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**THE FORTIFICATIONS OF MONTREAL 1717-1744:
THE DEVELOPMENT AND IMPLEMENTATION OF THE PLAN**

**A thesis submitted to the
Faculty of Fine Arts
in partial fulfillment of the requirements
for the degree of Master of Arts**

by

Monique C. Poirier

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February, 1991**

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ABSTRACT

Montreal evolved as a fortified town during the French Régime. Its first fortification, a cedar palisade erected between 1686 and 1689, was the precursor to the stone-faced ramparts built from 1717 to 1744 under the direction of the French military engineer, Chaussegros de Léry. This study focusses on the origins, the development and implementation of Chaussegros' plan.

The evolution of the plan is considered in the light of four issues. First, a study of the contemporary strategic context explains Montreal's role as a military headquarters establishing why the town was fortified. Second, tracing the evolution of the fortifications from the construction of the palisade through to Chaussegros' plan reveals that the ramparts were integrated into the urban fabric following precedents established by previous military engineers. Third, the impact of military considerations on the development of Montreal is evaluated. Finally, an analysis of Chaussegros' plan shows that he followed precepts established by the foremost French military engineer of the seventeenth century, Sebastien Le Prestre de Vauban (1633-1707). A cursory analysis of budget and labour explains how the plan was implemented and why the fortifications of Montreal were built over a period of thirty years.

Although simple in plan, Montreal's ramparts were built according to contemporary principles of fortification. In their elaboration, Chaussegros considered global strategy, existing urban features, topography and contemporary military theory.

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LIST OF ABBREVIATIONS

- AN** - Archives Nationales, Paris, Fonds des colonies, Série C11A, correspondance générale, Canada
- AN-CAO** - Archives Nationales, Centre des Archives d'Outre-mer, Aix-en-Provence.
- ANQM** - Archives nationales du Québec, Centre d'archives de Montréal
- ANQQ** - Archives nationales du Québec, Centre d'archives de Québec
- ASSSM** - Archives du Séminaire de Saint-Sulpice, Montréal
- CCA** - Canadian Centre for Architecture
- DCB** - Dictionary of Canadian Biography
- DFC** - Centre des Archives d'Outremer, Aix-en-Provence, Dépôt des fortifications des colonies, Amérique Septentrionale
- NAC** - National Archives of Canada
- RHAF** - Revue d'Histoire de l'Amérique Française

INTRODUCTION

Montreal evolved as a fortified town during the French regime. Its first fortification, a cedar palisade erected between 1686 and 1689, was the precursor to the stone-faced ramparts built from 1717 to 1744 under the direction of the French military engineer, Joseph-Gaspard Chaussegros de Léry.¹ This study focusses on the origins and implementation of Chaussegros' plan.

Military strategy for New France had an impact upon Montreal's urban development for approximately 130 years, beginning with the decision to build the palisade in 1686 and ending with the demolition of the ramparts between 1801-1818. As monumental military architecture framing the limits of the urban environment, the walls defined and created the town's form, giving it a unique configuration. The construction of Chaussegros' fortifications fixed the town's boundaries in stone, reinforcing the division between urban and rural spaces as was clearly illustrated by the drawings of English topographers of the late 18th and early 19th centuries. One such example (illustration 1) is James Peachey's water-colour, *A view of the City of Montreal, taken from the top of the Mountain, the 15th October 1784*. It shows the asymmetry and irregularity of the fortifications which shaped the town into an oblong form with its

¹ Chaussegros de Léry (1682-1756) was born in Toulon, France, to a family of master-masons and architects. He was sent to Canada in 1717 and except for a short visit to France in 1718-1719, he spent the rest of his life in New France. Anne Blanchard, *Dictionnaire des ingénieurs Militaires 1691-1791*, (Montpellier: 1981), p. 156; Joseph-Gaspard Chaussegros de Léry, *DCB*, vol. III, p. 116-119.

long sides parallel to the waterfront. Contrasting with the open country, Montreal appears to be uncomfortably wedged between natural topographical features such as the Saint Lawrence River in the background, the hillock to the left and the *Saint-Martin* River in the middle ground.²

The ramparts completely surrounded the town, creating a contour of 1854 *toises* or approximately 3.4 k.m.³ Its trace consisted of thirteen irregular bastions and one *tenaille* linked with curtain walls creating twenty eight flanks with three cannon *embrasures* in every flank. The stone-facing of the rampart, the *escarp*, reached approximately 20 feet from the bottom of the ditch to the top of the *parapet*.⁴ Behind the stone wall facing the countryside was an earthen embankment. The top of the embankment was a terrace 14 feet 6 inches wide. It was paved with stones to form a sentry road and held the cannon platforms. The wall facing the Saint Lawrence River was only 7.5 feet wide at the ground level. Built on a different principle, it was a terraced wall held by a stone retaining wall. When completed in 1744, the rampart featured sixteen gates, eight large and eight small.

Outside the wall, on the landward side, simple outerworks were built consisting of a dry ditch, a *counterscarp*, and a *glacis*. Facing the curtain was a ditch 30 feet wide narrowing to 24 feet at the bastions and

² In orienting the town, conventional rather than actual directions will be used.

³ A *toise* measured six English feet. Consult the glossary for italicized military terms.

⁴ All measurements given in French feet unless otherwise noted. A French foot equalled 1.065675 English feet.

rising two feet from the *escarp* to the *counterscarp*. The *glacis* sloped gently from the top of the counterscarp towards the countryside. Beyond the *glacis*, three small rivers surrounded Montreal creating a natural wet ditch: the *Saint-Martin* to the north; the *Prud'homme* to the west; and the *Saint-Pierre* River to the south. A *barbet battery* holding thirty cannons was built on the small hillock, the Citadel, rising over the east end of Montreal.⁵

Montreal's history as a military town may be divided into four periods during the French regime; its fortifications were developed during second and third. The first period, 1642-1685, begins with the foundation of Montreal. An *ad hoc* military policy resulted in the construction of forts and redoubts on the island of Montreal providing adequate protection against low calibre rifles. They were usually raised in response to pressure from local merchants or *habitants*. Fort Ville Marie, for example, was the first European fort on the island of Montreal.⁶ It was constructed in 1643 on the Pointe-à-Callière at the mouth of the *Saint-Pierre* River. Although it was built at King Louis XIII's expense in 1643, it was not built following a systematic imperial policy of defence. The *Associés de Montréal* had requested it as a protection against the Indians

⁵ "Petit Mémoire du Canada pour la ville de Montréal". September 20, 1742. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F78: p. 317. For easy reference, the fortified hillock will be called the Citadel.

⁶ The first fortifications on the Island of Montreal were built by Indians. Champlain reported the presence of a fort at the foot of Mount Royal and described it in his accounts. In all probability, Fort Ville Marie was built at the confluence of well travelled indian waterways and footpaths. The Point-à-Callière already was a meadow, possibly previously cleared by the Indians.

and Dutch or English marauders.⁷ When Montreal was relocated to its new site across the *Saint-Pierre* River in c1648, the town itself was not fortified.

The second period, 1685-1713, signalled the beginning of a cohesive defensive policy for New France with the arrival of the colony's first military engineer, Robert de Villeneuve.⁸ The resulting military strategy was based on the utilisation of Montreal's existing infrastructures and facilities. Henceforth, the construction of forts and fortifications for the town was controlled by colonial authorities who implemented King Louis XIV's directives. It was during this period that Montreal was first fortified. It became a garrison town supplying munitions and soldiers to a network of forts controlling the Great Lakes region and the Richelieu/Lake Champlain corridor.

The third period, 1713-1744, was marked by the construction and the implementation of the plan for Montreal's stone-faced ramparts. In 1713, after the ordinance to build the ramparts was issued by Bégon, the first sections of a masonry wall were erected on the waterfront adjacent Place d'Armes. In these early stages of planning, measures such as levies or expropriation were explored in preparation for the construction of the fortifications and were being implemented when Chaussegros arrived in

⁷ ASSSM, "Lettre du Roi Louis XIII à M. de Montmagny, Gouverneur de la Nouvelle France", Tiroir 10, Section 5, no. 1, 20 Avril 1643.

⁸ Robert de Villeneuve (1645-died after 1692) was in the colony as a military engineer and cartographer from 1685-1692. *DCB*, Vol. 1, p. 663.

1717. Under his direction the fortifications were erected over the next 27 years and completed in 1744.

The fourth period, 1744-1760, began with the declaration of war between France and Britain and ended with the capitulation of Montreal. From 1744 onwards, Montreal's defensive networks were modified and expanded in preparation for war with the British. Chaussegros then turned his attention to the consolidation of Quebec City's fortifications which had been neglected in favour of Montreal's since 1720.

Under the British regime, Montreal's fortifications slowly fell into disrepair. By the end of the century, petitions were signed by town residents for their demolition which took place between 1801 and 1818. British fortifications were subsequently moved away from the town to peripheral areas such as *Sainte-Helene's* Island where a fort, an arsenal, and a powder magazine were built by Colonel Durford between 1820 and 1824.⁹

This thesis will focus on the second (1685-1713) and third (1713-1744) periods of Montreal's military history, during which time the town's role in a global strategy was conceived and consolidated. Military imperatives were a major factor in Montreal's urban development, beginning with the construction of the first palisade in 1686 until the completion of Chaussegros' fortifications in 1744. The change from a wooden palisade

⁹ *Répertoire d'architecture traditionnelle sur le territoire de la communauté urbaine de Montréal: architecture militaire*, (Montreal: Service de la planification du territoire, 1982), p. XII.

to a stone-faced rampart was linked to the consolidation of a strategy designed to stem British expansionist forces in North America. Because of its geographic location at the hub of commercial and military thoroughfares, Montreal became the linchpin in a defensive network of forts protecting Canada from an overland invasion. Hence, there were two strategic counterparts in the development of the town's fortifications: one was Montreal's role as a regional military headquarters in a defensive network linking Quebec City with the interior of the continent; the other was the construction of Montreal's ramparts as a local fortification system designed to protect the town itself.

When Chaussegros arrived in Montreal in 1717, his mandate consisted of merging and expanding the town's disparate network of forts, and simultaneously building its ramparts. Thus, in order to understand the genesis of the plan he implemented for Montreal's fortifications, this study will examine global strategy, existing urban features, topography, and contemporary military theory.

CHRONOLOGY

- 1642 - Founding of Ville-Marie on Pointe-à-Callière.
- 1643 - Construction of Fort Ville-Marie.
- c1646 - Town moved to site across Saint-Pierre River.
- 1663 - Administration of the colony taken over by the King from the *Compagnie de Notre-Dame*.
- 1663 - Island and town of Montreal given *en fief* to the Séminaire de Saint-Sulpice.
- 1672 - First town plan laid out by Dollier de Casson.
- 1685 - Arrival in New France of the first military engineer, Robert de Villeneuve.
- 1686-89 - Montreal fortified with a palisade under Callières' supervision.
- 1687 - Franquelin and Villeneuve were making plans at Montreal.
- c1687 - Construction of the powder magazine.
- 1688 - Redoubts built in the *seigneuries* around Montreal by Callières.
- 1689-1697 - War of the League of Augsburg.
- 1689 - Iroquois attack on Island of Montreal.
- 1690 - Attempted seige on Quebec City by British General Phips fails.
- 1693 - High and Medium courts at Montreal taken over from the Sulpicians by Royal authorities, Low court left to Sulpicians.
- 1693 - Fort à Callière built on the Citadel.
- 1695 - Construction of a new guardhouse at Place d'Armes.
- 1699-1700 - First extension of the palisade.
- 1702-1713 - War of Spanish Succession.

- 1702 - Forts in the government of Montreal restored under Beaucours' direction.
- 1704 - Plan of Montreal drawn by Levasseur de Néré.
- 1708-10 - Second extension of the palisade to include the Citadel within town walls executed by Levasseur de Néré following a new plan (plan of 1704 abandoned).
- 1712 - Decision made to fortify Montreal with a stone-faced rampart.
- 1713 - Treaty of Utrecht.
- 1713 - Ordinance by Bégon to build the rampart.
- 1713 - A section of the stone wall started on the waterfront adjacent to Place d'Armes.
- 1714 - Ordinance by Bégon ordering a levy of forced labour on the *habitants* of Montreal's government for the construction of the ramparts.
- 1714 - Ordinance by Bégon and Vaudreuil that those holding properties within the area of land reserved for the fortifications exchange them for new properties.
- 1716 - Decree ordering citizens of Montreal to pay a yearly surtax of 6000# for the construction of the fortifications.
- 1717 - Chaussegros de Léry arrives in Montreal and makes a new plan for the town's fortifications. Work on the walls is started by Dominique Janson dit Lapalme who was hired as the general contractor of the masonry works.
- 1719-41 - Jean Boucher dit Belleville was hired as the new general contractor for the masonry works.
- 1721 - First major fire at Montreal.
- 1738 - Walls for the ramparts were completed.
- 1741 - Place d'Armes moved to its new location next to *Notre-Dame* Parish Church.
- 1741 - Gates completed (doors in place and locking).
- 1742 - Rough-casting of walls.
- 1744 - Construction of cannon platforms.

- 1744 - War declared between France and Britain.
- 1756-63 - Seven Years War.
- 1759 - Quebec captured by the British.
- 1760 - Montreal capitulates to the British.
- 1775 - Montreal captured by the Americans.
- 1789 - Petition by the citizens of Montreal for the removal of the walls.
- 1801 - Legislation for the removal of the walls.
- 1801-c1818 - Demolition of the walls.
- 1818 - Contract for levelling Citadel Hill.

CHAPTER 1

Strategy and the Development of Montreal's Fortifications 1685-1744

The evolution of a defensive strategy for New France had an impact on the fortifications of Montreal because of its geographical location. Established in 1642, the town was located at the confluence of rivers converging from four different directions. A major portage on the Saint Lawrence River, it quickly became a significant inland port. In the eighteenth century, the island was much like modern highway interchanges, creating a meeting point between the lower Saint Lawrence, the Great Lakes, the Ottawa River and the Richelieu/Champlain waterways (illustration 2).

A commercial thoroughfare between the sea and the continent, Montreal was a depot and a distribution centre for furs and other trading goods.¹ It functioned in the same way for military operations linking Quebec City to a network of posts and forts established in the Great Lakes/Mississippi region, in the northern hinterlands penetrated by the Ottawa River and the Richelieu/Lake Champlain corridor leading to Albany and New York. Referring to its geographical importance, historian Louise Dechêne aptly described Montreal as "[le] point névralgique de la colonie française et plaque tournante de sa stratégie".²

¹ Louise Dechêne, "La Croissance de Montréal au XVIIIe siècle", *RHAF*, (September 1973), p. 128.

² *Ibid.*, p. 353.

By 1701, the French had established a fortified zone from Acadia to Louisiana with a naval base in the Gulf of the Saint Lawrence River, first in Newfoundland and, after its cession to the British in 1713, at Louisbourg on Cape Breton Island.³ New France had been divided into three colonies: Acadia; Canada; and Louisiana. Canada, located between Acadia and Louisiana, became the springboard for military operations. Quebec City, the political capital of Canada, protected the mouth of the Saint Lawrence River and Montreal was the headquarters for military activity carried out on the interior frontiers.⁴

After the War of the League of Augsburg (1689-1697), the North American colonies had become an important economic factor in the balance of power between France and Britain.⁵ Consequently, both governments were developing military strategies to gain control of North America. During the 1680's and 1690's, the British intent to seize New France had become apparent. A two-pronged attack was organized against the colony in 1689-1690: in 1689, the Iroquois, British allies, led a massive attack on the island of Montreal and a year later, the first concerted British offensive

³ W.J. Eccles. "The Social, Economic, and Political Significance of the Military Establishment in New France", *Canadian Historical Review*, (March 1971), p. 19.

⁴ In one of many pleas to modernize Quebec's fortifications, the town is described as "la barrière de la colonie du côté du fleuve". Letter from Beauharnois to the Minister, October 15, 1736. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F65: 138-139.

⁵ Yves F. Zoltvany, "The Frontier Policy of Philippe de Rigaud de Vaudreuil, 1713-1725". *Canadian Historical Review*, (September 1967), p. 233.

in New France was carried out against Quebec City.⁶ In September 1690, 32 ships and 2,000 men led by General Phips arrived at Quebec City from Massachusetts.⁷ Although the expedition failed, it served clear notice to the French that the British wanted access to the Saint Lawrence River.

The double-headed threat to the colony mobilized the French government into consolidating its fortifications in Canada. In anticipation of such attacks, 150 troops were sent to Canada in 1683 under the auspices of the Ministère de la Marine, and by 1685, 1600 troops lived with the *habitants* in New France.⁸ The commander Vaudreuil and 120 troops were established on the Island of Montreal in 1687 to protect the colony's main gateway into the interior of the continent.⁹ Simultaneously, Montreal's first palisade was built between 1686-1689.

After General Phips' aborted siege of Quebec City, there were adjustments made to Montreal's fortifications because authorities feared a renewed attack.¹⁰ In 1693, Callière attempted to rectify two weak

⁶ "Receuil de ce qui s'est passé en Canada au sujet de la guerre tant des Anglais que des Iroquois depuis l'année 1682". AN, Section Outre-mer, Série F3, Collection de Saint-Méry. ANC, Microfilme F378, vol. 2, p. 100-129.

⁷ Gary Nash, *The Urban Crucible*, (Cambridge and London: Harvard University Press, 1979), p. 55.

⁸ Eccles, *op. cit.*, p. 5 and 12.

⁹ Denonville. "Mémoire de l'état présent des affaires du Canada". October 27, 1687. AN, Fonds des colonies, Série C11A, correspondance générale, Canada, F9: p. 199-226.

¹⁰ "Mémoire des colonies? (illegible word) pour la defense: Canada sera fortement attaqué cette année 1692". AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F12: p. 133-136.

points in Montreal's local defence. On a hillock which overlooked the east end of the town he built a small rectangular terraced fort with four bastions, one at each corner. *Fraises* garnished the exterior slopes of the fort with a ditch on two sides, the other sides being protected by steep banks.¹¹ He also constructed a dam at the junctions of the Prud'homme and the Saint-Martin Rivers hoping that by flooding the area the creation of an additional barrier would strengthen Montreal's western front. The dam failed to work and as a defensive measure, the construction of dams was never realized in the context of Montreal's fortifications.¹²

It was Montreal's geographical position in North America that determined its strategic role though political and economic reasons were at play. The increasing knowledge of the continent's size and potential resources enhanced its position at the confluence of trade routes.¹³ In a trade war for North America, access to water systems was crucial because boats were the only means of transportation of furs and goods into or out of the interior of the continent. Consequently, Montreal's importance as a gateway into the continent grew commensurately with the increased geographic knowledge.

¹¹ Mémoire 1693. "Relation de ce qui c'est passé au Canada depuis le mois de Septembre jusqu'au départ des vaisseaux en 1693". AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F12: (182-205), p. 194-195.

¹² "Extraits de lettres, pièces, et mémoires, touchant l'estat et les affaires du Canada au départ des vaisseaux, 1694." AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F13: (p. 31-40) p. 35.

¹³ Dale Miquelon, *New France 1701-1744: "A Supplement to Europe"*, (Toronto: McClelland and Stewart, 1987), p. 6.

A study of maps from the seventeenth to the eighteenth century revealed that by the turn of the century knowledge of the North American continent was being progressively improved.¹⁴ The Saint Lawrence River penetrated deep into a vast continent to form a massive communications system down the Mississippi to the Gulf of Mexico with obvious economic implications.¹⁵ Controlling the Saint Lawrence River became imperative for the exploitation of new resources and fur trading grounds as well as for expanding supply zones into the western and north-western frontiers of North America. This was particularly true for the British who were hemmed in along the eastern seaboard as long as the French controlled the Saint Lawrence/Mississippi water systems. In this context, Montreal's geographical position, described to Colbert as "étant à la teste de toutes nos colonies", was significant in the development of a strategy to defend New France.¹⁶

The defensive strategy that was implemented adapted contemporary European practices developed by Vauban to the colonial context. The first principle of strategy was the application of the *précarré* which had been perfected in France's system of land defence under Louis XIV in the last two decades of the seventeenth century. Vauban had advocated the creation

¹⁴ The David M. Stewart Foundation in Montreal has a significant collection of world maps dating from the 15th century onwards. Among those consulted for this study were:

¹⁵ Marcel Trudel, *An Atlas of New France*, (Quebec: les Presses de l'Université Laval, 1973).

¹⁶ "Mémoire pour Monseigneur Le Marquis de Seignelay" October 20, 1685. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F7: 125.

of a long-term defensive policy based on a clear definition of frontiers; fortifications were to be dispersed in a continuous line defining the frontiers and protecting major routes of communications into the country.¹⁷ There were two counterparts to this: one was the development of successive defensive barriers creating layers of obstacles along major routes; and the other was the control of strategic points within the system maximising the virtues of passive resistance, "la vertu passive de la défense", inherent in physical blockades.¹⁸

Vauban had presented the concept of the *précarré* in a letter dated January 20, 1672.¹⁹ At the turn of the century, after he had consolidated France's fortifications, he turned his attention to Canada integrating the idea of the *précarré* into the colony's system of defence. The construction of Montreal's defensive network and its ramparts clearly illustrates this.

Vauban had submitted a memorandum on the development of New France, January 7th, 1699, in which he stated that it was imperative that an inter-continental balance of power be maintained. In order to achieve this and avoid losing them to the British, he encouraged the strengthening of

¹⁷ Yves Bottineau Fuchs, "Les camps retranchés chez Vauban", *Vauban réformateur*, (Paris: Décembre 1983), p. 57.

¹⁸ Colonel Pierre Rocolle, "La Réalisation du Précarré", *Vauban réformateur*, (Paris: Décembre 1983), p. 49.

¹⁹ Rocolle, *ibid.*

French colonies such as Louisiana and, especially Canada because it controlled access to the Saint Lawrence River.²⁰

A major element in Vauban's strategy was the control of roads, water ways and crossroads.²¹ As roads were practically non-existent in the colony until the mid-eighteenth century, major waterways were fortified.²² The Saint Lawrence River, the Great Lakes system and the Richelieu/Lake Champlain corridor allowed easy access into the continent but, conversely, were also invasion routes for the British into New France. Therefore, forts or redoubts were built or consolidated on major portage routes at Chambly (palisades 1665 and stone walls 1710-11) on the

²⁰ George Livet, "Vauban et les Relations Internationales: Un "modèle à la Vauban" d'équilibre européen au XVII^e siècle", *Vauban Réformateur*, (Paris: Décembre 1983), p. 378.

²¹ Rocolle, *op. cit.*, p. 51.

²² The implementation of a military strategy included the development of an infrastructure of roads to facilitate military operations between Montreal and the periphery of the colony. As a result the development of some roads was charged to the fortifications account such as the surveying of a road above Saint-Jean Rapids at Laprairie de la Madeleine. "Marine 1744: Bordereau des Recettes et depenses...1744". Hocquart and Varin, September 25, 1746. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F116: (65-118) p. 116. The road built between Fort Saint-Frédéric and Laprairie de la Madeleine considerably facilitated military operations and the distribution of supplies reducing the trip to 48 hours and avoiding the Chambly route which necessitated the crossing of three rapids at Chambly, Sainte-Thérèse and Saint-Jean. Letter from Lagalissonnière, February 26, 1748. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F91: 40-45. The road between Quebec City and Montreal was built in 1735 by Grand voyer Jean Eustache Lanouillier de Boisclerc, (b. 1689 or 1694-1750). Letter from Hocquart, October 15, 1735. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F64: 91-97.

Richelieu River, at Saint-Frédéric (1731-37) on the southern tip of Lake Champlain and at Frontenac (1673) at the mouth of Lake Ontario.

Montreal was secured by a series of fortresses and forts built on the periphery of the colony. After 1713, following Vauban's theory of creating "des ensembles d'obstacles en profondeur", invasion routes leading to Montreal were fortified to create as many obstacles as possible to thwart enemy forces.²³ To reduce costs, trading posts served as forts for the military as well. Adding to these barriers, outposts were built on the periphery of the island of Montreal. Finally, the town itself was fortified with a stone-faced rampart.

Vauban's defence "en profondeur" is clearly illustrated by the Richelieu/Champlain corridor network of forts built to impede British attackers coming from the Hudson River and Albany regions. Seventeenth-century fortifications along this route consisted of palisaded forts built at Montreal's outposts at Sorel (1643) and Chambly (1665). The latter replaced old Fort Richelieu built in 1642 near the mouth of the Richelieu River. Fort Sainte-Thérèse (1665) and Saint-Jean (1665) were south of Chambly near the Saint-Jean Rapids.²⁴ Fort Sainte-Anne was erected in

²³ Fuchs, *op. cit.*, p. 57.

²⁴ Mémoire 1693. "Relation de ce qui c'est passé au Canada depuis le mois de Septembre jusqu'au départ des vaisseaux en 1693". AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F12: 194.

1666 at Lake Champlain; Fort Saint-Jean and Sainte-Anne were abandoned in 1667.²⁵ (illustration 2)

In the eighteenth century, further fortifications were built along this corridor as the threat of invasion intensified. Following reports that the British were preparing an attack through this venue in 1709, Governor General Vaudreuil replaced the palisades at Fort Chambly with stone walls in 1710-1711.²⁶ Heading the network, Montreal's fortifications were upgraded with the extension of the palisade to include Citadel Hill in 1709.²⁷

The defensive network for this corridor was next consolidated under Chaussegros de Léry who implemented two strategies for its defence: First, Lake Champlain was divided into seigneuries and granted to prominent colonists in order to encourage French settlement in the area²⁸; and

²⁵ Adrian Nunes, *Government Policy Toward the Fortifications in Canada During the French Regime*, (McGill University, MA Thesis 1970).

²⁶ Marc Lafrance, "Art Militaire et technique de guerre: le fort de Chambly de 1710-1711." *RHAF*. (June 1983), p. 23. According to reports from various source, (spies, traders, Indians and war prisoners) Vaudreuil learned that 6,000 troops were preparing to attack Quebec and 2,000 troops Montreal. The attack on Montreal was planned from New York via the Richelieu/Lake Champlain route.

²⁷ Letter from Raudot to the Minister, September 15, 1709. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F30: 244.

²⁸ A map of Lake Champlain dated c1737, shows the division of the territory into new *seigneuries* which were granted to prominent colonists such as Raimbault, Roberth, Longueuil and de Léry. The King reserved the land around Fort Saint-Frédéric at the southern tip of the lake. "Carte du lac Champlain depuis le Fort de Chambly jusques au desus du Fort S^t Frédéric dans la Nouvelle France." CSM. Cartes et Plans, bobine 648, no. 59.

second, Fort Saint-Frédéric was erected (1734-1737) at the southern tip of the lake. By 1759, when the British attacked the colony, the invaders faced at least eight obstacles from the southern tip of Lake George to the foot of Montreal's walls. Three other forts had been added to the network: Fort Carillon (1756) was built at the northern tip of Lake George (then Lac Saint-Sacrement); Fort Saint-Jean (rebuilt in 1748) and Fort Ile-aux-Noix (1759) were both built on the Richelieu River south of Fort Chambly.

The network of forts in the Lake Champlain corridor was clearly a military system developed in response to a fear of invasion by this route. This contrasted to the fortified network which had evolved throughout the seventeenth and eighteenth centuries in other regions such as the Great Lakes. The network of forts built in the Great Lakes/Mississippi region defined the frontiers of the colony and created a cushion between enemy nations and Canada. However, they had multiple missions. They were trading posts serving simultaneously as forts, such as Forts Frontenac (1673) and Detroit (1701). They were used to promote French interests among the Indians in an effort to build a climate of trust between the two nations. In this courtship, the Indians were encouraged to attend Montreal trade fairs and to ally themselves with the French against the British.²⁹ (illustration 2) As rallying points, forts were used to promote and control trade, to promote the diplomatic policies of the government and to deploy troops and munitions. In a memorandum sent to Pontchartrain this was clearly explained when he argued that stone walls should be built at

²⁹ Letter from Frontenac to the Minister, November 12 1674. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F4: 68. See also Miquelon, *op. cit.*, p. 34.

Chambly. As a key outpost for the Montreal region, Chambly protected the town of Montreal, Sorel, Laprairie de la Magdelaine, Saint-Lambert and Longueuil against British and Indian raids.³⁰ It was a military depot and deployment centre and was a refuge for *habitants* living in the area.³¹ In promoting imperial policies, most forts were a microcosm of fortified towns such as Montreal, serving commercial, political and military aims.

From 1717 to 1744, most of Chaussegros' summers were spent in the Montreal region, building the ramparts for the town and consolidating its network of forts.³² (See Appendix IV) Despite repeated recommendations from colonial authorities the King refused to fortify Quebec. It appears that with the budgetary constraints imposed by France, a judicious choice in the construction of fortifications was necessary. Montreal was chosen because its geographical position was a strategic key to Canada's defensive network. Therefore, from 1720 to 1745 the construction of Montreal's fortifications superseded Quebec's.³³

³⁰ "Mémoire sur les fortifications du Canada à Monseigneur Le Comte de Pontchartrain Ministre et Secrétaire d'état" March 19, 1711. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F32: 282.

³¹ In a letter to the minister Vaudreuil and Bégon referred to Chambly as the "rampart du Canada du côté d'en haut", November, 12 1712, AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F33: 26.

³² In order to understand Chaussegros' work as a military engineer in the colony official correspondence was consulted: Pierre-Georges Roy, *Les papiers de Léry*, 1939; AN. Fonds des colonies, Série C11A, correspondance générale, Canada.

³³ Charbonneau, Desloges, et Lafrance. *Québec ville fortifiée du XVIIe au XIX siècle*, (1982) p. 51.

Montreal's Role as a Fortified Military Town

In Europe, eighteenth-century fortresses were instrumental in preparing for offensive operations and for providing security. Other than their obvious purpose as obstacles they were used in two other ways: as a refuge or rallying point for armies in retreat; and as stores or depots for munitions.³⁴ As the eighteenth century progressed, fortified places were increasingly valued as depots and as supply centres for armies in the field.³⁵ Although fortified towns in New France such as Montreal were less elaborate than their European counterparts, they functioned in the same way.

A fortified town located in the heart of the colony, Montreal's strength lay in its ability to supply out-posts and to deploy troops to troubled frontiers efficiently. In contrast, the defence of the colony lay with the fortifications established on the periphery such as Quebec City and Louisbourg at the mouth of the Saint Lawrence River and the network of forts controlled from Montreal. Hence, Montreal was fortified to protect munitions stored in the town and to mark its status as a military headquarters. It was not a frontier fortress such as Quebec City or Louisbourg. Its *raison d'être* as a defensive point was its capacity as both a military headquarters and a distribution center. According to

³⁴ Martin C. Dean. "Changes in the role of fortresses during the French revolutionary wars". *Fort*, (1989), vol. 17, p. 37.

³⁵ Larry H. Addington, *The Patterns of War Through the Eighteenth Century*, (Bloomington and Indianapolis: Indiana University Press, 1990), p. 99.

Chaussegros' definition, Montreal was a *Place d'Armes*, "une ville qui sert d'entrepôts a une armée d'ou elle tire toutes ses munitions".³⁶

In this capacity two crucial military tasks were accomplished: military intelligence was gathered; and, outposts were supplied with munitions and soldiers deployed from Montreal. A commercial turntable, the town was an ideal intelligence centre as the infrastructures for communications and transportation were already well established. Travellers and merchants brought with them not only goods but news as well. Thus, information about Indian and European enemies circulating in the interior of the continent could be filtered through Montreal to the authorities in Quebec City.

At least three methods were used to gather intelligence. One method was to question traders and merchants who came back to the town from fur trading expeditions. A second source of information were the Indians who came bartered their pelts each summer at Montreal trade fairs. Indians from allied and enemy nations arrived in the spring often spending the entire summer in the town. Records show that in exchange for information the Indians were given bead necklaces and other trinkets.³⁷ Finally,

³⁶ Chaussegros, *Traité de fortifications*, (1714), p. XIV.

³⁷ In the correspondence of both the AN, Série C11A and CMSM, Série F3, there were many instances of information being traded at Montreal. One example was the description of the Fort Orange given to Beaucours by Chief Tenancoanin of Sault St-Louis October 19, 1744. Beaucours, "Nouvelles rapportées a M. De Beaucours par Tenancoanin Chef des sauvages du Sault St-Louis revenant d'Orange à Montréal Le 19 octobre 1744". October 19, 1744. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, 81: 208-209.

intelligence was relayed to the governor by officers stationed at military outposts.³⁸

As a military headquarters, munitions were deployed from Montreal throughout the colony's network of forts. The commercial infrastructures established for fur trading during the seventeenth century were of subsequent military value in the eighteenth. Portage and river routes built by traders were used to distribute military goods. Furthermore, according to agreements between the King and the *Compagnie de la Colonie du Canada* in 1701, traders were required to cart military supplies to outposts when they left for fur-trading expeditions.³⁹ Supplies were sent from Montreal to Niagara and from there were distributed further through the network into the Great Lakes to Illinois and Louisiana.⁴⁰

Montreal did not only distribute European munitions but local goods as well. Located in a prime agricultural zone it supplied local produce to the army stationed both at frontier forts and at Quebec City.⁴¹ During

³⁸ Louis Franquet, *Voyages et Mémoires sur le Canada [1752]*, (Québec: Imprimerie Générale A. Côté et Cie., 1889) p. 141.

³⁹ "Traité fait avec la Compagnie de la Colonie du Canada tant du fort de frontenac que du détroit pour par elle y faire le Commerce des Castors et autres Pelleteries conforme aux accords et conventions y contenus". October 31, 1701. AN-CAO. Collection Moreau de Saint-Méry, Colonies F3, vol. 8, p. 284.

⁴⁰ Letter from Vaudreuil, January 3, 1759. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F104: p. 11-12.

⁴¹ Correspondence and supply contracts from two sources showed that Montreal supplied the army throughout the 18th century: AN. Fonds des colonies, Série C11A, correspondance générale, Canada; and AN. Section Outre-mer, Série G3, Carton no. 2040, Canada (Acadie), 1722-1741. In the latter series, supply contracts dating from the 1730-40's

the Seven Years War, when supplies from France were scarce, it was Montreal's crop that saved the army stationed at Quebec from starvation.⁴²

Montreal's role as a deployment centre for military personnel was well documented in official letters. In the winter, the bulk of the army was stationed in the region of Montreal in readiness for spring manoeuvres and accessible to any frontier threatened by enemy forces. This was true throughout the eighteenth century. In 1704, Governor General Vaudreuil affirmed that, "Une grande partie des compagnies hivernent dans le gouvernement de Montréal afin de tenir toute la côte sud en état d'être défendue".⁴³ In 1752, a visiting royal engineer, Louis Franquet (1697-1767) confirmed that the concentration of troops in the town was typical, "Cette ville est l'endroit du Canada où l'on tient le plus de troupes en vue de les avoir à portée pour les détacher dans les postes du pays d'en hauts".⁴⁴ During the Seven Years War, the majority of the battalions were stationed at Montreal. In 1756-57, for example, Vaudreuil cantoned four battalions in the region of Montreal in readiness for their descent to

for merchandise sent from Montreal to Quebec were found by researcher Mario Lalancette.

⁴² Letter from Rigaud de Vaudreuil (Governor of Montreal), September 13, 1759. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F104: 89.

⁴³ Letter from Vaudreuil to the Minister, November 16, 1704. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F22: p. 37.

