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A. R. M. Lower

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## THE FOREST IN NEW FRANCE

### *A Sketch of Lumbering in Canada before the English Conquest*

By A. R. M. LOWER

#### I

The drama of French Canada was acted in a forest setting. The forest determined the course of settlement, holding it close to the sole avenues of communication, the waterways, shaped the aptitudes and decided the occupations of the inhabitants. The colony grew up in its shadow and there was hardly a colonist who did not of necessity have his dealings with it. It was both friend and foe, the source of house and fire, the obstacle to the plough. It was a great omnipresent fact.

It conditioned the economic framework of the colony. Desire for the furs of the animals which it sheltered had brought the French into the New World, and the fur trade, once established, continued to be almost the *raison d'être* of the colony's existence. While the pursuit of furs was pushed into the remote interior, returns in the districts near at hand wearing thin, the forest, flaunting its other riches in the face of the settlers, invited a second obvious process of exploitation and yielded up timber for domestic uses and for ship-building.

Lumbering, in a narrow sense, at least, may be said to have begun with the building of the first log shack. From this point of view it antedates all the other occupations of the colony, with the exception of the fur trade, and it would obviously be even more universal than that pursuit, for the process of turning trees into houses or firewood would be familiar to practically everyone. From the beginning, the *habitant* doubtless did not exist who could not use his axe more neatly than his knife and fork. Skilled labour thus was available for a great trade in lumber—in addition to the purely physical requirements of raw material and easy water transportation.

The possibilities of forest exploitation did not escape observation. Passages abound which record admiration for the trees of the New World, or discuss their utilization.<sup>1</sup> Colbert's efforts to conserve the best timber are well known. Many local officials, understanding the potential wealth contained in the woods, did their best to prevent forest fires. Yet the colony never obtained what would appear to be this perfectly natural second staple. Its economic life throughout depended mainly on the fur trade which was never rivalled in importance by the lumber trade.

Why not? Simply because there were no good markets. Under the limiting conditions of the French colonial system there were only two possible markets, France and the French West Indies, and there were obstacles to the development of both. France was a long way off and, moreover, had two other more convenient sources of timber supply, the one her own native forests, still almost sufficient for her needs, the other the forests of the Baltic countries, comparatively close and rendered available by the well worn paths of an old established trade. The French West

<sup>1</sup> In the *Jesuit Relations*, for instance.

Indies were also a long way off, and between them and New France lay New England, offering all that New France had to offer and vending it with cheaper freights and greater energy.

These were obstacles too great for private initiative to overcome. But the feeling that the lavish stores of forest wealth should be utilized was always too strong to down and consequently, despite obstacles, repeated attempts were made to establish an export trade in forest products. Government action, never far off in a French colony, was invoked and thus the dead hand of paternalism early settled down upon the lumber trade. Yet it would be a mistake to assume there was no private initiative in New France. There appears to have been a good deal of it but it was the private initiative of comparatively small men. Then, as now, the utilization of Canadian natural resources was a difficult matter, and it was thus small wonder if the state, the one considerable depository of wealth, was called in to aid.

Despite the difficulties caused by lack of a market, a lumber trade did spring up in New France. It never became very considerable, it is true, but then the entire trade of the colony in its palmiest days was never considerable. It became of relative importance, at any rate, and involved the development of most of the primary technical methods which have characterized lumbering in Eastern Canada ever since.

If there had been no rigid colonial system and no mercantilism in the seventeenth and eighteenth centuries, if the ships of all nations had been free to resort to the St. Lawrence and to carry its products whither they would, it is quite possible that the forests of New France would have been vigorously exploited. As it was, trade had to fit itself into the two channels mentioned above. To France, wood products were sent at a comparatively early date. For the most part, they appear to have gone on government account and were, as might be expected, chiefly items utilizable in the royal dockyards, masts and other spars, ship-timbers, natural knees and so on. The relation between the forests and the navy was, in the days of wooden ships, necessarily close, and both France and England looked on their North American colonies, in some degree, as warehouses of naval stores. The English attempts to conserve the pine fit for great masts are well known. The French policy was similar but, apart from it, the fact that the colonies were administered by the Ministry of Marine would naturally bring about a connection between Canadian naval stores and French dockyards.

The establishment of the industry of shipbuilding in New France was evidently a natural step. With the abundant supplies of wood available, building ships was the obvious thing. Both public and private vessels appear to have been undertaken at an early date, and throughout the colony's existence ship-building, to a greater or less degree, was always carried on. In the eighteenth century, the King granted a bonus for ships built in Canada, so much per ton for small ships, so much more per ton for larger ships, which seems to have stimulated private ship-building. About the same time, a rather ambitious public program was undertaken, and after 1730 several warships were built at Quebec. With the approach of the Conquest, energy was diverted to war and the industry ended. While the subject of ship-building stands outside the scope of this treatise, some further details will be found below.

There is some doubt as to whether there was any private trade in wood with France. General circumstances would tend to prevent it, yet there is a certain amount of evidence for it. This will be discussed later.

