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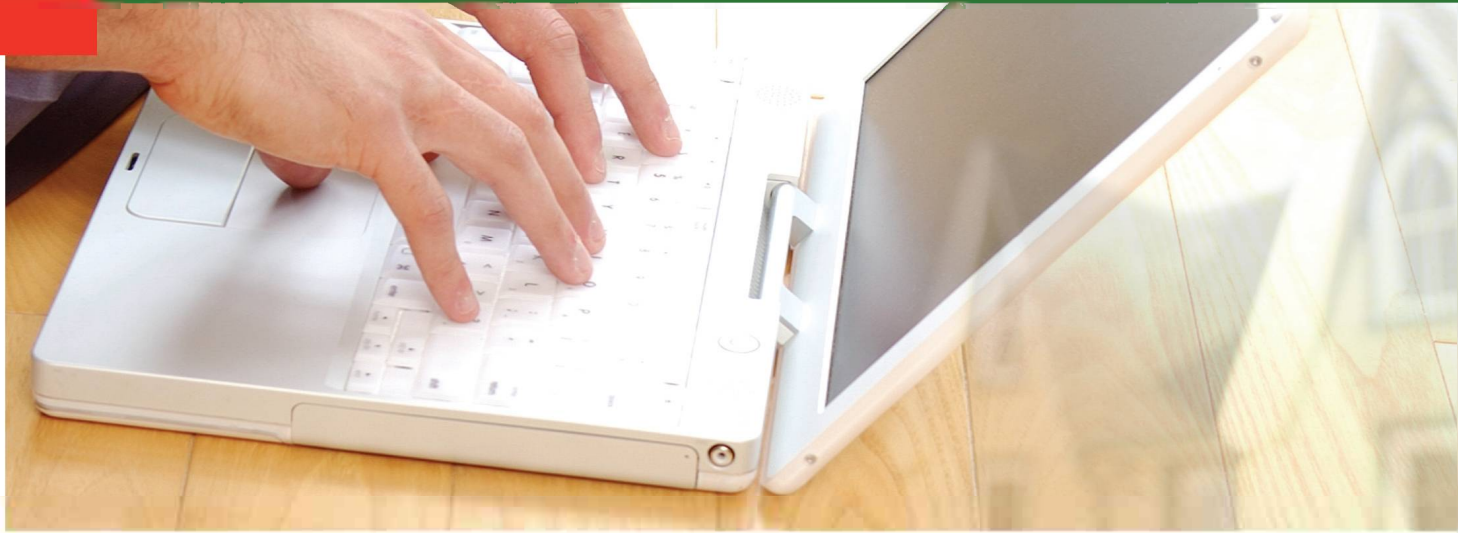
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RESEARCH REPORT

External Research Program



Montreal: A Rich Tradition in Medium Density Housing



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MONTREAL

A RICH TRADITION IN MEDIUM DENSITY HOUSING

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TABLE OF CONTENTS

Abstract	3
Executive Summary	4
Sommaire	8
Introduction	12
 Chapter 1 – Questions and Observations on the Urban Building Tradition	 16
1.1 The Research Questions and the Conventional Assumptions	16
1.2 Housing Production and Typology in Montreal since 1850	18
1.2.1 Municipal Records	18
1.2.2 Census and Studies	22
1.3 Morphological Analysis	27
1.3.1 Cartographic Limitations	27
1.4 Montreal's Building Tradition; A General Bibliography	30
1.5 Remarks for Further Research on Housing	31
 Chapter 2 – Tenure and Typology: A new hypothesis on Montreal's Housing Tradition	 36
2.1 Urban Housing: The Unsolved Issues	36
2.2 Cities of Homes, Cities of Flats and Cities of Tenements	39
2.3 The Legacy of the French Regime	49
2.4 An Emerging Housing Typology: Quebec and Montreal during the Eighteenth Century	53
2.5 A Typology Hypothesis for 1825 Montreal	56
2.6 Montreal's Housing Contribution: Original yet not Exceptional	62
 Chapter 3 – Built Form: Some Early Cultural Transfers	 68
3.1 The Weakness of Urban Vernacular Architectural Research	68
3.2 The Western French Connection	72

3.3 The Scottish Stamp on Montreal	77
3.4 Scottish Influences on Montreal's Outside Stairway Flats	78
3.5 Scottish Influences on Montreal's Inside Staircase Flats	87
3.6 The English and American Contribution	99
3.7 A Hypothesis on the Significance of the British Influence on the Montreal Vernacular	104
 Chapter 4 – The Distribution Patterns of Housing in Montreal 1866-1900	 107
4.1 The Establishment of Multi-Family Housing in Montreal	107
4.1.1 A Unique Housing Typology	107
4.2 The Spatial Organization of the Housing Market: 1866-1880	114
4.2.1 Construction Features as Social Cues	114
4.2.2 The Persistence and Expansion of Single-Family Housing	124
4.2.3 The New Dominance of Duplex Housing	135
4.2.4 The Arrival of the Triplex	144
4.3 The Spatial Organization of the Housing Market: 1880-1900	149
4.3.1 Cycle Comparison with the Previous Building Cycle	149
 Conclusion	 170
Footnotes	174
References	181