⁴⁴ Franquet, *op. cit.*, p. 118.

to Fort Carillon at spring thaw. In contrast, two battalions were stationed at Quebec City.⁴⁵ Vaudreuil commented:

"Montréal à toujours été et est principalement, actuellement le théâtre de la guerre, c'est de là que les détachements de canadiens et de sauvages partent pour aller à l'ennemy; c'est le Gouverneur de cette place qui forme les détachemens et les fait mouvoir pendant que le Général est à Québec".⁴⁶

The governor of Montreal was instrumental in directing military operations and acting as a liaison between Quebec and the continental frontiers. Closer to threatened interior frontiers, he ensured the efficiency and speed of operations when dispatching munitions and soldiers to war zones. He received intelligence from outposts and relayed it to authorities in Quebec and he was responsible for dispatching munitions and soldiers effectively to war zones. In 1756, for example, Governor General Vaudreuil gave several reasons explaining his stay at Montreal while preparing a military campaign into the Lake Champlain area: "...j'y suis en effet a porter de donner mes ordres à Carillon, d'envoyer des partys sauvages pour harceler l'ennemy et d'accelerer toutes choses pour la campagne prochaine..." He added that not only was he able to accelerate

⁴⁵ Letter from Vaudreuil to the Minister, November 5, 1756. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F101: 144-145. The four battalions stationed in the Montreal region were: the Langeduc battalion stationed in the city itself; the Bearn divided between Laprairie, Longueil and Boucherville; the Royal Roussillon at Chambly; and the Lassare divided between Longue Pointe and Pointe aux Trembles. At Quebec, the Guyenne wintered in the city itself and the La Reyne battalion was stationed at the Côte de Beaupré.

⁴⁶ Letter by Vaudreuil to the Minister, June 12th, 1756. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F101: p. 23-25.

the deployment of troops but that his presence was necessary to discipline the army and the allied Indians camped around the town.⁴⁷

While the fortifications of Montreal were crucial to mark and defend a strategic communications and deployment centre, they were also conceived as a tool of dissuasion which was an important tactic in French colonial strategy. In speaking of Quebec, de Callière and Beauharnois had alluded to it: "Il faut mettre la ville hors d'insulte et même ôter aux ennemis la pensée d'y venir jamais".⁴⁸

At Montreal the same principle was applied. An accumulation of physical barriers had been added to geographical distance and difficult communications to further dissuade the enemy from attacking. First, the town itself was protected by a 20 foot stone wall mounted by cannons; a monumental construction for the Indians who had never seen this type of architecture before. Authorities felt that a show of force at Montreal was necessary, "il n'y a que deux mortiers dans la colonie, ils devrait etre à Montréal parceque la ville est le réceptacle de sauvages de toutes espèce... intimider les indiens en lui présentant des armes hors de leur portés".⁴⁹ The fortifications of Montreal combined with its army and

⁴⁷ Letter from Vaudreuil to the Minister, November 5, 1756. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F101: p. 144-145.

⁴⁸ Letter from Beauharnois and Callière, November 3, 1702. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F20: p. 63.

⁴⁹ Letter from Beauharnois, October 1, 1747. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F9: p. 151-154.

artillery made manifest to Indian visitors that the French were mobilised and ready to defend the colony. This was undoubtedly reported to British authorities as it was duly noted by Franquet:

"(Montréal) est le rendez-vous, comme on l'a dit, de toutes les nations sauvages; ainsi il est bon qu'ils voyent par eux-mêmes les forces qu'on y tient, pour que ceux qui sont de nos amis sentent combien ils seraient soutenus au besoin, et que les autres, partisans de l'anglois jugent des efforts que nous serions dans le cas de faire contre eux".⁵⁰

As exo-skeleton, the stone-faced rampart for the town of Montreal provided the site with a physically solid and permanent protective device. The final form of the town under the French Regime, a fortified space surrounded by a massive stone-faced rampart, was not only a practical defensive structure, but a dissuasive architectural symbol of royal authority, royal power and a mark of imperial possession.

⁵⁰ Franquet, *op. cit.*

CHAPTER 2

The Palisade — Precursor to the Ramparts

The implementation of a cohesive strategy for Canada during the French regime had a growing impact on Montreal's urban development beginning with the construction of its first fortifications, a palisade built between 1686 and 1689. Before 1686, town planning had been initiated locally by the Sulpicians who, as seigneurs of Montreal, had laid out a plan in 1672 (illustration 3). Throughout the 18th century, however, urban planning was generally the responsibility of military engineers whose preoccupations with tactical considerations affected the town's form. The demolition of the fortifications (1801-1818) ended an era of military intervention in urban planning. Thereafter, town planning was once again left to local initiative.

As a precursor to the ramparts, the palisade lay the foundations for the development of Montreal as a fortified town. In order to understand Montreal's eighteenth century form, therefore, topographical and military considerations which shaped the town in the seventeenth century must be identified. This understanding will help establish the origins of Chaussegros' eighteenth-century plan.

The building of the palisade was the first major manifestation of royal military planning for the town and as such set political and physical precedents for Montreal's development as a fortified site. The military profile given to the town by French engineers represented a shift

in political control from religious to royal authority. Two events occurring in 1693 indicated this shift. The first was when the high and middle courts were taken over from the Sulpicians by Louis XIV. They were left with the lower courts which covered the management of their *seigneurie*. The second event was the fortification of the Coteau du Moulin which had hitherto been owned by the Sulpicians.¹ Henceforth, the citadel was considered a military zone.

An obvious result of the shift in power was that Montreal acquired a military stature. Physically it changed from an open space to a closed, protected environment subject to the constraints of imperial policies. The limits of the town were defined by military installations: first, by the palisade, and; later by a monumental building, the ramparts. The citadel previously crowned by the Sulpician's grist mill was replaced by a fort which, rising above Montreal, dominated the skyline along with Notre-Dame Church.

Topography

Several principles had been advocated by Vauban for the choice of sites for new settlements. Except for its harsh winters, Montreal's situation corresponded closely to his ideal. The quality of the air and water surrounding the town were good. Montreal was a commercial centre due to its position at the crossroads of communications. Water powered grist

¹ "Lettres Patentes en forme d'Edit, concernant les Justices de l'Isle de Montréal et Coste de S^t. Sulpice du mois de Juillet 1714." CMSM. Colonies F3, vol. 9, p. 286-295.

mills were established on a canal built from the *Saint-Pierre* River. Agriculturally, the town was in a fertile belt and, moreover, possessed an ample supply of wood in the surrounding forests for building and other activities.

In addition to these assets, the site was easy to fortify.² Four prominent topographical features affected Montreal's shape as a military centre. First, it was surrounded by three rivers: the Saint Lawrence; the *Saint-Pierre*, and; the *Saint-Martin*. Second, a hillock to the north-east of the town overlooked the countryside. During the French regime it was known as the *Côteau Saint-Louis*, the *Côteau du moulin* or the *Côteau du fort*.³ Third, marshes lay at the foot of the citadel, on its northern side. Fourth, marshes outside the western walls impeded further growth in that direction forcing the town to expand towards the east.

Montreal lay in a narrow crest of land between the Saint Lawrence and the *Saint-Pierre* Rivers to the south and the *Saint-Martin* River to the north. Its elongated, oblong form evolved over the course of the 17th and the 18th centuries because it was constricted between these three water courses. When the ramparts were constructed (1717-1744) the fishtail to the east was produced by a further narrowing of the plan as the town was squeezed between the marsh located north of the Citadel and the Saint Lawrence River.

² Jean Tarrade, "Vauban et les Colonies", *Vauban Réformateur*, (décembre 1983) p. 351.

³ For ease of reference, I will use the term 'citadel'.

The land between the two rivers rose noticeably from the shore of the river to rue Notre-Dame. A walk in Old Montreal today will show how this rise becomes even steeper going east towards the spot where the Citadel once stood, east of rue Bonsecours and north of rue Notre-Dame. Archeological surveys reveal that in the eighteenth century, the ground rose 10-12 metres from the Place d'Armes to the Champs-de-Mars.⁴ After dipping towards the Saint-Martin River, the terrain continued to rise above the town towards the Sherbrooke Plateau.

Montreal was located on an island and surrounded by river-routes which facilitated military movements throughout the colony. These river systems were ideal not only for military deployment but as a natural barrier to enemy approaches. Chaussegros describes this type of site in his treatise of 1714, "Les places scituées dans un marais et dans des isles les aproches en seront très difficiles, ce qui rend ces sortes de places bonnes".⁵

The urban site itself was surrounded by small rivers which functioned as wet ditches. The Citadel rose 60 feet above the east end of town and was fortifie from 1693, when Callières built his fort, to 1819,

⁴ From a conversation with archeologist Jean-Guy Brossard, December 5th, 1990, the contemporary sea level was 12 metres in the Place d'Arme and 20-22 metres in the Champ-de-mars.

⁵ Gaspard-Joseph Chaussegros de Léry, *Traité de fortifications*, 1714. Unpublished manuscript, NAC, Manuscript Division, MG 18, K2, p. XXXIII, no. X.

when the hillock was razed to the level of rue Notre-Dame.⁶ Beyond it was a marsh further strengthening the town's defence. The east end, then, offered three natural defences: the marsh, the Côteau, and the Saint Lawrence River. In contrast, the western side of Montreal was much more vulnerable because the ground rose above the walls towards the LaGauchetière and Sherbrooke Plateaus, allowing an enemy to shoot into it without endangering its own soldiers or weapons. The rising angles impeded successful cannon-shot from within the town. In 1693, Callière had attempted to strengthen the western side by building a small dam at the junctions of the *Saint-Martin* and *Prud-homme* Rivers, but this plan failed.⁷

The Saint Lawrence River was a natural asset to Montreal's defence system. Strong currents immediately upstream and downstream combined with shallow waters just outside the town to make navigation hazardous especially at low ebb.⁸ Ships attacking from the river had not only to negotiate difficult waters but also to avoid cannon-shot aimed at them from the town. Furthermore, a naval attack was virtually impossible because large boats could not navigate the river from Quebec to Montreal

⁶ Albertine Ferland-Angers, "La Citadelle de Montréal (1658-1820)", *RHAF*. Vol. 3 (1949-1950), p. 497.

⁷ "Extraits de lettres, pièces et mémoires, touchant l'état et les affaires du Canada au départ des vaisseaux, 1694." AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F13: (31-40), p. 35. The location of the dam is indicated on a map drawn by Catalogne and annotated by Beaucours in 1714 (Illustration). For easy referral I will designate this as Beaucours' plan.

⁸ John Collin's plan of Montreal (1768), shows "a sand and rocky shoal dry at low tide", which was located in the Saint Lawrence River just east of the King's yards.

until the advent of the steamboat in the early 19th century. After inspecting the site and evaluating these factors in 1717, Chaussegros observed that, "La scituation de cette ville est avantageuse et aisée à fortifiée".⁹

In his treatise, Chaussegros described three types of fortifications relative to the topographical situation of a site: a naturally strong one; a defensively poor one, and; one improved by fortifications. "Une place forte par nature", he stated, "est celle dont la scituation se trouve sur une hauteur supérieure escarpée ou scituée dans un marais impraticable".¹⁰ Quebec City was a classic example of this type with its high cliffs rising above the Saint Lawrence River. Meeting different criteria, Montreal could also be considered "une place forte par nature". It was surrounded by water, had a marsh barring access to the town to the north-east of the town, and had a Citadel guarding the east end of the town. Although weaker on its western extremity, access to the town was impaired by waterways which were difficult to navigate at the best of times.

Considering the strengths of the site, and the town's location as an interior port, Montreal was not "une place mauvaise", defined by

⁹ "Mémoire et Etat de la Ville de Montréal", August 10, 1717. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F38: p. 214-219. This memoire has been published in P.G. Roy, *Inventaire des*

Chaussegros in the following way, "celle qui est bien fortifiée, mais dont la situation est si méchante que la bonté de la fortification ne sauroit contribuer à la rendre bonne".¹¹ It has already been established that topographically, Montreal's site was advantageous. The town's primary defence, however, was its network of fortifications obviating the need for extensive works. When combined with the natural barriers of the site, a rampart with simple outerworks was sufficient as the core to a defensive girdle beginning at the periphery of the colony.

The Palisade: A Reconstruction

The first serious attempt at urban planning for Montreal was undertaken by the Sulpician Superior, Dollier de Casson, in 1672.¹² The terraced palisade built between 1686-1689 circumscribed the original core that he had laid out.¹³ The wall consisted of fifteen foot cedar stakes,

¹¹ Chaussegros. *op. cit.*, p. XIV.

¹² The island was ceded to the Sulpician order by the Société de Notre-Dame in 1663. The cession was finally confirmed by the king in 1677. Séminaire de Saint-Sulpice, Paris. Bibliothèque de Séminaire de Saint-Sulpice, Correspondance de M. Tronçon, supérieur du Séminaire de Paris, microfilm F397, p. 100-112. Lettre de M. Tronçon à M. Lefevre, le 2 juin 1677, p. 101.

¹³ Dollier de Casson, *A History of Montreal 1650-1672*, (London and Toronto: J.M. Dent & Sons Ltd. New York: E.P. Dutton & Co., trans. R. Flenley, 1928), p. 31-32; "Proces verbal de l'apposition des bornes et rues de Montreal avec un autre acte de consentement des propriet^{rs} sur les terres desquels sont establies les dittes rues." ANQM. 06/M/CA1/71/1. Benigne Basset, arpenteur. Juillet 1672; "Plan de Ville-Marie et des premières rues projetées pour l'établissement de la Haute Ville", c1672. AN. Section ancienne : Ancien Régime, Monuments historiques, K1285 19B (copy: ANQM. Cartothèque, no. 1187.) Although, the National Archives of Canada has dated this map 1685, it probably dates c1672. Both the plan and the survey report cited above, mention rue du Calvaire laid out by Basset and subsequently never opened; Also, the plan shows that Jean Desroches

about one foot in diameter, held together "en pagées de dix pieds".¹⁴ The town had seven gates, five large and two small, and was garnished with sentry boxes and cannon platforms.¹⁵ A ditch, completed in 1691, surrounded the town.¹⁶ In defensively weak areas, simple outerworks such as "redans" may have been added.¹⁷

Patterns of growth in the development of Montreal's plan from the construction of the palisade to the erection of the ramparts were observed. As the plan has not survived, in order to establish a link between the palisade and the ramparts it was necessary to reconstruct it from primary sources.¹⁸ This analysis will enable a better evaluation of

was still on the Seminary property. He sold it to them in 1677. (ANQM, CN601-280, m.n. Claude Mague, 25 novembre 1677, no. 1150.) Thus, the map dates prior to this sale and may be contemporary with Benigne Basset's survey report of 1672. I wish to thank Alan Stewart for sharing his research findings with me.

¹⁴ Letter by Chaussegros de Léry, October 25, 1721. AN. Archives des colonies, Série C11A, Correspondance générale, Canada, F44: p. 256; Letter by Champigny and Frontenac, November 10th, 1695. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F13: (262-272) p. 265; Marché entre Jean Bochart de Champigny, Intendant, et Jean Fontenelle dit Champagne, charpentier, pour faire des portes et des pagées de palissades. ANQM, CN601-002, m.n. A. Adhémar, 10 juillet 1699, no. 4760.

¹⁵ Letter by Chaussegros de Léry, October 25, 1721. AN. Archives des colonies, Série C11A, Correspondance générale, Canada, F44: p. 256.

¹⁶ Letter from Champigny, May 10, 1691. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F11: (252-260), p. 252.

¹⁷ "Mémoire pour Jean Baptiste Colbert, Le Marquis de Seignelay". October 20, 1685. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, 7: 125.

¹⁸ Denonville refers to a plan of Montreal drawn by Villeneuve which was completed in 1687, the same year the construction of the palisade was started, however, the plan has not been located. (AN, Fonds des colonies, Série C11A, correspondance générale, Canada, F9 p. 10) A few years later, after the palisade was repaired in 1692, plans of the Montreal were sent

the origins of Chaussegros' plan and his contribution to Montreal's urban development.

Methodology

A partial reconstruction of the palisade was possible through an analysis and comparison of various sources such as: maps, official documents of the period (correspondence, memoranda and ordinances), notarial deeds as well as unpublished archeological reports submitted to the *Société archéologique et numismatique de Montréal* in 1982, 1983 and 1985.¹⁹

Several research tools were used in the reconstruction of the plan. As a base map, I consulted an unpublished plan of Montreal in 1731 prepared by the *Groupe de recherche des bâtiments en pierre grise de Montréal* (1982) at the Canadian Centre for Architecture. It shows the configuration of lots contained within the fortifications of Montreal for that date (illustration 4).²⁰ A modern reconstruction of Montreal in 1692

to France but unfortunately the ship that carried them sank in the Gulf of the Saint Lawrence. (AN. fonds des colonies, Séries C11A, correspondance générale, Canada, F12: p. 5.) These are the only two references to plans of Montreal for this early period.

¹⁹ Jean-Guy Brossard and Louise Pagé, *Fouille archéologique: Place Royale 1982 (Montréal)*, décembre 1982; Jean-Guy Brossard, *Fouilles Archéologiques: Place Royales 1983 (Montréal)*, décembre 1983; Louise Pagé, *Un corps de garde à fonctions multiples - site archéologique de la Place Royale à Montréal*, février 1985.

²⁰ I wish to thank the Canadian Centre for Architecture for allowing me to use this valuable map which reconstructs lots for Montreal in 1731.

by Alan Stewart for the Canadian Centre for Architecture served as an informative comparative tool (illustration 5a). Notarial deeds were the richest source of information about the palisade. Deeds found for lot transactions on the periphery of the town between 1688-1717 were matched to their appropriate lots. Using the *ancien terrier* of Montreal, the original contour of the palisade (and its subsequent extensions) was reconstructed from approximately 85 lots (illustration 5).²¹

In order to compare the evidence contained in official reports and ordinances against what was actually happening on the ground, every type of land transaction from the foundation of the town through to the demolition of the palisades was consulted. For the period between 1688 and 1717, approximately 275 deeds (deeds of sale, leases, building contracts and others) provided information relating to the palisade.

The notarial deeds proved to be a rich source not only in reconstructing the contour of the palisade but in establishing the topology and the location of town gates as well as various military installations in the town such as guardhouses and sentry boxes. Deeds of sale and leases were particularly useful because in describing lots notaries used the palisade (its gates, guardhouses and bastions) to locate properties within the town.

²¹ "Livre Terrier de la Seigneurie de Montréal mentionnant les concessions et mutations de terrains compris dans les limites des anciennes fortifications". *Les Origines de Montréal: Mémoires de la Société Historique de Montréal*, (Montréal: Adj. Menard, Imprimeur et Éditeur, 1917).

A reconstruction of this type is not without difficulties. Transactions did not occur for every lot on the periphery resulting in gaps of information. The greatest difficulty, however, was that when the palisade crossed a lot the precise location of the wall was not given. Typical were such general descriptions as, "partie dans l'enclus de cette ville, et l'autre partie dehors par la separation qu'en fait la closture de cette ville qui passe a travers led. emplacement".²² The contour of the town west of the Récollets is especially difficult to reconstruct because the information about this sector was minimal. The map drawn by Levasseur de Néré in 1704 provides the earliest and most complete representation of this portion of the palisade (illustration 9).

In certain cases, as the analysis of the deeds left gaps in the reconstruction of the palisade, plans and archeological evidence provide important information. Certain plans of seventeenth-century Montreal found in the archives of the Séminaire de Saint-Sulpice in Montreal give details of its plan, but none show the complete circumference. For example, a map showing property sold by the Religieuses Hospitalières de Saint-Joseph, lots 304-308, indicated that the sentry road contiguous with the palisade at the back of those lots was twelve feet wide.²³ Another plan of lot concessions in the commons between Saint-François and Saint-Charles

²² Vente par René Cuillerier et Marie Lucos, sa femme, à Jeanne Renaud, veuve de Jacques Vaudry, emplacement partie 350 sur le niveau de la rue Saint-Paul. ANQM. CN601-002, m.n. A. Adhémar, 8 janvier 1700, no. 5019.

²³ ASSSM. Plan des terres de ville des Religieuses Hospitalières. Plan no. 231-A.

streets, dated c1730, shows the faint outline of a bastion on the south-east corner west of rue Saint-Charles.²⁴

Archeological evidence dating from 1982 and 1983, provides substantial data about the plan of the palisade in the Place d'Armes -- now 151 rue de la Commune in Old Montreal. Three stakes, cut at ground level and wooden structures which were part of the Old Market Gate were found between the old and new guardhouses (lots 198B and 209) starting at the north-east corner of the old guardhouse (built 1689) forming a line east to approximately the center west wall of the new guardhouse (built c1694). (See *Figure 1*) The door to the new guardhouse was located outside the palisade.²⁵

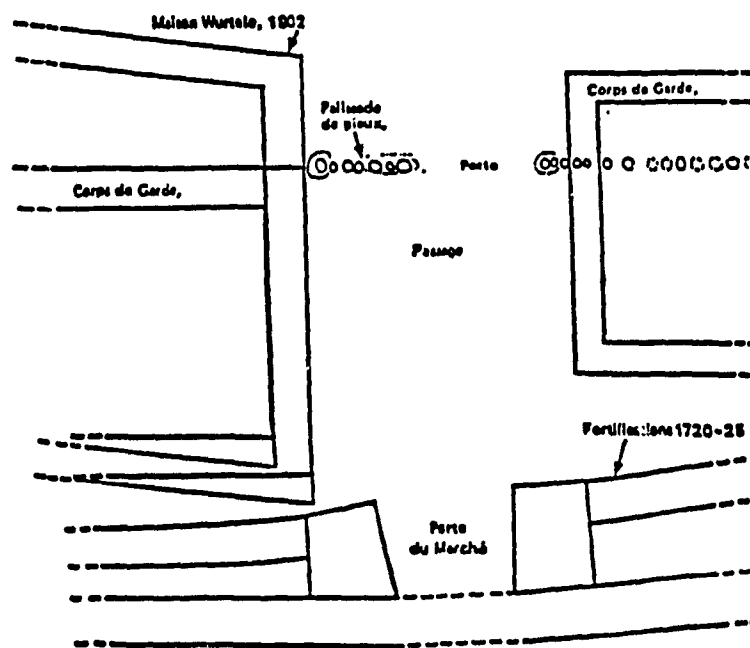


Figure 1. Palisade and gate at Place d'Armes. J.G. Brossard, *Fouille Archéologique: Place Royale, (Montreal 1983), p. 12.*

²⁴ ASSSM. *Emplacements entre les rues Saint-François, Notre-Dame, Saint-Charles, et le fleuve Saint-Laurent.* Voute 1, Tiroir 15, no. 1508.

²⁵ J.G. Brossard, *Fouille Archéologique: Place Royale (Montreal 1983), (Montreal: December 1983), p. 58.*

Dating the Construction: 1686-1689

Dating the construction of the palisade is a problem because of conflicting information. Alfred Sandham affirmed that the Governor Callière ordered the erection of the palisade in 1684 and dates its completion 1685. In his history of Montreal, Camille Bertrand cites 1684 as the construction date as does Raoul Blanchard. John Irwin Cooper, however, cites 1687. In a field report of 1982, archeologist Jean-Guy Brossard dates it between 1684 and 1688. Since none of these historians substantiated their statements their sources could not be verified. Jean-Claude Marsan cautiously suggests that the wall was built between 1685 and 1704. Generally, consensus has placed the construction of the palisade somewhere between 1684 and 1688.²⁶

An analysis of official correspondence and notarial deeds for Montreal places the construction of the palisade between 1686 and 1689.²⁷ In a 1686 letter addressed to Seignelay from the Governor Denonville and Intendant Meulles, they urged that, "il faut absolument fermer Ville Marie

²⁶ Alfred Sandham, *Montreal and its fortifications*, Montreal: Daniel Rose, (1874), p. 10. This is the first and only book written on Montreal's fortification's to date; Camille Bertrand, *Histoire de Montréal*, Tome premier 1535-1760, (Montréal: Beauchemin. Paris: Plon, 1935), p. 151; Raoul Blanchard, *Montréal: Esquisse de Géographie urbaine*, Série Études Canadiennes, Troisième Série, (Grenoble: Imprimerie Allier, 1947) p. 51; Jean-Guy Brossard, *Fouilles archéologiques: Place Royale 1983 (Montréal)*, rapport archéologique préparé pour la Société d'Archéologie et de Numismatique de Montréal, (décembre 1983) p. 11; Jean-Claude Marsan, *Montréal en évolution*, (Montréal: Fides 1974), p. 99.

²⁷ In order to establish the date, I looked for the first references to the palisade in both the official documents contained in the C11A series and in Montreal property transactions as well as construction contracts dating from the foundation of Montreal.

et Québec", leading me to believe that the construction was not completed at that time.²⁸ However, in 1686, soldiers were sent to Montreal to help build the palisade.²⁹ Evidence shows that it took approximately one year to cut trees and drag them to the town over the winter snow.³⁰ Therefore, the soldiers probably spent the summer and winter of 1686 gathering materials in preparation for the construction the following year.

An analysis of notarial deeds confirms that the construction of the palisade took place between 1687 and 1689. Part of the palisade was completed by 1688 when three sides were standing: the northern, western and southern contours of the town.³¹ The eastern portion of the palisade

²⁸ Letter from Denonville and de Meulles to Seignelay, November 16, 1686. AN. Fonds des colonies, Série C11A, correspondance générale, Canada: NAC microfilm F8 (p. 276-284), p. 278.

²⁹ Letter from Denonville to Seignelay, June 12, 1686. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F8: p. 159-164.

³⁰ Letter from Frontenac and Champigny to the Minister, November 10, 1695. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F13: (p. 262-272) p. 265.

³¹ In a land grant for lot 179, dating June 1st 1688, the first reference to the *Porte de la Montagne* was noted. It was located on the northern end of rue Saint-François. Concession par le Séminaire de Saint-Sulpice, représenté par François Dollier de Casson, à Jean Marié, maçon de Montréal, emplacement 179 sur le niveau de la rue Saint-François. ANQM. CN601-002, m.n. A. Adhémar, 16 juin 1688, no. 1176; A reference to the Lachine Gate located at the western extremity of rue Saint-Paul, also appears that year. Vente par Etienne Trudeau, et sa femme, Adrienne Barbier, à Jean Quenet d'un emplacement situé près de cette ville près de la porte dite de Lachine. ANQM. CN601-002, m.n. A. Adhemar, 27 juin 1688, no. 1186; A deed of sale for lot 273a dating November 15th, 1688, shows the wall passed through the lot at some point between rue Saint-Paul and the St. Lawrence River. Vente fait par Jacques Hubert dit Lacroix à Adrie Bétourné dit Laviolette, emplacement no. 273A, rue Saint-Paul. ANQM. CN601-002, m.n. A. Adhemar, 15 novembre 1688, no. 1365.

was built last. The most convincing evidence is a contract for the construction of the fifth large gate of the town, the Notre-Dame gate, signed October 20th, 1689, between Jean Bochart de Champigny, the Intendant, and a carpenter, François Chenier.³² The contract stipulated that the gate was to be built as soon as possible. By 1691, the palisade was definitely in place because in October of that year Champigny reported that the wall was already in ruins and had to be repaired.³³ That year a dry ditch was dug around the town.³⁴

In summary, it appears that the palisade was built between 1686 and 1689. The materials for the palisade were gathered between 1686 and 1687 when the construction was started. After the erection of the wall the ditch was completed in 1691.

The palisade was extended twice: in 1699 and in 1708. The contract for the first extension was issued on July 10th, 1699, to the carpenter Jean Fontenelle dit Champagne. He had previously participated in the construction of the palisade because the contract specified that he was to install the stakes "en pagées de dix pieds chaque pagée et ce bien &

³² "Marché de la charpenterie de la porte de cette ville du moulin du côteau de Saint-Louis par le Roi avec François Chénier, charpentier. ANQM. CN601-0017, m.n. Bénigne Basset, 20 octobre 1689, no. 1977.

³³ Letter by Champigny, October 1691. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F12: p. 283.

³⁴ Letter from Champigny to the Minister, May 10, 1691. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F11: p. 252-260.

duement comme sont ceux qui a deja posés".³⁵ Accounts show that Champagne was paid for 97 1/2 pagées.³⁶ It would seem, then, that the palisade was extended approximately 975 French feet.

In 1708 the military engineer, Levasseur de Néré, extended the palisade towards the east to include the Citadel.³⁷ However, in November 1709, Vaudreuil wrote despite Levasseur's efforts, the town was still open and unprotected.³⁸ It would appear, then, that the second extension was completed 1710.

The Contour and Evolution of the Palisade

As the fortifications of eighteenth-century Montreal were integrated into an existing urban context, it is imperative to understand the plan of the palisade as well as the simultaneous development of military reserves which took place from 1686-1710. This examination will establish the urban context Chaussegros faced when he arrived in Montreal. The reader will

³⁵ "Marché entre Jean Bochart de Champigny, Intendant, et Jean Fontenelle dit Champagne, charpentier, pour faire des portes et des pagées de palissades". ANQM, Centre d'archives de Montréal, CN601-002, m.n. A. Adhémar, 10 juillet 1699, no. 4760.

³⁶ "Canada 1699: Etat de la dépense faite pour la guerre et les fortifications sur les fonds de l'année 1699, Québec, 17 Octobre 1700". AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F64: (61-79) p. 64.

³⁷ Letter by Antoine-Denis Raudot, September 15, 1709. AN. Fonds des colonies, Séries C11A, correspondance générale, Canada, F30, p. 229-257.

³⁸ Letter by Philippe Rigaud de Vaudreuil, Marquis de Vaudreuil. AN. Fonds des colonies, Séries C11A, correspondance générale, Canada, F30: (38-80) p. 42 and 52.

note how the town's urban plan evolved towards the east with each extension of the palisade, culminating in the oblong shape defined by the stone-faced ramparts he constructed (Illustration 9).

In 1689, the circumference of Montreal along the northern perimeter of the palisade was contiguous with the northern side of rue Saint-Jacques except for three areas circumscribed by the wall: the powder magazine; the Tessier dit Lavigne property lots 214-224; and the property sold by the Religieuses Hospitalière de Saint-Joseph in c1690 including lot numbers 304-308.³⁹

The eastern boundary of the town angled down from the corner of rue Saint-Jacques from lot 308 towards the middle of rue Saint-Charles.⁴⁰ It is not clear whether the palisade stopped short at rue Saint-Charles or

³⁹ Vente par les Religieuses Hospitalières de Saint-Joseph à Nicolas Prunier dit Picard, emplacement no. 304 sur le niveau de la rue Saint-Jacques et par derrière aux contours de la ville. ANQM. CN601-0017, m.n. Bénigne Basset, 22 juin 1690, no. 2040; Vente par les Religieuses Hospitalières de Saint-Joseph à Jean Lacroix, charpentier, emplacement 305, rue Saint-Jacques, par derrière aux contours de la ville. ANQM. CN601-0017, m.n. Bénigne Basset, 22 juin 1690, 2041; Vente par les Religieuses Hospitalières de Saint-Joseph à Jean Lacroix, maître charpentier de Montréal, emplacement 307/308, sur le coin Saint-Jacques et Saint-Gabriel, et par derrière aux contours de la ville. ANQM. CN601-0017, m.n. Bénigne Basset, 24 avril 1690, no. 2031; Cession et Transport de terre de ville par Gabriel Baudreau dit Graveline à Jacques Richard dit Larose, maître maçon, emplacement 306 sur le niveau de la rue Saint-Jacques et par derrière aux pieux de la ville. ANQM. CN601-0017, m.n. Bénigne Basset, 29 juin 1698, no. 2467.

⁴⁰ Evidence shows that rue Saint-Charles ran south of rue Saint-Paul to the road along the river bank at the time of the first palisade. Concession par le Séminaire de Saint-Sulpice, représenté par Dollier de Casson à Daniel Greyselou, Sieur du LHut, emplacement 356a (part) sur le niveau de la rue Saint-Paul. ANQM. CN601-002, m.n. A. Adhémar, 21 juin 1695, no. 3224.

continued beyond it. A hand-drawn map from the Chateau Ramezay collection suggests that the palisade may have gone at least to Saint-Charles street and then south towards the river, turning west in the vicinity of rue Saint-Paul. At the property line between lots 355/356 it made a turn towards the river possibly forming a bastion.⁴¹ The south side of the palisade ran between rue Saint-Paul and the Saint Lawrence River to the north-east corner of the old guardhouse (1689) situated in the Place d'Armes. Continuing west to a point approximately one block west of rue Saint-Pierre, the palisade then turned towards rue Notre-Dame to form the western boundary of the town, joining the northern wall at a point near the powder magazine.

With the construction of the new guardhouse, in 1695, the palisade was altered slightly. On November 5th, 1694, Frontenac and de Champigny reported that Montreal's palisade had been repaired and that a new section was built along the river.⁴² Evidently, part of the palisade in the south-eastern corner of the Place d'Armes had been cut away to insert the new guardhouse and archeological finds prove that the palisade abutted

⁴¹ Vente par Jean Tournois, maître couvreur d'ardoise et Marguerite Benoit, sa femme, à Etienne Trudeau, maître charpentier, d'une maison sur l'emplacement 355 (part) sur le niveau de la rue Saint-Paul sise près de la porte Saint-François. ANQM. CN601-280, m.n. Claude Mauge, 16 octobre 1696, no. 3033. A map from the collection of the Séminaire de Saint-Sulpice in Montreal shows the faint contours of a bastion in this area. ASSSM. no. 1508.

⁴² Letter from Frontenac and Champigny., November 5, 1694. AN. Fonds des colonies, Série CIIA, correspondance générale, Canada: NAC microfilm F13:(4-25), p. 7.

against it at approximately midpoint.⁴³ A large gate, the Market Gate, was built between the two guardhouses but it is not known whether it was erected at the same time as the palisade or with the new guardhouse. In any case, a deed shows that the gate existed in 1698 (see *Figure 1*).⁴⁴

One notable flaw of this early plan was the exclusion of the hillock to the east from the circumference of the palisade, offering potential enemies an excellent vantage from which to bombard the town with cannon-shot. In 1693, when Montreal was threatened with an attack from the British and the Iroquois, rather than extend the palisade to include it, a fort was erected on the hillock:

"M. De Callière apres avoir songé aux postes avancer de son gouvernement saplique a faire a Montreal les ouvrages qui pouroient le mettre en sureté, une nouvelle enceinte de toute la ville n'auroit pu etre achevée assez tost et il falloit preferablement a tous se rendre maistre d'un coteau qui la commande de tous costés"⁴⁵

⁴³ Jean-Guy Brossard, *Fouilles archéologiques: Place Royale 1983 (Montréal)*, rapport archéologique préparé pour la Société d'Archéologie et de Numismatique de Montréal, décembre 1983, p. 12 and 23. These findings concur with the representations of the Place d'armes shown in de Néré's plan of 1704 and by Catalogne's 1713 plan. Both indicate that the palisade and a gate were located between the two guardhouses.

⁴⁴ Concession par le Séminaire de Saint-Sulpice, représenté par Dollier de Casson à Etienne Roberet de Lamorandière, emplacement partie 197 située sur la Place d'Armes sur le niveau de la rue qui va de la grande porte de la ville joignant le corps de garde à la petite porte de la rue Saint-François le long des pieux de la clôture de la ville. ANQM. CN601-002, m.n. A. Adhémar, 30 septembre 1698, no. 4256.

