promoting the prosperity of the colony: the moral aspects of commerce were, in his mind, subordinate to its economic advantages.⁴¹ Thus before doing anything draconian, Talon met with the colonial commercial elite so as to obtain their opinion on the brandy question.

Perhaps not surprisingly, their stance was different from that of the Church. Rather than advocating prohibition, they maintained that if completely denied brandy, the indigenous tribes would simply take

their furs to the Dutch and English to the south and the French fur trade would suffer. Added to which, once in contact with the English or Dutch, the commercial elite maintained, sounding a pragmatic chord, the natives would not only acquire rum or gin, but, while helpless under the drink's influence, would be subject to the preaching of 'heretics'. Therefore, in their opinion Talon had a simple choice to make: He could maintain the status quo and have an indigenous population with brandy and orthodoxy at the hands of the French; or he could prohibit the use of brandy and drive the indigenous peoples to gin, rum and heresy at the hands of the Dutch and the English.⁴²

Talon however was a man of grand plans. He had already proved he was able to conceive of innovative solutions to public policy problems. As the Intendant of the province of Hainault (1655-1665) he often merited the Crown's praise for his zeal and creativity. This time he thought that perhaps the inhabitants of his colony could be persuaded to drink something less damaging than brandy. Perhaps they could be tempted to consume a 'weaker drink'; something less alcoholic than brandy; something more temperate, something like wine or beer.

Talon's preference was for wine as it held a special place among Roman Catholics and in French culture. For Roman Catholics, wine represented the blood of Christ and was therefore necessary for the celebration of the Roman Catholic mass. At the Last Supper, Jesus com-

manded his followers to remember him by eating bread (his body) and drinking wine (his blood) until he returned. 'In this cup is the new covenant in my blood; do this, whenever you drink it, in remembrance of me.' Roman Catholicism thus endowed wine with a sanctity and mystery.

For the French, wine was on its way to becoming what Roland Barthes has termed a 'totem drink', commonly drunk by those of every social class. In the same way that a primitive totem united all those who worshiped it, so the totem of wine in France united those who shared and served its special meaning. Wine drinking in France was an assertion of the national way of life. As Barthes notes, 'a Frenchman who kept this myth [of wine] at arm's length would expose himself to minor but definite problems of integration'.⁴³ Wine had been produced in France since the century after the Roman Conquest.⁴⁴ An anonymous report on the population and consumption patterns of Paris estimated that in 1637 about 190 pints (23.75 gallons) of wine were consumed per Parisian per year.⁴⁵ By 1700 that number had increased to 202 pints (25.25 gallons) per person per annum.⁴⁶

In France, grapes were easily cultivated. This was not the case in the north and east of Europe, where few grapes were grown. As a result, the inhabitants of these northern nations - i.e. England, Ireland, Scotland, Germany, Belgium and Holland - consumed much more beer than wine. The problem for Talon was that the cli-

matic conditions of New France were closer to those of the northern nations of Europe than to those of France. Nevertheless, early in his administration he sent explorers to the far reaches of the colony in search of grape vines. Upon their return, the explorers reported that Canada did indeed have wild vines, but they were not good for producing wine. What Canada did have however was an ideal environment for the manufacture of beer - a drink that could easily substitute for wine as the people's 'weaker drink.'

Talon welcomed the news. Beer, he thought, would serve as an acceptable alternative to wine. Having grown up near Artois, a region well known for its beer production, and having served as an administrator in French Flanders and Hainault, where beer drinking was more widespread than elsewhere in France, Talon was predisposed to the idea of large-scale beer production.⁴⁷

Thus Talon had a moral imperative to start up a commercial brewery in New France. By manufacturing a temperate alcoholic beverage, he believed he could wean the population off hard liquor and thereby reduce the depravity and self-destruction within the colony.

The *Brasserie du Roy*

On 5 April 1671 Jean Talon wrote to Louis XIV proudly declaring: 'The brewery is complete. It can produce 2,000 barrels of beer for the West Indies, if they can

absorb as much as that, and two other thousands for the domestic market'.⁴⁸ The brewery was a massive enterprise, both in terms of output and physical dimension. There was nothing like it elsewhere in the New World.