Abstract

Montreal's housing tradition defines an urban landscape of two to three storey buildings divided into superposed flats. The building type, called locally "plexes," became the dominant housing form in the 19th century and still today counts for about half of the city's dwelling stock. This new research presents an hypothesis on the origins of the building type and discusses its evolution in two construction cycles between 1866 and 1900.

The "plexes" have long been a reproved housing form as they contradicted the 20th century political bias for home-ownership and the single-family house. Furthermore, the typology of superposed flats was generally neglected by architecture scholars because of their modest scale and unclear pedigree when compared to metropolitan apartment buildings and villas. Research on housing in Canada requires a critical understanding of the traditional bias built into these frameworks, and notably in the interpretation of the data recorded. A reassessment of tenure and housing typology provides a starting point for a more objective analysis.

A comparison between Montreal's housing strategy and those of Toronto, two American and two British cities, reveals a coherent system of housing production which supply rental dwellings, with rigid lease conditions at non-speculative rates in a medium-density housing context. Montreal's conditions were closer to the British patterns. Historical sources, however, suggest that such conditions are a legacy of the French regime. Research in Europe presents evidence that superposed flats were found in the Western French provinces and Scotland. This matches the migration data of some of Montreal's most important communities in the real estate and the construction trade during the 19th century.

The last chapter describes the location and characteristics of housing production between 1866-1880 and 1880-1900. The growing share of triplexes, the larger footprint, the diffusion of the flat roof, all indicate an increase in density but also the development

of larger and more comfortable dwellings. The research is followed by with an extensive bibliography.

Executive Summary

This report presents facts, findings and new hypotheses on the origins and evolution of Montreal's housing tradition which developed primarily during the 19th century. The local “plex” building typology is identified first as a multi-family structure sheltering from two to six dwellings, each with through access from the front to the rear of the building, second as a housing type adapted to a dominant rental market, thirdly as a thoroughly urban built form, laid out in rows of two to four storeys, marking an intermediate building type between the “dwelling house” and the “tenement”. These three characteristics produced a medium-density housing environment which today provides sought-after urban dwellings known for their flexibility in adapting to different household types, needs and means. It also presents a sensible example of urban dwelling between the single-family house and high-rise towers. The report finally proposes new hypotheses on the sustaining historical conditions underlying its development and influences on its built form, a practical tale of the transfer and contribution of French and Scottish housing patterns in Canada.

The research proposal was submitted in 1994 to CMHC for a housing research grant. This final report answers some of the initial objectives of the proposal but it also raised methodological and epistemological issues unsuspected initially. The first chapter discusses the earlier goals, overly ambitious, and raises key concerns over our understanding and assumptions on housing in Canada. The municipal records and statistical data available offer a limited description of the housing structure and its historical development. The extensive bibliography suggests a wide array of comparative studies. However, most authors on urban housing, local and foreign, have provided misleading paths to explain Montreal's housing tradition as a part of another North

American pattern. Recent work published since 1995 (Gilliland 1998) suggested exploring further the local context rather than relying on the re-assuring knowledge provided by recognized British and American urban housing typologies.

In this regard, the second chapter directly examines the issue of rental tenure and a robust and early multi-family building typology in Montreal. A comparison with British and American cities highlights how Montreal's tradition is original, yet not exceptional in the balancing of four factors monitoring an urban housing strategy: tenure mode, investment return, leasing conditions, and lastly, building typology. Further readings of historians' works and a discussion of Viger's census of 1825 suggests that Montreal's housing tradition is deeply rooted in a colonial development model implemented during the French regime. The British rule after 1760 did not change the sustaining conditions as they were convenient to a specific colonial development policy in Lower Canada during the 19th century. The economic and social model remained largely unchallenged until 1945 which explained the importance of 'plexes' in 1944, representing then about 75% of Montreal's dwelling stock.

The third chapter explores the origins and influences on the superposed flats typology. Until today very little has been said despite its massive presence in the urban landscape. Common urban housing is generally seen as a part of the vernacular tradition, thus falling into the category of minor architecture. The conventional debate on the relative value of "High" and "Low" architecture has guided most critics in many countries in their assessment of a building's value. The search for an honourable pedigree has left the "plexes" unnoticed, and the inability to address them reflects the intellectual weaknesses of the theoretical framework and methods of architectural history.