⁴⁵ Mémoire 1693. "Relation de ce qui c'est passé au Canada depuis le mois de Septembre jusqu'au départ des vaisseaux en 1693." AN. Fonds des colonies, Série C11A, correspondance générale, Canada: NAC microfilm F12: (182-205), p. 194. This document also mentions that at this time the two "avant-postes" for Montreal are Chambly and Sorel. They were both repaired in 1693 when the French were preparing for war with the Dutch and

Thus, the it was taken over by military authorities and became a citadel. In 1699, although Montreal's palisade was extended towards the east to a point approximately 40 feet west of rue Saint-Claude the citadel was still excluded.⁴⁶

Deeds dating from 1702 and 1704 show that the eastern boundary of the town from rue Notre-Dame to rue Saint-Paul was between lot 361 on the inside and lots 365 and 366 on the outside of the wall.⁴⁷ Few changes were made on the western and southern contours but on the northern one, the Jesuit property was integrated into the town.⁴⁸ This reconstruction shows that de Néré's plan of 1704 represented Montreal after its first extension in 1699-1700 (illustration 6).

Iroquois.

⁴⁶ Marché entre Jean Bochart de Champigny, Intendant, et Jean Fontenelle dit Champagne, charpentier, pour faire des portes et des pagées de palissades. ANQM, Centre d'archives de Montréal, CN601-002, m.n. A. Adhémar, 10 juillet 1699, no. 4760.

⁴⁷ Vente par Catherine Legardeur, femme de Charles Joseph Dailleboust, vivant Sieur de Musseaux, à Joseph Parent, taillandier, l'emplacement 365, hors l'enclos de cette ville sur le niveau de la rue Notre-Dame. The west side of this property is bound by the palisade. ANQM. CN601-002, m.n. A. Adhémar, 13 septembre 1704, no. 6893; Vente par Nicolas Dailleboust de Methet à Claude de Ramezay, gouverneur de Montréal, emplacement 361 sur le niveau de la rue Notre-Dame, dans l'enclos de la ville. ANQM. CN601-002, m.n. a. Adhémar, 15 novembre 1705, no. 7174. The east side of this property is bound by the palisade. Lot 361 is contiguous to lots 365 and 366.

⁴⁸ Accounts show that in 1702 the Jesuites, located on lot 315, were reimbursed 500# for approximately 3/4 of an arpent which had been taken for the palisade. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F19: p. 12 and F20: p. 63.

The second extension, built between 1708-1710, was undertaken primarily to enclose part of the citadel inside the town (illustration 7).⁴⁹ A plan of Montreal was sent to France in 1708, no doubt showing the project for this extension, but it has not survived.⁵⁰ Therefore, it too has been reconstructed from contemporary notarial deeds and plans. An analysis of notarial deeds from 1709 to 1713 confirms that de Catalogne's plan of 1713 was a fair representation of the town's circumference after 1710. Catalogne's plan shows a wall running down to rue Saint-Paul at a point between lots 390 and 396.⁵¹ It also shows a small rectangle, perhaps a gate, at this point on rue Saint-Paul with the palisade continuing down to the Saint Lawrence River, making a turn west across lot 406 towards the Bonsecours Chapel. In the area near Bonsecours Chapel the exterior wall of the chapel's apse formed part of the wall. There was a gate just west of the chapel (illustration 10).

Property transactions dating after 1709 generally confirm Catalogne's plan. Deeds for lots 316, 317 and 322, fronting on rue Notre-Dame, show that these lots were within the town with the palisade

⁴⁹ In 1709, Callières' palisaded fort was replaced by a wooden redoubt which was enclosed within the town. Letter from Raudot to the minister, September 15, 1709. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F30: p. 244.

⁵⁰ Letter by Antoine-Denis Raudot, October 23, 1708. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F28: (250-284), p. 268. A plan of Montreal accompanied this letter. It had been drawn by le Sieur Robert (dates unknown), who had just been replaced as "gardemagasin du roi" by Sieur Robert de la Morandière (1668-d. 1753/54). Robert worked from survey notes taken by Catalogne the previous year.

⁵¹ The presence of the wall is also confirmed by an eighteenth century survey of lot 396/397/398. ANQM, CN601-340, m.n. Pierre Raimbault, 15 juin 1722, no. 2813.

bordering on the back of the properties.⁵² Lots 396 to 399, 408/409 and 416 were outside the town in the eastern section of Quartier Bonsecours which had remained outside the palisade.⁵³ They were circumscribed within Chaussegros' ramparts when he extended the wall once again in 1717 (illustration 8).

Documents show that other changes were made to the circumference of the town in 1708/09. Facing the river, for example, at least a quarter of lot 136 owned by René Fezeret, was taken for the fortifications, perhaps for the formation of a bastion.⁵⁴

⁵² Concession par les Jésuites à Claude de Ramezay, gouverneur de Montréal, emplacement 316 sur le niveau de la rue Notre-Dame et par derrière aux pieux de la ville. ANQM. CN601-0002, m.n. A. Adhémar, 29 juillet 1709, no. 8277; Concession par les Jésuites à Ignace Jean dit Vien et Angélique Dusablé, sa femme, emplacement 317, sur le niveau de la rue Notre-Dame, et par derrière aux pieux de la ville. ANQM. CN601-0002, m.n. A. Adhémar, 29 juillet 1710, no. 8567; Vente par Henri Catin et Jeanne Brossard, sa femme, à Louis-Bertrand Auprix dit Laramée, taillandier, emplacement 322, sur le niveau de la rue Notre-Dame et par derrière aux pieux de la ville. ANQM. CN601-0002, m.n. A. Adhémar, 5 novembre 1709, no. 8344.

⁵³ Rente constituée par Antoine Gabriel dit Lacharpente, charpentier de navire, à Jean Petit de Boismorel, emplacement 396/397/398 en dehors de la ville au pied du côteau Saint-Louis. ANQM. CN601-340, m.n. P. Raimbault, 21 juin 1718, no. 2620; Vente par Charles Vigé à Philippe Lesaulnier de Saint-Michel, emplacement 399 en dehors de la ville sur le niveau de la rue Saint-Paul. ANQM. CN601-340, m.n. P. Raimbault, 11 mars 1711, no. 1656; Concession du Séminaire de Saint-Sulpice à Jean Thomas, charpentier de navire, emplacement 408/409 dans le Quartier Bonsecours. ANQM. CN601-340, m.n. P. Raimbault, 4 juillet 1716, no. 1716; Ratification de Thérèse Dugué, épouse de Charles Gaspard Piot de Langloiserie, pour emplacement 416 au Quartier Bonsecours vendu au Roi. ANQM. CN601-0002, m.n. A. Adhémar, 21 août 1708, no. 8044.

⁵⁴ Mémoire du Conseil, "Canada: Extrait du conseil 1711". AN, Fonds des colonies, Série C11A, correspondance générale, Canada, F125: (p. 119-146) p. 133. Fezeret was given 400# in compensation for this loss. Normally, if property was taken for the fortifications from lots located along the waterfront, the proprietor was not reimbursed because these lots were within the 120 foot space running all around the shore of the

The twenty-five year period from 1685 to 1710 was marked by three successive interventions: the construction of the palisade and its two extensions. Authorities were assessing Montreal's economic and military potential. Reflecting this, military engineers produced at least four plans: Villeneuve and Franquelin were in Montreal making plans in 1687; while serving in Canada as a military engineer from 1693-1709, Levasseur de Néré produced two plans, in 1699 (not found), and in 1704; Catalogne surveyed Montreal and surrounding côtes in 1708, producing plans of the town and an extensive report on the region's resources. Two years after the second extension was completed in 1710, a stone-faced rampart was planned. Obviously, Montreal was undergoing a tremendous change while its military position was being assessed and re-assessed in response to the ever growing threat of invasion by the British.

That changes in Montreal's fortifications were imposed in response to an acute fear of invasion by British forces was made manifest with each military intervention. The palisade was first built in preparation for the War of the League of Augsburg (1689-1697) during which time the British lay siege on Quebec and their Iroquois allies were pommelling the Montreal region. In 1699, it was extended in preparation for the War of Spanish Succession (1702-1713). During this war, rumours of an attack on Montreal had prompted Vaudreuil to consolidate its fortifications in 1708-1710.

Island of Montreal reserved by the King; Mémoire des Ecclésiastiques du Séminaire de St-Sulpice de Paris au sujet du dédommagement des propriétaires des Maisons et terrains ou se doivent faire les fortifications de Villemarie et la Largeur du chemin qu'on doit laisser autour de l'Isle de Montréal etc." AN. *ibid.*, vol. 106 p. 457-461.)

The political instability of the colony was reflected in the multiple changes wrought upon Montreal's fortifications from 1685-1712. After the Treaty of Utrecht (1713), the Thirty Years Peace brought about an era of relative stability during which time Montreal's stone-faced ramparts were built.

CHAPTER 3

Military Considerations in Town Planning

The intervention of military town planning in Montreal's urban space symbolised the institutionalisation of royal authority. When Montreal was fortified in the seventeenth century, the town was already a hub of activity pivoting around the fur trade and servicing a growing rural population. The flow of traffic into and out of town had grown to accomodate such activity. Montreal's fortifications were not built, therefore, on virgin ground but were imposed on a populated commercial nucleus.

The military engineer was an urban planner. Though the integration of fortifications into an existing urban environment was an intrusive affair, especially when expropriations took place, in general, he attempted to minimize damages and costs. When Chaussegros arrived in 1717, he evaluated Montreal's urban plan to incorporate monumental ramparts effectively. His task was to consider existing urban features and military installations in the light of a global strategy to create an environmentally viable living space while maximizing military potential at a minimal cost to the State. In doing this, he was following precepts established by theorists such as Vauban.¹

¹ Vauban's major concern as an urban planner was one of adapting military installations to the environment: "Urbanisme pratique, aussi bien dans les places fortes, dont les dimensions, la distribution, le tracé du pourtour sont déduits des conceptions stratégiques et tactiques en cours à son époque, que dans les villes agrandies ou projetées pour des raisons économiques, où le confort de l'habitation, la facilité des circulations, l'adaptation de la cité à un rôle donné le préoccupent à peu près

When the French undertook to fortify Montreal in the seventeenth century, not only the palisade but supporting military and public buildings were integrated into the urban fabric as well. In physical terms, as the town's fortifications were consolidated from the seventeenth to the eighteenth century, increasingly more space was allotted to such public and military installations. A palisade, a powder magazine, guardhouses, the king's stores and boatsheds, prisons, and official residences, were among some of the buildings needed to accommodate military and political infrastructures. In the previous chapter, it was shown that Montreal was expanded three times in approximately thirty years (1689-1717) to accommodate existing and future military reserves both around the periphery and inside the town, as well as to provide space for future demographic growth.² This chapter presents an overview of military installations and their integration into the urban setting.

Military Installations and the Urban Form

As some military installations constructed in the seventeenth century remained until the fortifications were demolished in the early nineteenth century, they had an influence on the development of Chaussegros' plan for ramparts. Two notable examples were: the integration of military buildings in the market-place; and, the militarisation of the exclusivement". Louis Grodecki, "Vauban Urbaniste", *Bulletin de la société d'étude du XVIIe siècle*, nos. 36 and 37, (July/October 1957), p. 352.

² While my focus is on the evolution of Montreal as a military town, I am not negating other demographic or commercial growth factors. As military policies are imposed from above, a history of Montreal's fortifications inevitably reflects imperial projects for urban development.

Citadel. These changes were not brought about by local initiative but were imposed from above on the urban environment in light of tactical and strategic considerations.

The marketplace, the commercial hub of the town, was virtually taken over by the military when it was turned into a *Place d'Armes* in 1689.³ Market days were held two days a week, Tuesdays and Fridays; on the remaining days the square was used as a military parade.⁴ A guardhouse and the king's stores were maintained in the square throughout the French regime.

The market-place was chosen for the new *Place d'Armes* for several reasons: it was centrally located and in proximity to the port, facilitating deployment; it was an established meeting place for both merchants and Indians who came to trade at Montreal; and, as the main gateway into the town, a controlling hand at the "grande porte de la ville" was desirable.

The military competed with merchants for the square because of its proximity to the port. A public dispute was even recorded after the fire of 1721 had reduced the buildings around the *Place d'Armes* to ashes and,

³ A misnomer, "la Place Royale", given retrospectively to the old Market Square is commonly accepted. However, until 1741 the old Market was known as the *Place d'Armes*. In this study, I have adopted eighteenth-century nomenclature for this public space.

⁴ "Extrait de l'article au sujet des marches de Montreal porté a l'ordonnance rendu par M^r Raudot cy devant Intendant de ce pays le 22 juin 1706, laquelle a été confirmée par M^r Bégon Intendant de ce pays par son ordonnance du 8 juillet 1721." CMSM. Colonies F3, vol. 9, p. 15.

as a consequence, the market was temporarily moved to the river bank directly facing Governor Vaudreuil's house. He loved this arrangement and wished to make it permanent. This caused an uproar from the merchant community. In an appeal to authorities in France, Vaudreuil argued that in Europe the parade was never integrated with the market-place and that on market days the increased activity in the area impeded military manoeuvres.⁵ However, his plea for change failed and eventually, under Chaussegros' direction in 1741, the parade was moved to the new Champ-de-Mars built next to Notre-Dame Square.⁶ The Old Market Square had served as a market-place and a parade for 55 years.

The location of the *Place d'Armes* in proximity to the waterfront was common practice for North American colonial towns throughout the eighteenth century, probably because river routes were the principal means of communication. One such example was the town of Saint Augustine, Florida (founded 1586). A c1770 plan shows the parade on the main square with a guardhouse near the harbour. In this case the parade was shared with the church, a feature introduced at Montreal when the parade was moved to its new location in 1741. (illustration 12). Another example was the town of New Orleans (founded c1720) which, like Montreal, was oblong

⁵ Letter from Rigaud de Vaudreuil, November 21, 1721. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F44: p. 169-174.

⁶ Chaussegros' plan of 1717 shows a new *Place d'Armes* in a square facing Notre-Dame Church. Accounts show, however, that it was not built until 1741. Hocquart et Varin. "Marine 1741: Bordereau des recettes et dépenses". October 24, 1742. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F115: 336-398.

with a *Place d'Armes* located near the shore (illustration 13).⁷ As the founder de Bienville was sent from Montreal, it is probable that its plan may have had an impact on the development of New Orleans. This question warrants further investigation.

The Citadel was another major site affected by the integration of military installations. Prior 1663, a grist mill had been established on the hillock by the Sulpicians but with the construction of Callière's fort in 1693, the hillock became a military zone.⁸ The Citadel was crowned with a terraced four-bastion fort mounted with eight cannons (illustration 14).⁹ A small ditch ran on two sides while a steep slope portected the other two. *Fraises* surrounded the fort.¹⁰ The Citadel was maintained as a military reserve for 126 years, from 1693 until c1818 when the hillock was levelled after the demolition of the fortifications.

⁷ John W. Reys, *The Making of Urban America*, (Princeton: Princeton University Press) 1965, fig. 14, 44 and 46.

⁸ Albertine Ferland-Angers, "La Citadelle de Montréal (1658-1820)". RHAf vol 3, (1949-1950) p. 497.

⁹ According to contemporary usage, defined by Chaussegros, it was accurate to refer to this type of fort as a Citadel, "Citadelle ne doit s'entendre que de celles qu'on fait pour comander les Grandes Villes dont la figure est a cinq bastions, on appelle aussi citadelle un fort a quatre bastions destiné a même usage quoy qu'a le bien prendre les citadelles ont cinq bastions et les forts n'en ons que quatres". Gaspard-Joseph Chaussegros de Léry, *Traité de fortifications*, 1714. (Unpublished manuscript), NAC, MG 18, K2, p. XIV.

¹⁰ Mémoire 1693. "Relation de ce qui c'est passé au Canada depuis le mois de Septembre jusqu'au départ des vaisseaux en 1693." AN. Fonds des colonies, Série C11A, correspondance générale, Canada, 12: (182-205), p. 195.

The four-bastion fort was typical in North America. The town of Mobile, Alabama (1711), had one resembling Callière's.¹¹ A plan of Albany, New York, dated 1695, shows a variation erected by the Dutch. Later in the eighteenth century, another example was Saint Louis, Missouri, which showed the fort located on a bluff overlooking the town.

Like the Citadel, the powder magazine remained a military reserve from its inception in c1687 to the early nineteenth century. Established on lot 39, the construction dates for the powder magazine are not known although it was mentioned in a deed of sale by Pierre Gadois to André Rapin, June 6, 1690.¹² Intendant DeMeulles recommended the construction of a powder magazine in 1684, but it does not appear on the plan of Montreal sent to France in 1685.¹³ Evidently it was erected between 1685 and 1690, at the same time as the palisade. Hence, both the powder magazine and the bastion surrounding it were features with which Chaussegros had to grapple in planning the ramparts. They were part of Montreal's fortifications from 1688 until the early 19th century, when the walls were demolished. In fact, the powder magazine continued to appear on maps as late as Bouchette's plan in 1815.

¹¹ Reys, *op. cit.*, p. 78.

¹² "Vente par Pierre Gadois à André Rapin, emplacement 38, sur le niveau de la rue Saint-Pierre, et vers le magasin aux poudres". ANQM. CN601-331, m.n. J.B. Pottier, 6 juin 1690, no. 76.

¹³ Letter from DeMeulles, November 12, 1684. AN-CAO, Collection Moreau de Saint-Méry, colonies F3, vol. 2, p. 185.

The *Place d'Armes*, the Citadel and the powder magazine were examples of military installations which affected land use in the town. These changes had an impact on the daily lives of the residents. Notably, there were clashes between commercial and military factions for the use of the public square until the parade was moved in the 1741. The removal of the grist mill from the Citadel meant that individuals had to go elsewhere to mill their grain. One was later built outside the western end of Montreal on the *Saint-Pierre* River. Similarly, individuals were affected by land reserves for the palisade which were strictly regulated by military authorities.

Most of the military reserves established around the periphery of the town for the fortifications were first claimed for the king with the construction of the palisade. A wide swath of land was reserved for the fortifications not only in the area covered by the palisade but starting approximately 12-18 feet on the inside of the wall and extending 500 paces on the outside. As was the practice in fortified European cities, even though the land was ceded to individuals, construction was forbidden outside the town near the wall. When the palisade was built, this was specified in an ordinance issued by the Intendant Champigny in 1688:

"Et estant apropos d'Empescher quil ne Soit construit aucun bastimens prosche la closture dud. ville marie tant par la raison que sela S'observe en france aux environs des villes fortifiées et qui sont dans la

fontiere affin d'oster tout moyen de debouche aux habitans".¹⁴

Military reserves outside the town were five hundred paces wide:

"conformement a ce qui est dit cy dessus faisons deffenses a toutes personnes de bastir au dehors de la closture de la ville quil ny ayt Cinq Cents pas d'éloignement toutefois les bastimens qui se trouvent presentement demeurront comme ils sont sans tirer a consequence pour d'autres estants faites avant le pnt reglement".¹⁵

The ordinance was enforced. Just a few days after it was issued, special permission was granted to François Blot, a baker, who was building living quarters next to his bakery located within the restricted 500 paces. Apparently, construction had started in March of 1688 before the ordinance was made public.¹⁶

Deeds show that there were other restrictions on property sold within military reserves. One condition of sale was that the king reserved the right to take part of any property ceded or sold within the royal reserves around the periphery of the island of Montreal. Properties sold in the old commons located south from rue Saint-Paul to the Saint Lawrence River were be affected by this clause. When lot number 1 on rue Saint-Paul

¹⁴ "Ordonnance de M. Bochart Champigny au sujet de l'agrandissement de la ville de Montréal et de la largeur des rues le 16 juin 1688". Pierre-George Roy, *Ordonnances, commissions, etc, etc, des gouverneurs et intendants de la Nouvelle-France, 1639-1706*, vol. 2, (Beauceville: L'"Eclaireur", Limitée, 1924), p. 175.

¹⁵ *Op. cit.*, p. 175.

¹⁶ *Ibid.*, p. 181.

was sold in 1694, for example, the deed stipulated that the purchaser not only had to tolerate the palisade on his land, but also had to allow any other military construction that was deemed necessary for the fortifications of Montreal or for other public projects such as roads: "Souffrir sur ledit emplacement la clôture de cette ville qui y est présentement faite avec les chemins et toutes autres choses que le roi y voudra faire faire".¹⁷

Military considerations placed certain restrictions on the construction of buildings. At the time of the palisade, restrictions were imposed particularly on buildings located within the old Commons, outside the palisade. In a grant of land just outside the *Place d'Armes*, the inclusion of openings such as windows or doors facing the river was forbidden. The approval for construction with this restriction was appended to the cession of lot 210 and was signed by Intendant Champigny and Governor Frontenac: "Nous Gouverneur et Intendant en Canada approuvons et confirmons la concession cy a costé faite au Sieur de Clerin par Mssr du Séminaire de Montréal a condition que led S. Clerin ne pourra faire aucune portes, fenetre, ny autre jour du costé de la rivière fait le 24 aout 1698".¹⁸

¹⁷ Concession par le Séminaire de Saint-Sulpice, représenté par Dollier de Casson, à Pierre Prudhomme, armurier de Montréal, l'emplacement no. 1, sur le niveau de la rue Saint-Paul et par derrière jusqu'à la petite rivière Saint-Pierre. ANQM. CN601-002, m.n. A. Adhemar, 6 novembre 1694, no. 3002.

¹⁸ Concession par Dollier de Casson à Denis Etienne, Sieur de Clerin, aide major de la ville de Montréal, de l'emplacement partie 210, sur le niveau de la rue qui va du corps de garde à la rue Saint-Joseph. ANQM. CN601-002, m.n. A. Adhémar, 23 août 1698, no. 4217.

Military considerations affected domestic construction, particularly with regards to the choice of materials and the height of buildings. Although, the introduction of stone as a building material for domestic building in Montreal was primarily in reaction to the ravages of domestic fires, it was also desirable from a military point of view. In case of war, a town of wooden buildings could quickly be reduced to ashes and the people overcome by torches catapulted into the town by the enemy. Reducing a town built of stone to rubble was a long and arduous process necessitating the formation of a siege and the use of heavy artillery. Considering the conditions of communication and roads in the colony, such an attack required planning and forethought and could obviously not be undertaken lightly. An ordinance by Intendant Dupuy in 1727 stipulated that stone replace wood for construction in the town. He states in his preamble that, "l'attention de nos prédécesseur avoit été de défendre de bâtir les maisons dans l'enceinte des villes autrement qu'en pierre, et à deux étages".¹⁹

Under Vauban, the height of commercial and domestic buildings in military towns was regulated in Europe. He had stipulated that they were not to surpass that of military buildings, nor be much lower. The point was to avoid drawing enemy fire to easily marked targets.²⁰ Dupuy's ordinance also regulated the height of buildings for cities in the colony to two stories. Consequently, it has been found that buildings constructed

¹⁹ *Arrêt du conseil Supérieur de Québec et Ordonnances et Jugements des Intendants du Canada*, (Québec: 1855) p. 315.

²⁰ Louis Grodecki, "Vauban Urbaniste", *op. cit.*, p. 343.

in Montreal during the eighteenth century were generally no higher than two stories.²¹ It would appear, then, that a link between building height and tactical considerations held true for the colonies too.

Reserves and Expropriation

Although, the military reserves covered by the palisade were modified with its subsequent extensions, the northern, southern and western contours of the town were fixed (with minor modifications) by 1709. The eastern limit was only finalized with the construction of the ramparts in that section in c1730. Catalogne's plan of 1713 showed that in general the land reserves on the periphery of the town had been established with the evolution of the palisade.

When Chaussegros developed his plan for Montreal's fortifications in 1717, he followed the basic contour established by the palisade with two exceptions: 1) he extended the town further east to include the king's construction yards located on lot 416; and 2) following Beaucours idea in a 1714 plan, he pushed the north-west corner of the town out to form a square. More room was needed around the periphery of Montreal, however, in order to build the ramparts because they were much wider than the palisade had been. Therefore, while a swath of land around the periphery was already available for the construction of the fortifications, expropriations were necessary.

²¹ This has been shown by a survey of construction contracts (1731-1805) done by the GRBPGM at the Canadian Centre for Architecture.

In 1714, royal reserves were reassessed in the light of the Beaucour's new plans for Montreal's fortifications. In order to build the fortifications, land had to be reserved and cleared for the outerworks outside the fortifications and for the sentry road within. On the side facing the river, 120 feet from the water's edge already belonged to the King but the Sulpicians had granted some of this land to individuals on condition that it be returned to the King should the need arise. The Sulpicians were responsible for expropriating the lots on the riverfront to a point 34 feet inside the walls. The King offered owners on the country side the value of the first grants.²² Claims started from 50 feet within the walls extending beyond to the Saint-Martin River. Various protests were launched against the expropriations because the conditions were considered unfair both by the Sulpicians and other residents of the town.

The Sulpicians objected to the King's intention of drawing rent *en fief* from the properties located in the military reserves. This directly threatened their title as seigneurs and sole owners of the island and, they felt, undermined their authority in the eyes of the population. Protesting the creation of a *censive* for the King, they counter-offered to lower the *cens et rentes* for properties affected by the fortifications. Reducing the *cens et rentes* was not really a loss for the Sulpicians because the value of other properties within the protective space of the

²² Ramezay to the Minister. September 18, 1714. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F34: (354-359) p. 358.

fortified town would quickly appreciate, eventually creating higher revenues for the seminary.²³

The Sulpicians refused to pay damages to proprietors for land taken along the river. They felt they had amply fulfilled their obligations to the King when they had given him their mill and the *Côteau du moulin* to build a Citadel as well as other properties in the town for military buildings such as the King's stores. They also argued that they had complied with the construction of the palisade in 1686 and its extensions in 1699 and 1709, which claimed more of their land. The King finally desisted from claiming a *censive* in Montreal on the condition that Royal approval be given for any properties ceded within the military reserves. Legally the Seminary could not be held responsible for land granted previously.²⁴ The Sulpicians were compensated for land lost for the Citadel as well as other public and military buildings.²⁵ The battle between the King and the Sulpicians over the confirmation of their *censive*

²³ "Mémoire des Ecclésiastiques du Séminaire de St Sulpice de Paris au sujet du dédommagement des propriétaires des Maisons et terrains où se doivent faire les fortifications de Ville-Marie, et la Largeur du chemin qu'on doit laisser autour de l'Isle de Montreal, &c". 1724. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F106: p. 457-461.

²⁴ ASSSM. Letter from Magnien to Chaumaux, June 1, 1715. "Recueil de trente et une lettres de Pierre-François Magnien, p.s.s. à François Vachon de Belmont p.s.s. supérieur et François Citoys de Chaumaux, p.s.s., procureur", p. 49-54.

²⁵ [Mémoire du Conseil], "Les Ecclésiastiques de St-Sulpice". n.d. and n.s. [c1723]. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F106: p. 520-521.

and Royal land reserves had lasted fifty years, from c1677 to 1724, before it was finally resolved.²⁶

Military reserves were confirmed by the King who claimed 120 feet around the island of Montreal as well as land on *Mont Royal* for eventual fortifications.²⁷ Generally, proprietors expropriated within 120 feet reserved on the riverfront were not compensated for losses because this area was considered the King's property. As the wall was moved south of the palisade and further into the old commons, however, land was expropriated but buildings were not lost because none were built in the area.²⁸

Having resolved the land reserves issue with the Sulpicians, colonial authorities turned their attention to individual expropriations. The Crown was responsible for expropriations around the periphery of the town facing the countryside. Few buildings were demolished, however, as

²⁶ In order to assess the contributions of the Sulpicians to the construction of the fortifications, and their reaction to this intervention in 1686, I consulted documents in the Archives du Séminaire de Saint-Sulpice, Montréal, dating from the 1670's to the demolition of the ramparts. I noted that from the early 1670's to the early 1720' major issues were: loss of Montreal as a *censive*; loss of judicial power, and; the establishment of military reserves on the Island of Montreal.

²⁷ "Isle de Montréal en Canada. Conseil: Titres de M. de St-Sulpice envoyés par M. Bégon". April 28, 1716. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F124: p. 1-6.

²⁸ Letter from Vaudreuil and Bégon, October 14, 1723. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F46: p. 4-9.

only a few houses were in the area designated for the curtain. In the *glacis*, for example, six old houses and a brick factory were destroyed.²⁹

Resistance and non-compliance were encountered by the authorities from residents affected by expropriations. As property owners felt that the compensation given was unfair, they refused to comply with an ordinance, issued in 1724, which required them to submit their original deeds for evaluation. Consequently, Raimbault, the crown attorney, was assigned to go out and make estimates of the property involved shown on a plan by the assistant engineer, Dugué in 1726.³⁰ Two other ordinances were issued requiring that owners submit their deeds in 1726 and 1728. Proprietors did not comply and by 1732 the issue was still unresolved.³¹ There are indications that during the French Régime, some proprietors were never reimbursed for damages. When the fortifications were demolished, for instance, owners with legal titles to the land occupied by the fortifications were asked to come forward to claim their properties.³²

Individual expropriations which came to light involved institutional and commercial properties as well as ones owned by prominent residents of

²⁹ *Ibid.*

³⁰ Letter from Bégon. October 12, 1726. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F48: p. 228-229.

³¹ Letter from Hocquart and Beauharnois, October 10, 1732. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F52: (86-94), p. 92.

³² Albertine Ferland-Angers, *loc. cit.* p. 509.

Montreal. The Jesuits wanted compensation for the loss of an orchard.³³ Madame de Ramezay, widow of the former governor of Montreal, wanted compensation for a brick and tile factory she had lost because it was located in the *glacis* of the fortifications.³⁴ Madame Clerin, widow of Denis Estienne de Clérin who was the second lieutenant and town major of Montreal, claimed an indemnity for a property which had been taken for the King's stores, but was refused.³⁵ Hertel's widow claimed for losses for an area of land taken for the fortifications measuring 42x108 French feet.³⁶ These were people who could appeal directly to the King because of their position in society. However, except for Madame Clérin's case resolution was not found for the others.

The last expropriation took place in 1735. The *Cimetière des pauvres* owned by the Sulpicians was located outside the fortifications just west of the *Porte de la Montagne* in the dry ditch and the *glacis* of the fortifications. Until 1735, burials were still taking place in this cemetery. That year, they were ordered by the governor general to stop

³³ "Les Pères Jesuites de Canada au Conseil". March 16, 1716. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F41: p. 205-207.

³⁴ Letter from Beauharnois. September 29, 1726. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F48: p. 167.

³⁵ Letter from Beauharnois and Dupuy, October 20, 1726. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F48: p. 20-21.

³⁶ Letter from Hocquart and Beauharnois, October 10, 1732. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F52: (86-94), p. 92.

this practice.³⁷ The cemetery for the poor was then moved to lot 40, inside the fortification wall, near the powder magazine.³⁸

Chaussegros's decision to align the new fortifications with the old military reserves was influenced by financial and topographical factors as well as existing urban conditions. Financially, using existing reserves on the periphery of the town was feasible because expropriations were kept to a minimum.³⁹ A few houses and a brick factory were the only buildings demolished for the construction of the fortifications. In doing this, Chaussegros followed precedents set in Europe. Vauban, for example, when modernising fortifications, invariably evaluated and adapted existing conditions to a new plan. He considered the project as a whole, often subsuming ideal military conditions to factors of cost and convenience, "en sauvegardant le tracé des anciennes routes, on limitait l'importance des expropriations et des démolitions".

The integration of the fortifications into the urban fabric obviously had disruptive effects on people's lives. When restrictions were placed on properties near the fortifications buildings were demolished, land was expropriated and a cemetery was moved. These were physical changes recorded in the shifting patterns of land use. There were other

³⁷ Letter from Beaucours to the Minister. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F64: p. 252. Also see Olivier Maurault, *La Paroisse: Histoire de l'Eglise Notre-Dame de Montréal*, (Montréal, 1929), p. 276.

³⁸ E.Z. Massicotte, "Les Anciens Cimetières de Montréal, 1648-1800", *BRH*, vol. XXVII:11 (November 1921), p. 344.

³⁹ Louis Grodecki, *op. cit.*, p. 351.

consequences for the development of the town which was restricted by the presence of the palisade and then by the ramparts.

Town Gates

After the town was fortified, movement in and out of the town was restricted to the gates. As the placement of the gates permanently established patterns of movement, affecting subsequent urban planning, it is important to establish where these openings were from the outset. A diagram of the evolution of the palisade is presented in *Illustration 9* which shows its extensions to the east with the consequent addition of gates.

Before 1699, the palisade had five large and two small gates. There were two gates on the east and west sides of the town, one on the north side and two on the south side facing the Saint Lawrence River. Essentially, following the existing grid, the gates were placed on major streets and on roads leading from the town into the countryside. On the waterfront, they were placed on the *Place d'Armes* and at the bottoms of streets opening onto the old commons.

After 1699 (and before the construction of the ramparts) other gates were added. In the contract for the 1699 extension of the palisade, Fontenelles dit Champagne was required to build additional gates for the

town but the number was not specified.⁴⁰ Furthermore, Levasseur de Néré's plan of 1704 shows at least thirteen gates while only seven were counted before 1699. However, as this plan is not a representation of the town but a plan for its future fortifications, it is difficult to assess how many of the additional gates shown on this plan were actually built by 1704. A notation on Beaucours plan of 1714, however, affirms that Montreal had eight large and seven small gates at that time, totalling fifteen; Chaussegros' ramparts had sixteen.

Precise information about the construction of the gates is not available but the construction of some may be deduced from contemporary deeds. Three gates built after 1700 can be dated approximately. In 1704, a lease shows that a new gate, *la porte de M. Migeon*, was located at the bottom of *rue Saint-Joseph*.⁴¹ An approximate date may be deduced for *la porte de la guérite du Diable* located on the northern contour of the town on *rue Saint-Gabriel* then called *rue Saint-Philippe*. In 1708, a deed of sale for lot 309, located next to the gate, did not mention it but three years later when the lot was resold, the gate was used to orient the lot, "un emplacement sis en cette ville sur le niveau de la rue St Philippe

⁴⁰ "Marché entre Jean Bochart de Champigny, Intendant, et Jean Fontenelle dit Champagne, charpentier, pour faire des portes et des pagées de palissades". ANQM. CN601-002, m.n. A. Adhémar, 10 juillet 1699, no. 4760.

⁴¹ Sous-bail de la maison du Sieur Claude Pothier dit Laverdure, emplacement 266, sur la rue Saint-Joseph proche la petite porte vulgairement appelée de M. Migeon, par Maurice Blondeau, marchand, à Jacques Bertot?, maître tailleur d'habits. ANQM. CN601-002, m.n. A. Adhémar, 9 juin 1704, no. 6784.

pret et joignant la porte de la gueritte du diable".⁴² Evidently, the gate was added after 1708. One other gate may safely be dated after 1708 and that was the gate just west of the Bonsecours Chapel. Before 1708, the quartier Bonsecours was completely outside of the palisade. It was only after the 1708 extension that this section was circumscribed within the town and that an additional gate was built near Bonsecour Chapel.