There is less doubt as to the facts in the other trade channel. It was long a major object of French colonial policy to render the West Indian Islands independent of English colonial supplies by utilization of the resources of Canada and Ile Royale. While this object was never achieved, a certain amount of trade was, from an early period, carried on between the two groups of colonies. Complete absence of paternalistic government interference could not be expected, but as contrasted with the trade to France, the trade to the West Indies seems to have been mainly dependent on private initiative. Ships were built by private merchants of Quebec, loaded with lumber, fish or wheat, and sent directly either to the West Indies or to Ile Royale. From the West Indies they would bring back conventional cargoes of sugar and molasses, etc., along with an occasional slave. From Ile Royale they would bring back the same, that island being a depot where exchanges were effected between the Canadian ships and ships from the West Indies. Frequently the trade took the form of an exchange of Canadian lumber and wheat at Ile Royale for a cargo of West India produce which had been bought with Ile Royale fish. Paternalism found its vent in the attempt, often repeated but never successful, to make the Canadians build vessels with sufficient head-room, 'tween decks, for the carriage of horses. There were, chronically, too many horses in Canada, yet the West Indies drew mainly on the English colonies for those they needed. But the vessels which could carry horses were never provided.

A lumber trade, even of the modest dimensions already indicated, implies a lumber industry. What sort of lumber industry was there in New France? Certainly there was none of the hurry, bustle and din which we of a later generation associate with lumbering and the sawmill, but there were to be found methods and organizations requisite for the tasks in hand. The later industry may be said to have existed in embryo.

When settlers first came to the St. Lawrence, it was a simple thing for them to supply their needs in timber right at the water's edge. For many years, spruce masts for the local shipping were felled practically into the river.<sup>2</sup> As time went on, however, even the moderate demands of New France began to tell upon the supply of timber so conveniently placed and it became necessary to go further afield. The natural thing to do was to go upstream. After the banks of the main river had been stripped of suitable trees, its tributaries would be called upon. Of these, the only one that seems to have been utilized to an appreciable extent was the Richelieu. By 1760 oak and pine were being cut as far afield as the south end of Lake Champlain. There was also a project in hand for exploiting a pinery near Fort Frontenac. The Ottawa does not appear to have been touched. The geographical extension of forest exploitation in the French period thus was up the river from the Saguenay to somewhere above the rapids, and up the Richelieu to the "bottom" (fond) of Lake Champlain.

Since, save for an occasional particularly attractive mast-pine, the French never needed to go far from the banks of the principal rivers for what timber they required, woods operations remained simple. There is little mention of draft animals, for example. The logs were cut close to the water.

Once in the water, however, they appear to have been handled in about the same way as they have been ever since. They were floated down the rivers on the spring floods, usually in rafts. The rafts were handled in much the same manner at a later date, both in the open river and in the

<sup>2</sup> The colonists used spruce masts almost entirely. Spruce is tougher than pine and has much more spring in it. But it has limitations as to size and therefore could not be used on large ships.

rapids. Projects for smoothing out the rapids by blowing up the worst rocks were considered. At Quebec, vessels were loaded from the rafts, as in the heyday of the 19th century. Stern ports (*sabords*) were opened and the long sticks fed into them. The timber remaining at Quebec over winter was piled up on the shore or "moulinetted."

While the industry was not so well differentiated into its two branches, square-timber making and sawn lumber, as later, yet these two branches were quite recognizable. Sawmills had been established at a fairly early period of the colony's existence, by 1690 at least, probably before. They were primitive water or tide-mills, and very often were not private enterprises in the modern sense but were erected by a seigneur, and hence in some degree corresponded to the seigneurial flour-mill. However that may be, sawn lumber was readily procurable, both for domestic needs and for export. It was brought to Quebec in *batteaux*, as, until a few years ago, it continued to be.

Many of the later practices of the lumber trade thus have ancestry of respectable length. But lumbering, as it has since developed, is really another industry, bearing to the industry of New France much the same relation as, say, the modern manufacture of textiles to their old handicraft production. Lumbering in New France may be said to have been a pocket edition of the later industry, reasonably complete, but in very small print.

## II

Any presentation of the story of lumbering in New France must be handicapped from the lack of satisfactory source material. It is true that there is an almost unparalleled wealth of public records relating to the colony, but these do not compensate for the total absence of the type of document from which industrial history is best written, that is, private papers, the journals, correspondence and accounts of persons engaged in the pursuit in question. Consolation for the want of these, may, however, be sought in the reflection that there could have been little activity in the colony which escaped the vigilant official eye of intendant or commissaire-ordonnateur. The account of the course of trade before the Conquest which follows has been drawn chiefly from the immense manuscript collection in the *Correspondence Générale*, Series C<sup>11</sup> of the Archives des Colonies. Other important collections, such as the *Jesuit Relations* and the *Lettres, Instructions et Memoires* of Colbert, have also been used.

Four periods in the colony's economic development can be roughly distinguished. There was first the period of exploring and pioneering, the period of the adventurer or trader or missionary from France, during which permanent residence in the new world, the creating of a home there, was hardly envisioned. Then there was a transition stage in which colonization was being undertaken but in which doubt still hung over the issue, the period in which the feeble colony was taking root. Convenient dates for this stage are from the establishment of Royal Government in 1663 to the withdrawal of the first issue of the *Monnaie de Carte* in 1721. This latter event marked the end of the long series of financial difficulties which originated in the inability of the colony to attract and retain specie—a trait that it shared with all new settlements—and which were intensified by the hardships, muddle and corruption of war time. From 1721 the colony shared in the blessings of the long peace between the mother countries, a period to which a distinguished historian has given the singularly

inappropriate title of a half-century of conflict. In this third period, which lasted until war broke out again in 1744, the colony now firmly established, enjoyed its one taste of prosperity. Much of this was probably owing to the wise efforts of one man, Giles Hocquart, intendant from 1729 to 1748. During his intendency, for several years running exports exceeded imports, a unique experience, and a condition that Hocquart, fearful of the effect upon the mind of mercantilist France of an adverse balance of trade with her own colony, annually, rather apologetically attempted to explain away as a mere accident not likely to occur again. The fourth period is one of continuous strife. The shadow of the Conquest falls athwart New France with the capture of Louisburg in 1745. Thereafter, everything is subordinated to war and the colony virtually has no economic history. At least, there is no free working out of economic forces; interesting economic phenomena are observable but they owe their origin purely to military contingencies.