Montreal presents the development of an intermediate building type, the superposed flat. The housing structure is made up of two to six dwellings, which provides an urban density generally above the single-family house and below the tenement or apartment building, where more than six dwellings are connected to a common entrance, staircase and halls. The intermediate building typology has been usually neglected by

scholars as it did not fit the Anglo-American bias for single-family homes nor the apartment lifestyle of continental Europe or the affluent American metropolis.

Nevertheless, fieldwork in the villages and small towns of France and Scotland revealed numerous examples of superposed flats. Their design and production stem from the vernacular tradition but also incorporate some academic details and concerns, notably in urban settings. In Montreal, the French community not only made up the majority of city dwellers during most of the 19th century, but was also the main player in real estate development and the building industry. The English and Scottish communities, while lesser players numerically in the building industry, had a profound effect on the introduction of new ideas into the vernacular housing tradition (Hanna 1986). Montreal's "plexes" display numerous features typical of superposed flats with European precedents. The current evidence suggests a set of new hypotheses on the cultural influences shaping Montreal's housing tradition, notably on the arrangement of units and their accesses from the street and the courtyard.

The fourth chapter presents the distribution and analysis of the housing production for two construction cycles, 1866-1880 and 1880-1900. The data assembled present the gradual increase in density, with the dominance of the duplex and the emergence of the triplex during the first cycle. Flat roofs become increasingly common at this time. The second cycle reveals the surge of triplex and variant forms in the housing market, rapidly increasing housing density. Furthermore, a changing footprint emphasizing depth of the building rather than width, and the continuing spread of the flat roof suggest larger buildings with more flats, but also more rooms and living space per flat.

The conclusion essentially challenges our current understanding of housing in Canada, particularly the vernacular tradition, and offers an invitation to examine the distinct housing traditions that have arisen in various Canadian cities. These traditions, and in particular Montreal's, have shown an astonishing robustness at survival due undoubtedly to their amazing adaptability in the face of changing social and economic

patterns. Not only has old vernacular housing been re-adapted, but new housing draws its inspiration from these successful living units.

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Gilliland, Jason, Olson, Sherry, "Claims on Housing Space in Nineteenth-Century Montreal", *Urban History Review/Revue d'histoire urbaine*, XXVI (march), 1998, 13.

Hanna, David, *Montreal, A City Built by Small Builders, 1867-1880*, Ph.D. thesis (geography), Montreal: McGill University, 1986.



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Sommaire

Le présent rapport expose des faits et des constatations et propose de nouvelles hypothèses relativement aux origines et à l'évolution de la tradition montréalaise en matière d'habitat, qui s'est établie principalement au cours du 19^e siècle. Le «plex», typique de la région, est défini, d'abord, comme un immeuble collectif comprenant de deux à six logements, chacun possédant un accès à l'avant et à l'arrière de l'immeuble, ensuite, comme un type d'habitation adapté à un marché essentiellement locatif et, enfin, en raison de sa forme tout à fait urbaine, comme un bâtiment en rangée ayant de deux à quatre étages, ce qui en fait un type d'habitation intermédiaire entre la «maison» et l'«immeuble de rapport». Ces trois caractéristiques ont donné lieu à la création d'un milieu urbain de densité moyenne qui comprend aujourd'hui des logements recherchés et reconnus pour leur facilité d'adaptation à divers types de ménages ayant des besoins et des moyens financiers distincts. Le plex constitue également un bon exemple de logement urbain se situant entre la maison individuelle et la tour d'habitation. Le rapport propose finalement de nouvelles hypothèses sur le contexte historique durable qui a contribué au développement du plex et influé sur sa forme, soit un compte rendu pratique du transfert et de l'apport des modes d'habitation français et écossais au Canada.

Le projet de recherche a été présenté à la SCHL en 1994 en vue de l'obtention d'une subvention. Le présent rapport final remplit certains des objectifs initiaux du projet, mais il souligne également des questions méthodologiques et épistémologiques qui n'avaient pas été posées au départ. Le premier chapitre porte sur les objectifs initiaux, qui étaient trop ambitieux, et soulève des préoccupations importantes au sujet de notre compréhension de l'habitat au Canada et des hypothèses qui en découlent. Les registres municipaux et les statistiques disponibles n'offrent qu'une description partielle de la structure de l'habitat et de son évolution historique. La bibliographie exhaustive comprend un large éventail d'analyses comparatives. En revanche, la plupart des chercheurs canadiens et étrangers dans le domaine de l'habitat urbain ont fourni des explications trompeuses au sujet de la tradition montréalaise, qu'ils considèrent comme faisant partie d'un autre contexte nord-américain. Les travaux récents publiés depuis

1995 (Gilliland 1998) ont suggéré d'examiner de manière plus approfondie le contexte local plutôt que de faire fond sur les connaissances rassurantes acquises grâce aux typologies britannique et américaine reconnues en matière d'habitat urbain.