A comparison between de Néré's plan of 1704 and Catalogne's plan of 1713, also showed that the Notre-Dame Gate, on the east end of the street, had been eliminated with the second extension of the town. It was no longer necessary because rue Notre-Dame was lengthened to the bottom of the Citadel which had been partially circumscribed within the walls. As the town narrowed to avoid the marsh, only one gate remained on the east end. The *Saint-François* Gate located on rue *Saint-Paul* and opening towards *Côte Saint-François*, was pushed east to a point contiguous with the eastern boundaries of lots 390 and 406. Although the name of this gate was to change over time, and although it would be pushed further east with Chaussegros' fortifications, this single gate was the only opening on the eastern side of the town throughout the eighteenth century.

A consistent pattern for the gates had emerged by 1713. The landward openings were kept to a minimum while on the side facing the Saint

⁴² Vente des Jésuites à Paul Aguenier, menuisier, emplacement 309 sur la rue Saint-Philippe près de la porte de la guérite du Diable. ANQM. CN601-0002. m.n. A. Adhémar, 28 juillet 1708, no. 8030A; Vente de Paul Aguenier, menuisier, à Julien Auge dit Grandchamp, charpentier, emplacement 309 sur la rue Saint-Philippe près de la porte de la guérite du Diable. ANQM. CN601-260. m.n. M. Lepailleur, 14 juin 1711, no. 966.

Lawrence river the gates multiplied. This pattern continued with the construction of the ramparts. Chaussegros had constructed sixteen gates for the fortifications: ten gates, five large and five small were built on the waterfront and a total of six gates were built on the other three sides, one large each on the north, east and west sides, with two small gates on the north and one on the west side.⁴³ Some small gates, sallyports, were reserved for the exclusive use of the army. These were located on the northern front of the ramparts and at the Lachine Gate. The others, facing the Saint Lawrence River, were all pedestrian gates built for easy access to the waterfront.

As a breach in the wall represented a weak point in its fabric, multiple openings were avoided on the sides facing towards the country because the possibility of attack was greatest in these areas. Given the navigational conditions of the river, an attack was not expected from the Saint Lawrence River. Piercing the protective membrane of the town on this side, therefore, was not detrimental to its safety.

Although Chaussegros' first plan in 1717 proposed several changes to the placement of the gates, especially on the countryside, a plan of 1731 showed that few were made. Basically, the placement of the gates respected the axes of existing streets. The gates on the waterfront were located on the market-place and at the bottom of streets leading to the Saint Lawrence River. Two added to the east end of the town: a small gate, 7a

⁴³ Letter by de Beaujours, October 13, 1738. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F70: p. 179-180.

poterne de Contrecoeur, was built at the bottom of *rue de la Friponne* and a large gate at the *Canoterie du roi*. The gates on the eastern and western fronts remained in place, except that the *Saint-Martin* was moved further east along *rue Saint-Paul*. Although the *Porte de la Guérite* on the northern side was originally included in the 1717 plan, it was eliminated in 1731. Instead, the *Saint-Laurent* Gate became the major exit on the northern ramparts. Its placement was influenced by the construction of the King's highway in 1717.⁴⁴ The other two were small gates: the *porte de la Montagne* remained; and, a new gate was pierced in the curtain facing the Jesuit property.

Chaussegros' original intention had been to create a new main street across the town from east to west to facilitate the movement of troops. In the plan, the placement of the *Lachine* and *Saint-Martin* Gates would have been affected. This is the reason for the displacement of those gates on the 1717 project for the fortifications. In the plan, both gates were moved to the middle of the curtain wall, creating perfectly symmetrical defensive fronts on the eastern and western sides of the town. When the street was eliminated from the plan, the position of the gates was not changed after all. They remained on either end of *rue Saint-Paul*. However, the *Lachine* gate lost its status as a main gate and was built as a small gate instead. As small gates were not shown on Chaussegros' plans, it seemed to have disappeared entirely, but that was not so. In 1717, the

⁴⁴ Alan Stewart, "Settling an 18th-Century *Faubourg*: Property and Family in the Saint-Laurent Suburb, 1735 -1810". (McGill University: Unpublished MA thesis, 1988) p. 15.

construction of the fortifications was started at this gate and an account dating 1741 shows that it was completed that year.⁴⁵

When the War of Austrian Succession was declared in 1744, the number of operational gates at Montreal was immediately reduced from sixteen to seven in preparation for an attack. Four small gates were permanently sealed by a masonry wall, the other four and one large gate, the *Porte de la Petite Rivière* (also known as the *Frères Charons Gate*), were locked until orders to the contrary were given.⁴⁶ Obviously, authorities wished to strengthen the wall by reducing the number of breaches in its fabric.

Beauharnois identified the four sealed gates as the *Moulin du Côteau*, the *Lachine*, the *Porte de la Montagne* and the *Contrecoeur Gates*.⁴⁷ While the *Contrecoeur* and the *Moulin du Côteau Gates* were never reinstated, the *Porte de la Montagne* and the *Lachine Gate* both were reopened during the British regime. Breached between 1768 and 1795, the *Porte de la Montagne* appears in many watercolours drawn by British topographers visiting Montreal in the late eighteenth century such as James Peachy (illustration 1).⁴⁸ Evidence shows that the *Lachine Gate* was

⁴⁵ P.G. Roy. *Papiers de Léry*, vol. I, (Quebec, 1939) p. 30.

⁴⁶ "Petit Mémoire pour le Canada pour la ville de Montréal". September 20, 1744. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F78: p. 317-320.

⁴⁷ Chaussegros and Hocquart. "Copie du Toisé et Etats des dépenses faites en 1741 pour finir l'enceinte de la ville de Montréal". October 14, 1741. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F76: (287-290) p. 287.

⁴⁸ Alan Stewart, *op. cit.*, p. 15.

reinstated c1788. Property deeds for lots number 2 and 7, dating 1788 and 1800, mentioned that they were located near the new gate which led to the *Faubourg Saint-Joseph*, obviously the Lachine Gate.⁴⁹ The gate opened onto a thoroughfare that led to the developing *faubourg*, a major cart track leading to Lachine and a grist mill located on a canal west of the town. It was obviously reinstated to accomodate local traffic.

Through archeological evidence it is known that the Jesuit Gate was sealed before completion. The door jambs were completed with cut and dressed stone and metal bars to hinge the doors were installed. However, archeologists maintain that the gate was never used because the earth in the embankment behind the gate, was never moved. It was virgin soil.⁵⁰

In summary, in both the palisade and the ramparts the placement of the gates had been determined by an existing grid of streets. The placement of the gates for the palisade had determined the openings in the ramparts which respected patterns of movement in and out of the town. One exception was the construction of the *Saint-Laurent* gate which faced the new King's road (1717). As the town was extended east, the gates were modified with the elimination of the *Notre-Dame Gate* in 1708 and the

⁴⁹ Bail de François Jobin à Michel Grass pour l'emplacement 2 situé sur le niveau de la rue Saint-Paul proche de la porte neuve". ANQM. CN601-313, m.n. J. Papineau, 25 septembre 1788, no. 1135; A few days earlier, François Jobin had rented the upper floors of the same house. The lease mentions that it was located near the gate leading to the *Faubourg Saint-Joseph*. ANQM. September 17, 1788, no. 1129; Bail par François Papineau à Chris Georgen, emplacement 7, sur le niveau de la rue Saint-Paul. ANQM. CN601-128. m.n. J.B. Desève, 23 avril 1800, no. 1725.

⁵⁰ Louise Pagé, *Champ-de-mars, Montréal Bjfj-21, rapport de fouilles archéologiques*, (1987), p. 60-69.

addition of three gates: two small gates the *Bonsecours* (1708) and the *Contrecoeur* (1717); and, one large gate, *la porte de la Canoterie* (1717). Chaussegros observed the same pattern of development that had been established with the palisade by building multiple gates on the waterfront and limiting them on the sides facing the country. When war was declared with Britain in 1744, military considerations took precedence over local needs when four gates were walled and five others were locked, limiting access and communication with the countryside.

Early military intervention in urban planning started a process which affected the development of the Montreal until its ramparts were completed in 1744. During this time, not only was the form of Montreal affected by the evolution of its walls, but so were land holdings as military reserves progressively claimed more space. Certain lots remained in military hands until the early 19th century. The powder magazine on lot 39, the old and new guardhouses on the *Place d'Armes* built on lots 198 and 209 respectively, and the Citadel on lot 389, were three examples. It has been shown that military policies shaped Montreal from the seventeenth century onwards, profoundly affecting its form. In the next chapter, the evolution of Chaussegros' plan for Montreal's fortifications shall be examined to show it originated both from previous military planning and contemporary theory.

CHAPTER 4

The Evolution of Chaussegros's Plan 1713-1744

Following Louis XIV's order in 1712 to construct the fortifications, a segment of the masonry wall was erected between 1713 and 1715 at which time construction was halted until the arrival of Chaussegros two years later.¹ As works were already in progress when he arrived, various decisions had already been implemented regarding Montreal's form and fortifications. Three issues were notable: one was that the debate concerning Montreal's circumference, which had raged since de Néré had extended the town in 1708/09, was resolved; a second was the rejection of a proposal to build square redoubts at salient points instead of bastions; and a third was the confrontation between political and religious authorities which came to a head over military land reserves.

Considering Montreal's strategic importance, the replacement of the palisade by a stone wall was inevitable. At the turn of the century, Vauban had advocated the use of stoned faced ramparts with simple outerworks to fortify towns in the colony.² Financial, practical and

¹ "Mémoire du Roy aux S^{rs} Marquis de Vaudreuil Gouverneur et Lieutenant general et Begon Intendant de la nouvelle France". June 15, 1712. AN. Sous-Séries F3: Collection Moreau de Saint-Méry, vol. 9, p. 228-236. The construction of this first masonry wall was confirmed through archeological remains discovered in the Old Place d'Armes (summer 1990). Informal conversation with archeologist Pierre Cardinal on November 15th, 1990.

² Louise Dechêne, *La correspondance de Vauban relative au Canada*, (Quebec: Ministère des Affaires culturelles, 1968), p. 40.

strategic reasons prompted the change in material. Financially, the annual replacement of rotten cedar posts was becoming an ever increasing burden on the citizens of Montreal who were required to supply the stakes while the King paid to have them planted. The depletion of trees in the vicinity of the town required long and arduous trips further afield to find cedars 12 to 15 inches in diameter. Consequently, carting costs were increasingly prohibitive, especially when 1000 or more rotten stakes were replaced yearly; in 1695, for example, 1060 new cedar posts were replaced.³ Testifying to the impermanence of the palisade in a letter written the same year, Champigny and Frontenac noted that 1500 posts would have to be provided every year to keep it in good repair.⁴

The temporary and degenerative nature of the palisade was not conducive to the security of the town especially when war with the British threatened. Authorities also argued that policing the town was easier within an unbreachable and permanent stone wall. Contraband, for example, could more easily be checked by regular sentry rounds because permanently established openings at the gates facilitated traffic control.⁵

³ a. Lettre de Callière au Ministre. Montréal, 19 October, 1695. C11A F13 p. 104-120.

⁴ Lettre de Champigny et Frontenac, Québec, 10 Novembre 1695. C11A F13 p. 262-272.

⁵ Letter by Ramezay. November 6, 1712. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F33, p. 148-153.

When Chaussegros arrived in Montreal, his task was to assess, adjust and implement the plan for the ramparts he had been given by the King.⁶ Having previously analysed the impact of fortifications on urban planning (chapter 3), this chapter will focus on the the evolution of the plan elaborated by Chaussegros.

Early Planning: 1713-1717

According to two letters sent to the Minister by Ramezay on September 18th, 1714, and another by Bégon and Vaudreuil, September 20th, 1714, the plan implemented in 1713 was drawn by de Beaucour.⁷ Evidence shows that bourgeois merchants built sections of the wall on their waterfront property near Place d'Armes.⁸ The lots were on the south side of rue Saint-Louis to the west of Place d'Armes and included numbers 193-197. This is confirmed by a notation in the legend on de Catalogne's 1713 plan which states, "Les parties ponctuées en rouge représentent les ouvrages commencés en masconnerie".⁹ The dotted red lines appear on the

⁶ "Lettre du Président du Conseil de Marine à MM. de Vaudreuil et Bégon, le 23 juin 1716". P.G. Roy, *Inventaire des Papiers de Léry conservés aux Archives de la Province de Québec*, (Québec, 1939), p. 15.

⁷ Letter by Ramezay to the Minister. September 18, 1714. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F34: (p. 354-359) p. 359; Letter from Vaudreuil and Bégon to the Minister. September 20, 1714. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F34: 228-261; p. 252.

⁸ Letter from Vaudreuil and Bégon. September, 1714. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F34: (228-261) p. 252.

⁹ Gédéon de Catalogne, *Plan de la ville de Montréal en Canada levé en l'année 1714 et lanceinte à été rectifiée par Mr. le Ch. de Beaucour à l'original 1713*. NAC. Cartographic and Architectural Archives

south side of *rue Robert* later known as *rue Saint-Louis* or *rue de la Capitale*. As Louis XIV refused to fund the construction, the works were started on the waterfront because owners were required to pay for sections of the wall passing on their property. Since the waterfront was the one least susceptible to attack, Beaucours did not observe strict specifications for this area.¹⁰

Another notable feature of Beaucours' plan was his proposal to build redoubts rather than bastions.¹¹ The plan was to build the redoubts first, then, to join them with walls: "Il faut commencer a faire les redoutes selon le plan de M. de Beaucours, ensuite on fera les courtines".¹² Beaucours squared the western contour to form a new grid of streets in the north-west corner. The remainder of the contour was unchanged as observed in a comparison with Catalogne's survey of 1713 (see illustration 11 and 15).

Division, PH/340 1714 (1713). Notation accompanying the map states that the fortification wall was started in 1713 by a group of merchants.

¹⁰ "Ordonnance de M. Bégon pour faire faire les ouvrages de l'enceinte de la ville de Montréal par corvées par les habitants de ce gouvernement dans du temps ou ils seront moins occupés", November 18, 1714. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F34: 328-329; Letter from Ramezay to the Minister. Québec, Septembre 18, 1714. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F34: (p. 354-359) p. 358.

¹¹ Letter by Gédéon de Catalogne to the Minister, November 9, 1713. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F34: (115-116), p. 115.

¹² Letter by Ramezay to the Minister. September 18, 1714. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F34: (p. 354-359) p. 359.

Apparently de Beaucours' plan for the walls was found inadequate by the authorities in France because new plans for the town were proposed in 1716. Three proposals were considered by Renault (an advisor to the King in France) in a memorandum in which he briefly comments on the pros and cons of each. One plan reducing the contour of the town was rejected. Beaucours' plan was rejected because of his use of square redoubts instead of bastions. The redoubts were located too far apart to be of any defensive value. It was with a third plan, showing well flanked bastions, that Chaussegros de Léry was sent to Canada in 1716. His first task was to verify the topographical layout of the town and and make necessary adjustments to the plan.¹³

When Chaussegros first arrived in the colony in 1716, he worked in Quebec City. It was only during the second year of his stay that he came to Montreal to modify the plans for the fortifications.¹⁴ Leaving l'Hermitte in charge of the works, he went back to France from 1718-1719 to discuss the fortification of the colony, taking plans and specifications not only for Montreal but for Quebec and Chambly as

¹³ "Avis de M. Renault au sujet des fortifications de Montréal: le plan de Montréal qui doit estre arrete par le sonceil est cy joint". AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F36: p. 210.

¹⁴ Letter from Vaudreuil and Bégon. Octobre 14, 1716. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F36: (20-25) p. 20: "Depuis son arrivee (1716) [Chaussegros] travail à Quebec...il fera ses observations sur le plan de Montréal et travaillera a Montréal le printemps 1717 jusqu'à ce que l'imposition de 6,000# fournie par le Séminaire et les habitants de Montréal soit epuisée."

well.¹⁵ When he returned to the colony the following year, he remained until his death in 1756. During this time he consolidated Canada's defence systems. His primary focus between 1717 and 1744 was to organise and build Montreal's ramparts and network of forts.

Before Chaussegros' arrival in Montreal, several issues related to fortifications and affecting town planning had been resolved. Foremost, was the issue of the town's size. After the palisade was extended in 1708, the enlarged contour of the town was a constant source of criticism. Authorities in the colony felt that Montreal's circumference was too extensive and planned to reduce it:¹⁶ They cited two reasons for this decision: First, they felt it was too costly to build a rampart with such a large circumference; and second, they complained that there were not enough soldiers in the colony to properly man and defend the town as it stood.¹⁷ While chronic lack of funds in the colony validated the first reason, the type of fortifications built in Europe under Vauban's direction did not support the second.

¹⁵ Letter from Vaudreuil and Bégon to the *Conseil*. October 20, 1717. Archives nationales, Paris. Fonds des colonies, Série C11A, correspondance générale, Canada, F38 (19-26) p. 25.

¹⁶ Letter from Ramezay to the Minister, November 16, 1712. AN. Fonds des colonies, Série C11a, Correspondance générale, Canada, F33: p. 148-153.

¹⁷ Letter from Raudot to the Minister, September 15, 1709. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F30: 229-257.

Historians often cite Montreal's extensive contour as a weakness in its ramparts, rendering the town's defence untenable.¹⁸ However, large circumferences for military towns were not unusual in Europe but were considered sound from a tactical point of view. They were a typical feature of Vauban's military cities for both demographic and tactical reasons. When military towns were planned in Europe, future growth was considered to allow for demographic growth and an eventual increase in military personnel. Tactically, the largest circumference possible had to be created while minimizing the number of bastions for a town. For these reasons Vauban extended every town he fortified. His extended circumference was a greater disadvantage to invading forces than it was to a residing army. The increase in circumference invariably forced the enemy to multiply its troops while inside the walls the garrison remained comparatively small. Enemy approaches were usually reported by sentinels and thus the garrison was prepared for an attack.¹⁹ When laying siege, invading forces spread their resources to surround town ramparts covering all possible exits but to breach a wall, cannon-shot was concentrated only on one or two weaker sections. From within, therefore, soldiers focussed on one or two directions of attack. That Montreal's contour was extended by Chaussegros was legitimate in the light of contemporary theory.

A further justification for extending the perimeter of the town appeared in a notation on the upper left hand quarter of Beaucours' plan

¹⁸ J.C. Marsan, *Montreal in Evolution*, (Montreal: McGill-Queen's University Press, 1974) p. 83.

¹⁹ Louis Grodecki. *op. cit.*, p. 336.

(1714): the Citadel had to be circumvallated by the ramparts: "Ce qui à donné raison d'augmenter l'enceinte de cette ville en longueur est pour récupérer une hauteur capable de servir...[illegible]...à un grand nombre d'ennemis ou ils auroient qu'a se logé facilement outre qu'en suprimant les bastions et suivre les lignes tirée ...[illegible]... l'enceinte est allongée que très peu".

Practical reasons followed tactical in the amplification of urban space because it was needed to integrate expanding military installations and services. In the eighteenth century, a town was considered to be fortified only when all structures and infrastructures were present; from soldiers, artillery and munitions, kitchens, powder magazines, and stores to services such as hospitals, or trades such as the king's blacksmith.²⁰

Active communities like Montreal were often favoured for the creation of military towns. Vauban believed that a military town should be economically prosperous and commercially viable in order to attract a large and stable population. The integration of military installations was necessary not only for Montreal's defence but stimulated demographic growth as people gravitated to the military centre to service the army and to build necessary military structures. Therefore, the military engineer was also a town planner. Vauban felt that an attractive and stimulating urban environment was necessary because it stabilized the garrison.

²⁰ Louis Grodecki, *Op. cit.*, p. 336.

Desertion usually resulted when soldiers were isolated from the community.²¹

In both Europe and the colony the value of real estate was a considerable factor when engineers were faced with the task of fortifying an existing town. A prime example is Vauban's attempt to fortify Saint-Servan, a town along the coast of Brittany. In his 1700 proposal, Vauban wrote: "Il est nécessaire de clore Saint-Servan et en l'enfermant d'embrasser le plus grand espace qu'on pourra pour épargner quantité de jolies maisons (29) qui y sont déjà basties sans craindre qu'elles puissent estre de trop grande garde parce qu'au moyen de la rivière de Rance, de la Rade et du Bassin, plus des deux tiers de son circuit seront entourés d'eau et par conséquent inattaquables".²² Vauban was mollifying local merchants who were resisting Saint-Servan's fortifications by including their houses within the walls.

There are two parallels with Montreal in this example. First, real estate values are cited as a rationale for building and maintaining an extensive contour of the town. Ramezay specified that in two years, presumably from 1712-1714, sixty new houses had been built in the town and that more lots were being created and sold from garden plots.²³ Lots

²¹ M. Robert Bornecque, "Un Paradoxe : La ville citadelle de Montdauphin", *Vauban réformateur*, (Paris, décembre 1685), p.152.

²² Philippe Petout, "Vauban et les ports Bretons". *Vauban réformateur*, (Paris, décembre 1985), p.167.

²³ Letter from Ramezay to the Minister. September 18, 1714. AN. Fonds des colonies, Série C11A, correspondance générale, Canada: F34, (p. 354-359) p. 359.

built within the palisade had appreciated in value and were too expensive to expropriate or to be left outside the town. Furthermore, Bégon and Vaudreuil emphasized the growing need for space and housing to accommodate a rapidly expanding population.²⁴ In both cases, changes initiated by military imperatives were being imposed on an existing urban structure where economic and demographic factors were considered. Second, as with Saint-Servan, Montreal was surrounded by water rendering its attack difficult. Considering its geographical position, a large and cumbersome circumference was not a military hazard.

Chaussegros' Plan

The fortifications of Montreal were built over a period of 27 years from 1717-1744. The inauguration was marked with an inscribed and dated foundation stone laid in the vicinity of the Lachine Gate, in the southwestern corner of the town.²⁵ The construction of the rampart had started at the Lachine Gate, because this was the side most vulnerable to attack.²⁶ By 1729, the east end and the northern sections of the wall were completed to the capital of the Saint-Laurent Bastion, excluding the gates which were built later. Two other small areas were finished by 1729:

²⁴ Letter from Bégon and Vaudreuil, September 20, 1714. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F33: p. 252.

²⁵ A payment of 45# for an inscription on the stone was made to Hervieux. "Compte que rend devant Mr l'Intendant le S^r Chaumaux prestre Econome du Séminaire." AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F38: p. 89-90.

²⁶ Chaussegros, "Mémoire et état de la ville de Montréal", August 10, 1717. P.G. Roy. *Inventaire des Papiers de Léry*, (Quebec: 1939) p. 30.

the right face of the *Bastion des Jésuites* (EF on the 1729 plan of Montreal); and part of the Bonsecours Bastion, facing the intendants house (illustration 16, a thick black line indicates where walls were erected).

A tremendous amount of work was done in 1733. Along the Saint Lawrence River, the foundations of the wall were built and raised three feet above ground beginning with the southern face and flank of the Lachine Bastion to the east shoulder of the Market Bastion. The counterscarp closing the east and west ends of the city were built by the contractor Pierre Sarrault. The ditch contiguous to it was dug as well.²⁷ Two main gates were erected: the Saint-Laurent and the Recollet.

Construction was brisk that year because additional workers and soldiers were sent from Quebec City because the construction of the fortifications was part of a public relief project in 1733. A smallpox epidemic had caused 2,000 deaths in the colony particularly devastating Quebec City. Because work and food were in short supply, make-work projects were created by the government to help relieve the crisis. The construction of a dam on the Saint-Charles River and the construction of the Montreal's fortifications were public projects which permitted employment during this period.²⁸

²⁷ AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F60: p. 371-375.

²⁸ Beauharnois and Hocquart, October 14, 1733. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F59: p. 175.

Except for three gates on the waterfront, the circumference of the town was entirely closed by 1738 with the completion of the bastions and the curtains. The last gates were hung and locked in 1741. The final touches to the ramparts were finished by 1744: the walls were roughcast; the parapets were covered with planks to protect them from frost; the glacis and cannon platforms were built; and the sixteen gates were painted ochre.

A series of plans depicting Montreal's fortifications were drawn by Chaussegros in 1717 (illustration 17). These include several adjustments to Ranault's 1716 plan. Although the topography of the site and the military reserves designated around the periphery of the town confined the placement of the fortifications to a predetermined space, Chaussegros was not hampered by the existence of a masonry wall. The impermanence of the palisade allowed him a fair amount of freedom in adjusting the size and placement of the bastions and of the curtains for the new ramparts.

The first major change in the plan occurred on the riverfront. In contrast to Beaucours and Vaudreuil, Chaussegros believed that the town could be attacked by an invading British army, and he resolved to construct a proper defensive front facing the Saint Lawrence River. Both official correspondence and archeology confirmed that the walls built from 1713 to 1715 were not included in the new construction.²⁹ Integrating

²⁹ "[Chaussegros] l'a fait passer adevant des maisons qui sont sur le bord de la petite rivière et du fleuve, les maisons qui ont été commcées pour servir de cloture ce qui paroist au Sr. de Vaudreuil suffisant poiur ce Costé llà." Letter from Vaudreuil and Begon to the Minister, October 20, 1717. AN. Fonds des colonies, Série C11A,

houses into the wall would break the sentry road, impeding the surveillance of the guard and putting the town in jeopardy. Furthermore, Chaussegros argued that the principles of fortification demanded that houses be kept well away from ramparts so that each part of the wall could be free from encumbrances and remaining easy to defend.³⁰

Chaussegros produced at least fifteen plans for the fortifications from 1717-1737. During the construction, they were sent to France on a yearly basis with progress reports and accounts of work completed for each fiscal period. A survey of these maps shows that the plans drawn in 1717 were subject to change after construction began. In 1731, for example, a request was made from the Frères Charon to enclose their hospital located on the *Pointe-à-Callière* within the ramparts which would have meant extending the wall across the Saint-Pierre River.³¹ Although this was obviously refused, it shows that last minute changes were considered while the works were in progress. It also confirms that the ramparts on the waterfront were not yet erected.

Two examples of structures which were changed during the construction of the fortifications were the bastion facing the Place d'Armes and the *bastion du moulin* inserted between the marsh and the

correspondance générale, Canada, F38, p. 20.

³⁰ Chaussegros, "Mémoire et état de la ville de Montréal", August 10, 1717. P.G. Roy. *op. cit.*, p. 30.

³¹ Letter from Beauharnois and Hocquart, October 21, 1731. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F54: (237-245), p. 242-243.

Citadel. From 1717 to 1731, Chaussegros' plans show the wall facing *Place d'Armes* and the *Hôtel Dieu des Soeurs Hospitalières* ("G" on Chaussegros' plan of 1733, illustration 19) as two bastions joined by a curtain. It appears this way until 1733 when a long bastion was created (line BC) stretching from just west of *rue Saint-François* to a point facing the east wing of the *Hotel Dieu*.

The *bastion du moulin* was formed by a "w" shaped *tenaille* (figure 2 below). This *tenaille* was a linking device that strengthened angles created at the junction of two curtain walls where it was topographically impossible to build a bastion.³² This was the situation between the wall at the foot of the *Citadel* and the marsh beyond where the "w" *tenaille* was inserted. This structure was rarely used in fortifications because it weakened the fabric of the wall. However, Chaussegros chose it because cannons could be mounted on its flanks allowing the *tenaille* to function as a bastion. Like the bastions, it held six cannons, three on each flank.

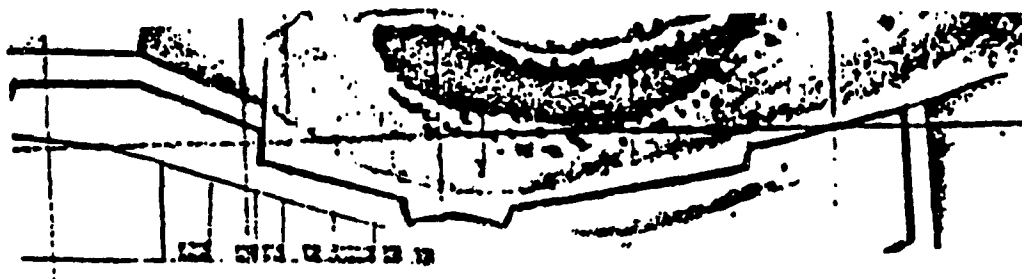


Figure 2. Detail from Chaussegros' 1731 plan showing "W" shaped *tenaille*.

³² Antoine Deville (1596-1657), *Les fortifications du chevalier Antoine de Ville, contenant la manière de fortifier toute sorte de places, tant regulierement qu'irregulierement...* (Paris: compagnie des Libraires du palais, 1666), p. 158-160, plate XXIII.

Another type of *tenaille*, *la tenaille de Beauharnois*, was inserted in the outerworks outside the Quebec Gate. A commonly known type, it usually appeared in the outer works facing a curtain or fronting a gate to protect it. Its size and shape were difficult to verify because although it was mentioned in the accounts, plans of the fortifications are unclear. Normally, it was a rampart consisting of two small flanks linked by a curtain.

In 1733, Chaussegros decided to strengthen the wall facing the Saint Lawrence River. This decision was not prompted by tactical needs but by practical ones. The previous year serious damage had been caused to houses located on the rivershore, "[il est] nécessaire de donner du côté du fleuve plus d'épaisseur aux murs que dans le reste de l'Enceinte et d'y faire un contremure terrassé entre pour résister à la violence des glaces".³³ This explains why the tender for 1733 was higher than previous years. The wall was given more width and was constructed with better materials to resist damage from ice.

As an eighteenth-century military engineer, Chaussegros had a preference for a symmetrical and regular plan. In spite of the constraints of the site, where possible, he gave the town a more regular figure, where possible, by adjusting the size of the bastions and by spacing them at more regular intervals. In doing so he was following typical eighteenth-century principles practiced by Vauban for updating old fortifications. He

³³ Letter from Beauharnois and Hocquart, October 7, 1739. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F60: p. (65-99) p. 81.

recorded them in his treatise of 1714. In Maxime XCVI, for example, he says, "Lors qu'on sera obligé de fortifier une ancienne place ou pour mieux dire raccomoder une ancienne fortifications irréguliere il faut tâcher de la rendre regulière par sa force."³⁴

This was well illustrated in Chaussegros' treatment of the fortifications on the western and eastern sections of Montreal where he added three bastions. Following Beaucour's proposal, the west end of the town was made regular by pushing the north-west corner outward to form an acute-angled bastion. In so doing, a symmetrical defensive front was created contrasting sharply with the trace of the town shown in 1713. Unlike Beaucour, who had placed three square stronghouses, one at each corner and another in the middle of the western front, Chaussegros created two symmetrical defensive fronts. In the east end of town, after completely circumvalating the Citadel, Chaussegros squared the eastern boundary of the ramparts. He added two bastions, one to each corner, thereby creating a proper defensive front à *angle rasante*. Every defensive angle was à *angle rasante*. This meant that a line E4D drawn from the capital of the bastion, point E, would always meet at an angle point D, crossing an opposing line to create an angle in the middle of the curtain at point X (figure 3, page 93).

³⁴ Chaussegros, *Traité de Fortification*, (1714) p. XLVII.

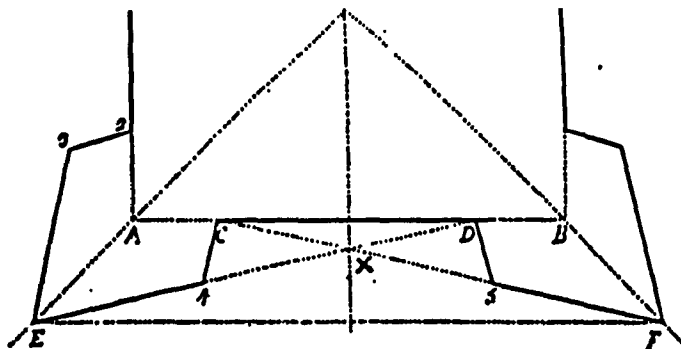


Figure 3. Squared bastions à angle rasante. Chaussegros de Léry, *Traité des Fortifications*, 1714, plate II. NAC. Manuscript Division, MG 18, K2.

Montreal's plan formed an asymmetrical polygonal figure. A symmetrical figure was considered ideal by eighteenth century military standards because all parts of the fortification could be given equal strength. Vauban had preferred a strict geometry in his plans, but he would break with rigid symmetry when the natural defenses of the site could be used to advantage as was the case for Montreal.³⁵ Although the geometry of the figure as a whole could be broken, tactically it was essential to observe a strict symmetry in the flanking angles of the bastions because they created the raking firing lines protecting the site. This may be observed in what was done with the rampart's irregular figure. In order to maximize the defensive potential of the fortifications, Chaussegros improved the magistral line of the trace by dealing with the parts rather than the whole figure. In Maxime XCVII, echoing Vauban, he recommended:

³⁵ Louis Grodecki, *op. cit.*, p. 339.

"On rendra une place régulière par sa force en racomodant un bastion moindre en grandeur a un autre le faisant en sorte qu'il lui devienne égal par la bonté de la fortifications".³⁶

Following this maxim, Chaussegros strengthened the weak areas created by Montreal's irregular polygonal figure by adjusting the geometry of the individual defensive fronts to create firing lines which were compatible with contemporary standards.

As a military town planner, Chaussegros followed principles which had been established by Vauban. His plan evolved from existing urban features reworked to form a more regular fortification. Overall, he respected the boundaries established for Montreal by previous military engineers except for two areas: in the north-west corner he integrated Beaujours' idea of a new street grid introduced in 1714; in the south-east corner, the contour was extended to enclose the King's boat yard. In doing this, costs were reduced by using available military reserves to avoid unnecessary expropriations.

While the circumference of the ramparts basically followed that of the previous palisade, Chaussegros was innovative in his distribution of the parts. His intention was to modernise the fortifications by building regular bastions to create proper flanking. Changes between Chaussegros' early plans of 1717 and those drawn in 1731 have been noted. They were prompted for tactical and practical reasons. The "w" shaped *tenaille* was

³⁶ Chaussegros, *op. cit.*

chosen for the *Bastion du moulin* because its flanking capacity fulfilled tactical criteria. Conversely, the wall facing the river was strengthened in response to environmental conditions caused by Canadian winters. Conceivably, in the fourteen year interval between 1717 and 1731, Chaussegros' knowledge of Montreal's topography and weather conditions had matured, allowing him to make compatible adjustments to the works.

Chapter 5

Implementation - Funding and Labour

It is necessary to examine methods of funding and labour practiced by local authorities in order to understand why it took almost thirty years to build Montreal's ramparts. Since the ramparts were built during the Thirty Years Peace, the urgency of war had receded and Louis XIV was disinclined to provide adequate financing for the construction of its fortifications. It was not until the declaration of war with Britain in 1744 that money poured into Canada, before this event, fortifications were built with a minimum of royal support.¹ Therefore, Montreal was fortified at a time when royal funding was grudging and sporadic at best. Notwithstanding a lack of funding, the construction of military installations was a steady source of revenue for the building and supply trades for almost thirty years. Job opportunities were created as money was pumped into the local economy.

Trends in funding and labour for the construction of fortifications may be charted from the seventeenth to the eighteenth century. In funding, two methods of financing were used consistently: first, a regular budget was created for the colony's defence expenditures; second, extraordinary funds were sporadically provided by the King. In labour, three sources were consistent throughout: first, the *corvées* were imposed for menial tasks; second, soldiers were a consistent source of cheap labour lowering

¹ Guy Frégault, "Essai sur les finances canadiennes (1700-1750)", *RHAF*, (September 1959), p. 157.

costs and increasing the labour pool; and third, artisans performed specialized tasks.