It is not possible, of course, to relate the development of lumbering very definitely to these four stages, but in the more particular examination of this industry which follows there will be a certain general parallelism observable.

The virgin forests of the new world form a subject of comment from the earliest times. Those of the St. Lawrence were described by Boucher in 1663, by Catalogne in 1712, and again by Charlevoix in 1723.<sup>1</sup> Each of these three men mentions the uses to which the various kinds of trees may be put. It is difficult to identify the botanical species from the picturesque confusion of nomenclature obtaining in the works of these early writers, but certain kinds of trees stand out, as would be expected, chiefly pine and oak. Their qualities for ship-timbers and ship masts are recognized. Discussion also goes on about the making of tar and pitch. The maple with its unique product, maple sugar, from the first attracts attention. Later on, as forest exploitation grows, terms become more definite and individual species become recognizable. Naturally trees have not changed their attributes so that then, as now, it was the white and red pine, the spruce and the white oak, which were most in demand.

Then as now, too, fire was an ever present menace. It arose from two sources, from the Indians and from the clearing operations of the settlers. It is a mistake to think that the forests are safe in the hands of the children of nature. The children of nature are like other wild things, beings of no foresight and of a great carelessness. They may have recognized the importance of the forest in general as a cover for their game, but they certainly never recognized the importance of any one tract of forest, nor did they understand that repeated fires would destroy the very soil and leave behind a wilderness of rocks. If they had understood, they would doubtless have said that there was plenty of other forest country. The forest to them was not an economic good. Consequently the country was never free from forest fires. Writing in 1661, the Jesuit Fathers Druilletts and Dablon describe the frequency of forest fires in the country north of lake St. John and attempt to account for them. They think they are due to natural causes, but the Indians also are not held innocent.

"L'air ici est presque toujours embruné des fumées, qui causent les embrasemens des forests circonvoisines, qui s'allument, à quinze et vingt lieues à la ronde tout ensemble, nous ont jetté leurs cendres de plus de dix lieues loin; c'est ce qui fait, que nous n'avons que rarement jouy de la beauté du soleil à decouvert: il nous a toujours paru voilé de ces nuages de fumée, et quelquefois avec tel exces que les plus

grandes eclipses de soleil, ne rendent point l'air, la terre et les herbes plus tristes, ny plus sombres. Ces embrasements, qui sont icy fort ordinaires, pendant un mois ou deux de l'été, et qui nous ont fait voir quantité de forests, tout composées de tisons éteints, entretient l'air dans une si grande chaleur, et le rendent si étouffe, qu'on y a de la peine à vivre. La cause de ces accidens si étranges pourroit bien provenir, de ce que les bois d'icy ne sont composez que de petites pins, des prusses, et des epinettes, tous arbres onctueux, dont la sève, sortant dehors, les enduit d'une gomme gluante, et visqueuse, qui rend une forest entière, aussi susceptible du feu, que seroit un navire, par la poix et par la goudron dont il défend contre l'eau. De la vient, qu'en ces pays, ou il ne pleut presque jamais, les rayons du soleil frappant sur ces hautes montagnes de roches, echauffent tellement toutes ces matières de soi très combustibles, que, si peu que le feu s'y mette, soi par la foudre, soi par la negligence, ou par la malice de quelque sauvage, on voit un moment, des tourbillons de flammes, qui roulent dans les forests, et qui se jettent sur ce menu bois, avec telle avidité, qu'une fois, entre autres nous n'avons pu en defendre un de nos canots.<sup>3</sup>

This was in the wilderness. In the settlements, the colonists themselves were guilty of extreme carelessness and wanton destruction in their efforts at clearing. They were in the habit, so it was said, after having felled the trees, of burning them quite without regard to safety, with the result that not only were great stretches of forest needlessly consumed but often also houses, barns, and churches. Instead of being looked upon as the 'fruit' of Canada and properly picked accordingly, the forest was being pushed further and further back, and in the settled area there was the prospect of an actual dearth of such a prime necessity as firewood.<sup>4</sup>

Unfortunately, prodigality such as this invariably characterizes the exploitation of new countries. The picture is not entirely unrelieved, however. Efforts to protect the forest were made early. The purpose of these efforts was the preservation of timber suitable for building ships for the royal navy and for supplying them with masts. French policy in this matter was similar to that of the other maritime nations. Its counterpart in the English colonies was the "Broad Arrow" restriction, by which timber on crown lands suitable for naval purposes was not allowed to be cut by private individuals. This policy found its way into the title deeds granted by the crown with the result that in the old thirteen colonies, and later on in the new provinces, reservations of pine timber for the use of the crown were always made in crown grants. The clause caused a great deal of friction in New England where attempts were made to enforce it, but was more honoured in the breach than the observance in Upper and Lower Canada.<sup>5</sup>

The French form of the English Broad Arrow policy was the system of *martelage*, or conscription of trees for naval purposes. This system reached its highest point of efficiency under Colbert.<sup>6</sup> It found expression in New France in clauses inserted in seigneurial grants requiring the preservation of oak fit for ship-building,<sup>7</sup> but in a country where the forest was more enemy than friend it naturally did not become of very great importance. In fact, lumbering in any form was never of sufficient extent to cause the development of a systematic forest policy. When circumstances rendered it desirable to conserve timber in a particular district, this was done by special ordinance.<sup>8</sup> In any case most of the lumber was well beyond the settlements and thus not subject to much exploitation.