Fully state-owned and controlled, it dwarfed other commercial breweries in North America. It could produce 4,000 barrels of beer per year. This level of production was impressive by New World standards (albeit not by European standards).⁴⁹ At the English colony in Massachusetts Bay, where a strong beer-drinking and beer-producing culture existed since the 1630s, brewing was still a cottage industry in 1670.⁵⁰ Some 50 years after the construction of Talon's brewery, the 'typical' brewery in the English colonies was still only about half its size.⁵¹ When Molson began brewing in his 36 by 60 foot brewery in Montreal in 1786, he manufactured only 120 barrels of beer that year.⁵² Talon was planning to brew thirty-three times that amount, at a time when the population of New France was one-twentieth of what it was in 1786. In 1810, Virginia had seven breweries producing altogether 4,200 barrels of beer.⁵³ The excessive size of Talon's brewery was a principal cause of its failure.⁵⁴

The large limestone and long-timber building stood on a stone foundation, measuring approximately 147 by 46 feet. If one included the attic, the floor beneath the attic, the ground floor and the half-cellar, the brewery had four levels, and an above ground height of 50 feet.⁵⁵ The

Brasserie du Roy was comparable to any contemporary European brewery. Talon had spared no expense.

As with home brewing, commercial brewing began with making the malt - i.e. 'malting'. Talon's brewery had all the facilities - i.e. a germinator and a kiln - for 'malting' on a large scale. The germinator was a large room in the cellar where the water-soaked barley grain was placed to germinate. It utilized all the latest science and technology. The floor was paved with limestone slabs and a drainage system was installed to discharge the waste water. The south and west walls of this large room were thick and coated with lime mortar. Two fireplaces were placed in the walls of the foundation to keep a constant temperature in the room. These were used, especially during the cold season, to maintain the heat needed for the germination of the grain. When the germination was concluded, the malted grain would be spread thinly on the floor to permit its drying, and the first batch of green malt would be ready for the kiln.

The kiln, in which the germinated barley was heated so as to stop the grain from germinating any further, was housed in a large decorative tower at the front of Talon's brewery.

After the barley was kiln dried, it passed through the mill and was transformed into malt. Milling the grains - i.e. cracking or crushing the grain kernels so as to expose the cotyledon which contained the majority of the carbohydrates and

sugars - made it easier for them to be absorbed in the water in which they were mixed. The archaeologist Marcel Moursette has recently unearthed evidence that suggests that the *Brasserie du Roy* housed its own mill, driven by four horses.⁵⁶ This was unusual for 17th century breweries and again demonstrates that Talon's brewery was on the cutting-edge of technology.

Mashing was the next step in the process. The process converted the starches released during the malting stage into sugars that could be fermented. The milled grain was dropped into hot water in a large vessel known as a mash tun. In this vessel, the grain and water were mixed together to create a cereal mash. The leftover sugar-rich water, known as wort, was separated from the spent grains. In the less advanced breweries of Europe and in most (if not all) of the commercial breweries elsewhere in North America, the wort was separated from the spent grains by baling it out using a bowl or ladles.⁵⁷ The more advanced breweries, like *Brasserie du Roy*, used a false bottom composed of plates perforated with a multitude of small holes to strain the wort from the spent grain.⁵⁸

Brewing is the next step in the cycle. Here, the wort was placed in the brew kettle or boiler, where it was brought to a boil. During this stage many chemical and technical reactions took place, and important decisions about the flavour, color, and aroma of the beer were made.

Hops were added throughout the boiling process for bitterness and/or aroma. The large copper boilers used by Talon had a combined capacity of 100 barrels and were 'worth more than 1,000 livres'.⁵⁹

The brewery thus represented a huge investment, a fact not lost on Talon and contemporaries. The *Brasserie du Roy* was 'a very grand brewery,' in the words of Marie de L'Incarnation, 'with very grand costs'.⁶⁰ When the bankrupt brewery was put up for sale in 1676, the price asked by Talon was 43,192 *livres*. But there were no buyers. When the new Intendant, Jacques de Meulles, appraised the building in 1682, he stated that it was worth no more than 8,000 *livres*. With no purchaser in sight, the King, taking into consideration the valuable services rendered by Talon during his administration, bought the abandoned and rundown brewery for 30,000 *livres*.

What had gone so horribly wrong? Why didn't the brewery succeed? What factors contributed to its failure? The short answer is that Canada was poor by policy.