An analysis of funding and labour for the fortifications will show that as the construction progressed, both were increased. Although a strong link existed between policies of war and monies available, there was also a question of building up the necessary infrastructures to support a monumental project such as Montreal's ramparts. During the first phase of implementation, work progressed slowly and seemed to be disorganised. Chaussegros struggled to find innovative methods of funding and organizing labour through the 1720's. With the infrastructures in place, work progressed at a steady pace throughout the 1730's.

Financing the Construction

The regular budget of 20-22,000# for the colony's fortifications which had been allotted by the King since the seventeenth century was clearly insufficient for its needs. In 1708, for example, Vaudreuil and Raudot complained that having spent 17-18,000# on Quebec City's fortifications, alone, the budget could not stretch to pay for repairs that needed to be done at Montreal, Chambly and other frontier forts such as Frontenac. Not only was this budget expected to cover fortifications of French settlements, but was designated to fortify and repair the villages of Indian allies as well. A catch-all budget, it covered expenses for the

construction and repair of public and military buildings such as prisons and guardhouses.²

The first request for a fortifications budget specifically earmarked for Montreal had been made by Callière in 1694, not long after the palisade was built. Its upkeep was a constant source of expenditure because, as previously mentioned, rotting stakes had to be replaced at a rate of 1000 to 1500 a year. Although free labour was used in cutting and carting the stakes, costs were incurred in repairing and reconstructing the palisade.³

In spite of repeated requests, a special budget for Montreal's fortifications was consistently refused, even after the decision was made to build a rampart. Refusing to create a fund for the works in 1714, Louis XIV even disallowed the levy of a direct tax. Instead, he suggested *corvées*: where necessary, additional labour and materials such as lime would be paid with receipts from the king's stores.⁴

² Letter from Vaudreuil and Raudot, November 9, 1708. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F28: p. 65-66.

³ "Extraits de lettres, pièces et mémoires, touchant l'état et les affaires du Canada au départ des vaisseaux, 1694". AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F13: (31-40) p. 35.

⁴ Letter from Vaudreuil and Bégon to the Minister. September 20, 1714. AN, Paris, Fonds des colonies, Série C11A, correspondance générale, Canada, F34: (228-261) p. 252.

Corvées

Ever since the construction of the palisade in 1687, townspeople and farmers were required to cut cedar stakes and cart them to town while soldiers were paid to dig the ditches in which they were planted and to cart the earth required to build the terraces.⁵ Artisans were paid for the construction of the palisade because expertise was required to build the pagées, gates and sentry boxes.

An analysis of accounts and correspondence from 1717-1745 showed that the same principle applied for their construction. Menial tasks such as digging, carting of materials and earth were done by soldiers, unskilled labour and farmers who owned carts, while skilled labour was used for specialised tasks such as masonry and carpentry. As food production was crucial for the colony, *habitants* worked on the fortifications only when they were not busy with farming. During the summer season farmers were busy with their crops, so they amassed materials after harvests and throughout the winter. Carting sand and lime for mortar was done in the summer by men who did not farm for a living or by farmers during lax periods.⁶

⁵ "Canada 1699, Etat de la dépense faite pour la guerre et les fortifications sur les fonds de l'année 1699." October 17, 1700. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F113: (61-79), p. 64.

⁶ Letter from Vaudreuil to the Minister, September 20, 1714. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F34: (228-261) p. 252.

When Chaussegros arrived at Montreal, the structure for the implementation of the *corvées* was already established. In 1714, an ordinance was issued requiring all the residents of the town and the countryside to participate.⁷ Levies were imposed in various ways: individuals could either contribute their share of labour by working or, for those who could not or would not work, by making a cash contribution equivalent to labour.⁸ Contributions were calculated according to individual means.⁹

The evaluation roll, compiled in 1714 and 1715, listed individuals and institutions living in the town and in the communities located around the island of Montreal.¹⁰ The levies were listed as either "Journées d'hommes" or "Journées d'harnois" and were calculated by working days; the lowest number of days assigned was one day and the greatest number was

⁷ "Ordonnance de M. Bégon pour faire faire les ouvrages de l'enceinte de la ville de Montréal par corvées par les habitants de ce gouvernement dans du temps ou ils seront moins occupés, le 18 novembre 1714". AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F34: 328-329.

⁸ Letter from Ramezay to the Minister, September 18, 1714. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F34: p. 258-259.

⁹ Letter from Ramezay to the Minister, September 18, 1714. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F34: p. 258-259.

¹⁰ Taxes were collected from Montreal residents and from residents in the following communities: Boucherville, Verchère, Iles Bouchard, Varenne, Saint-Michel, Ile Sainte-Thérèse, Lachenaie, Rivière des Prairies, Ile Jesus, Côte de Lachine, Côte Saint-Paul, Côte Saint-Pierre and Haut de l'Ile. "Répartition et taxes du nombre des journées que chacun doit fournir pour corvées nécessaires pour faire l'enceinte de la ville, décembre 1714 et janvier 1715". AN. Fonds des colonies, Série C11A, correspondance générale, Canada: F34: p. 330-351.

eighty days (the latter was the Sulpician's contribution). Most of the levies varied between two to six days. A value of 3# was assigned to "Journées d'hommes" and of 8# to "Journées d'harnois".

Cash contributions were listed in some cases. Examples were Madame de la Frenière who promised 15#, Beaujeu who promised 20# a year and Senneville who promised 50#. Some of the wealthy merchants and proprietors in the town contributed by paying for the portions of the wall built on their lots. Demontigny, for example, paid 300# over six years for the portion of wall erected on his lot (no. 406) fronting on rue Saint-Paul. Several proprietors, such as Nicolas Marchand on lot number 378, who had lost a large portion of their properties were exempted from their levies.¹¹

According to the plans implemented by 1714, levies would be applied to the construction of the landward walls only. As an attack along the waterfront was not expected, the walls facing the Saint Lawrence River could be raised by individuals who owned property along the shore. Obviously, in such cases, fortification norms were lenient. Each owner would be responsible for a section of the wall passing on their respective lots.

¹¹ *Ibid.* Tax rolls were updated during the construction of the fortifications but copies have not survived. References were found for 1731 only. (Letter from Hocquart, October 18, 1731) AN. Fonds des colonies, Série C11A, correspondance générale, Canada: NAC microfilm F55: p. 241-252.)

There were two possibilities open for the construction of the wall on the riverside: one was that houses could be integrated as part of the wall with the restriction that no openings be built under fourteen feet¹²; and another option was to build walls sixteen feet high. Evidence showed that by 1717 both methods had been implemented but that Chaussegros de Léry ignored these constructions in favour of conventional fortifications.¹³ Hence, under Chaussegros the same system of levies was applied to the waterfront.

Surtax and Trade Leases

Officials quickly realized that this levy was insufficient to build the fortifications because the following year it was resolved that a surtax be raised on the people living in the town. An additional 6,000# would be added to the budget this way. Soldiers and people working for the public service who did not own property in the town were exempted. The Sulpicians would pay 2000# while the other religious communities and the townspeople would contribute 4000#. An ordinance was passed to this effect May 5th, 1716.¹⁴ The collection of the tax seems to have been retroactive

¹² Letter from Vaudreuil and Bégon, September 20, 1714. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F34: (228-261) p. 252.

¹³ Letter from Bégon and Vaudreuil. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F38: (19-26) p. 23-24.

¹⁴ "Projet d'arrest pour une imposition de 6,000# sur les habitants de la ville de Montréal pour faire une enceinte de muraille à la dite ville". AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F36: 252-253.

to 1715 because records show that it was collected that year.¹⁵ In 1732, the tax was raised to 7000#, 2000# being paid by the Sulpicians and 5000# by the townspeople. After 1744, the surtax continued and was applied to the maintenance of the fortifications and for other public expenses such as paving the roads.¹⁶

Another request for royal funding was made in 1716 by Vaudreuil who was probably hoping that the death of Louis XIV would bring about a change in funding policies. He asked for 4,000# yearly to supplement the levies.¹⁷ It was only in 1722, however, that the *Conseil de Marine* allotted that amount.¹⁸ The sum was increased to 20,000# in 1730.¹⁹ However it was not given on a regular basis causing an occasional shortfall of cash which slowed down construction.²⁰

¹⁵ Letter from L.A. de Bourbon, Maréchal d'Estrées, February 10, 1719. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F124: p. 322-327.

¹⁶ Letter from Beauharnois, November 5, 1740. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F73: p. 46-48.

¹⁷ Letter from Vaudreuil to the Council, October 14, 1716. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F36: p. 81.

¹⁸ Letter from Vaudreuil and Bégon, November 2, 1724. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F46: p. 27-41.

¹⁹ "Projet de la dépense à faire en la Nouvelle France pour le service du roy pendant l'année 1731, fait à Québec, 23 octobre 1730." AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F114: (411-425), p. 424.

²⁰ In 1733, for example, funds from the King were not sent and Chaussegros asked that they be remitted the following year. Letter from Chaussegros de Léry, October 7, 1734. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F60: p. 371-377.

When he arrived, Chaussegros, desperately seeking solutions to the funding shortages suggested two other sources of revenue be applied to the constructions of the ramparts: fur trading leases; and, the redirection of funds allotted yearly for Vaudreuil's non-existent personal guard.²¹ The second solution was not implemented but the first one found favour. Consequently, in 1727, leases on fur trading were tendered for Temiscamingue and for Toronto and most of the revenues were applied to the construction of Montreal's fortifications.²² The *congés* were another source of income from 1727 to 1738, where yearly revenues totalling 6250# were collected from 25 individual trading trips into Detroit, Lake Erie and Michilimakinac.²³ As the table below shows, the *Domaine d'Occident* contributed 5000# yearly from 1720 to 1738, the amount being reduced to 2500# for 1739-40.²⁴

²¹ Letter from Chaussegros, October 20, 1724. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F46: p. 324-326.

²² Temiscamingue was tendered by auction in Quebec City and finally given to de la Gorgendière for 4150# but only 4000# were applied to the fortifications' account. The following men participated in the auction: Gamelin, Mailhot, Courval, de la Gorgendière and Blondeau. Ordinance for Trading rights at Temiscamingue. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F47: 344-348. Toronto was tendered at 400#. "Adjudcation pour le poste de Toronto au Sr. la Saussaye". AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F49: p. 448-449. However, I was only able to trace one payment applied to Montreals' fortifications in 1728. "État abregé de la Recette tant des fonds ordonés pour l'Enceinte de Montréal que du produit de la levée de l'imposition ordonnée sur ladit ville depuis l'année 1716 jusqu'au premier septembre de la présente année 1730". Hocquart, September 15, 1730. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, p. 110-112.

²³ "Marine 1744. Bordereau des Recettes et dépenses...1744". Hocquart et Varin. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F116: (65-118) p. 65.

²⁴ "Fortifications 1739-1740", October 28, 1740. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F73: p. 50-51.

The table shows the "Recettes extraordinaires" applied to Montreal's fortifications from the first implementation of the levies until the ramparts were completed in 1744. Note that they varied considerably, reflecting the inconsistent financial policies towards military expenses that issued from France. Conversely, local revenues were stable. It was impossible to assess the levies derived from the *corvées* because yearly records for these revenues were not found.

Table of Revenues from the "Fond Extraordinaires" for the Fortifications
1716-1750

Years	1715	1720	1725	1730	1735	1740	1745	1750
Domaine D'Occident	5000	5000	5000	5000	2500	-	-	?
Sulpicians	2000	2000	2000	2000	2000	2000	2000	2000
Townspeople	4000	4000	4000	4000	5000	5000	4000	4000
Congés	-	-	6250	6250	6250	6250	-	-
Royal Funding	-	4000	20000	20000	?	-	?	-
TOTAL	11000	15000	37250	37250	?	13250	?	6000

Source: AN. Fonds des colonies, Série C11A, correspondance générale, Canada.

Figure 4

In 1734, when the possibility of war with the British seemed imminent, additional funds were provided by the king to rush the construction of the ramparts.²⁵ Estimates of funds needed for the completion in 1734 were set at 54 898# but by 1737, double that amount had been spent and still the work was incomplete.²⁶ Furious that this was still the case the following year, the king stopped the funding. This is reflected in the works as shown in *Appendix I*, where expenditures on the fortifications dipped considerably in 1738.

According to Chaussegros' original estimate in 1720, the fortifications of Montreal were to cost a total of 210,118# 13s 3d.²⁷ In 1740, with four more years to go, the total expenditures from 1717-1740 were calculated at double that amount, 435 927# 5s 9d, due, in part, to the growing costs of materials caused by inflation.²⁸

The increased cost of materials was not the only factor involved in the balance sheet. Changes in Chaussegros's plans had a considerable bearing as well especially through the 1730's. The construction of the

²⁵ Letter from Beauharnois, October 10, 1734. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F61: p. 303.

²⁶ "Mémoire du Roy au S^r Marquis de Beauharnois, gouverneur et Lieutenant Général pour sa magesté en N.F. et Hocquart Intendant au même pays." AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F69: p. 13-30.

²⁷ Chaussegros de Léry. "Toisé général ou estimation des ouvrages à faire à la ville de Montréal pour achever la fortifications". October 10, 1720. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F38: p. 91-92.

²⁸ Letter from Beauharnois, November 5, 1740. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F73, p. 46-48.

river-front wall which took place from 1733-38 was the most expensive one for three reasons: it was wider; its foundations were deeper; and, it was constructed with better materials than the others.²⁹ In addition, the costs for quarrying the stone had risen because the quarries were located further from the site.³⁰

In 1723, Chaussegros de Léry had estimated that the construction of the fortifications would take another year if appropriate funding were available. Since this was not the case, construction proceeded slowly in proportion to funds available for the next 21 years. Compounding the lack of royal funding at the beginning of the project, fortification levies were difficult to collect, resulting in very little construction between 1718-1720 because money was not available.³¹

In 1721, the fire of Montreal delayed the works when it destroyed 138 houses in Montreal, impoverishing its inhabitants.³² The bastions, the curtain of the palisade facing the Saint Lawrence, the guardhouse and

²⁹ Letter from Beauharnois and Hocquart, October 7, 1739. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F60: (65-99), p. 81.

³⁰ Letter from Beauharnois and Hocquart, October 1, 1732. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F57: (5-42), p. 22.

³¹ Chaussegros reports that construction was not undertaken at all between 1718-1720, however accounts show that between 1717-1719, 25 366# 6s 7d were spent on the fortifications. P.G. Roy, *op. cit.*, p. 81.

³² Vaudreuil and Bégon to the *Conseil*, November 4, 1722. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F44: (98-102) p. 98.

the King's stores were also burned and had to be replaced.³³ During this time levies were suspended for three years, from January 1, 1722 to January 1, 1724, to allow for the reconstruction of houses and stores lost in the fire.³⁴ Although this represented only a slight loss of revenue, more critical was a delay in the works because residents were not available to carry out their *corvées* and the artisans were busy rebuilding the town.

Contractors and Artisans

When Chaussegros arrived in the colony, he immediately complained about the lack of artisans and the excessive cost of labour in Canada. Although this was a chronic complaint made to the French government from the founding of the colony, considering the magnitude of Chaussegros' task, it is not surprising that he asked that artisans be sent as soon as possible.³⁵ The implementation of a defensive network for the colony was a monumental public works project straining Canada's workforce.

³³ Letter from Ramezay, October 15, 1723. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F45: (332-342) p. 339; P.G. Roy, *op. cit.*, p. 75.

³⁴ "Conseil de Marine: Décembre 1721, Canada". December 8, 1721. AN. Fonds des colonies, Série C11A, correspondance générale, Canada: F43: p. 209-210; Letter from Vaudreuil and Bégon, November 2, 1724. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F46: p. 27-41.

³⁵ In a memorandum, Chaussegros reported that labour and tools were needed in the colony for the construction of fortifications. He added that if any were sent in 1717, they would be used to start the Montreal's fortifications. "Mémoire touchant le nouveau projet des fortifications pour la ville de Québec." October 15, 1716. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F36: p. 182-183.

Although Montreal's fortifications occupied much of his time from 1717 to 1744, their construction was only part of Chaussegros' responsibilities as the colony's chief military engineer. Military structures were erected to fortify the Saint Lawrence Valley from Quebec City to the Great Lakes Basin, the Great Lakes waterways, and the Champlain/Richelieu corridor. When he was building the redoubt and Fort Saint-Frédéric, for example, a report for 1737 indicates that he spent the summer both at Montreal and at the Pointe à la Chevelure. His call for artisans, then, must be viewed in the overall context of a massive military building project for which skilled labour was needed.

When work on Beaujours' fortifications began in 1713, the project was planned as a local affair to be funded with levies on the residents of Montreal and the surrounding côtes. After Chaussegros' arrival, the scope of the project was amplified, making it a lucrative venture which attracted contractors and artisans from regions outside Montreal. Accounts showed that artisans came from the town and island of Montreal, from Quebec City and Beauport. (See *Appendix II*)

There were times when the funds were available but tradesmen were not, hence slowing down the works. Carters for instance, were in great demand, especially in the summer when farming was active. In 1732, for example, Beauharnois and Hocquart reported that the funds for that year were not spent because there was a shortage of carters to do the work.³⁶

³⁶ Letter from Beauharnois and Hocquart, October 1, 1732. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F57: (5-42) p. 21.

In 1730, Beauharnois had requested 150 soldiers from the Swiss Karrar regiment to work on the construction of fortifications in the colony, and particularly at Montreal.³⁷ However, it appears they were never sent for this purpose.

As the engineer-in-chief, Chaussegros supervised the construction of the fortifications, implementing instructions he had received from the King. Accordingly he wrote the specifications for Montreal's fortifications which were approved locally by the governor general and the intendant. Assistant engineers were hired for each major site, at Quebec and Montreal.³⁸ Engineers working under Chaussegros at Montreal were l'Hermitte, Catalogne, Dugué and Chaussegros' son. In Chaussegros' absence they were left in charge. In 1718-20, for example, when Chaussegros was in France, l'Hermitte replaced him. Catalogne was assistant engineer for a short while, until he was assigned to Ile Royale in 1723.³⁹ Dugué produced a plan of Montreal while Chaussegros was surveying the Niagara region in 1726. Later, 1739-1749, the position of assistant engineer was given to Chaussegros' son.

General contractors reporting directly to Chaussegros were responsible for subcontracts and collecting materials. The first general

³⁷ Letter from Beauharnois, October 15, 1730. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F52: (64-67) p. 65.

³⁸ André Charbonneau, and al., *op. cit.*, (1982), p. 240.

³⁹ Letter from Vaudreuil, October 10, 1723. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F45: p. 144.

contractor hired by Chaussegros was a local master mason and stone cutter, Dominique Janson dit Lapalme. He worked in this capacity only for one or two years from 1717-18.⁴⁰ When Chaussegros returned from France in 1719, Lapalme was replaced by a Quebec mason, Jean Boucher dit Belleville who remained as head contractor for the fortifications from 1719-1741. Until 1734, when another contractor (Pierre Sarault dit Laviolette) was hired, he had little competition. However, Belleville consistently received the greater share of the contracts. In 1738, for example, he erected 224 toises 3 pieds, 6 pouces" of running masonry while Sarrault built half that amount, "113 toises 3 pieds 5 pouces".⁴¹

Although Lapalme had lost the contract for the gross masonry, in his capacity as master architect and stone cutter, he was later hired for finer work such as building the gates, carving the King's arms for two town gates and one gargoyle.

Contracts were tendered by one of four methods: first, contracts for gross masonry were issued every three or four years; second, contracts were tendered by the job; three, artisans were hired seasonally; and four, day labour was hired. Contractors hired their own teams of artisans usually one construction season.

⁴⁰ His family had been in the Montreal area at least since 1712 when his father Pierre Janson dit Lapalme, also a mason and stone cutter, purchased a property in *Côte Notre-Dame des Vertus*. Vente par Dubuisson à Pierre Janson dit Lapalme le premier avril 1712. ANQM. CN601-340, m.n. Pierre Raimbault, 1 avril 1712, no. 1712.

⁴¹ "Bordereau des dépenses qui exedent en 1736 les fonds ordonnés..." October 1, 1738. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, F70: (71-90) p. 71.

Although masonry represented the bulk of the work needed to build the fortifications, the construction of gates and sentry boxes required other artisans such as carpenters, joiners, roofers and blacksmiths who were usually hired by the job. Carters were generally hired by the day to move earth and materials. Unskilled day labour and soldiers worked at tasks such as filling the ramparts with earth, digging ditches and moving dirt.

The use of day labourers for carting and shovelling dirt was greatest in the last phases of construction from the late 1730's to 1744, especially during the construction of the *talus* and the *glacis*. Apparently, the quotas established for the levies were insufficient during this period.

It was possible for one artisan to be hired for several jobs, and therefore be listed under different occupations in the accounts. Dominique Janson dit Lapalme, for example, was variously listed as a contractor mason in 1718, then master mason, stonecutter and architect throughout the 1730's and finally, in 1744, he was hired as a carter. Joseph Parent appeared as a blacksmith, locksmith, supplier of wood, and in 1744, a painter. (See *Appendix II*) Evidently, to make a living artisans applied for whatever work was available.

Studies show that between 1701 and 1731, there was an average demographic growth of 3.4% a year for Montreal compared to 1% for the rest

of the century.⁴² This coincides with the period in which infrastructures for military building and supplies were being established in Montreal. Evidently, a full-scale project such as the construction of Montreal's fortifications had an impact on the town's economy and demographics, especially on groups associated with building and supply sectors. Hypothetically, a link may be drawn between the demographic growth experienced in Montreal during this period and the increased military presence. However, further socio-economic studies would have to be done to evaluate the impact of the construction of the fortifications, taking into consideration commercial ventures linked to trade and those linked to military activity in the town. A distinction would have to be made between activities specifically linked to the construction of the fortifications and spin-offs from the development of military supply sectors.

The construction of the fortifications was affected by the King's unwillingness to finance the works, extending it over a thirty year period from 1713 to 1744. Consequently, expenditures exceeded projected costs due to inflation as well as changes in the plans implemented by Chaussegros during the 1730's when the waterfront rampart was erected. When war was declared in 1744, the royal purse was loosened and the fortifications were finally completed. This was consistent with patterns established throughout the history of New France: facing the possibility of an invasion by British forces, fortifications were consolidated as preparations for war escalated.

⁴² Louis Dechène, "La Croissance de Montréal au XVIIIe siècle, *RHAF* (September 1973), pp. 163-179.

CONCLUSION

Observing Montreal through the eyes of military engineers, it was found that fortifications were developed in consideration of strategy, topography, urban planning and available resources such as monies and manpower. A strong correlation existed between Montreal's position in the overall strategy for the colony and its fortifications. Setting the evolution of the plan within its strategic and local contexts demonstrated that fortifications were not an isolated phenomenon. The final form of Montreal's ramparts was contingent on interrelated factors, some controlled from above, others growing from local need. Evaluating these factors in the light of Vauban's and Chaussegros' theory, it was evident that the ramparts met with contemporary standards.

At the confluence of river routes, the town's geographical position dictated its role as a military headquarters. In contrast to Quebec and Louisbourg, fortresses defending the periphery of the colony, Montreal was a deployment centre located at its heart. Heading a network of forts in two key regions, the Great Lakes and the Richelieu/Champlain corridor, its function was to supply them with munitions and soldiers to defend the landward frontiers of the colony. As Montreal was first a commercial centre, its trade infrastructures were used for deployment.

In order to establish what Montreal's role was with regards to military operations, recourse to official correspondence inevitably presented a view from above rather than from below. However, I think

this reflected how military interventions were imposed on the urban environment from 1685 until the end of the French regime. Politically, Louis XIV asserted his authority over the *seigneurs* of the island by assuming jurisdiction over the high and middle courts. The physical manifestation of this gesture was the insertion of military structures within the urban environment. Land was claimed by Louis XIV to build military installations in strategic locations in the town such as the Citadel. In both political and physical terms, therefore, Montreal's development was subordinated to military imperatives. The ramparts were clarions of royal power controlling a strategic communications centre. As such, they had multiple functions: they protected the site; controlled the population; and were a tool of propaganda.

The change from wood to stone paralleled that of the political situation of the period. As a palisaded town, several interventions had been wrought by military considerations imposed in response to fears of invasion by the British. After the Treaty of Utrecht, there was relative stability in the colony during the Thirty Years Peace. This was reflected in the erection of the stone walls which framed the town, permanently fixing its contours until the ramparts were demolished by the British in the early nineteenth century.

In essence, the construction of Montreal's fortifications had two major effects: 1) the monumental physical presence of the wall shaped the urban environment, defining its limits and creating a boundary between the urban and rural spaces; and 2) the building and

provisioning trades were stimulated by the increased investment in military construction which included not only the walls themselves but a compound of associated buildings.

The construction of the ramparts could not be conceived without ramifications on urban planning because the military engineer was responsible not only for the integration of installations but for maintaining a viable living space as well. This was evident in the integration of fortifications at Montreal. When Chaussegros arrived, his plan did not substantially change the size and form of the town except in its details. The implementation of the works, however, caused a rift in its development, especially at the periphery, where large swathes of land were expropriated for building the wall and its outerworks. This was so despite his attempts to minimize the damage by generally following the contours established by previous fortifications. He respected the existing pattern of gates, aligning them with existing streets, except for the *Saint-Laurent* Gate which faced the new King's road in 1717.

The interposition of the ramparts limited and closed the town physically but had positive demographic and economic repercussions as building and supply sectors were stimulated with the growing injection of military funds. Military investments were first witnessed with the construction of the palisade, slowly growing with every extension of the wall until war was declared in 1744. Responding to a call for artisans,

people immigrated to Montreal. Further social studies need to be conducted to determine how many remained as permanent residents and how many were itinerant.

The effectiveness of Montreal's ramparts has often been called into question by various historians because the town capitulated to the enemy in 1760 without a fight. I believe that the failure of the fortifications were for reasons other than structural or tactical. Although various factors may be enumerated, it was the erratic support from France that was at the base of Montreal's demise.

As a passive mass, ramparts were impotent without their active elements: ammunitions and soldiers. Compared to the British army (60,000 men) France was undermanned (11,000 men).¹ Compounding this, supplies and money from France were sporadic. Munitions and men available were concentrated on the periphery at Quebec or Fort Carillon, leaving Montreal minimally defended. In 1759, authorities were heavily dependent on Montreal's crops to feed the army because French supplies were blocked by the British and Canada had suffered a drought in previous years.² The result was that insufficient supplies were spread thinly throughout the network of fortifications protecting Montreal. When the network failed it was inevitable that Montreal would be lost. Its simple

¹ "Mémoire sur le Canada" [1758]. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, 104: (462-471) p. 466.

² Letter from M. Rigaud de Vaudreuil, Governor of Montreal. AN. Fonds des colonies, Série C11A, correspondance générale, Canada, 104: (86-92) p. 89-91.

walls and outerworks were not designed to withstand a siege but simply to forestall an enemy until help was summoned. When the French colony was reduced to the town of Montreal in 1760, obviously military backup was not forthcoming. Avoiding the useless loss of humans lives, authorities capitulated.

APPENDIX I

Yearly Expenses for the Construction of the Fortifications

<u>Year</u>	<u>Total Spent</u>	
1717	15,259# 7s 7d] 25,366# 6s ?d
1718		
1719		
1720	Construction not undertaken	
1721	Construction not undertaken	
1722	10,454# 5s ?d	
1723	11,077# 8s 8d	
1724	18,702# 17s 0d	
1725	5,588# 10s 11d	
1726	Construction not undertaken	
1727	?	
1728	28,388# 14s 8d	
1729	24,782# 14s 3d	
1730	12,774# 17s 7d	
1731	29,617# 6s 8d	
1732	?	
1733	30,318# 14s 2d	
1734	44,867# 11s 4d	
1735	51,515# 3s 4d	
1736	31,361# 5s 9d	
1737	21,216# 6s 2d	

1738	11,039# 13s 4d
1739	18,877# 12s 8d
1740	14,140# 18s 11d
1741	13,607# 5s 11d
1742	?
1743	13,924# 8s 8d
1744	21,706# 5s 9d
1745	10,437# 2s 8d
1746	10,804# 4s 2d

Note: The existing accounts before the 1720's were few and generally incomplete. Although accounting improved somewhat in the 1720's it was only after the arrival in 1729 of Intendent Hocquart that an organization of the accounts took place and that records regarding Montreal's fortifications became more consistent. Figures for this list do not include expenses for the repair and construction of military and public buildings although these may be found in the accounts. Totals also exclude the 400# paid yearly for the collection of the fortifications surtax of 6000# levied on the townspeople.

APPENDIX II

Construction of the Fortifications:
Artisans and Suppliers: 1717-1744

<u>NAME</u>	<u>OCCUPATION</u>	<u>YEAR</u>
Aubin, Joseph	Carter	1744
Barbion, François	Roofer	1733
Baron, Louis	Carpenter	1744
Baron, Jean	Supplier, oak planks	1744
Baron, Veuve	Supplier, wood planks	1744
Baugis, Noël (Beauport)	Labourer, hired by Belleville	1722
Baugis, Paul (Beauport)	Mason, hired by Belleville	1732
"	Mason, hired by Biron	1735
"	Supplier and stone-cutter for Janson	1732, 1735
Beaugis, Toussaint (Beauport)	Mason, hired by Belleville	1722
Beaulieu, Charles	Carter	1736
Bellerose	Day Labourer	1741
Belette, Pierre	Pit-sawyer (<i>scieur de long</i>)	1744
Belisle, Louis	Carpenter	1737
Bequet, Jean-Baptiste	Pit-sawyer (<i>scieur de long</i>)	1744
Berguionne, Jean	Carter	1744

Bigaux, François	Carter	1744
Billet, Baptiste	Pit-sawyer (<i>scieur de long</i>)	1744
Biron dit Fresnière, Jean	Supplier of lime to Belleville	1734-35
"	Supplier of stone to Belleville	1736
Blot, Etienne	Carpenter	1744
"	Carter	1744
Bonaventure	Carpenter	1744
Bonenfant	Carter	1744
"	Day Labourer	1744
Boucher dit Belleville, Jean	Contractor, Master Mason	1719-1741
Bourguignon, Charles	Supplier, rough-hewn beams	1744
Boyer dit Laderoute, J.B.	Stone-cutter, hired by Biron	1735
Brind'amour	Carter	1744
"	Day Labourer	1744
Brisard, Pierre	Carpenter	1744
Brossard	?	1718
Campeau	Supplier Unspecified	1731
Campeau, Etienne	Blacksmith	1739
"	Locksmith	1735
Cantara, Pierre	Supplier, oak planks 2" thick	1744
Cavalier, Louis	Supplier, rough-hewn beams	1744

Cavalier, Pierre	Supplier, wheelbarrows	1744
Cavalier, Rangard	Carter	1744
"	Mason	1744
Cavelier, Jean-Baptiste	Joiner	1744
Cavelier, Toussaint	?, hired by Lapalme	1718
Charly	?	1718
Charon, Martial	Mason, hired by Janson	1732
Chatel, François	Supplier, shovels	1733
Chevalier	Day Labourer	1741
Clermont	Day Labourer	1741
Coiteux	Supplier, wheelbarrows and shovels	1730
Conaret, Baptiste	Supplier, rough-hewn beams	1744
Contrecoeur	Supplier Munitions	1731
Coton dit Fleur d'Épée, J.B.	Blacksmith	1733-35
"	Locksmith	1734
Courtois, Joseph	Mason and stone-cutter, hired by Janson	1730-31
Cousineau, Jean	Mason	1728
Cousineau, Gabriel	Supplier, rough-hewn beams	1744
Couturier, Michel	Mason, Stone-cutter, hired by Janson	1733
Couvret, Baptisse	Supplier, rough-hewn beams	1744

Cugnet	Supplier, iron (Forges Saint-Maurice)	1740-41
Cuillerier, Marguerite (Veuve Louis Décary)	Supplier of stone to André Souste	1732
Decarry, François	Carter, hired by Biron/Souste	1734
D'Ailleboûst de Cuissy, Alex.	Supplier, wood	1739-41
Dauphiné	Carter	1744
"	Day Labourer	1744
Davely dit Larose, Jean	Mason	1741
Dechamps, Louis	Supplier, wood planks	1744
Degay dit Saint-Jacque, Jacques	Mason, hired by Janson	1726
Deguire dit Larose, J.B.	Mason	1728
Deguire, Gabriel	Supplier	1744
DeLauriers	Carpenter	1744
Demers, François	Carpenter	1744
Denys, Michel	Mason, hired by Janson	1732-1733
Dubec	Carpenter	1744
Dubois	Supplier, wood beams	1744
Duchesneau,	Mason, hired by Belleville	1732
Dufaux, Joseph	Carpenter	1742, 1744
"	Supplier, rough-hewn cedar beams	1744
"	Carter	1744

Dufaux, Pierre	Carter	1744
Dulude, Nicolas	Blacksmith	1740
Huet dit Dulude, Michel	Mason, hired by Belleville	1722-25
Dumouchel, Bernard	Mason, apprentice to Janson	1737
Durocher dit Pincourt, Pierre	Carter	1734
Duroseau, Antoine	Blacksmith	1737, 1741, 1744
Énaud, Pierre	Carpenter	1734, 1744
Etié, François	Chimney Sweep	?
Fouga, Guillaume	Carpenter	1733
Gamelin	Supplier, iron	?
Garreau	Supplier, carpentry tools	1731
Gascon	Day Labourer	1741
Gatien dit Torangeau, Pierre	Roofer	1733-34, 1742, 1744
Gauthier, Jean	Roofer	1741
Gauthier, Pierre	Carpenter	1733-35 1741
Gengron	Supplier, rough-hewn beams	1744
Godin	Day Labourer	1744
Gonissa, Joseph (f70 p. 71)	Carter	1736
Guillo(s), René (Quebec)	Mason, hired by Belleville	1731
Heroux, Joseph (Quebec)	Supplier and Stonecutter, hired by Janson	1732

Hervieux	Inscription on foundation, stone for fortifications	1718
"	Supplier, wood beams	1737
Huneau dit Deschamps, Pierre	Supplier, wood planks	1744
Janson dit Lapalme, Dominique	Contractor	1717-1718
"	Architect, Master Mason and Stone Cutter	1731-1741 1744
Janson dit Lapalme, Philippe	Mason, hired by Janson	1733
"	Carter	1744
Jarry, François	Mason, apprentice to Janson	1732
Jourdain, Alexandre	Contractor, Mason	1730-1732
Jourdain, Denis	Carpenter	
Labrosse, Paul	Numbered city gates	1744
Lacoste, Angélique	Supplier, wood	1744
Laforge	Labour not specified	1718
Laforme	Labour not specified	1718
Lafortune	Carter	1744
"	Day Labourer	1744
Lafrance	Carter	1744
"	Day Labourer	1744
Lafrenaye, Joseph	Locksmith	1744
"	Blacksmith	1744
Lagirofflé	Carter	1744
"	Day Labourer	1744

Lalancette	Carter	1744
"	Day Labourer	1744
Langoumois	Day Labourer	1741
Languedoc	Carter	1744
"	Day Labourer	1744
Langevin, Antoine	Carter, hired by Biron/Fresnière	1735
Langevin	Day Labourer	1744
Lapierre, François	Carter	1744
Laramé	Day Labourer	1741
Lasalle	Carter, cartage by boat	1731
Lavallé, François	Blacksmith	1736
Larose, Louis	Supplier, rough-hewn beams	1744
Laurent, Jean	?, hired Jean Cousineau	1728
Lavigne, Louis	Carter	1733
Lebeau, Jean Baptiste	Carter	1741
Leduc, Joseph	Carter, stone	1723, 1729-1731
Leduc, Pierre	Supplier, wood planks	1744
Lefebvre, Charles	Blacksmith	1744
Lefebvre, Ignace (Beauport)	Mason, hired by Belleville	1732
Legris, Claude	Locksmith	1733-1734
Lemarié, Jacques (Quebec)	Carter, hired by Belleville	1722