<sup>3</sup> Thwaites, *Jesuit Relations*, Vol. 46, pp. 278-80.

<sup>4</sup> *Archives des Colonies, Série C<sup>11</sup>A*, (Canadian Archives Transcripts) Vol. 49, p. 323.

<sup>5</sup> See *inter alia*, Albion, R.G., *Forests and Sea Power*, chap. VI.

<sup>6</sup> Albion, *op. cit.*

<sup>7</sup> See extract of grant made to the Sieur de la Vallière in 1683, in the *Report for 1907 of the Ontario Department of Lands, Forests, and Mines*.

<sup>8</sup> *Arch.*, Col. C<sup>11</sup>A., Vol. 75, Beauharnois and Hocquart to the Minister, Oct. 2, 1741.

The policy existed as a rusty weapon stored in an armory: the need never arose for its being brought out and polished up.<sup>9</sup> For a more extended discussion of the matter, summarizing many of the available documents and investigating the legal aspect of the relations between seigneur and censitaire in the matter of standing timber, the reader is referred to the *History of Crown Timber Regulations* published by the Ontario Department of Lands, Forests and Mines in the Reports for 1899 and 1907.

Efforts to exploit the forest, not merely destroy them, began as early as 1636; the *Jesuit Relation* for that year states that:

" Quelques personnes soigneuses de leurs affaires, telles qu'il en faut en ce pais-cy, me temoignent qu'elles envoient en France du mairin, et des ais [*clap-board and planks*] de chesne, et quelques autres bois pour des navires jusqu'à la valeur de dix mille francs, et tout cela n'est pas le travail d'un an; car ils ont employée une partie du temps au defrichement des terres..... Si on peut retirer quelque profit des sapins, des cèdres, des pins, des pruches, il y en a ici un infinité, et en plusieurs endroits....<sup>10</sup>

This passage is the first encountered, and curiously enough the last, which clearly refers to private shipment of wood products to France. Later documents all disclose the hand of government. It is true that Mr. Thwaites tells us that Nicholas Denys, Sieur de Fronsac, on Cape Breton, between the years 1635-1670 carried on an extensive trade in "fish, lumber and other products of the country," but we are left in the dark as to where he sent these things:<sup>11</sup> probably to the French West Indies. No further reference to lumber is available until 1690. In that year François Hazeur, a prominent merchant, submitted a memoir, dated November 8,<sup>12</sup> to Intendant Champigny describing the timber possibilities of Malbaie (on the Lower St. Lawrence). Red pine masts that can be felled into salt water may be obtained up to twenty-eight inches in diameter. Hazeur said that in 1687 he had made a trial shipment to France of three masts. Unfortunately, the ship carrying them was wrecked. In 1689 he had forty cut, also fifteen or sixteen thousand planks and ship-planks (*bordages*) of red pine and spruce. He could furnish thirty thousand planks per year, also two thousand ship-planks and fifty or sixty masts. The ship-planks could be furnished up to a length of thirty feet. But he will not assume the risks of a shipment on wholesale scale. That is for government. And the prices paid by the government will have to be 'reasonable' and not based on the rates paid to the Dutch for similar articles. No free competition for him.

Hazeur in 1687 had erected a sawmill which must have been among the earliest, if not the first, in the colony. His memoir seems to have borne fruit, and considerable contracts for masts and ship-timber for the royal dockyards appear to have been given.<sup>13</sup>

Occasional references during the next twenty-five years show that despite almost continual warfare a small lumber industry was gradually developing in the colony. There appeared to be no difficulty about production. It was easy enough to prepare supplies. Always, the problem was to market them. Private persons would not take the risk of sending them to France for sale even if they could have obtained ships, which, as

<sup>9</sup> See *Arch. Col., C<sup>11</sup>A*, Vol. 98, p. 9, DuQueene and Bigot's despatch of Oct. 19, 1752, for some general remarks on forest protection along this line.

<sup>10</sup> Thwaites, *The Jesuit Relations and Allied Documents*, Cleveland, 1897, Vol. IX, Quebec, 1636, p. 168.

<sup>11</sup> Thwaites, *op. cit.*, Vol. IX, p. 309n.

<sup>12</sup> *Arch. Col., C<sup>11</sup>A*, Vol. 11, p. 238.

<sup>13</sup> Adam Shortt, *Documents relating to Canadian Currency, Exchange and Finance during the French Period*, 2 vols, Ottawa, 1925, Vol. I, p. 125n.

a general rule, they could not. Hence, invariably, they strove to sell them to the local authorities and the local authorities in turn endeavoured to persuade the home government to buy them for the shipyards and to send ships to fetch them.