Poor by policy

In an attempt to ensure the success of the state's new commercial brewery, on 5 March 1668 the Sovereign Council promulgated a decree. It restricted the amount of wine and distilled spirits that could be imported into the colony to 800 barrels and 400 barrels, respectively, per year.⁶¹

I believe, [Talon soberly stated] it will be good that no one be allowed to import wine or brandy to Canada except under specific conditions, and not to sell it in cabarets to vagabonds.⁶²

However, there would be 1,200 barrels of alcohol, in addition to the 4,000 barrels of beer Talon was planning to produce at his brewery, available for local consumption every year.

Admittedly Talon had hoped to export half the beer manufactured in New France. But trade with the West Indies proved difficult. In 1670 Talon dispatched three ships from Quebec to Cayenne and Le Tortue in Guiana, each loaded with dried fish, peas, flour, port, and beer. The following year, two ships set out. In 1672 and 1673 only one ship made the trip to the West Indies in each year. By 1674 the trade had stopped all together. 50 years later inter-colonial trade would blossom somewhat, as French Canadians sent lumber, flour, salt meat, dried and salt cod, salmon, biscuits, butter, fish oil, and vegetables of every sort, but not beer, to the West Indies.⁶³ It is difficult to say just how much beer was aboard the few ships that made the voyage to the West Indies during the early 1670s. According to the historian Emile Vaillancourt, it was 'only a few barrels'.⁶⁴

It is even more difficult to determine why so few barrels were exported to the French West Indies. Perhaps Talon had been forced to concede that his projections were overly optimistic; that a region

with a European population of less than 15,000 in 1670 with easy access to rum and wine proved unwilling to consume 2,000 barrels of Canadian beer.⁶⁵ Perhaps, on the other hand, Talon had come to realize that his plan was fatally flawed in that it failed to account for the short life of beer in transit. Whereas wine and distilled liquor traveled relatively well in the 1600s, beer did not. Shipped beer leaked, occupied tremendous space and cost a great deal to transport. Furthermore, a sea voyage of six to eight weeks from Quebec to the West Indies in warm weather risked the delivery of stale beer. Whatever the reason, the export trade in Canadian beer did not develop as Talon had hoped and as a result there was double the amount of beer for domestic consumption as Talon had initially envisaged. Talon would pay a heavy price for attempting to meddle in a market that he could not control.

Talon had also hoped that beer would replace brandy as a medium of exchange in the fur trade. But this too did not materialize as Talon had envisioned. Beer was a relatively high-bulk, low-value good that did not travel well. In addition, the native population preferred brandy to beer. In 1749, Pehr Kalm noted that brandy was the good that the fur traders took with them: 'This is what Indians prefer above all ... there is nothing they refuse to give in exchange'.⁶⁶ Thus it was brandy and not beer that continued to lubricate the fur trade. As result of these two lost markets, it was left up to the European population of New France to consume Talon's beer.

At the time of the promulgation, the European population of New France was 6,282. Over the next five years the population remained relatively constant, growing slightly to 6,768 by 1673. Even at the higher figure, the amount of alcohol available for domestic consumption was excessive. Talon's oak barrels, like those imported from France, could hold 36 imperial gallons (or 345.6 pints). This meant that, during each year of Talon's Intendancy, there were 27.65 gallons (or 265.6 pints) of alcoholic drink available for every man, woman and child of European descent in the colony. To put that number in perspective, in the British colonies south of the border per capita alcohol consumption reached 3.5 gallons in 1710.⁶⁷ Even at the height of excess in 1830, Americans were only downing 4 gallons of alcohol on an individual basis. While this was next to nothing in comparison to the massive intake of New France, the historian William Rorabaugh considered it excessive enough to label the United States 'the alcoholic republic'.⁶⁸

In another attempt to tip the balance in his favour, Talon gave his brewery a monopoly on commercial brewing for ten years. Home brewers could continue to produce beer for themselves and their loved ones, but no one could produce beer on a commercial scale for retail sale.⁶⁹ That privilege was Talon's alone. Again Talon was taking his lead from what was going on in Europe, where regulation was a well-established practice by the 17th century.⁷⁰ Having legislated

the competition out of business, Talon felt he could charge virtually any price for his beer. Thus he pegged the price at 20 *livres* per barrel wholesale (the barrel was not included in the price) even before production had started. If sold by the mug the retail pegged price was six *so/s*. Furthermore, the regulations stipulated that if the price of barley was to rise above 3 *livres a minot*, the price of beer would also rise. As a result Talon's beer often sold for 25 *livres* per barrel.