Leonard	Supplier, wheelbarrows and tools	1728
Lepage	Supplier, wood planks	1744
Lepaye, Jacques	Carter	1736
Lepine, Joseph	Supplier, rough-hewn beams	1744
Lepine, Pierre	Supplier, rough-hewn beams	1744
Lepire, Pierre	Supplier, rough-hewn beams	1744
LeSage de Sainte-Claire	Supplier, wood planks	1744
Lestang, Mlle	Supplier	1744
Levrard	<i>Maître canonnier</i>	1744
"	<i>Piqueur</i>	1744
Marni?	Day labourer	1744
Marois, Charles (Quebec)	Carter, hired by Belleville	1722
Massy, Joseph	Carter	1744
Massy, Pierre	Carter	1744
Morand dit Lagrandeur, Nicolas	Carpenter	1733-34 1737
"	"	1739-41
"	Supplier, shovels	1734
"	Supplier, rough-hewn beams	1744
Mathurin,	Carter	1734
Neveu	?	1718
Nolin, J.B.	Mason, apprentice to Janson	1737

Olivier et Compagnie	Suppliers, iron	1739-40
Omic, Michel	Quarry Worker	1734
Parent, André	Carpenter	1744
Parent, Jean (Beauport)	Stonecutter, hired by Belleville	1719 1723-24
Parent, Jean-Baptiste	Painter	1744
Parent, Joseph	Blacksmith	1724-1729 1731, 1733
"	Locksmith	1734
"	Supply and repair, tools	1734
"	Blacksmith	1735-37 1740-41 1744
"	Supplier, rough-hewn beams	1744
"	Painter (<i>barbueilleur</i>)	1744
Parent, Pierre	Supplier, rough-hewn beams	1744
Péclavé dit Desrosiers, Louis-Philibert	Supplier, wheelbarrows	1723
Pepin, Charles	Mason, apprentice to Janson	1724
Pepin, Joseph	Blacksmith, apprentice to Joseph Parent	1724
Pierre	Carter	1744
Portneuf	Supplier, rough-hewn beams	1744
Prat, Jean	Blacksmith	1744
"	Locksmith	1744

Prudhomme, Jean	Carter	1744
Prudhomme, Louis	Carter, hired by Biron/Souste	1734
Ramezay, Madame	Supplier, wood beams and planks	1733-1734
Rangard, Jean-Baptiste	Joiner	1744
Renaud, Charles	Supplier, wood beams	1744
Risancesse	Carter	1744
"	Day Labourer	1744
Robidoux	Carpenter	1744
Rousset, Pierre	Carter	1735
Routais, Barthelemy	Carpenter	1744
"	Supplier, rough-hewn beams	1744
Saint-Aubin	Carter	1744
Saint-Jean	Supplier, rough-hewn beams	1744
Saint-Laurent	Day Labourer	1741
Saint-Louis	Day Labourer	1741
Saint-Onge	Carter	1744
"	Day Labourer	1744
Saint-Pierre	Day Labourer	1741
Saint-Yves et Gatien, Pierre	Suppliers, <i>menues fournitures</i>	1736
Saint-Yves et LaSablonnière	Suppliers, repair of shovels	1737
Sanscartier	Carpenter	1733

Sansregret	Day Labourer	1744
"	Carter	1744
Sarault dit Laviolette?, Pierre	Contractor, Master Mason	1733-37 1740, 1742
"	"	1744
"	Carter	1744
Saulquin dit Saint-Joseph, Jos.	Carter	1733
Savard, Pierre	Day Labourer	1744
Séné, Esprit	Mason	1734
Solequin, Joseph	Carter	1731
Sorel, Pierre	Carter	1744
Souste, André	Supplier, foodstuffs for fortification artisans	1730
"	Supplier, lime	1734
Toupin	Carpenter	1744
"	Carter	1744
Tousignant, Guillaume	Supplier, wheelbarrow and shovels	1730
Trudeau, Joseph	Carter	1734-37
"	Supplier, wheelbarrows	1733, 1741
"	Carpenter	1744
Trudeau, Louis	Supplier, planks	1733
"	Supplier, wheelbarrows and shovels	?
"	Carpenter	1744
"	Supply and Repair, wheelbarrows	1744

Turcot, Louis	Supplier, rough-hewn beams	1744
Turcot, Pierre	Supplier, rough-hewn beams	1744
Valade, Guillaume	Supplier, stone	1728-29
Vallée, Nicolas	Supplier, shovels	1733
Verdeville	?	1718
Versaille	Day Labourer	1744
Villedonné, Pierre-Etienne	Supplier, 10 foot pine beams	1744
Vivarets	Carter	1744
	Day Labourer	1744

- Sources: AN, Fonds des colonies, Série C11A, correspondance générale, Canada, 1718-1750.
 AN, Section Outremer, Série G3, Carton no. 2040, Canada (Acadie), 1722-1741. ANQM, microfilm no. 3426.
 ANQM, Notarial Minutes, 1717-1744.
 ANQQ, Notarial Minutes, Jean-Etienne Dubreuil, 1719-1724.

APPENDIX III

Construction of Fort Saint-Frédéric:
Artisans and Suppliers: 1734-37

<u>NAME</u>	<u>OCCUPATION</u>	<u>YEAR</u>
Bertrand, Jacques	Mason, hired by Janson	1735
Brebion, François	Carpenter	1735-1736
Brunet, Louis	Carpenter	1735-1736
Couturier, Michel	Mason, Stone Cutter hired by Janson	1735
Denier, Jacques	Mason, hired by Janson	1735
Janson dit Lapalme, Dominique	Contractor, masonry	1735-1736
Legrain dit Lavallée, Charles (Chambly)	Supplier, lime	1735
Legris, Claude	Locksmith	1735-1736
Morand, Nicolas	Carpenter	1735-1736
Parent, Joseph	Blacksmith	1735-1736
Pépin, Louis (Quebec)	Stone Cutter	1735

Sources: AN, Fonds des colonies, Série C11A, correspondance générale, Canada 1717-1750.
 ANQM, Notarial Minutes, 1717-50.
 ANQ, Notarial Minutes, Claude Barolet, 1734.

¹ Accounts showed that in 1734, the foundations were dug by soldiers whose names are not listed.

APPENDIX IV

Number of Days Spent Yearly at Montreal by Chaussegros
For the Construction of the Fortifications

<u>YEAR</u>	<u>DATES</u>	<u>TOTAL</u>
1729	?	80
1730	June 1 to August 29	90
1731	?	
1732	?	
1733	May 8 to September 19	135
1734	May 1 to September 8	131
1735	May 2 to October 20	172
1736	?	
1737	May 8 to October 6 (Montreal and Pointe à la Chevelure)	152
1738	May 8 to August 20	105
1739	?	
1741	May 15 to August 10	86
1743	June 2 to October 28	148
1744	?	
1745	May 4 to June 28	55

Source: AN, Fonds des colonies, Série C11A, correspondance générale, Canada, 1717-1750.

APPENDIX V

Fortifications of Montreal: Specifications and Tenders 1717-1733

- 1717 Chaussegros de Léry. *Devis des ouvrages de Fortifications pour l'enceinte de la ville de Montréal, le 1 avril, 1717.* Approved and signed by L.A. de Bourbon and Lachapelle.
- 1722 *Devis et Adjudication des ouvrages de l'enceinte de Montréal du 25 février, 1722.* Signed by Bégon, Chaussegros de Léry and Boiscler. Registered by the controller, Varin.
- 1729 *Extrait de l'adjudication du 25 février, 1722, fait à Belleville, entrepreneur pour les ouvrages de l'enceinte de la ville de Montréal.* January 24, 1729. Signed by Belleville, Silly, Boiscler and Chaussegros de Léry.*
- 1730 *Adjudication pour les ouvrages de l'Enceinte de la Ville de Montréal en janvier 1730 pour trois années consécutives.* January 24, 1730. Signed by Silly, Roberet, Hocquart and Chaussegros de Léry as well as hired contractors: Belleville, Alexandre Jourdain and Joseph Leduc.*
- 1731 Chaussegros de Léry. *Devis des ouvrages à faire à la porte Saint-Laurent à l'enceinte de la ville de Montréal.* August 8, 1732.*
- 1731 *Extrait des registre du bureau du Canada tenu en 1731: Marché pour les trois portes principales de la Ville de Montréal entre Dominique Janson, Chaussegros de Léry et Michel de la Rouvillière.* August 16, 1731. Signed by all three and registered by Varin.
- 1732 *Devis des ouvrages des fortifications pour l'enceinte de la Ville de Montréal en l'année 1733 comprenant les adjudications au rabais fait en 1732.* July 7, 1732. Signed Belleville, Lapalme, Hocquart and Chaussegros de Léry.*
- 1732 *Marché pour la fourniture de pierre de taille grise de carrière ciselée des trois principales portes de Montréal avec Dominique Janson dit Lapalme.* August 8, 1732. Signed by Dominique Janson, Chaussegros de Léry, Michel de la Rouvillière.*
- 1733 *Devis des ouvrages de maçonnerie à faire à la contrescarpe de l'enceinte de la ville de Montréal, le 30 janvier, 1733 avec l'adjudication des ouvrages, le 1 février, 1730.* Signed by Pierre Sarault, Hocquart, Chaussegros de Léry and Varin.*
- 1733 Chaussegros de Léry. *Devis des ouvrages de maçonnerie et de pierre de taille à faire à quatre portes de l'enceinte de la ville de Montréal.* October 20, 1733.*

1733 *Marché de maçonnerie pour quatre portes des fortifications de Montréal*. October 29, 1733. Signed by Hocquart, Dominique Janson, Varin and Chaussegros de Léry.*

Sources: AN, Section Outremer, Série G3, Carton no. 2040, Canada (Acadie), 1722-1741. ANOM, microfilm no. 3426. Items marked with an asterisk were found in the course of research done for the Canadian Centre for Architecture by Mario Lalancette.

AN, Fonds des colonies, Série C11A, correspondance générale, Canada, 1717-1750.

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microfilm F1-F126.

DFC, Série G3, Carton no. 2040, Canada (Acadie), 1722-1741. ANQM,
microfilm no. 3426.

CMSM, Collection Moreau de Saint-Méry, Colonies F3

ANQM, Notarial Minutes, 1650-1750:

CN601-002	Adhemar, Antoine	1685-1714
CN601-003	Adhemar, Jean-Baptiste	1714-1754
CN601-017	Basset, Bénigne	1657-1699
CN601-066	Cabazié, Pierre	1673-1693
CN601-092	Closse, Raphaël-Lambert	1651-1656
CN601-108	Danré de Blanzay, Louis-Claude	1738-1750
CN601-111	David, Jacques	1719-1726
CN601-156	Fleuricourt, Jean-Baptiste	1676-1702
CN601-162	Frérot de Lachenest, Thomas	1669-1678
CN601-166	Gatineau dit Duplessis, Nicolas	1652-1653
CN601-260	Lepaillieur, Michel	1701-1732
CN601-280	Maugue, Claude	1677-1696
CN601-124	Mouchy, Nicolas de	1665-1667
CN601-329	Porlier, Claude-Cyprien-Jacques	1733-1744
CN601-331	Pottier, Jean-Baptiste	1686-1701
CN601-339	Raimbault, Joseph-Charles	1726-1737
CN601-340	Raimbault, Pierre	1697-1727

ANQM, Arpenteurs Divers, CA-601-71 (five boxes):

Angers, Jean-Baptiste	1719-1741
Barbier, Gilbert	1680-84
Basset, Bénigne	1659-98
Boisbertholot de Beaucours, Josué	
Boudreau dit Graveline, Gabriel	
Couturier dit Bourguignon, Pierre	1705-06
Decouagne, René	1721
Villeneuve, Robert de	1685-1693
Hervieux, J.B.	1735-1743
Janson dit Lapalme, Dominique	1735-1762
Papin, Gilles	1718-1720
Pépin, Jean	1705

ANQM, Cartes et Plans, 1642-1750.

ANQQ, Notarial Minutes, 1717-1750

Barolet, Claude	1734
Dubreuil, Jean-Etienne	1719-1724

ASSSM, Dossier des fortifications, 1643-1820.

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NAC, Cartographic and Architectural Archives Division, Ottawa.

NAC, Public Works, Series RG 4 A1, Lower Canada, Civil and Provincial Secretary, Correspondence, 1790-1810.

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GLOSSARY OF TERMS

- angle of the flank:** made at the point where the curtain met the flank.
- angle of the shoulder:** made at the point where the face and flank of the bastion met.
- bastion:** part of the body of the fortification making an angle towards the field, consisting of two faces, two flanks and an opening towards the center of the place called the gorge; could either be full when level ground within was even with the rampart and empty when the level ground within was lower than the rampart.
- banquette:** a step made on the rampart of a work near the parapet for the troops to stand upon to fire over the parapet, and could also be built to fire over the counterscarp.
- barbet battery (*batterie a barbette*):** guns were said to be fired *en barbet* where the breastwork of the battery was such a height that one could fire a gun over it without being obliged to make embrasures.
- battery:** work made to place cannons or mortars on it.
- body of the place:** although the buildings in a fortified place were properly said to be the body of the place, the enclosure round them was generally understood by it; to construct the body of the place meant to fortify or to enclose the place with bastions and curtains.
- buttresses:** solid masonry supports built behind and joined to walls usually at a distance of 18 English feet from center to center.
- capital of a work:** an imaginary line which divided the work into two equal and similar parts.
- cavalier:** a work raised generally within the body of the place, ten or twelve feet higher than the rest of the works. Their most common placement was within the bastion, sometimes within the gorges or the middle of the curtain, in Montreal's case, placed on the Citadel. The purpose of the cavalier was to command all the adjacent works and the country around it. Seldom made except when there was a hill or rising ground which overlooks some of the works.
- casemat:** work made under the rampart, like a cellar or a cave, with loop-holes.
- citadel:** a fort or small fortification of four, five or six sides, joined to towns. See Chaussegros' definition.

- command:** when a hill or rising ground overlooked any work of a fortification and was within reach of cannon shot.
- cordon:** a semi-circular projection made of stone coursing around the entire wall of the body within four feet of the upper part.
- counterscarp:** was the outside of the ditch opposite to the parapet of the work.
- curtain:** part of the body of the place, a straight wall joining the flank of one bastion to that of the next.
- ditch:** a large deep trench made around each work. The earth dug out to form the trench was used to form the rampart and the parapet.
- embrasures:** openings made in the flanks of a fortification or in the breastwork of a battery.
- enfilade:** a work was said to be enfiladed when a gun could fire into it so that the shot could enter the parapet.
- escarp:** the outside of the rampart next to the ditch, being high and steep.
- esplanade:** an open space between the citadel and the town which prevented an enemy from making approaches under cover after he was master of the place.
- faces of the bastion:** two sides meeting at the angle of the bastion projecting towards the field.
- fascine:** faggot made of branches tied in two or more places of about 6 or 8 inches in diameter serving to deep up the earth in the ditches and in the batteries instead of stone or brick walls.
- flank:** in general was that part of a work which defended another work along the outside of its parapet.
- flank of a bastion:** a section of the wall between the face and the curtain; the flank of one bastion serving to defend the ditch before the curtain and the face of the opposite bastion.
- flanking:** defensive firing line.
- fraises:** stakes or palisades placed horizontally on the outward slope of grass parapets. At Montreal, Callière used them to protect the fort he built on Citadel Hill in 1693.
- glacis:** the ground sloping from the top of the parapet of the covered way till it reaches the level of the open country. At Montreal, the glacis sloped away from the top of the counterscarp.

gorge of a bastion: the interval opening between the inner extremity of one flank and the other.

line of defence: a line of fire from the salient angle of a bastion to a point on the opposite flank, usually at the reflex angle formed by the flank and the curtain.

palisades: in a rampart were placed parallel to the parapet or ridge of the glacis to secure it from being surprised and sometimes fronting small gates to protect them.

parapet: part of the fortifications rising above the rampart which served to cover the troops.

platform: a carpentry floor made of strong planks and laid upon joists on which cannons were placed to keep their wheels or *affuts* from sinking into the ground.

porte-coulisse: falling gate or door like a harrow, hung over the gates to keep the enemy out.

ramparts: earthworks raised above the place to protect it from and to absorb canonfire.

revetement: a wall, either of stakes or stone, built outside the rampart to support the earth and to prevent it from falling into the ditch.

salient angles: an angle which points outward towards the field.

sentry box (*guérite*): attached to the revetement, and corbelling out from the angles.

talud or slope: slope made on the inside of the rampart to prevent the earth from rolling down.

tenaille: a detached oblong work producing the face of a low bastion or part of the main body of the fortifications and used in places where topography did not permit the construction of a bastion.

terreplein: the top of the rampart behind the parapet on which cannons are installed.

trace: the ground plan of the rampart.

Sources: John Muller (1699-1784). A treatise containing the elementary part of fortification, regular and irregular... for the use of the Royal Academy of Artillery at Woolwich... 3rd ed. London: Printed for J. Mourse, 1774, p. 218-240.

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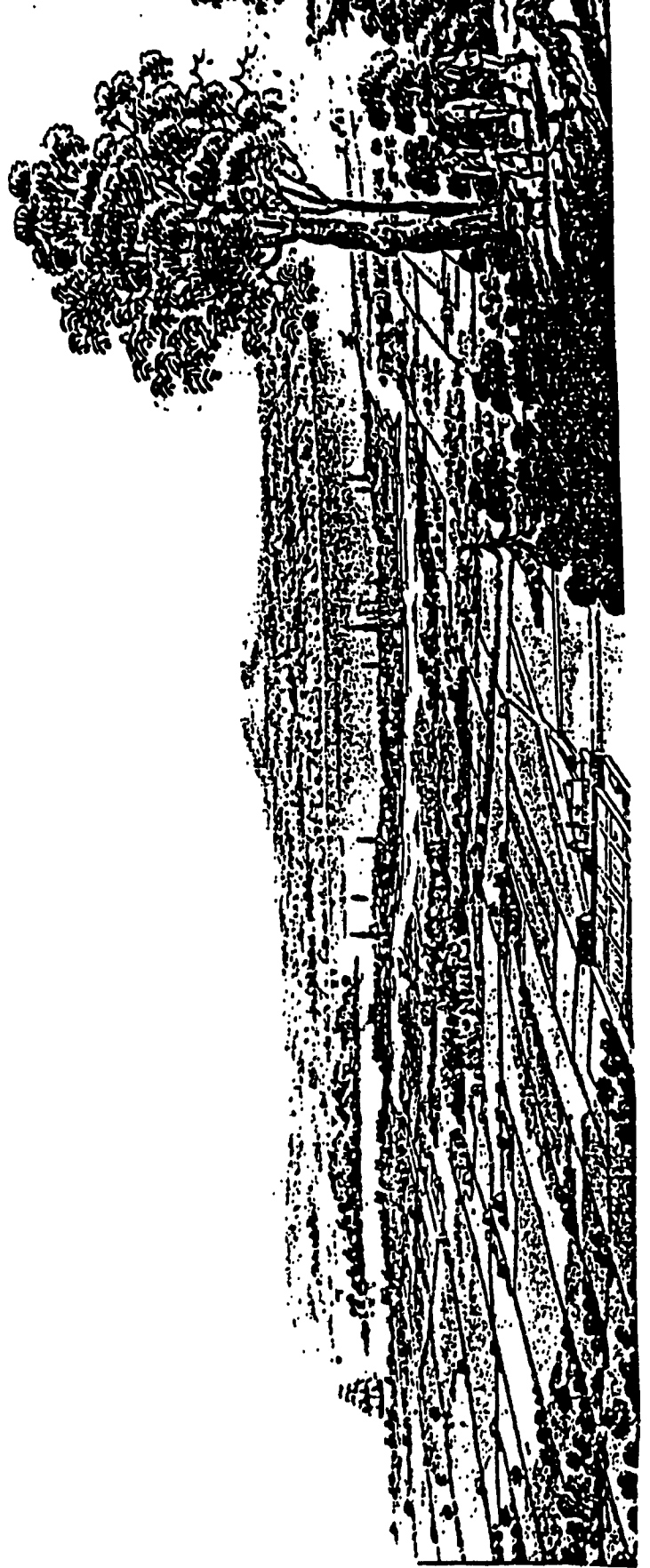


Illustration 1. James Peachey, *A view of the City of Montreal, taken from the top of the Mountain, the 15th October 1784.* British Library, K.Top.CXIX. 42.b.

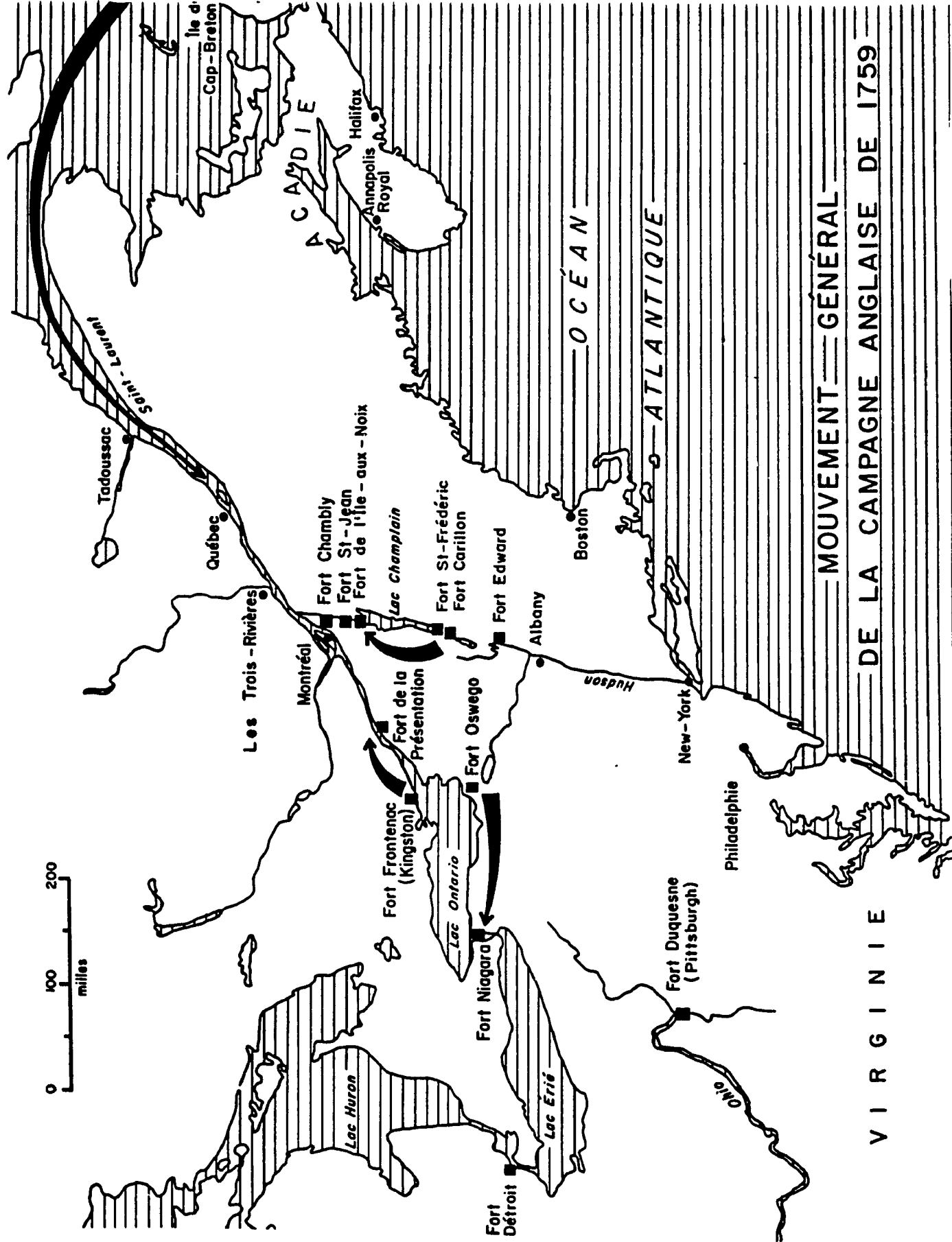


Illustration 2. Montreal at the confluence of river routes. Marcel Trudel, *Movement Général de la Campagne Anglaise de 1759*, *An Atlas of New France*, (Laval, 1973), p. 144.

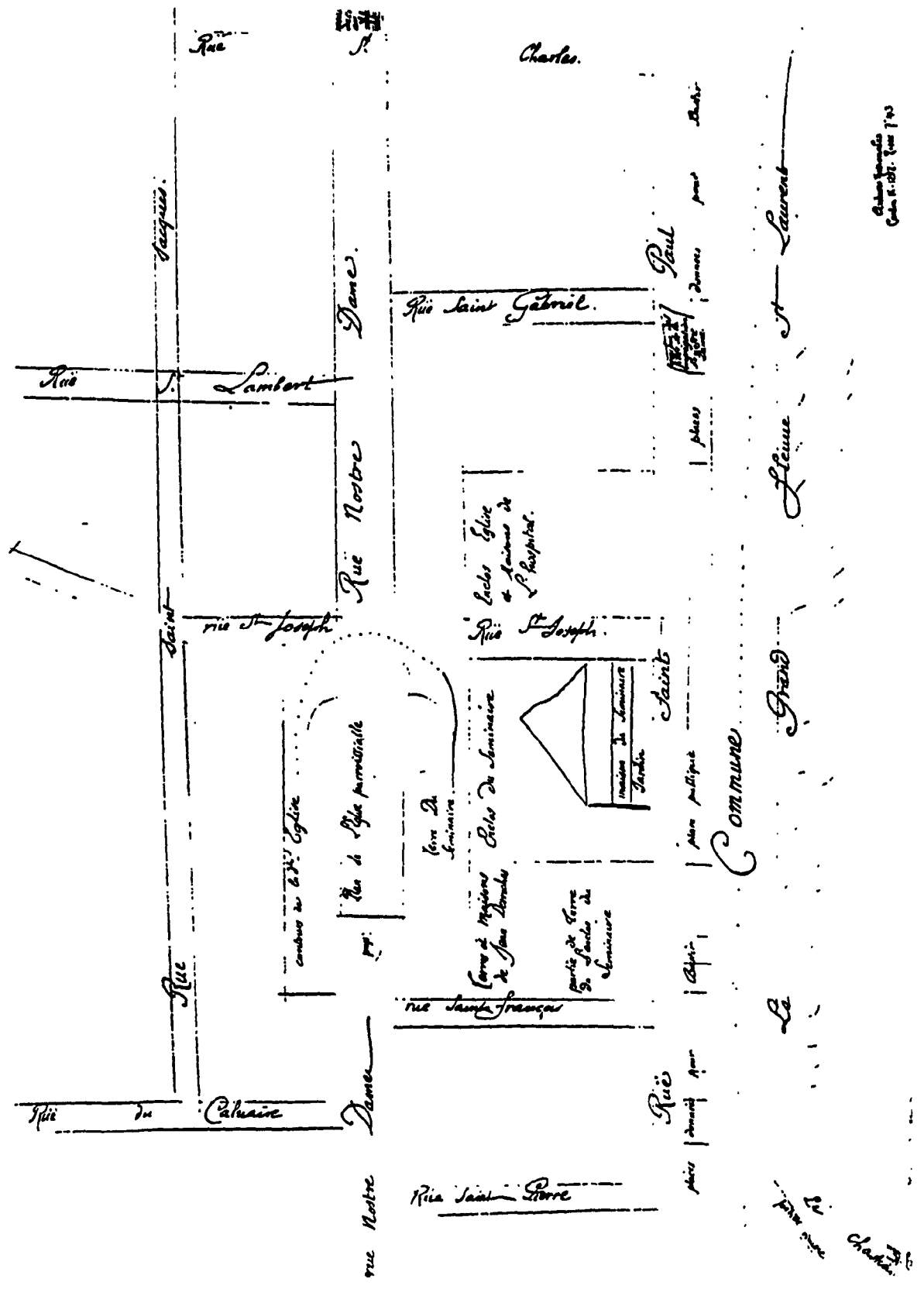


Illustration 3. Anon. Plan de Ville-Marie et des premières rues projetées pour l'établissement de la Haute Ville. AN. Section ancienne : Ancien Régime, Monuments historiques, K1285 198.

RIVIERE SAINT-MARTIN



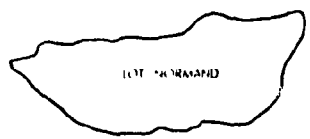
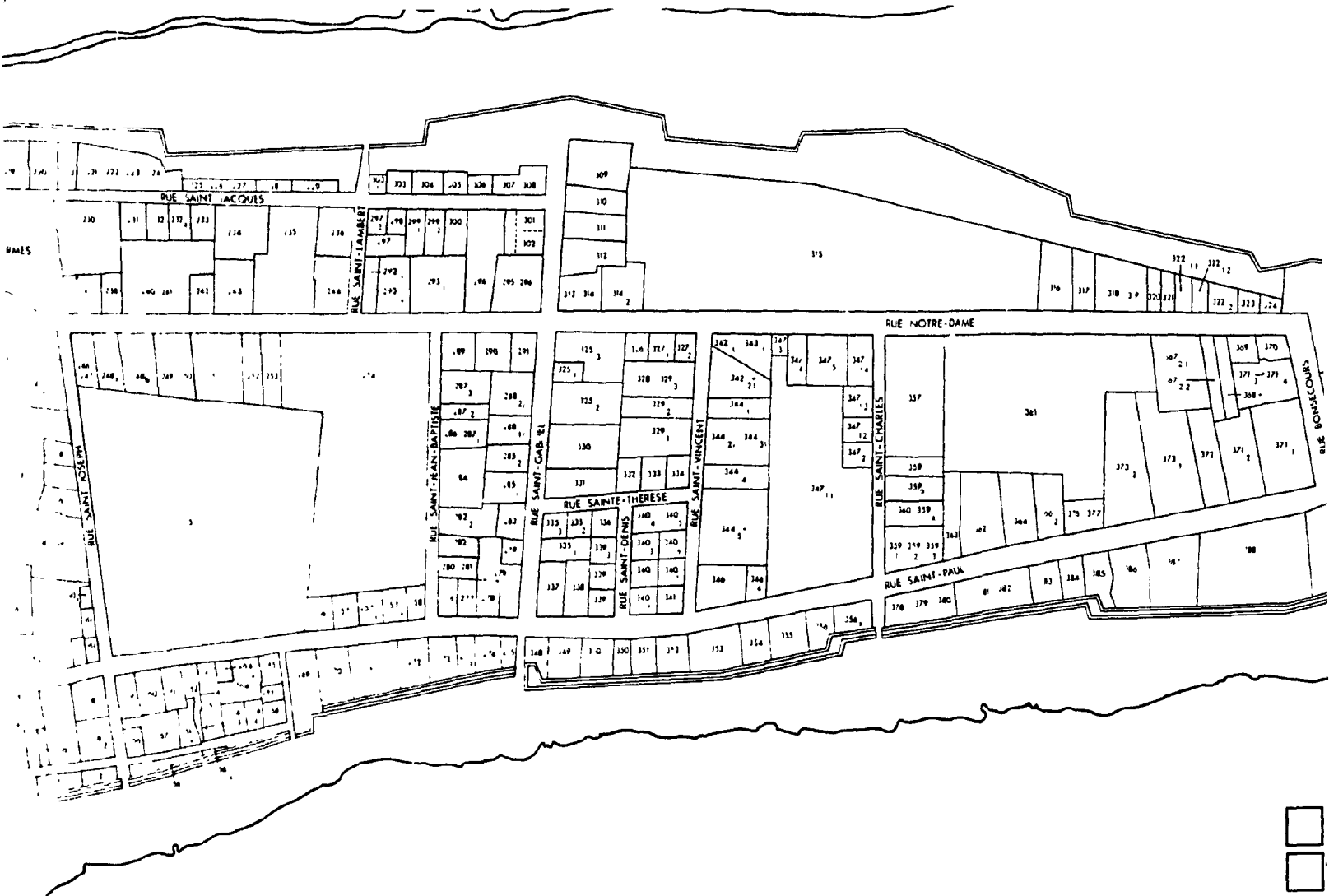
RIVIERE SAINT-PIERRE