À cet égard, le deuxième chapitre aborde directement la question de la location comme mode d'occupation et examine un type de logement collectif adopté rapidement et ancré solidement à Montréal. Une comparaison avec des villes britanniques et américaines montre que le cas de Montréal est original, mais pas exceptionnel, en ce qui a trait à l'équilibre entre les quatre facteurs influant sur une stratégie relative à l'habitat urbain: le mode d'occupation, le rendement du capital investi, les conditions de location et, enfin, la typologie des immeubles. Les travaux d'autres historiens et le recensement de Viger en 1825 indiquent que la tradition montréalaise en matière d'habitat s'inspire profondément d'un modèle de développement colonial mis en œuvre sous le régime français. Après 1760, sous la tutelle britannique, les conditions n'ont pas changé puisqu'elles convenaient à la politique de développement colonial en vigueur au Bas-Canada durant le 19^e siècle. En général, le modèle économique et social n'a pas été remis en question jusqu'en 1945, ce qui explique l'importance des plex en 1944, qui constituaient environ 75% du parc résidentiel à Montréal.

Le troisième chapitre traite des origines des logements superposés et des facteurs qui ont influé sur ce type d'habitation. Jusqu'à maintenant, on en a très peu parlé malgré sa place très importante dans le paysage urbain. Le logement urbain courant fait généralement partie de la tradition vernaculaire et, par conséquent, appartient à la catégorie de l'architecture secondaire. Le débat habituel sur l'importance relative de l'architecture de haut et de bas de gamme a guidé la plupart des spécialistes dans de nombreux pays lors de leur évaluation de la valeur des immeubles. La recherche d'origines honorables a laissé les plex de côté, et l'incapacité des chercheurs à leur prêter attention reflète les faiblesses intellectuelles du cadre théorique et des méthodes s'appliquant à l'histoire de l'architecture.

Montréal symbolise le développement d'un type d'immeuble intermédiaire: le logement superposé. La structure est composée de deux à six logements, ce qui assure une densité urbaine généralement supérieure à celle de la maison individuelle, mais inférieure à celle de l'immeuble de rapport (ou d'appartements), lequel comprend plus de six logements reliés à une entrée, à des escaliers et à un hall communs. Les chercheurs ne se sont généralement pas intéressés à cette typologie intermédiaire parce que celle-ci allait contre le parti pris anglo-américain pour la maison individuelle et ne correspondait pas au style de vie en appartement sur le continent européen et dans la riche métropole américaine.

Néanmoins, la recherche sur le terrain, dans les villages et les petites villes de France et d'Écosse, a permis de découvrir de nombreux exemples de logements superposés. Leur conception et leur construction s'inspirent de la tradition vernaculaire tout en tenant également compte de certaines particularités et préoccupations théoriques, notamment en milieu urbain. À Montréal, durant la plus grande partie du 19^e siècle, non seulement la majorité des citoyens était issue de la communauté française, mais cette communauté était aussi le principal intervenant dans le domaine de l'aménagement immobilier et de la construction. Même si, en raison de leur nombre, elles ont joué un rôle moins important dans le secteur de la construction, les communautés anglaise et écossaise ont fortement contribué à l'introduction de nouvelles idées dans la tradition vernaculaire en matière d'habitat (Hanna 1986). Les plex montréalais possèdent de nombreuses caractéristiques typiques des logements superposés européens. Les éléments de preuve disponibles permettent de formuler un ensemble de nouvelles hypothèses sur les influences culturelles qui ont façonné la tradition montréalaise en matière d'habitat, notamment en ce qui concerne la disposition des logements et la façon d'y accéder, à partir de la rue et de la cour.

Le quatrième chapitre présente la distribution et l'analyse de la production de logements pendant deux cycles de construction, soit de 1866 à 1880 et de 1880 à 1900. Les données recueillies montrent l'accroissement progressif de la densité, avec la domination des duplex et l'émergence des triplex pendant le premier cycle. Les toits plats

sont devenus de plus en plus courants à cette époque. Au cours du deuxième cycle, on a connu une forte augmentation des triplex et de leurs variantes, de sorte que la densité d'habitation s'est rapidement accrue. En outre, pour ce qui est de l'encombrement, l'accent a été mis sur la profondeur plutôt que sur la largeur des immeubles, et la multiplication des toits plats semble indiquer que les immeubles étaient plus grands et comprenaient davantage de logements, chacun ayant plus de pièces et une plus grande surface habitable.