At that price, the beer was too expensive. When Governor Louis de Buade de Frontenac arrived in the colony in 1672 he stated that, while the quality of Talon's beer was very good, the price being charged was 'too dear'. Talon was insensitive to the marketplace. Frontenac felt a price of 15 *livres* instead of 25 *livres* would have made the 'weaker drink' far more popular. Certainly the high price that Talon assigned to his product did not help to popularize the weaker drink. But that was not the main factor working against him and the success of his brewery.

The principal reason for the failure of Talon's brewery was that there was little appetite for beer in Quebec prior to the Conquest, no matter what the price. Even when the price of beer fell to below 10 *livres* per barrel during the first decade of the 18th century, there was still little demand for the drink. Most of the immigrants to pre-1760 Canada came from France's west coast, the Southwest and the Paris region; that is from the region

just below the line that divided Europeans into beer and wine drinkers.⁷¹ Instead of beer, wine and brandy held a dominant place in the hearts, minds and stomachs of *canadiens* during the *Ancien Regime*.⁷² In the aristocratic circles of New France in the 17th and 18th century, beer was considered the drink of the poor, a concept that continued until the Conquest. And even the poor preferred wine to beer. Only when the price of wine was so high that it placed the product out of reach did the inhabitants of New France turn to beer.⁷³

After the disappearance of the *Brasserie du Roy*, a few small-scale brewers attempted to tap into this limited demand. In 1704 the Charron Brothers, a religious community in Montreal, decided to add a brewery to their building in order to make beer for the paupers entrusted to their care by public charity. The Brothers carried on their brewery for four years until financial difficulties caused them to lease their operation to another. The new brewer Pierre Crepeau was no more successful at turning a profit from brewing. Like the Brothers before him, Crepeau's brewery lasted only a few years. In 1718 the property was seized by the Crown for unpaid taxes and put on the auction block. Thereafter, commercial brewers continued to struggle to turn a profit. Between 1718 and 1759, only a handful of individuals entered into the brewing business, and of these, only two were still brewing at the time of the Conquest. Except for the brewer François Bourgret dit Dufort of Montreal, no one was able to make

a living solely from brewing. Denis Constantin, who brewed beer in Quebec City for two years (1744-1746), Nicolas Jourdain, who engaged in brewing in Quebec City for twelve years (1754-1766), and Jean Gouy, who manufactured beer in Quebec City for three years (1720-1723), all did so to supplement other sources of income.⁷⁴ After 1712 beer had fallen further into disfavour, owing to the fact that the price of wine and alcohol had become more accessible. Beer had always played the role of the understudy - a relatively affordable but less desirable substitute. Despite Talon's best efforts to bring the drink to centre stage, the population of New France was not supporting it. Thus Talon's brewery and those thereafter failed to survive for very long.⁷⁵ What set the *Brasserie du Roy* apart was the grandeur of its failure.

Conclusion

It has often been assumed that the history of brewing in Canada mirrors that which has taken place elsewhere. As in Holland, Denmark, Germany, England, Scotland, Ireland, the United States, Italy and New Zealand - to name just the most productive brewing nations - in Canada brewing first emerged as a cottage industry, with small-scale brewers owning and operating their own establishments, reinvesting their profits, all the while producing beer for a local market. The small body of literature on the Canadian brewing industry supports this

atomistic image, by focusing exclusively on those firms - Molson,⁷⁶ Alexander Keith,⁷⁷ Labatt and Carling⁷⁸ - that have followed this evolutionary path.

But Canadian commercial brewing actually started on a grand monopolistic scale. Talon's insistence on monopoly cut the 'industry' off from grass roots economic development. The *Brasserie du Roy*, was a massive commercial concern, which manufactured half of its product for a distant market. Whereas later Canadian brewers responded to the impulses of the marketplace, Talon ignored market dictates, believing - erroneously as it turned out - that if he built a brewery, then a market for his beer would emerge. During the *Ancien Regime*, he used the full power of the state to induce the birth of commercial brewing. His reasons for so doing were moral and economic. Economically, he believed a brewery would diversify the economy, improve the colony's balance of trade and provide an outlet for the agricultural surplus of New France's marginalized farmers. Morally, he thought a brewery would help him battle the demon brandy and the debaucheries, delinquency and depravity that accompanied it.