(LOT NORMAND

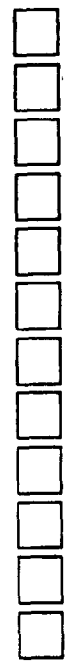
FLEUVE SAINT-LAURENT



Illustration 4. Groupe
 Montréal, Montreal in 1
 1982



RIVIERE SAINT-LAURENT



1
2
3

Illustration 4. Groupe d'habitation de Montréal, Montreal in 1738

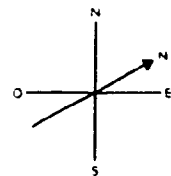
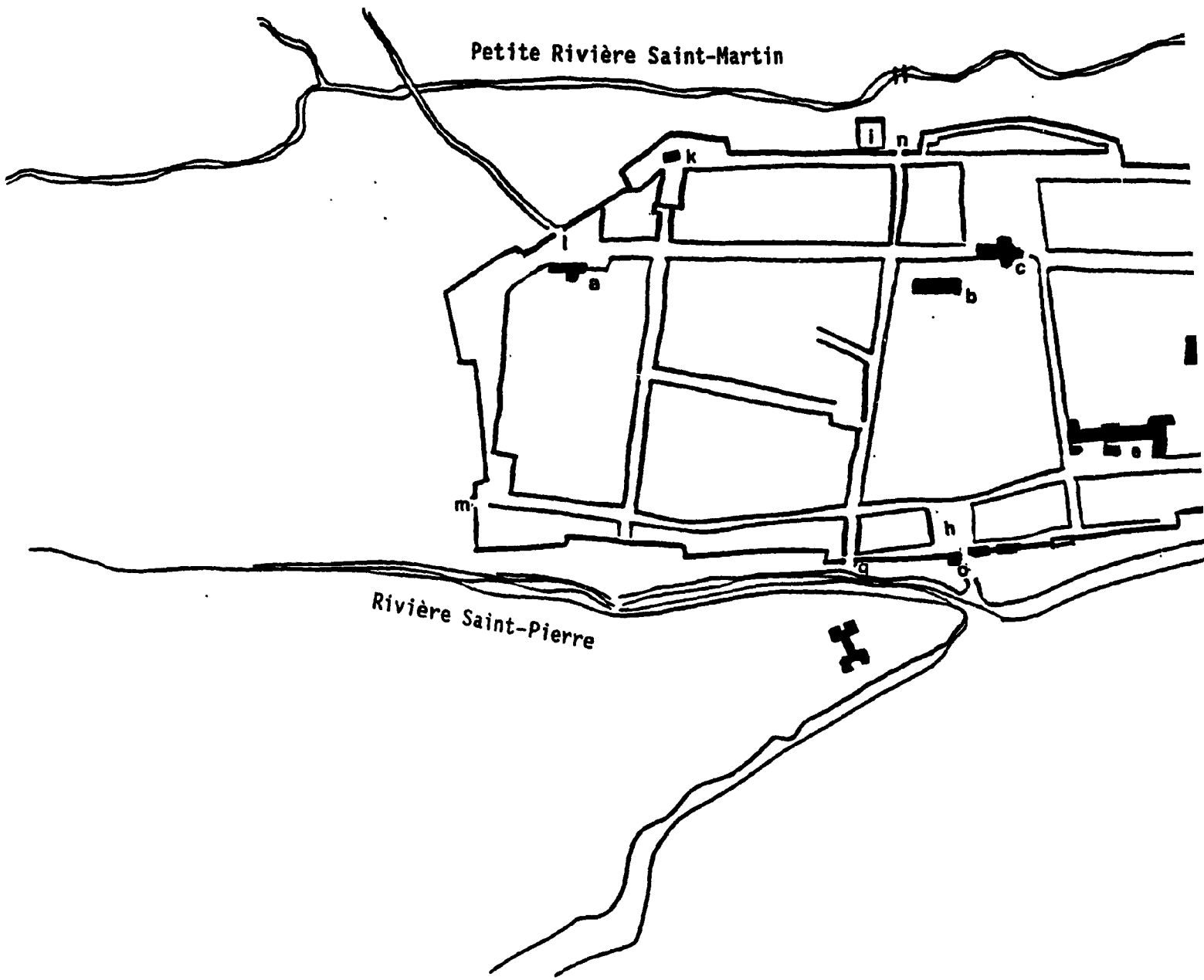
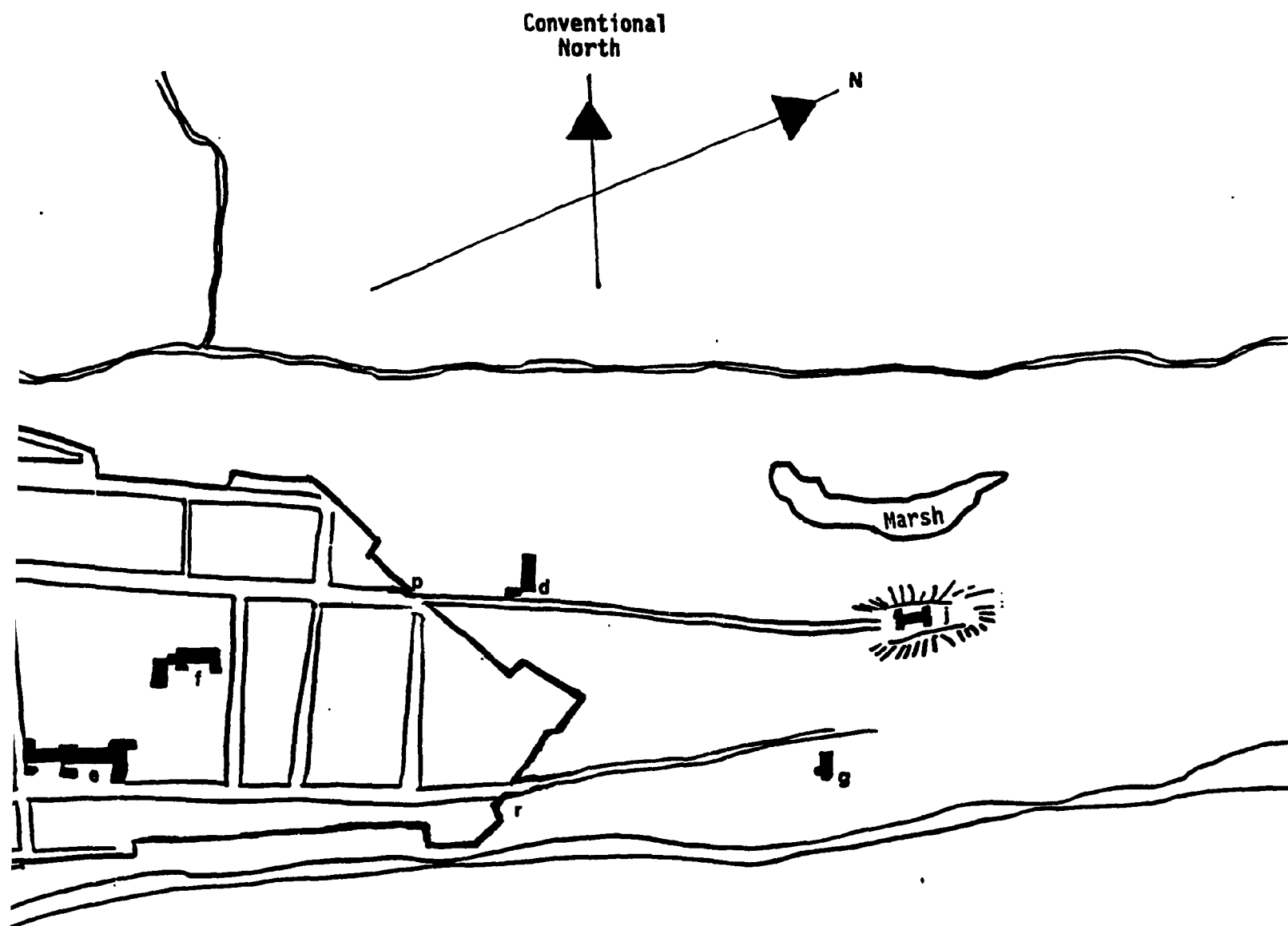


Illustration 4. Groupe de recherche des bâtiments en pierre grise de Montréal, *Montreal in 1731*, (Montreal: Canadian Centre for Architecture, 1982)





MONTREAL 1695

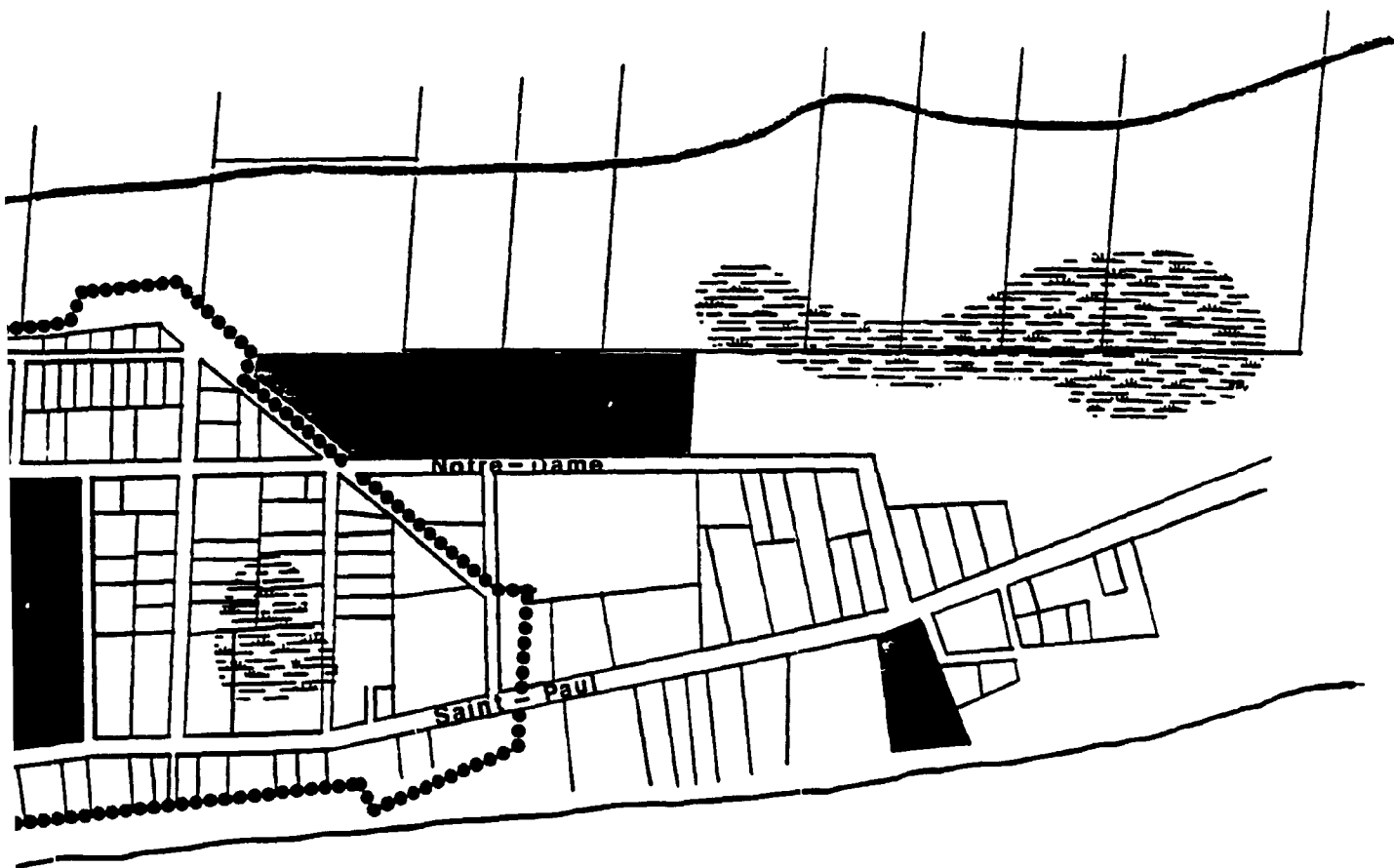
- | | |
|----------------------|--------------------------------|
| a. Récollets | b. Séminaire de Saint-Sulpice |
| c. Notre-Dame Church | d. Jesuits |
| e. Hotel Dieu | f. Soeurs de la Congrégation |
| g. Bonsecours Chapel | h. Place d'Armes/Market Square |
| i. Cemetery | j. Citadel/Fort à Callière |
| k. Powder Magazine | l. Porte des Récollets |
| m. Porte de Lachine | n. Porte de la Montagne |
| o. Porte du Marché | p. Porte Notre-Dame |
| q. Porte à Boudor | r. Porte Saint-François |

Illustration 5. *Montreal 1695*, (Montreal: 1991).
 Compiled from an analysis of notarial deeds, contemporary plans and Alan Stewart's unpublished plan (see Illustration 5a).



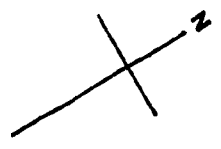
ST. LAWRENCE RIVER

MONTREAL, 1692



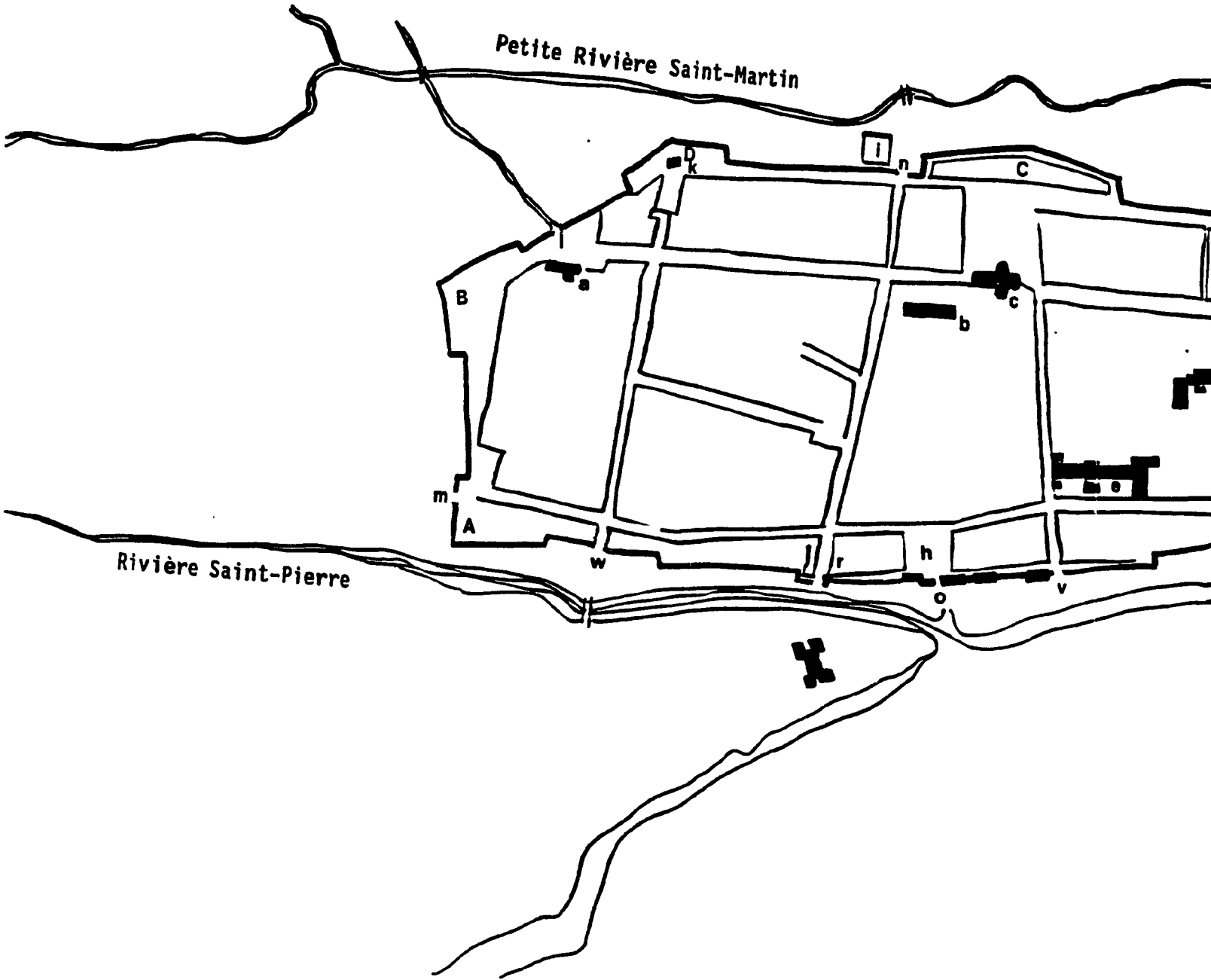
E RIVER

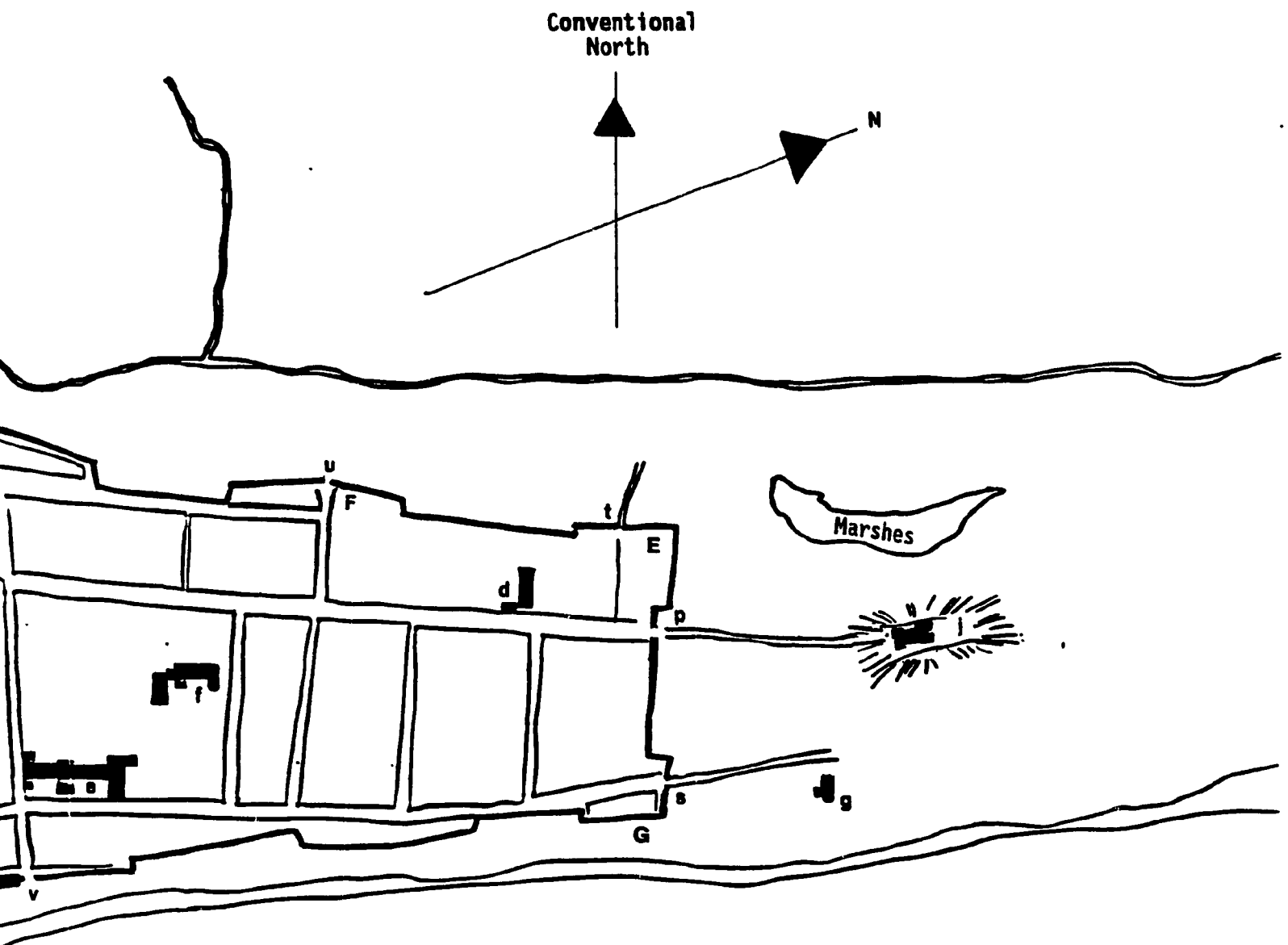
-, 1692



1 cm = 40 m

Illustration 5a. Alan Stewart, Montreal 1692, (Montreal: Unpublished, 1989)

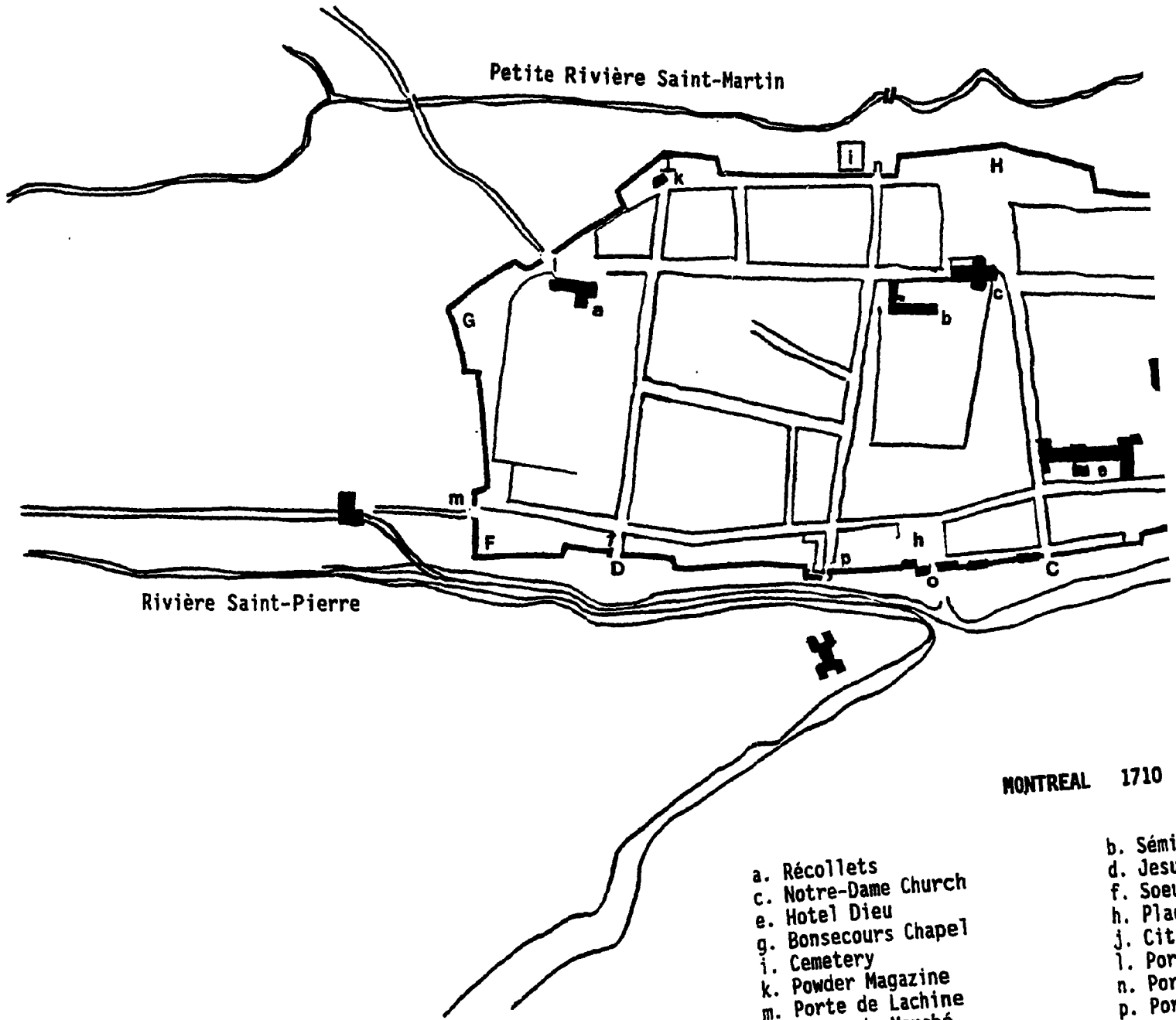




MONTREAL 1700

- | | |
|-------------------------|---------------------------------|
| a. Récollets | b. Séminaire de Saint-Sulpice |
| c. Notre-Dame Church | d. Jesuits |
| e. Hotel Dieu | f. Soeurs de la Congrégation |
| g. Bonsecours Chapel | h. Place d'Armes/Market Square |
| i. Cemetery | j. Citadel/Fort à Callière |
| k. Powder Magazine | l. Porte des Récollets |
| m. Porte de Lachine | n. Porte de la Montagne |
| o. Porte du Marché | r. Porte à Boudor |
| p. Porte Notre-Dame | t. Porte des Jésuites |
| s. Porte Bonsecours | v. Porte de M. Migeon |
| u. Porte de la Guérite | w. Porte de la rue Saint Pierre |
| A. Bastion Lachine | B. Bastion Saint-Michel |
| C. Bastion de Lavigne | D. Bastion de la Poudrière. |
| E. Bastion des Jesuites | F. Bastion de la Guerite |
| G. Redans Blot | |

Illustration 6. Montreal 1700, (Montreal: 1991).
 Compiled from an analysis of notarial deeds and from Néré's 1704 plan.

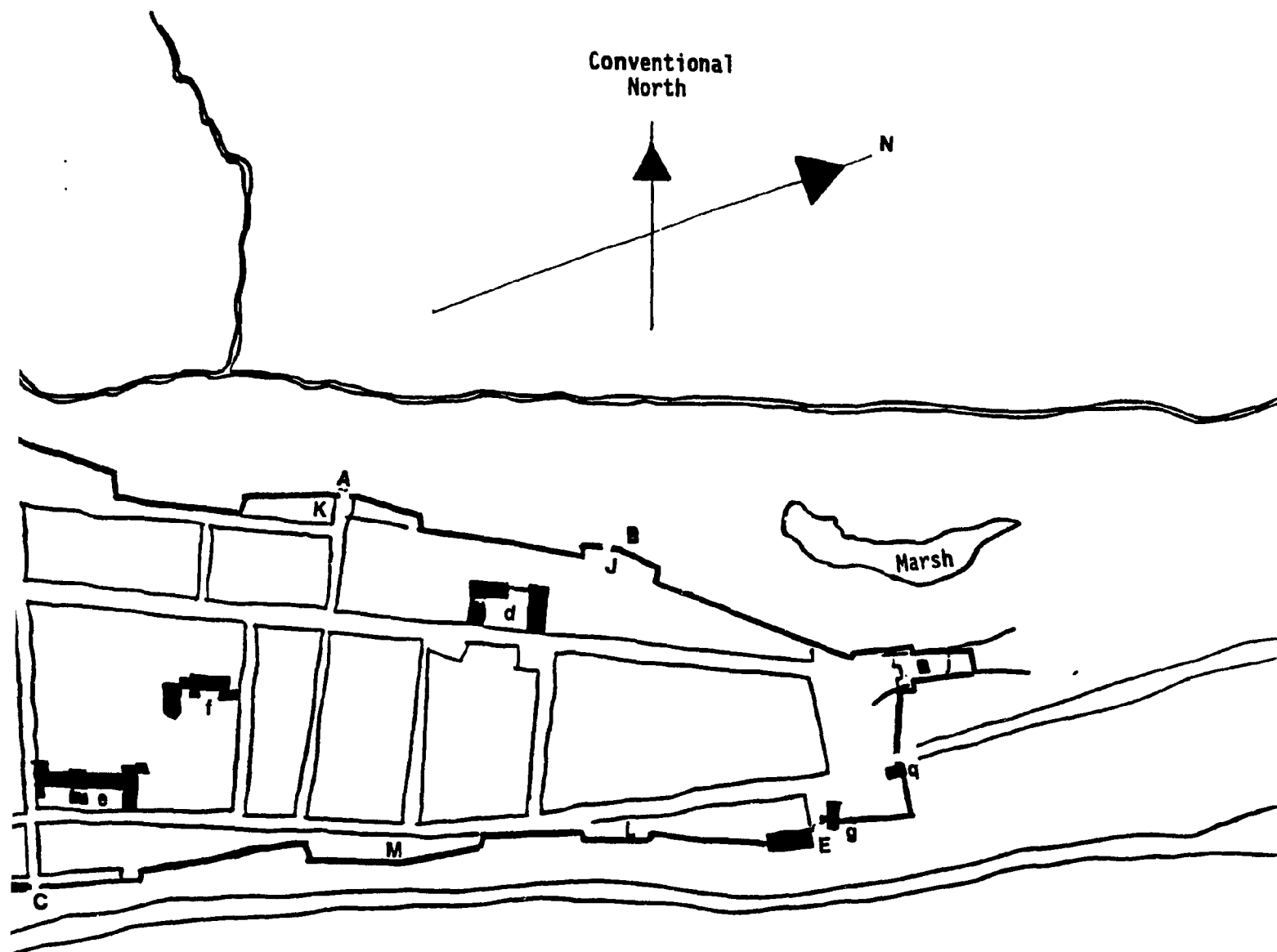


Petite Rivière Saint-Martin

Rivière Saint-Pierre

MONTREAL 1710

- a. Régollets
- b. Séminaire
- c. Notre-Dame Church
- d. Jesuit
- e. Hôtel Dieu
- f. Soeur
- g. Bonsecours Chapel
- h. Place
- i. Cemetery
- j. Citadelle
- k. Powder Magazine
- l. Porte de Lachine
- m. Porte de Lachine
- n. Porte de Lachine
- o. Porte du Marché
- p. Porte du Marché
- q. Porte Saint-François



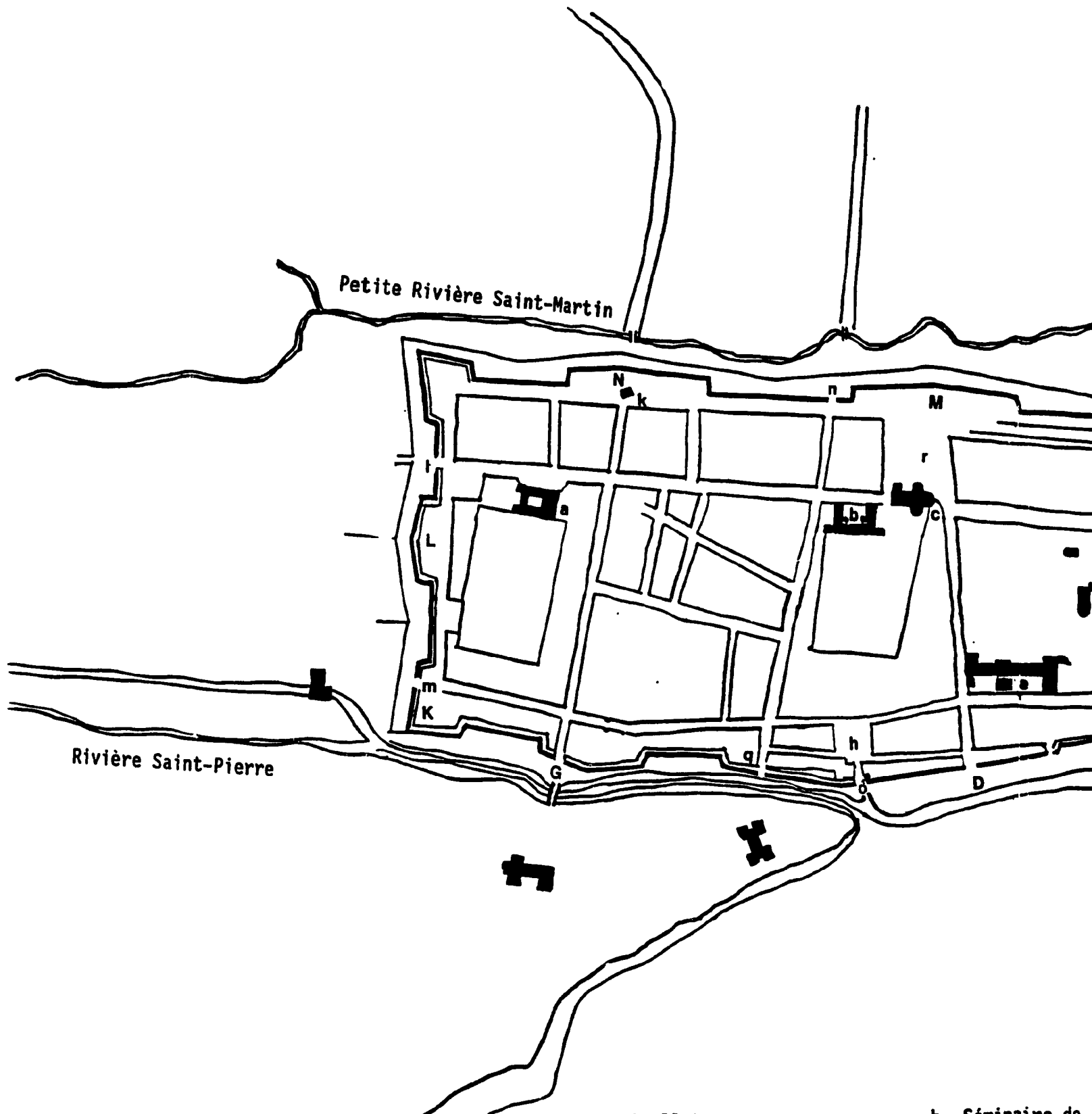
TREAL 1710

b. Séminaire de Saint-Sulpice
 d. Jesuit
 f. Soeurs de la Congrégation
 h. Place d'Armes/Market Square
 j. Citadel/Redoubt
 l. Porte des Récollets
 n. Porte de la Montagne
 p. Porte à Boudor

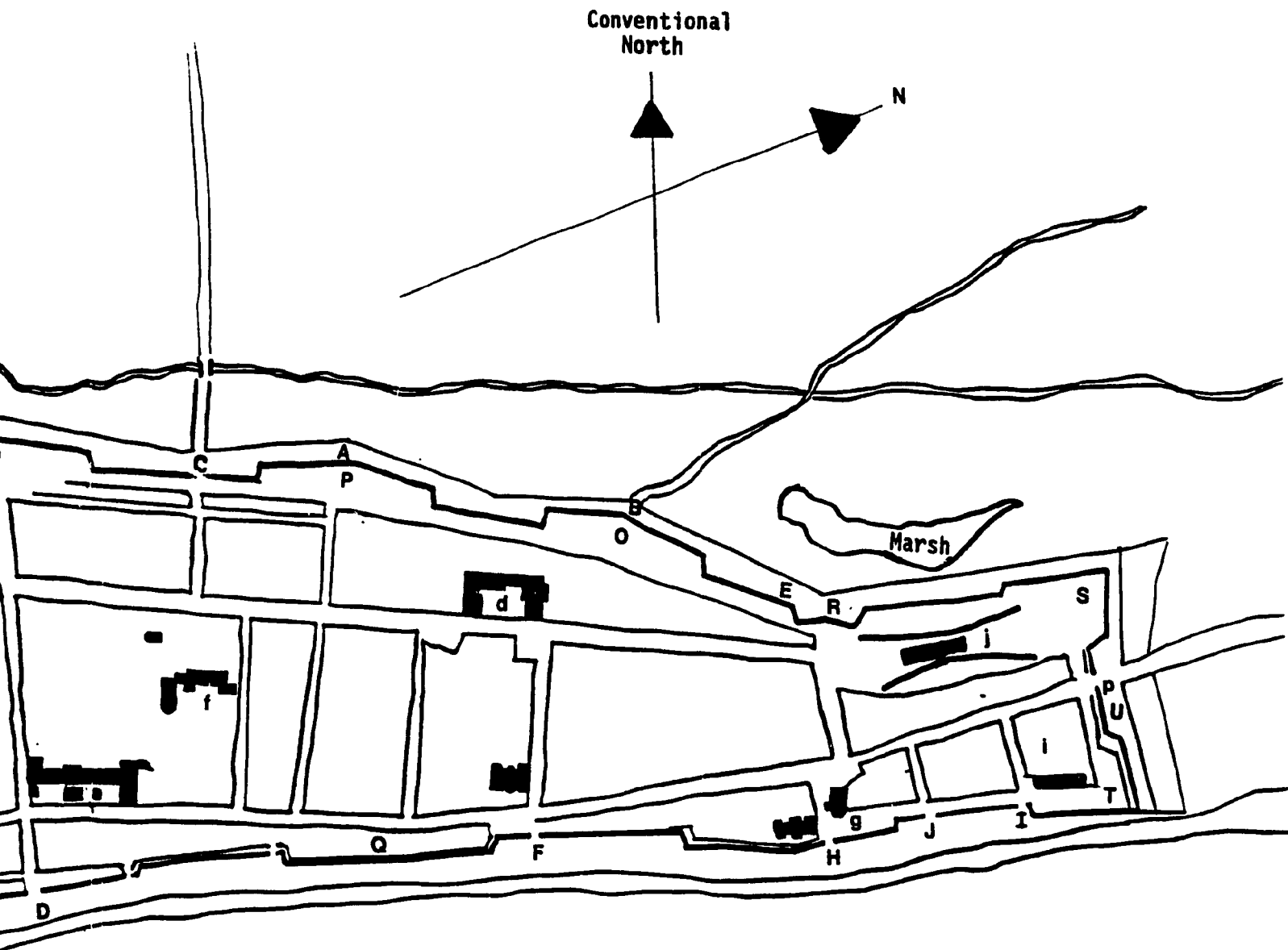
A. Porte de la Guérite
 C. Porte de M. Migeon
 E. Porte Bonsecours
 G. Bastion Saint-Michel
 I. Bastion de la Poudrière.
 K. Bastion de la Guérite
 M. Bastion de Gilroy

B. Porte des Jésuites
 D. Porte de la rue Saint Pierre
 F. Bastion Lachine
 H. Bastion de Lavigne
 J. Bastion des Jesuite
 L. Bastion Blot

Illustration 7. *Montreal 1710*, (Montreal: 1991).
 Compiled from an analysis of notarial deeds and plans by Catalogne (1713) and Beaucours (1714).