La conclusion remet essentiellement en question notre compréhension actuelle de l'habitat au Canada, particulièrement la tradition vernaculaire, et suggère d'examiner les différentes traditions qui se sont établies dans diverses villes canadiennes. Ces traditions et, plus particulièrement, celle de Montréal ont fait preuve d'une résistance surprenante, certainement attribuable à leur faculté d'adaptation étonnante face aux changements du tissu social et de la structure économique. Non seulement l'ancienne tradition vernaculaire s'est adaptée, mais les nouvelles habitations s'inspirent des succès des précédentes.

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INTRODUCTION

Housing is the most common building form. It provides a place called home in everyone's life; it reflects personal and civic values and defines our material culture. Indeed, the requirements for a proper dwelling, and our judgement about what it should be, tell more about our aspirations than the practical needs for a strict and efficient shelter. There is hardly a rational and objective understanding of housing issues without an awareness of such loaded cultural premises.

Montreal's current housing landscape is made of three main building types. In the central core, the dwellings are divided between apartment buildings (pre-1957 low rise and post-1956 high rise), converted single-family houses, and small superposed flats referred to locally as "plexes". The surrounding neighbourhoods, usually built between 1870 and 1940, are predominantly made of "plexes", with the exception of the affluent boroughs of Westmount and Outremont which each have a large section devoted to single-family houses. The post-war development boom saw the introduction and diffusion of the suburban landscape made of single-family detached bungalows and split levels. However, semi-detached and attached duplexes were still built in large numbers as well as other types of small walk-ups. Since the 1980s, the growing market for condominium (co-property) tenure has supported a resurgence of the "plex" type in the city's old and new districts. The condominium market is open to the basic sharing of facilities found in plexes. Their small scale is well adapted to the Quebec building industry and what the market demands. The relative higher density also makes the plex a profitable option for in-fill development both in urban and suburban settings. In the past 25 years, social changes in the household composition mixed with the evolution of the job market and a higher level of education have promoted a new urban lifestyle which has found in the older neighbourhoods made of plexes, with "Le Plateau" in the forefront, a much sought-after housing environment.

The initial dilemma of a research on Montreal housing lies precisely in the huge gap in our understanding of Montreal housing as opposed to the recurrent presence of the

plex building type in the housing landscape, both the existing and the projected one. One cannot help but notice that relatively little has been done to understand the built environment in Canada. We have political histories, social and more recently economic ones. We have housing research on household social structure and financial strategies, and studies on the building technical requirements. There is not, however, a single building survey of the building types and housing designs found across Canada. Existing works by Remple (1967), Saywell (1975) and Gowans (1991) are far too limited or superficial to qualify.

The initial pursuit of this study was to describe the scale, the origin, and the evolution of the “plexes”, the most common housing type found in Montreal. This city was the Canadian metropolis for more than a hundred years between 1840 and 1960, but its housing patterns tended only to inspire other towns in Quebec without ever becoming a model for other Canadian cities. It could be said bluntly that the “plexes” did not provide a pleasing image of ourselves relative to the superior value given to the late Victorian ideal of home-ownership and single-family detached house. Studying plexes, moreover, presents a huge methodological challenge, notwithstanding the fact that they have been commonly built in Montreal for the past two hundred years or more.

The Montreal Urban Community funded in the 1980s an inventory of heritage buildings which was published in several volumes sorted by building types. The housing section was divided into volumes dealing with rural houses, single-family, apartment buildings and the “plex”. The research for this last volume was never completed, partly because the scale of the inventory proved too large to process and partly because so little was known about them. The statistical records on housing recorded by the federal and municipal government are remarkably ill-fitted to describe Montreal dwelling stock. The condominium, which is a mode of tenure, is used as a building type category by the city which is rather confusing as row houses, plexes and high-rise buildings can all be include under condominium ownership. The building types recorded by the census are grouped into three main groups: the single-family house (detached, semi-detached, in row), the apartment building (low and high rise) and the “others”. These data actually describe the

impact of governmental housing policy on the housing market. In Montreal, such a definition sets the plex in the “others” category, despite its accounting for about half of the total dwelling stock in 1996. This research will show that such a problem with housing statistical records has a long history.

Housing is also a powerful reflection of the living conditions in a given society, hence the intense interest by social historians. The fact that Montrealers have been predominantly tenants, living in flats since the beginning of the nineteenth century, has fuelled different types of political interpretation: the exploitation of the working classes, the under-class status of French-Canadians against English-Canadians; the defective economic development of Quebec compared to Ontario and so on. The differing claims could only partly support their theories and conclusions despite extensive references to foreign precedents or local surveys. For instance, the essay “The City below the Hill” appeared to offer a prime source to describe the Montreal of the 1890s. The research written in 1896 by Herbert Ames, an urban reformer and philanthropist, described a working-class district at the foot of Montreal’s most affluent ward. Nevertheless, a careful reading of the work shows that the hypothesis drawn from American and British precedents, and the conclusions arguing for housing and urban reform, cannot be supported by the data and observations made by Ames. These unexpected findings, which may explain Ames’ reform failure, raise epistemological issues about the nature of the material written on housing in Montreal, and maybe elsewhere in Canada.