Thus in 1701 Champigny apprized the minister that he was sending over some masts and some ships-planking. He appears to have had a standing contract for masts with the people of Baie St. Paul.<sup>14</sup> Again in 1708, the Raudots, the Intendant and his son, advise the minister that M. de Ramesay has got out 3,000 planks in the hope that government will send a ship for them. De Ramesay, administrator of the colony from 1714 to 1716 in Vaudreuil's absence, was concerned with timber for many years. In 1707 he built a sawmill in Montreal. As late as 1722 he was exploiting the woods of the upper St. Lawrence, preparing masts and ship timber there for shipment to France.<sup>15</sup> His wife and his son-in-law, Boishebert, appear to have carried on his affairs for some years after his death.<sup>16</sup>

There are evidences of a considerable extension in the industry during these war years. The Raudots' despatch of October 27, 1708, quotes prices for spars, ash and pine, scantling and pipe and barrel staves. These seem extremely low to a modern. A pine scantling 18'x4"x4" goes for one livre, or, say fifteen cents. Pipe staves are 200 livres per 1,000.<sup>17</sup> Avenues of trade also have widened. Vessels have gone to Plaisance (Newfoundland), loaded with cattle and planks,<sup>18</sup> but there is no market in the West Indies for boards and word has been received to send no more.<sup>19</sup> A market must thus have been previously opened to the West Indies.

There are no traces of further activity until the end of the war, but from 1714 on, almost every year brings its account of forestal undertakings and export shipments. In 1714 the Intendant Bégon speaks of the masts, planks and deals sent home on the king's ship, the *Charente*. Another year, he says, he can provide a full cargo of similar commodities.<sup>20</sup> In 1716 he reports the planks and boards as used locally but the masts as ready for shipment. The *Charente* did not arrive until September 22nd—there was a dilatoriness about the government vessels which nothing ever overcame—but a raft of ship-timber (*bordages*) was sent along side the same day. However as she had no stern port (*sabord en arrière*), the captain had to have the timbers sawed down to twenty-two feet in order to get them through the hatches. It is difficult to load from the raft, says the Intendant, on account of the wind, and there are no scows (*batiments plats*) available. But he is sending a few ship-timbers which he has had brought down in a tow of boats (*chaloupes à la tresne*). If masts are to be shipped, a larger ship must be sent and she must arrive at the latest by the end of June. Calms which are necessary for loading from the rafts (*cageu* or "*rats d'eau*," *radeaux*, that is) cannot be counted upon in autumn. He can buy oak plank of 12 inches by 3 inches at two sols six deniers the running foot<sup>21</sup>—say a cent and a half, surely an inconsiderable figure.

The interesting point about this and other similar despatches is the revelation they afford of the early development of the familiar technique

<sup>14</sup> *Arch. Col.*, C<sup>11</sup>A, Vol. 19, p. 133.

<sup>15</sup> Shortt, *op. cit.*, p. 143n.

<sup>16</sup> C<sup>11</sup>A, Vol. 48, p. 268, Vol. 49, p. 16.

<sup>17</sup> C<sup>11</sup>A, Vol. 28, p. 280.

<sup>18</sup> *Ibid.*, p. 260.

<sup>19</sup> *Ibid.*, The Raudots to the Minister, Oct. 23, 1708.

<sup>20</sup> C<sup>11</sup>A, Vol. 39, p. 387.

<sup>21</sup> C<sup>11</sup>A, Vol. 36, p. 24.

of lumbering. There is the raft and the scow, and the vessel with her special stern port for the reception of long timbers. There are the various types of wooden goods being manufactured. But government is the only customer.

Writing in February 1716, the governor, the Marquis de Vaudreuil, states that there is an ample supply of sawmills in the country and that every kind of wooden article necessary for ship-building can be furnished, including masts of red and white pine of any size.<sup>22</sup> Three years later, what was in the next century to constitute the country's staple export, square timber,<sup>23</sup> is mentioned for the first time.<sup>24</sup> In 1721 we get a suggestion of the existence of a private export trade. The king's ship, the *Chameau*, is so small that much of the timber to be forwarded on government account has had to be left behind. M. Bégon tries to strike a bargain with the merchants to send it on private ships but they will not come down in their freight rates, which are excessive, twenty-four sols per cubic foot for oak plank which only costs 3s 9d per running foot. Anyway, their small ships cannot take the ship-timbers. He is sure that if the authorities got the merchants in France to send out larger ships, a good trade could be done in wood. A year's notice would be necessary to ensure cargoes, as the people manufacture the timber in the winter and bring it down the river in the spring. Sawmills would rapidly increase in number as sales increased. He encloses the bill of lading of the *Chameau* on her return trip. The lumber items in it are as follows:—

7 masts 58 to 84 feet x 18 to 23 in. at large end and 11 to 14 in. at the small.  
 14 small masts 34 to 58 feet x 10 to 19 in. and 7 to 13 in.  
 14 square oak timbers 21 to 39 feet x 9 to 12 in.  
 18 square pine timbers 30 to 54 feet x 12 in. to 19 in.  
 2 Anchor stocks 9 feet x 9 in.  
 75 oak ship planks 4 in. } 1914 cub. feet, 11½ inches.  
 185 oak ship planks 3 in. }  
 487 pine boards, 16 feet long.<sup>25</sup>

But little further development appears to have taken place in the decade of the 1720's. By 1723 staves seem to have become a common article of supply, for in that year the Sieurs Carey offer to furnish to the king in a three year period, a hundred million white oak staves,<sup>26</sup> an enormous quantity.