- | | |
|----------------------------------|------------------|
| a. Récollets | b. Séminaire de |
| c. Notre-Dame Church | d. Jesuits |
| e. Hotel Dieu | f. Soeurs de la |
| g. Bonsecours Chapel | h. Market Square |
| i. King's yards | j. Cavalier/Batt |
| k. Powder Magazine | l. Porte des Rec |
| m. Porte de Lachine | n. Porterne du C |
| o. Porte du Port | p. Porte de Sain |
| q. Porte à Boudor/Saint-François | r. Place d'Armes |

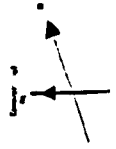


MONTREAL 1744

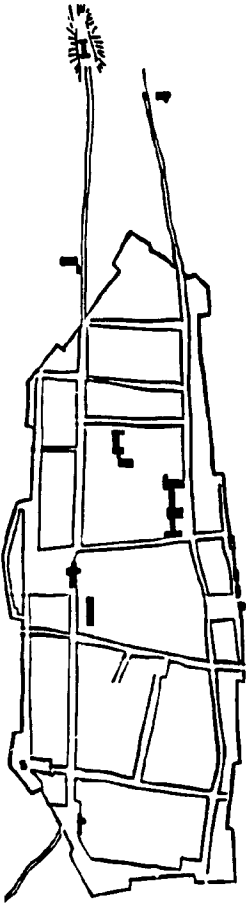
- . Séminaire de Saint-Sulpice
- . Jesuits
- . Soeurs de la Congrégation
- . Market Square
- . Cavalier/Batterie Royale
- . Porte des Recollets
- . Porterne du Cimetière
- . Porte de Saint-Martin
- . Place d'Armes

- A. Porte de la Guérite
- C. Porte Saint-Laurent
- E. Poterne du Côteau
- G. Porte de la Petite Rivière
- I. Porte de la Canoterie
- K. Bastion Lachine
- M. Bastion de la Paroisse
- O. Bastion des Jesuites
- Q. Bastion Blot
- S. Bastion du Nord
- U. Tenaille à Beauharnois

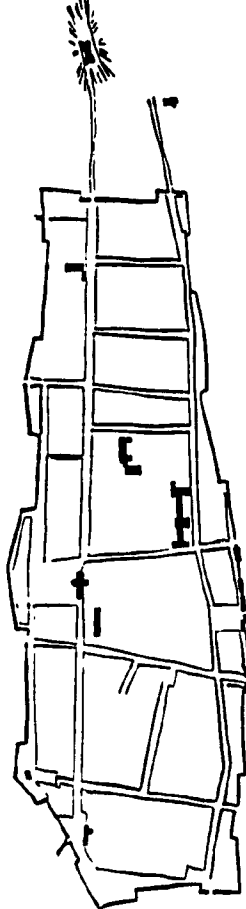
- B. Porte des Jésuites
- D. Porte de l'Hotel Dieu
- F. Porte du Gouvernement
- H. Poterne de la Petite Chapelle
- J. Poterne de Contrecoeur
- L. Bastion des Récollets
- N. Bastion de la Poudrière
- P. Bastion de la Guerite
- R. Bastion du Moulin
- T. Bastion du Nord-Est



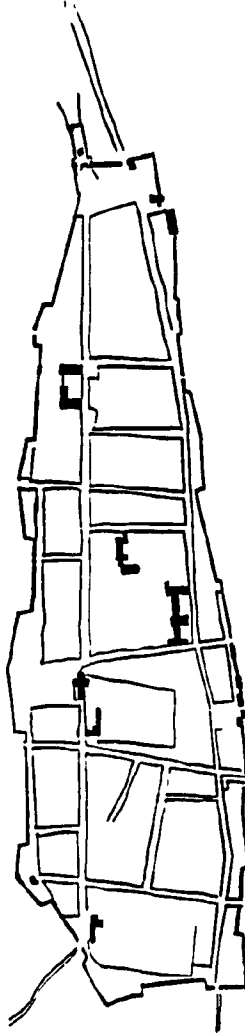
1695



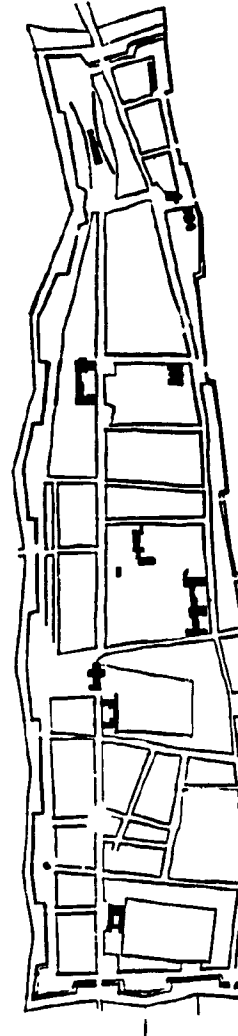
1700



1710



1744



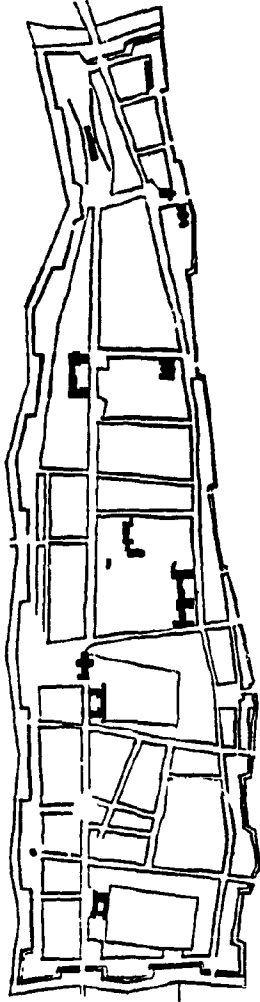


Illustration 9. Montreal Gates 1695-1744.

	1700	1710	1744	1745	c1770's
1. Grande Porte de la Ville	Porte du Marché	Porte du Marché	Grande Porte du Marché Grande Porte du Port		
2. Porte Saint-François	Porte Saint-François Porte Bonsecours	Porte Saint-François Porte Bonsecours	Grande Porte de Saint-Martin Grande Porte de Beauharnois		
3. Porte Notre-Dame Porte du Côteau	Porte Notre-Dame Porte du Côteau	Eliminated.....			
4. Porte de la Montagne Porte du Cimetière	Porte de la Montagne Porte du Cimetière	Porte de la Montagne Porte du Cimetière	Poterne de la Montagne Poterne du Cimetière	Walled.	Restored.
5. Porte des Récollets	Porte des Récollets	Porte des Récollets	Grande Porte des Récollets	Walled.	Restored.
6. Porte de Lachine	Porte de Lachine	Porte de Lachine	Poterne de Lachine	Closed/War.	
7. Porte des S ^{rs} Lemoine et Boudor	Porte à Boudor	Porte à Boudor	Poterne Saint-François Poterne à Boudor	Closed/War.	
8.	Porte de la rue Saint-Pierre	Porte de la rue Saint-Pierre	Grande Porte de la Petite Rivière Grande Porte des Frères Charons	Closed/War.	
9.	Porte à M. Migeon	Porte à M. Migeon	Grande Porte de l'Hotel Dieu	Closed/War.	
10.	Petite Porte	Petite Porte	Petite Poterne		
11.	Porte de la guérite du Diable	Porte de la guérite du Diable	Eliminated.....		
12.	Porte des Jésuites	Porte des Jésuites	Eliminated.....		
13.	Porte de Bonsecours	Porte de Bonsecours	Poterne de Bonsecours	Closed/War.	
14.	Porte vis-à-vis Vaudreuil	Petite Porte vis-à-vis Vaudreuil	Grande Porte du Gouvernement		
15.	Porte rue Saint-Gabriel	Petite Porte - rue Saint-Gabriel	Petite Poterne - rue Saint-Gabriel	Closed/War.	
16.	Porte rue Saint-Laurent	Grande Porte Saint-Laurent		Walled/War.	Restored.
17.	Porte Contrecoeur	Poterne de Contrecoeur		Walled/War.	
18.	Porte de la Canoterie	Grande Porte de la Canoterie		Walled/War.	
19.	Porte du Côteau	Poterne du Côteau			

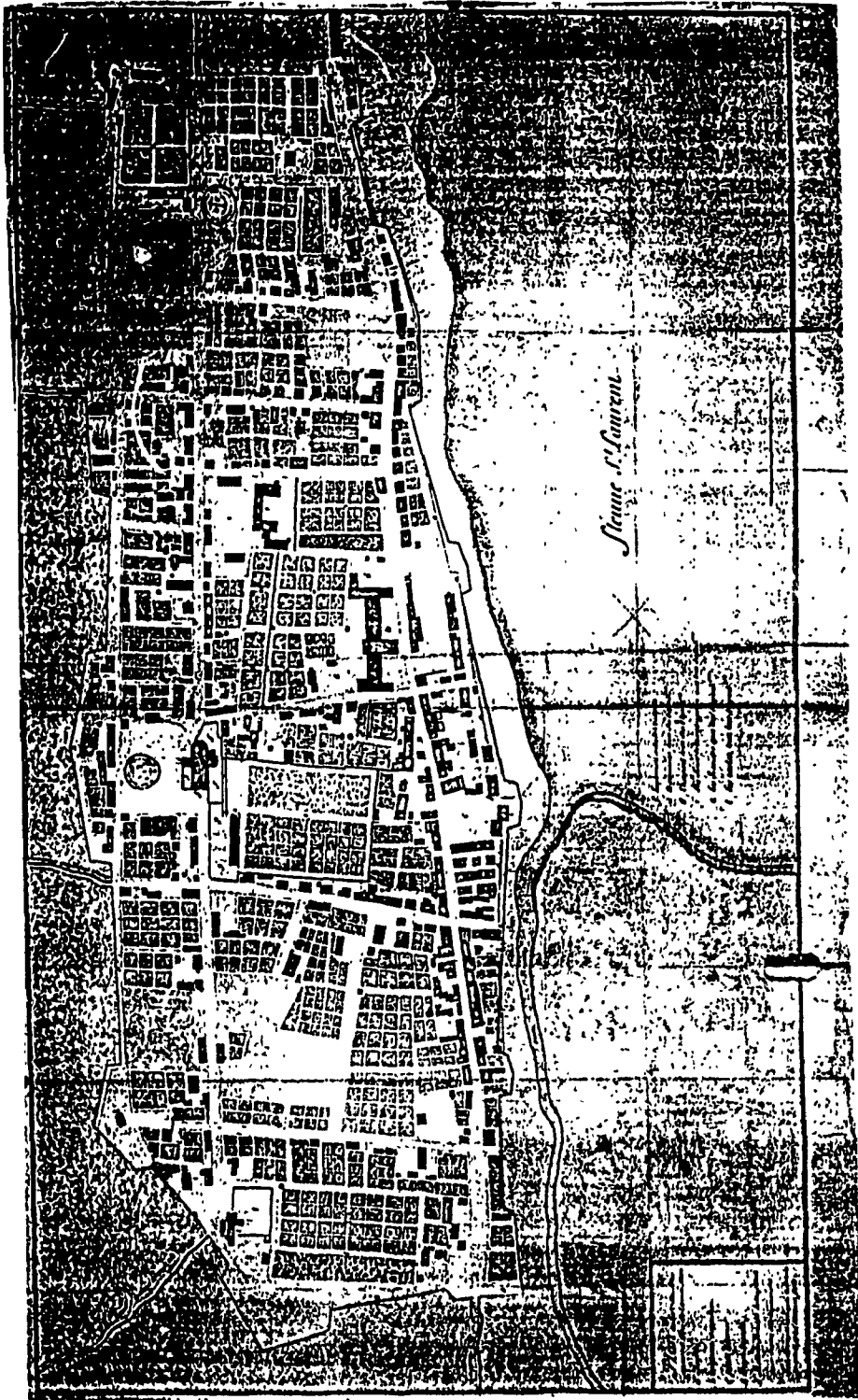


Illustration 10. Jacques Levasseur de Néré, *Plan de la Ville de Montréal*, 1704. DFC, no. 468, (copy NAC, Cartographic and Architectural Division, PH/340 Montreal 1704.



Illustration 11. Gédéon de Catalogne, *Plan de la Ville de Montréal en Canada*, British Library, London, Royal United Service Institution, N.28.82.A. Add. Ms. 57706, Art. 1 (copy NAC, *ibid.*, H2/340/ 1713, NMC-15145).

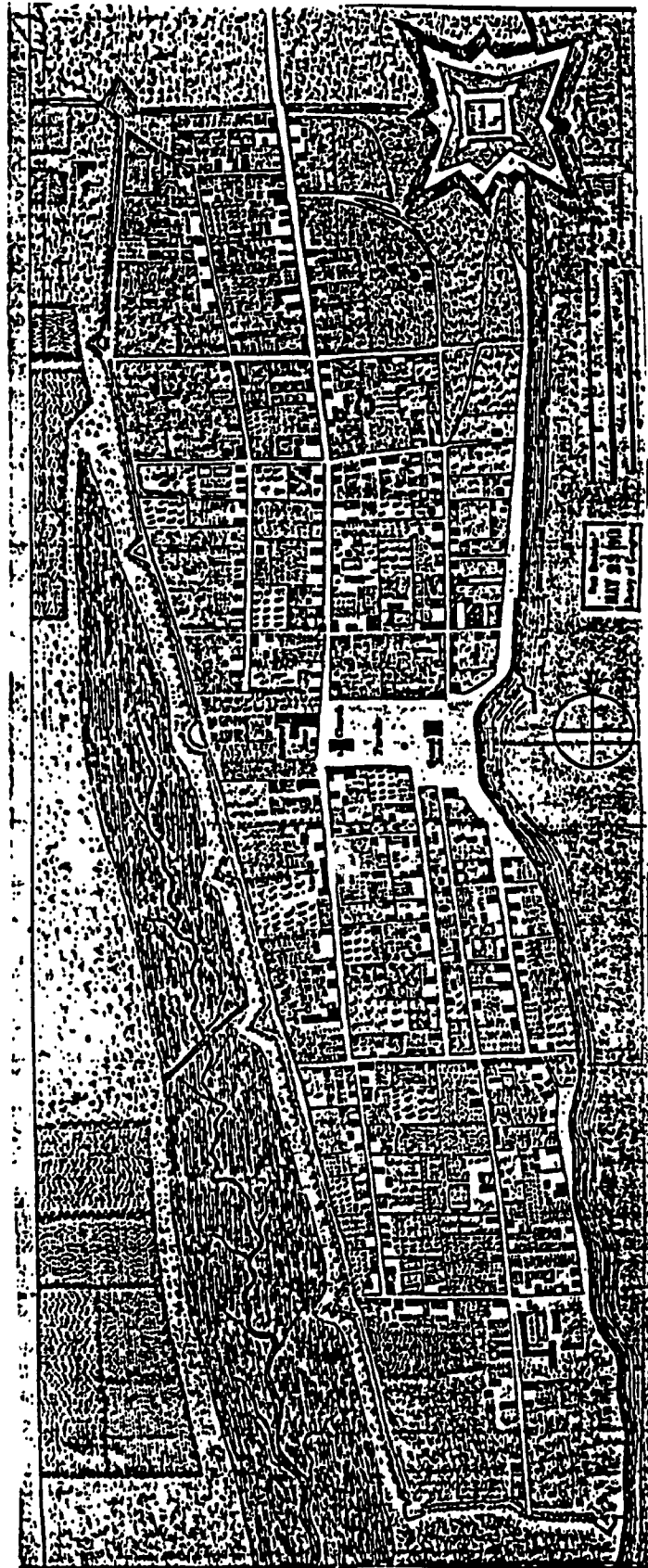


Illustration 12. "Plan of St. Augustine, Florida: ca. 1770", John W. Reps, *The Making of Urban America*, (Princeton: 1965), fig. 16.

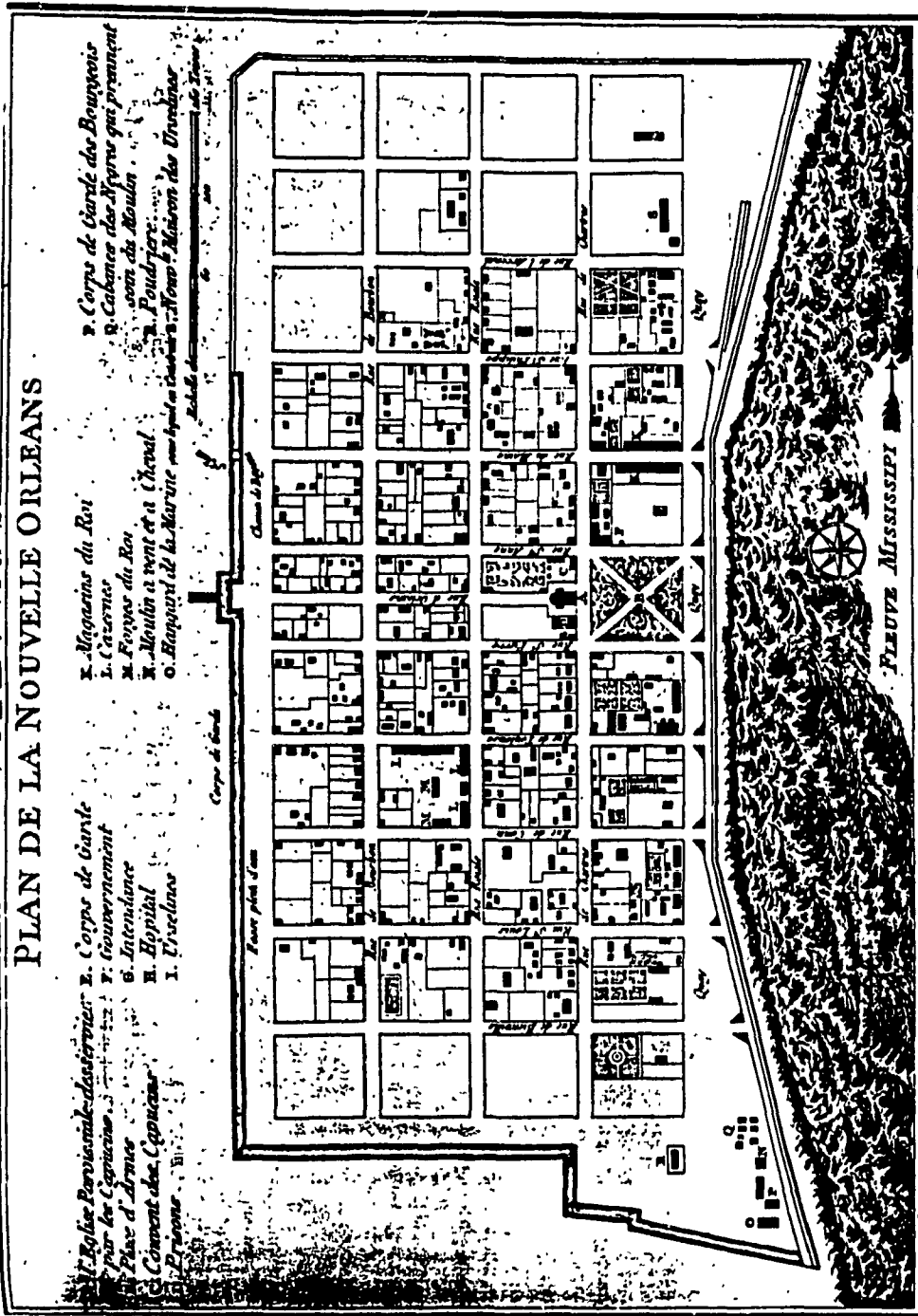
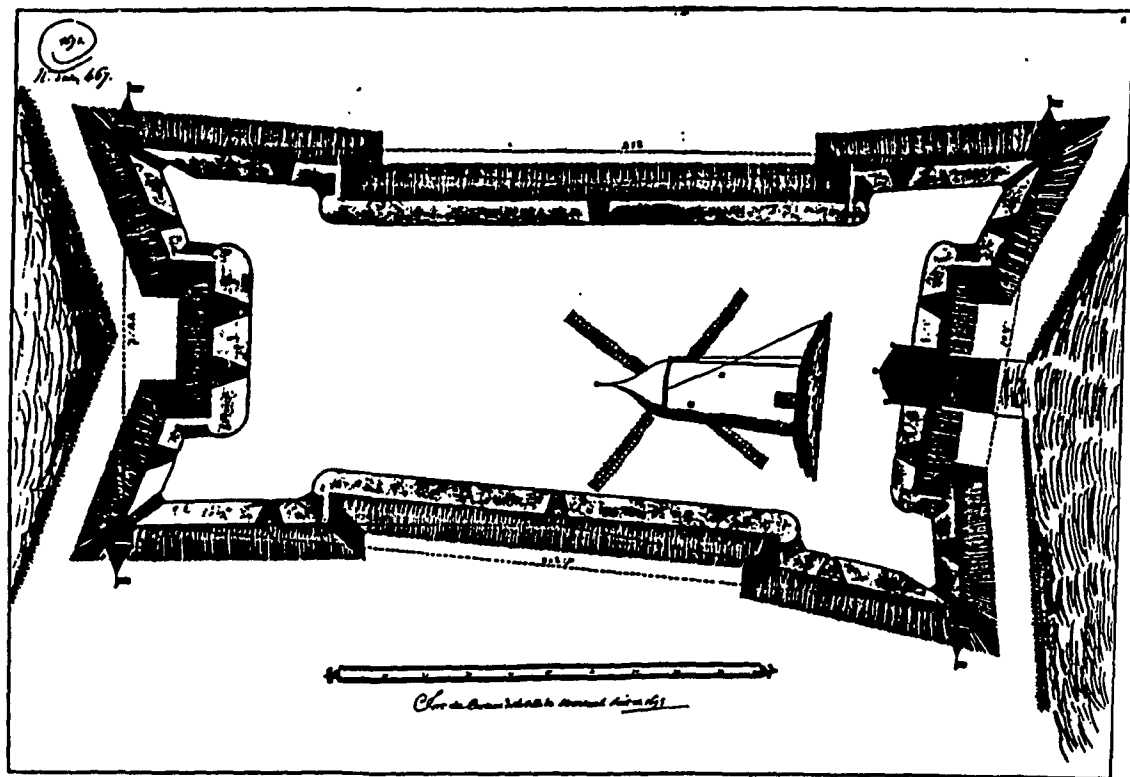


Illustration 13. "Plan of New Orleans, Louisiana: 1764", John W. Reps, *The Making of Urban America*, (Princeton: 1965), fig. 49.



Dessiné par l'auteur
 N. 172, 1693

Dessiné par l'auteur
 N. 172, 1693

Dessiné par l'auteur
 N. 172, 1693

Illustrations 14. Anon. *Fort du costeau de la Ville de Montréal fait en 1693*, DFC, no. 467A (copy NAC, *ibid.*, PH/350 1693).



Illustration 15. Detail of plan annotated by Beaujours, *Plan de la ville de Montréal en Canada levé en l'année 1713 et l'anceinte a été rectifiée par Mr. le Ch. de Beaujours, Ingénieur en chef la présente année 1714.* British Library, London, Royal United Service Institution, no. A.28.81.B. Add. Ms. 57706, Art. 2, (copy NAC, Cartographic and Architectural Division, Ph/340 Montreal 1714 (1713)).

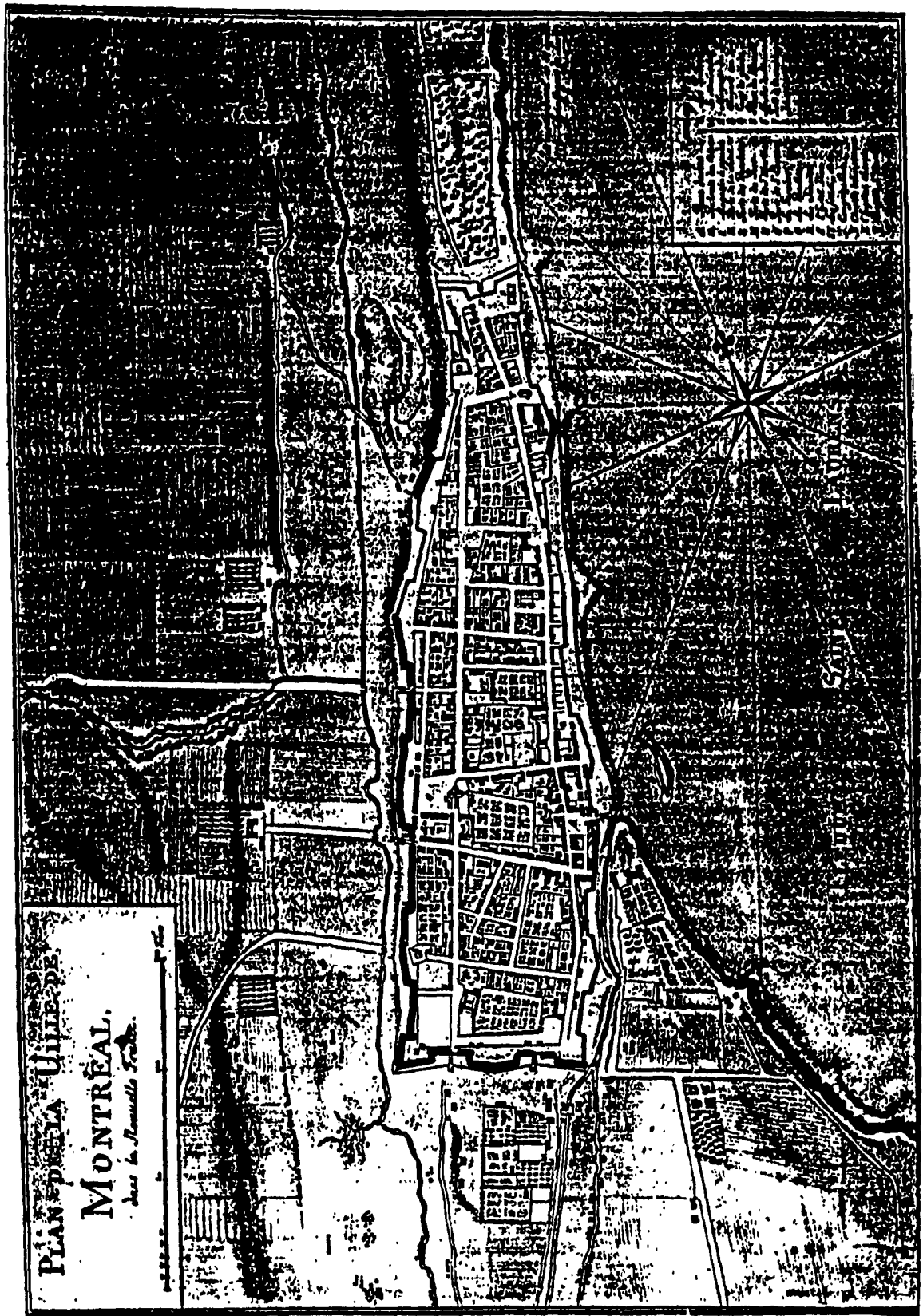


Illustration 16. Chaussegros de Léry. *Plan de la Ville de Montréal dans la Nouvelle-France*, 1729. Archives Nationales, Paris, Fonds des Colonies, C11B, Correspondance générale, Ile royale, vol. 39, no. 115bis, (copy NAC, H3/340 Montreal 1729, NMC-1752).

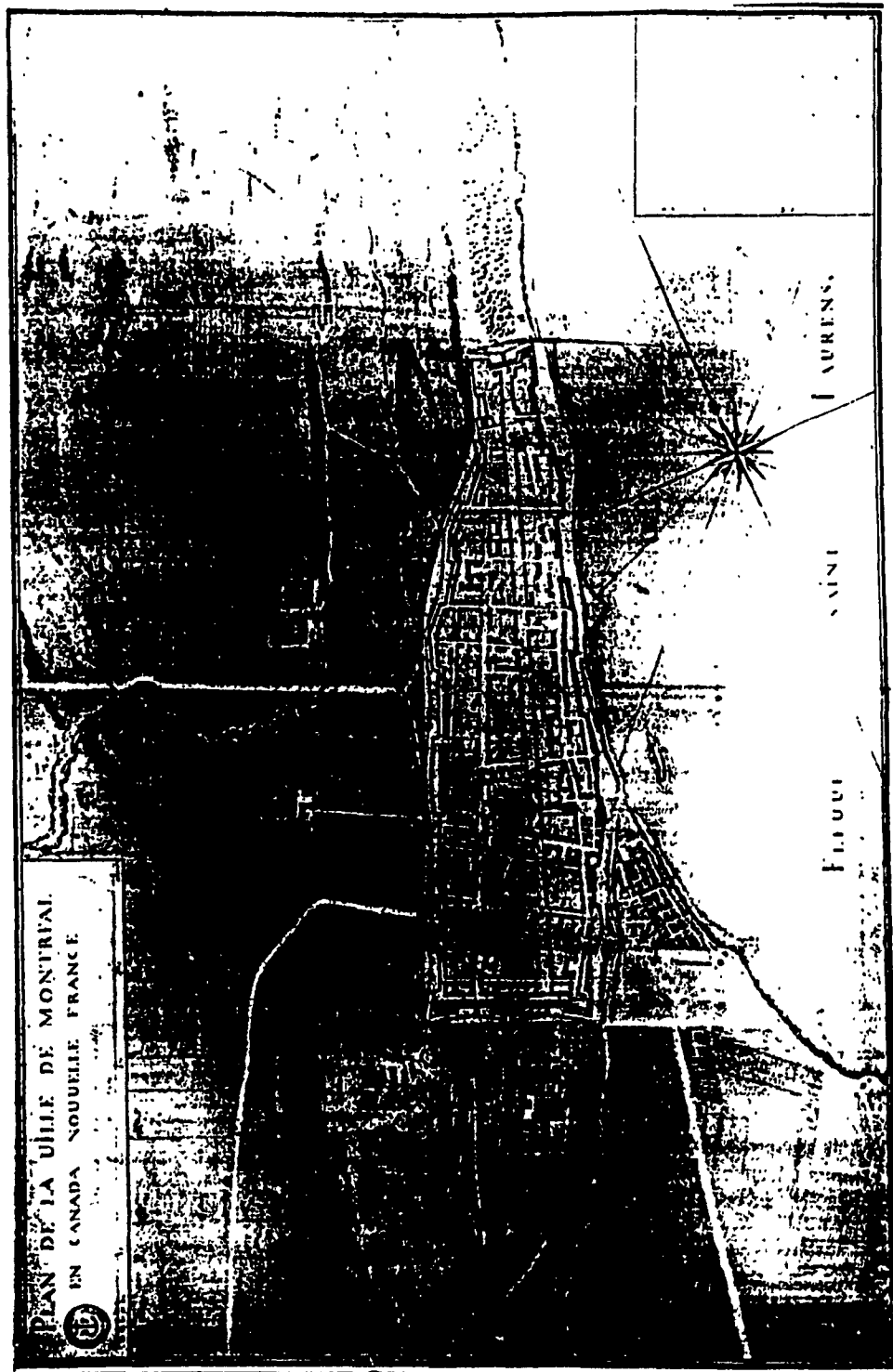


Illustration 17. Chaussegros de Léry. *Plan de la Ville de Montréal en Canada, Nouvelle-France dans l'Amérique Septentrionale*, 1717. DFC no. 472B, (copy NAC, PH/340 Montreal 1717).

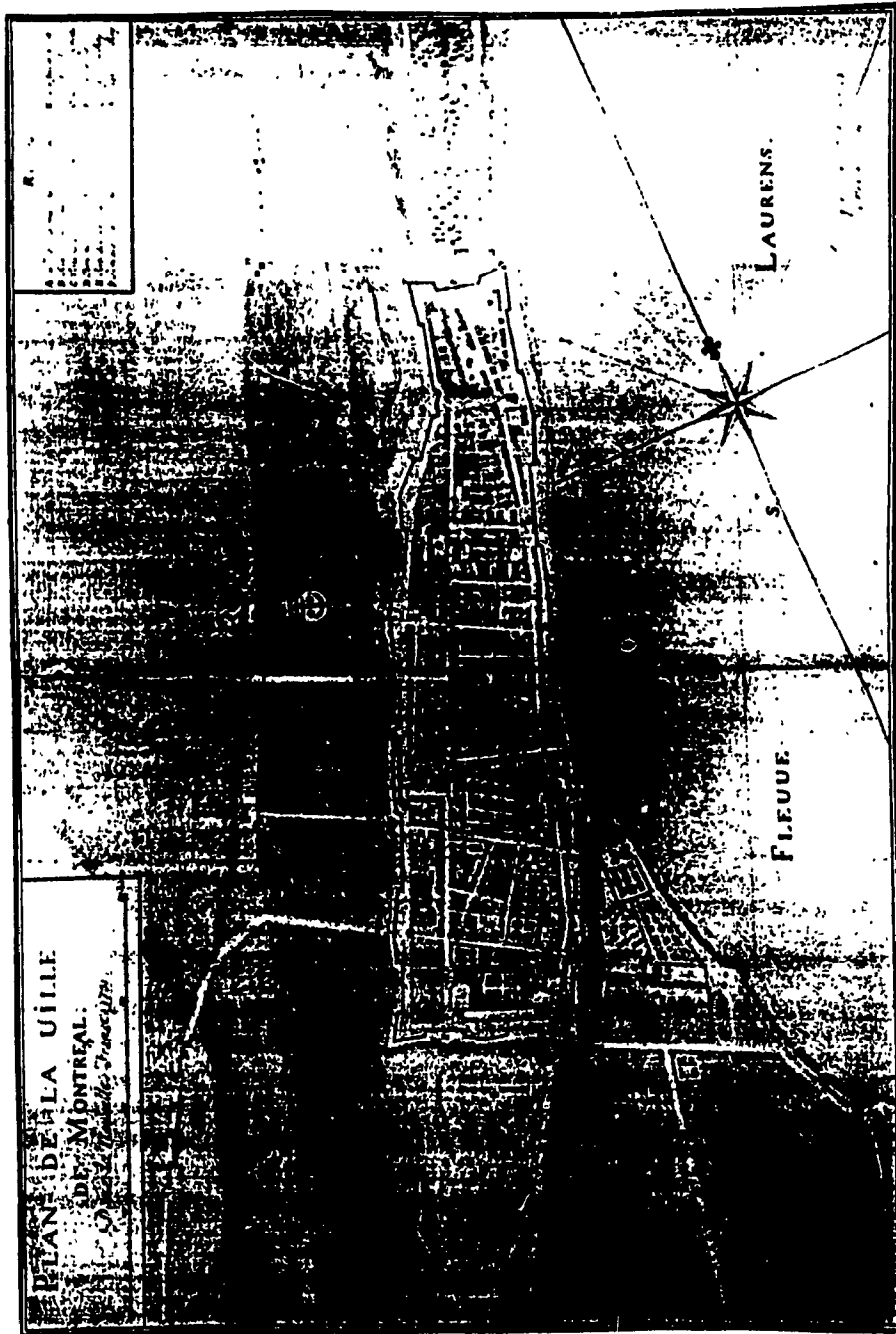


Illustration 18. Chaussegros de Léry. *Plan de la Ville de Montréal dans la Nouvelle-France*, 1731. British Library, London, Department of Manuscripts, Add. Ms. 15331, no. 28, (copy NAC, NMC-1489).