Architectural history in Canada has exploited two main fields of study; the urban monumental and the rural vernacular. The earlier interest for the provincial adaptation of “High Architecture” in British North America is clearly bound to an attempt to record and celebrate the development and civilization perfected in this new and wild country. The rural vernacular interest is stimulated by the antiquity and the picturesque of the early designs marked by the origins of the first settlers, receiving early attention in works by Ramsay Traquair in 1947 and Gérard Morisset in 1949. In these two fields of architectural history, the origin of the building structure and design tradition are simple to relate to foreign patterns, modest or grand, which confirms Canada’s heritage as part of

the western culture. Furthermore, the evolution of these traditions, and, as a matter of fact, their disappearance, asserts our current commitment to modern design and values.

In this regard, Montreal's vernacular housing tradition raises an interesting challenge: it is a modest urban building type; it has an unclear cultural pedigree; it is suitable for modern living though never designed for it; it is still inspiring new housing projects. The first task of this research is to establish a firm ground of new facts and hypotheses on the origins and evolution of this building type. The extended bibliography confirmed the need to go beyond the rumours peddled from one author to the other in favour of a more lucid observation and careful examination of records, maps, and buildings.

The chapters of this research discuss four conditions for historical housing research. The first chapter reviews the initial assumptions of the research proposal and the limitations of second-hand data based on public records or previous studies. The second chapter introduces a new hypothesis on the origin of rental tenure and multi-family building in Montreal as part of a coherent development model established during the French regime. The material gathered proposes a critical reading of previous material and records, looking for long-term resilient patterns consistent with a real-estate investment rationale. The third chapter draws evidence from field studies in Montreal and in Europe in order to propose the origins and influences behind the evolution of Montreal plexes during the nineteenth century. The fourth chapter is a careful cross-examination of municipal records and historical atlases for an objective physical description of the houses built during two construction cycles between 1866 and 1900.

CHAPTER 1

QUESTIONS AND OBSERVATIONS ON THE URBAN BUILDING TRADITION

1.1 The Research Questions and the Conventional Assumptions

The proposal submitted in 1994 set four objectives for the research. First to report on the scale of the housing production in Montreal since 1850 over 10 construction cycles. The goal was to follow the evolution of the housing typology and the dwellings during that period. Second to implement the development of a new methodology combining morphological analysis at the urban and architectural scales. Such a methodology aimed at dissecting the buildings in order to identify the different components, and, through the historical evolution, trace the cultural influences shaping Montreal's housing tradition. The third intent proposed to map the urban development for the different construction cycles. The initial observation considered that the expansion of the urbanised area affected different districts historically, and that each construction cycle could be characterised by similar building types and facade composition. Finally, the last task was the completion of an extensive bibliography. It was assumed that such an exercise would help first to relate Montreal's residential strategy within the larger context of other examples of urban housing in North American, for instance. It was also expected that the review would help provide a more critical understanding with the gathering of all material – text, maps and illustrations – covering the specific topic of Montreal's housing tradition.

The ambitious plan is far from being completed. Each objective encountered difficulties in the data collection or in the nature of the issue explored, and this will be explained further. However, as with most authors and researchers on Montreal housing, the main obstacle lay first in our assumptions. The streetscape of Montreal's residential neighbourhoods, made of continuous rows of two and three storeys buildings set on an

orthogonal street grid, apparently describes a systematic and mechanical housing production which was highly standardized. This apparent homogeneity suggests a relatively simple urban system and housing strategy. It also conveniently confirms our modern presumption over the past, and for 19th century Montreal, the impact of the industrial revolution. The repetitive production of rental multi-family housing, the development of a presumed working-class housing type, and the limited number of design options, all fit the image of a rather simple model for urban development.

The fieldwork undertaken suggests the contrary; urban form and housing design display a relatively complex process at the different scales of urban space. The street grid and block sizes are the results of private initiatives framed by a distinctive rural land system of “côtes and rangs” based on hydrographic and topographic considerations (Marsan 1974). The subdivision plots show the contrasting pattern of the earlier ones where backs of lots are accessed by a carriageway (*porte-cochère*) and the later ones served with a rear lane. Plots present varying dimensions set in relation to the development period, the land value, its speculative use and the intended typology. The housing production displays a wide variety of building types and dwelling layouts addressing a broad range of household sizes and social classes. The stylistic changes of the facades, documented by Benoît and Gratton, and the construction technology illustrated by Auger, sketch out an evolving design strategy dealing both with local tradition and new ideas and models. The evolution of some parameters, from one construction cycle to the other, produced a complex urban landscape hiding behind the understated architectural composition of the facades.