The utilization of white oak also points to the extension of the industry up the river, as Quebec is the extreme down river range of this tree.<sup>27</sup> In fact, in 1724, mention is made of the inspection of the woods about Montreal for "bois de chesne pour les constructions, ceux de hestre pour avirons de gallères, ormeaux pour affuts à canons, pompes de navires," etc. At the same time preparations were being made for exploiting the pineries of the Saguenay.<sup>28</sup> Louis Morguez, master carpenter of the galleys of Marseilles, had been brought over to report on the suitability of the St. Lawrence pineries for masts for the Marseilles galleys. With true

<sup>22</sup> *Arch. Col.*, C<sup>11</sup>A, Vol. 36, p. 128.

<sup>23</sup> *Pin écaris*.

<sup>24</sup> C<sup>11</sup>A, Vol. 41, Bégon's letter of August 25, 1719.

<sup>25</sup> C<sup>11</sup>A, Vol. 43, p. 200.

<sup>26</sup> C<sup>11</sup>A, Vol. 45, p. 166.

<sup>27</sup> Canada, Department of the Interior, Forestry Branch, Bulletin No. 61, *Native Trees of Canada*, Ottawa, 1917.

<sup>28</sup> C<sup>11</sup>A, Vol. 46, p. 9, Vaudreuil and Bégon to the Minister, Nov. 2, 1724.

official conservatism he pronounced most unfavourably upon them.<sup>29</sup> Other official tours of inspection went on, year by year, but nothing very much seems to have come of it all except such small annual shipments as have already been described.

In 1724, however, Sieur Prat, Port Captain of Quebec, reported that seven fair sized vessels were on the ways in that port,<sup>30</sup> which probably meant that Quebec was, in the French sense, humming with activity.

The next few years, the apex of the colony's prosperity, have a character of their own in that attention is centred on the West Indian trade and on ship-building at Quebec. In 1728, Beauharnois and D'Aigremont, the governor and acting intendent, in tones of enthusiasm tell the minister that they are exploiting every avenue for replacing American supplies to the French West Indies with Canadian, supplies comprising such items as building timber, boards, staves and fish. But horses and cattle cannot be shipped as the Canadian vessels are not roomy enough to take them.<sup>31</sup> These sentiments tend at least to give the impression that there was a trade proceeding between the two groups of colonies. Paper sentiments are cheap, of course. But there is no doubt that, apart from the familiar paternalism of French official methods, there was, during these years, distinct industrial progress. In 1728 D'Aigremont reports that there are more ships being built than ever before.<sup>32</sup>

Replying, the minister discourages that official's notion that glass-factories and potteries could be established with worth while results. The articles to look after are hemp, oak and pine planks, boards, staves and salt-fish. For his proposal that the government might require the Canadians to carry horses to the West Indies, so many per cargo, Dupuy, the new intendant, is severely rebuked in a spirit that savours more of Adam Smith and *laissez-faire* than of French bureaucracy:—

“ Il ne convient à sa Majesté de faire ce commerce ni de gesner celui de ses sujets, l'excitation est la seule voye qu'on puisse mettre en usage et il faut attendre du temps et de l'industrie des hommes le success de cette traite.....”<sup>33</sup>

But this unusual note of freedom is offset by the beautiful example of long range government mirrored in the preceding letter.<sup>34</sup> The local authorities had repaired some sheds at Quebec in which to store the wood not taken to France by the close of navigation. These trumpery sheds become a matter for the attention of a great minister of state three thousand miles away, and the intendant is solemnly adjured never to do anything of the sort again without express permission.

In 1729 comes the first mention of the export of shingles to the West Indies. A ship of 80 tons has taken 40,000 of them. Three more ships are loading. Evidently it is a new trade, for the profits made by those first engaging in it have caused the price of boards to soar from 22 livres to 35 livres.<sup>35</sup> Some of the West Indians were having ships built at Quebec but the high price of labour in the colony as compared with France was a standing handicap. Labourers got as much as three livres a day.<sup>36</sup> However, the next year Hocquart, probably the most industrious, if not the most heroic, of the colonial intendants, reports that ships of 150 and 200 tons are being

<sup>29</sup> *Arch. Col.*, C<sup>11</sup>A, Vol. 46, p. 210.

<sup>30</sup> *Ibid.* p. 242.

<sup>31</sup> C<sup>11</sup>A, Vol. 50, pp. 25 et seq.

<sup>32</sup> *Ibid.*, p. 195. D'Aigremont's letter of Oct. 15,

<sup>33</sup> *Ibid.* p. 437, the Minister to Dupuy, May 24, 1728.

<sup>34</sup> C<sup>11</sup>A., Vol. 50, p. 359, Minister to Dupuy, May 11, 1728.

<sup>35</sup> C<sup>11</sup>A., Vol. 51. Beauharnois and Hocquart to the Minister, Oct. 25, 1729.

<sup>36</sup> *Ibid.*

built, some of them at Montreal.<sup>37</sup> Other evidences of a continuous trade to the West Indies in colonial products occur from time to time but we get no clue to its magnitude. In 1734 two ships are building for this trade, and they will sail with the customary cargoes of flour, wood, staves etc.<sup>38</sup> Horses will not be carried. The next year horses are again ruled out. The vessels going to the West Indies are too small and there would be no profit in the larger ones.<sup>39</sup> The last ship built for this trade was of 250 tons, with 4½ feet head-room 'tween decks.<sup>40</sup>

So it may be concluded that dribbles of lumber, shingles and staves used to go down from Quebec to Martinique and Guadaloupe and the other islands—despite the assertion of an English pamphleteer who, in 1733, maintained that the French in the West Indies got all their lumber from New England, and that they could not possibly obtain it from Quebec owing to the difficulty of the navigation and to Canadian inaptitude at preparing it.<sup>41</sup>