But the industry was born prematurely. Weak as a result, the *Brasserie du Roy* could only survive in an artificial environment of regulations and restrictions. Despite limiting the amount of brandy and wine that could be imported into the colony, the inhabitants of New France never gained a taste for beer. To make

matters worse, the export trade of two thousand barrels of ale to the West Indies never materialized. This left twice the amount of beer for domestic consumption. Historically, excess supply has put a downward pressure on prices. But because Talon had granted himself a monopoly and pegged the price of beer, prices did not fall. This made the 'weaker drink' even less popular. Nevertheless, for four years the brewery hung on. But when, in 1675, the system of life support was withdrawn the first child of commercial brewing in Canada was no more.

Over two centuries later the Canadian intellectual Goldwin Smith reflected on the role of government in the Canadian economy. 'Rich by nature, poor by policy,' he stated 'might be written over Canada's door'.⁷⁹ A teetotaler, Smith had little appetite for beer. However, if he had taken a dip into the history of brewing, he might have concluded that his maxim could well have been extended to the birth of commercial brewing. To turn his phrase slightly: Rich by nature, poor by policy might be written over the entrance of the *Brasserie du Roy*.

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development and workings of mercantilism, celebrates mercantilism for accomplishing what its proponents promised. Over the two and a half centuries to the middle of the eighteenth century, many of the parochial domains of Europe had coalesced into mercantilist nation states, establishing overseas empires. Others however have been far more critical of the nature and effects of mercantilism. See for example Judges, A.V. (1939) 'The Idea of a Mercantile State,' *Transactions of the Royal Historical Society*, 4th Series, XXI, pp.41-69 and Coleman, D.C. (1980) 'Mercantilism Revisited,' *Historical Journal*, XXIII Dec., pp.773-791.

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The Brewery of The King, the first commercial brewery in Canadian history. It's MASSIVE 150ft long, 50ft wide, 4 stories high. It's state of the art, no expense spared.Â Opens 1670 closes 1675. State lost a ton of money. A case of rich by nature poor by policy. 5. What was accounted for the re-emergence of brewing in Canada after the conquest? Conquest, It brings a large number of individuals to Canada from the British Isles.Â An access to nature's gifts (barley hops, fresh water) Reasons birth of Labatt Brewery. 1) Stationed near London Military 2) Stationed next to nature 3) entrepreneurial efforts of John Kinder Labatt (Even though he was filled with self-doubt, he was determined. 1. How did the temperance movement change during the nineteenth century? Canada's first commercial brewery is traced to 1668, when Jean Talon, the Great Intendant of New France, established "La Brasseries du Roy" [sic] in QuÃ©bec City. [18] It was an ingenious solution to several coincident problems.Â Stephen Beaumont divides Canada's brewing history into four eras: Traditional Brewing, Prohibition, the Decline of Distinction, and the Renaissance. [21] The last is marked by the birth of the new microbrewers, and the period preceding it by the consolidation of the national brewers, along with their marketing of increasingly indistinct, and generally bland lagers. Number of breweries in Canada, 1850-2002. The rich own more and more, while the working class and middle class own less and less. This process is especially pronounced in Russia. Meduza breaks down these trends into graphs and takes a closer look at how Russia became a world leader in social inequality.Â Income inequality mainly captures the differences in salaries paid to the rich and the poor. There is another measurement of inequality, however, where Russia's situation is dramatically worse: the distribution of property in Russia is more unequal than in any major economy in North America, Europe, or Asia, according to the World Inequality Database (which does not index countries in the Middle East, Africa, or Latin America). Moreover, the emergence of craft brewing has influenced big breweries to rediscover yeast as a significant contributor to a beer's aroma profile and realize that there is still room for innovation in the fermentation process. Here, we aim at giving a brief overview on how currently used *S. cerevisiae* brewing yeasts emerged and comment on the rationale behind replacing them with novel strains.Â This is among others related to the switch from a household brewing style to a more artisan brewing regime during the sixteenth century and latterly the development of single yeast isolation techniques at the Carlsberg Research Laboratory in 1883, resulting in process optimizations in the brewing industry. Preterm birth (PTB), also known as premature birth, is the birth of a baby at fewer than 37 weeks' gestational age, as opposed to full term delivery at approximately 40 weeks. PTB is defined as birth before 37 weeks gestation, very early PTB is before 32 weeks, early PTB occurs around 32-36 weeks, late PTB is between 34-36 weeks gestation and early term birth is delivered at 37-38 weeks gestation Late PTB accounts for 75% of all PTB.