The complexity in the development and design of Montreal's housing tradition remains partly conceptual since each of the initial objectives could not be thoroughly documented. The issues raised by the research, however, may be seen as a contribution towards a more critical analysis. The methodological deadlocks and the epistemological problems experienced should be shared to help further research on housing in Montreal or any other city.

1.2 Housing Production and Typology in Montreal since 1850

1.2.1 Municipal Records

Montreal municipal government was reorganized in 1840 with an elected mayor and a city council. Within the liberal political and economic framework of that period, the civic administration enjoyed limited powers on the management of the urban space, notably on private properties. Municipal civil servants were hired for the supervision of streets and roads, public markets as well as fire and building inspection. Street cleaning and paving and market construction were performed through private contracts. Fire protection was left to volunteers.

According to the municipal archives records, the Building and Fire Inspector's tasks seemed to have focussed mainly on fire prevention with the submission of reports following each conflagration describing the premises, the cause, and the damage. Furthermore, numerous demands were presented to the city council for the purchase and maintenance of equipment for the fire brigades. On the other hand, records on building inspection and production were almost non-existent. The earlier data submitted in 1847 by John Perrigo, the second inspector, presented the number of new buildings since 1842, sorted by ward and by building material. The details concerning building materials reveal that fire prevention was a more critical issue than the number of dwellings. Robert Lewis' study on the assessment roll of 1842, notably through the water tax paid by each tenant's household, described an unexpected housing structure (Lewis 1990). Montreal counted 4265 houses sheltering 6092 dwellings split between 52% single-family houses and 48% buildings with two dwellings or more. Lewis underlined in his conclusions that rental tenure and the high number of dwellings could not be equated with a building's low quality or value. Higher density, expensive stone buildings and large rented dwellings were found in the city centre for the affluent commercial class, while the poorer suburbs were largely made of single-family, low-density, and sometimes family-owned small wooden houses for the labouring classes. This description fits the observations made by

Hélène Bourque for the small *maison de faubourg* found in Quebec City's *extra-muros* wards during the same period (Bourque 1989).

The 1852 fire in Montreal saw the destruction of about 20% of the housing stock, levelling everything east of Saint-Lawrence Street. The tragic event had an immediate impact in the reorganisation of the fire protection service which was professionalized along with the nomination of distinct building and fire inspectors. While other city departments submitted reports during the 1850s, and Robert Lewis noted that the assessment roll became more reliable after 1853, no records have been found on housing production. It is only in 1863, that annual reports were submitted for each department, including the building inspector. The lack of information should not be seen necessarily as a defective administrative bureaucracy, as housing records in Britain were based primarily on the national census since municipal records were quite rare (Burnett 1978).

The data available between 1863 and 1944 are almost complete for each year but the information supplied evolved over time which makes long-term comparisons difficult¹. Between 1863 to 1879 the records provide the number of buildings by wards, the buildings sorted by use², the exterior wall material, the roofing material which indicated the type of roof (flat or sloped) and the number of storeys. From 1868 to 1877 the description became more exhaustive in the identification of each new building by street and by owner for each ward and providing the number of dwellings.

After 1877, the annual reports never again provide accurate data on the residential building typology in sorting single-family house, duplex, triplex, and so on. From 1878 to 1883, the annual reports were summarized by one table that compiled, by ward, the number of new building by use, by material on walls and roofs and the total length of façade in feet. After 1884, the annual reports replaced the total length of the facade by the total value. This accounting structure by ward, based on the number of buildings and their total value prevailed as the main criteria for the next fifty years. The description of the residential building typology remained elusive as the data suggest only the total number of houses and dwellings from which we can process the average number of dwellings per

building. After 1900, the annual table of building permits show a growing number of categories for specialized building uses. For example in 1902, a separate class for “flats”, meaning apartment buildings, is introduced, a new phenomenon affecting only the most affluent wards. Otherwise, there was no distinction made between single-family houses and superposed flats like the “plexes”. Only the average number of dwellings by ward states some variation in the density. From 1912 to 1944, each column reporting the number of building uses by ward was followed by one giving the total value (Figure 1.1).

The evolution of the data accounted for in the city’s annual building report suggests a gradual shift from a main concern over fire prevention to one about building value. It is likely that the enforcement of stricter building regulations combined with more efficient fire prevention and water supply reduced the risk of conflagration. Montreal never again faced a major conflagration after 1852 while large sections on Quebec City and Trois-Rivières were destroyed in 1880 and 1908 respectively. On the other hand, the implementation of a better fire protection department, and the enforcement of construction bylaws required annual expenses which put more pressure on the assessment rolls as the main source of municipal income. The assessment rolls established a market value index per dwelling flat, which reflected, in theory objectively, land value and building amenities. But such an index, which included speculative land value, modifies the objective assessment of the living conditions of each building and its dwellings.