Apart from the fur trade the chief industrial interest of the colony during these years of prosperity was ship-building. Actual achievement compared with New England was slight, but compared with the colony's own past it was large. Ship-building had of course begun at an early date. The brigantine *La Galiote* was launched at Quebec in 1663,<sup>42</sup> and probably there were few years thereafter in which one or more ships were not turned out. After the peace of 1713 production increased, chiefly private production. A high mark was reached in 1732 when the King offered a bounty to encourage colonial ship-building. Three livres per ton were to be given for ships from forty to sixty tons, four for those from sixty to ninety, and five livres for ships of over ninety tons.<sup>43</sup> Hocquart reported later on that the bounty had served its purpose and his annual reports of ships built bear this out, any number up to eight or ten being turned out in most years.<sup>44</sup> Some of these went as high as three hundred tons.<sup>45</sup>

An important stage was reached in 1731 when the home authorities decided to undertake a moderate naval building program at Quebec. A *flûte* of 500 tons was to be taken in hand first.<sup>46</sup> Hocquart thought the government construction would be a splendid thing for the colony. The merchants, who were timid in such matters, would be encouraged to build privately. Also the money it would distribute would do much good. Skilled artisans were scarce, but if a few good carpenters were sent out the native carpenters were very quick to learn. They were quick workers, much quicker than those from France, but slipshod. Here speaks the voice of the frontier.

But those were the days of deliberative leisure not of modern haste, and in consequence the actual construction of the *flûte* was not begun for another eight years or so. Construction was preceded by the reservation in 1738 of all the necessary oak within two leagues of the river at Varennes and Boucherville,<sup>47</sup> both near Montreal. Contracts were also let the same year for the oak, at 20 sols a cubic foot, and for pine at 3 sols a running

<sup>37</sup> *Arch. Col.*, C<sup>11</sup>A, Vol. 53, p. 75, Hocquart to the Minister, Oct. 13, 1730.

<sup>38</sup> C<sup>11</sup>A, Vol. 61, p. 46, Beauharnois and Hocquart to the Minister, Oct. 10, 1734.

<sup>39</sup> C<sup>11</sup>A, Vol. 63, p. 52, Beauharnois and Hocquart to the Minister, Oct. 13, 1735.

<sup>40</sup> C<sup>11</sup>A, Vol. 65, Beauharnois and Hocquart to the Minister, Oct. 12, 1736.

<sup>41</sup> *A Supplement to the Detection of the State and Situation of the Present Sugar Planters of Barbadoes and the Leeward Islands*, London, 1773.

<sup>42</sup> Shortt and Doughty, *Canada and Its Provinces*, Vol. II.

<sup>43</sup> C<sup>11</sup>A, Vol. 58, despatch of Oct. 15, 1737.

<sup>44</sup> C<sup>11</sup>A, Vol. 60, p. 71, Vol. 61, p. 98, Vol. 73, p. 113, etc.

<sup>45</sup> C<sup>11</sup>A, Vol. 69, p. 230, Hocquart, Oct. 2, 1739.

<sup>46</sup> C<sup>11</sup>A, Vol. 65, p. 11, Hocquart to the Minister, Oct. 30, 1731.

<sup>47</sup> C<sup>11</sup>A, Vol. 70, p. 80, Hocquart, Oct. 27, 1738.

foot of three inches thickness.<sup>48</sup> The vessel itself does not seem to have been ready for sea until 1742. It was, however, followed by several others turned out more rapidly, and the program went forward until the exigencies of war diverted energies and funds to other purposes.

While ship-building is not our main interest here, it is impossible, in view of its relative importance, to ignore it. Moreover, the requirements of timber that it involved doubtless constituted the backbone of the lumber industry of the province. As has been remarked before the interest lies not in the magnitude of that industry but in its methods and geographical extent. The necessity of using oak in building the ships of war caused an immediate extension of the area in which timber was sought. Montreal and its neighbourhood were being exploited before 1730. In 1734 the lake Champlain region was investigated,<sup>49</sup> at first with discouraging results. Later on, in the 1740's, it became familiar ground both for white oak, pine and the wood called cypress (*cyprès*), possibly our tamarac.<sup>50</sup> They even got as far as improving the Chambly rapids to facilitate the descent of this timber. The plan was to blow up the larger rocks with gunpowder.<sup>51</sup> In 1740 they began to explore the St. Lawrence above the rapids and brought down some experimental rafts. The men in charge lit fires on the rafts before approaching the rapids and were rejoiced to find that *ils n'estoient pas éteints en descendant les rapides*.<sup>52</sup> It is impossible to say how far up they had gone, but in 1742 mention is made of a new and inexhaustible pinery thirty leagues above Montreal,<sup>53</sup> which would bring them close to lake Ontario. The officials considered the find fortunate as otherwise they would have had difficulty in providing masts for the frigate then building—a tribute to the elementary nature of their exploitation of the intervening country, for, back from the river, there must have been much large pine about or below Montreal. The impression is confirmed by Le Vasseur's narrative of how he cut his *cyprès* masts on lake Champlain—all close to the shore, "ne pouvant tirer à bras ceux qui se trouvent un peu enfoncés en profondeur."<sup>54</sup>

In another and very remote part of the colony at this period the forest was also being laid under tribute. The account books of the Jesuit mission at Detroit speak of all the ordinary forms of timber—square timber, boards, planks and so on. Mills were established there and a diminutive lumber industry, but one probably quite adequate to the little community's needs had begun.<sup>55</sup>

But the colony's brief little day was drawing to a close. Wartime difficulties supervene. By 1747 the construction of the King's ships is slowing up. The woods are becoming unsafe. The 60 gun ship waits for parts, parts which would have been supplied "si les sauvages ennemis ne nous avoient pris l'année dernière deux charpentiers dont un est prisonnier et l'autre a eu la chevelure levée; ce qui a dispersé les autres."<sup>56</sup> The able but unscrupulous Bigot, Hocquart's successor, for a time gets something

<sup>48</sup> Arch. Col., C<sup>11</sup>A, Vol. 70, p. 80.

<sup>49</sup> C<sup>11</sup>A, Vol. 62, p. 71, De Chevigny to the Minister, Oct. 19, 1734.

<sup>50</sup> C<sup>11</sup>A, Vol. 83, p. 347.

<sup>51</sup> C<sup>11</sup>A, Vol. 85, p. 10, Beauharnois and Hocquart to the Minister, Sept. 19, 1746.

<sup>52</sup> C<sup>11</sup>A, Vol. 73, p. 41, Hocquart, July 5, 1740.

<sup>53</sup> C<sup>11</sup>A, Vol. 77, p. 40, Beauharnois and Hocquart, Oct. 19, 1742.

<sup>54</sup> C<sup>11</sup>A, Vol. 83, p. 348, despatch of Oct. 1, 1745.

<sup>55</sup> Extracts from Père Potier's Account Book:

1747. 1 b l salt for 6 pieces of pine timber and 100 boards or planks.

1 bbl pork for one hundred planks.

1749. Robert has sawed 126 for me, also 57 boards; 47 liv. 10s. for sawing.

I . . . . . 22 pieces of sawn pine timber at 3 liv.

I owe my sawyer the cost of sawing 26 planks at the rate of 45 liv. the 100.

I owe Moran 20 liv. for carting 49 pieces of lumber to be sawed at Meloche's mill.

Thwaites, *Jesuit Relations*, Vol. 70, pp. 21 *et seq*, Missions des Hurons du Détroit, 1733-1756.

<sup>56</sup> C<sup>11</sup>A, Vol. 89, Le Vasseur, August 10, 1747.

done. Among other things, he has iron knees from native iron cast at the St. Maurice Forges<sup>57</sup> and uses them instead of the natural knees, the finding and fashioning of which entailed so much labour. He was approximately three generations ahead of the best brains of the British navy in this respect.<sup>58</sup> But though merchants would like to build ships, all available workmen are in the king's service.<sup>59</sup> The interval of peace seemed to have been well utilized. Peter Kalm speaks of the ships being built at Quebec in 1749,<sup>60</sup> adding that those already built had not proved satisfactory, the timbers rotting. This was in part because of the mistakes of the local builders. They built from green wood<sup>61</sup> and they apparently did not understand how to pile their timber properly when they got it to Quebec. They left it exposed to the weather for two or three years and probably did not pile with proper air spaces. The money for sheds was never forthcoming. These difficulties seem to have disappeared before the next war<sup>62</sup> and also woods operations were, by that time, under pressure of the larger building program, assuming less of a makeshift character. The timber cruising (*courir les bois*) comes first, the cruisers going further afield each winter, then the cutting is done in winter and the logs or masts hauled to the lake shore. The "drive" comes in the spring, the flood water being utilized to pass the rapids.<sup>63</sup> But this developing system came too late. With the outbreak of the Seven Years' War, the vessels on the stocks could not be finished. The masts for the last of them, the *Québec*, had to be cut under the protection of a large armed escort.<sup>64</sup> Finally, her wood was used for other purposes. Nearly one thousand batteaux constantly in use required all the men and material obtainable.<sup>65</sup> Also ships had to be constructed on lake Champlain and lake Ontario.<sup>66</sup>

Thus the rather doleful little story, begun amid high hopes for the immortal glories of the Kingdom of Heaven and vigorous efforts for rewards of a more mundane sort, ends in the turmoil of war and the approach of conquest. There were other things besides masts and ship-timbers to think of in those stormy days of 1758 and 1759. The curtain was being rung down, to be raised again by actors infinitely less picturesque than the governors, intendants and missionaries of the old régime, infinitely more prosaic, but from that prosaicness much better equipped for the task in hand.

<sup>57</sup> *Arch. Col.*, C<sup>11</sup>A, Vol. 93, p. 67, Bigot's despatches of Aug. 10, 1748.

<sup>58</sup> Albion, R.G., *Forests and Sea Power*, p. 393.

<sup>59</sup> C<sup>11</sup>A, *op. cit.*

<sup>60</sup> Kalm, *Travels*, Vol. III, p. 191, London, 1771.

<sup>61</sup> C<sup>11</sup>A, Vol. 58, Hocquart's despatch of Oct. 31, 1731.

<sup>62</sup> C<sup>11</sup>A, Vol. 98, p. 167, Bigot's despatch of Oct. 21, 1752.

<sup>63</sup> C<sup>11</sup>A, Vol. 99, p. 471, Le Vasseur's *Mémoire sur les mâtures*, Oct. 15, 1754.

<sup>64</sup> C<sup>11</sup>A, Vol. 102, p. 300.

<sup>65</sup> C<sup>11</sup>A, Vol. 102, Bigot's despatch of Oct. 22, 1757.

<sup>66</sup> C<sup>11</sup>A, Vol. 102, p. 332, Vol. 104, p. 76.