The fiscal perspective still remains today as the main objective in the typological description of housing in Montreal. Data available on the web from the City of Montreal seem to partly reflect typological categories such as single-family, duplex, mixed with tenure criteria such as condominium³. The confusion in the same table between tenure and typology is conceptually appalling but consistent with the different tax rate applied to condominiums compared with traditional rented property. For instance, two adjacent identical triplexes with comparable dwellings can be subject to a different tax rate if one building is owned by one landlord and made of three rented dwellings, while the next one is divided in a co-property ownership between three households. The significant change in tax rate is critical for municipal revenues but is not an objective criterion of living conditions.

1.2.2 Census and Studies

A second source provides quantitative and some qualitative data on building typology through the census and selective studies on the housing conditions. The earlier censuses conducted before 1851 provide incomplete and changing criteria to assess the building typology. Viger's census of 1825 covering the Island of Montreal distinguished houses and families. This leads us to understand that some houses, notably in the city wards, were sheltering more than one family (see chapter 2). The subsequent censuses of 1831, 1842 and 1844 always give the number of houses per ward, but the 1842 census also provides data on the number of proprietors and tenants.

The figures provided by the city directories after 1846 use houses and dwellings as synonyms, which would have made sense if the housing stock were made of single-family dwellings. But, as demonstrated by Lewis for 1842, such an assumption would be wrong. By 1851, the census sorted buildings by building material and number of houses for each ward. The number of houses was clearly inferior to the number of families. In 1861 another table provides data on the number of storeys and building materials. In 1871 and 1881 the two censuses again classified houses and dwellings as similar but the

difference in the number of families and dwellings remains evident. In 1891 the number of houses, dwellings, and families are comparable, which is in complete contradiction with the municipal records. A second part of the same table provides some qualitative data on the dwellings by listing the number of storeys and rooms. In 1901 and 1911 the records compared the number of houses and families which could provide an approximate average per ward of about 1.09 to 1.05 families per house. However, the French translation of house by "*demeure*" creates confusion with the word "dwellings". Finally the records of the 1921 census re-introduced a table describing the building materials for the dwellings and a residential typology. This last table sorted the total dwellings out as apartments, row of terraces, single-family houses, semi-detached houses, and "not given". The last three categories were implicitly describing single-family houses whether in terrace, single, semi-detached configurations, while only one, the apartment, applied to a tenement-like structure. The figures suggest that 87% of the dwellings were either terrace, single or semi-detached houses, while 11% were apartments. Here again, such a distribution contradicts the municipal records.

The census obviously provides unreliable records on the housing situation in Montreal every ten years. The confusion in the use of dwellings and houses can be detected when compared with the number of households. Earlier records sorted the data by wards which can be compared and processed to estimate the evolution of the housing density of families per building. But as time went on, the records produced by the Canadian government became less and less relevant for Montreal as the criteria used for housing were meant to give priority to single-family houses. The erroneous translation from French to English or vice-versa could partly explain the contradiction with the municipal data, but the linguistic ambiguity also echoed a misunderstanding or denial of the housing patterns occurring in Montreal. The census norms were foreign to this city's housing tradition, and today's census still focuses on building typology and definitions mainly irrelevant to a large section of Montreal's housing stock. The defective categories can only lead researchers into a methodological trap. They also establish a judgmental set of assumptions in excluding a housing tradition from the norms, and this choice raises deep epistemological questions (Figure 1.2).

Figure 1.2: Housing Conditions: Comparative Data

A. Extract from the Census and Municipal records

Part Extract from the Census and Municipal Records							
Census	Population	Households	Total dwellings	Houses	Shanties		
1891	182695	35396	31932	31931	1		
	Owners	Total Lots	Dwelling houses	Stores, factories	Barns, Stables		
1891	6641	14016	19978	2421	4216		
	Houses	Households	1 family	2 families	3 families	4 families and over	1901
36503	38768	34825	1350	227	111		
	Population	Households	Total dwellings				
1911	225141	41773	35677				
City Records	Newly built houses	Newly built dwellings					
1891-1901	3641	7986					
1901-1911	10592	24891					

Comparison	Census					City Records
<i>1891</i>	<i>Households/ dwelling</i>	<i>Dwelling(s)/ house</i>	<i>Population/ dwelling</i>	<i>Dwellings/ lot</i>	<i>Dwellings/ owner</i>	<i>Dwelling(s)/ house</i>
	1,11	1,00	5,72	1,43	3,01	
<i>1901</i>	<i>Households/ House</i>	<i>Dwelling(s)/ house</i>				
	1,06	1,06				
<i>1911</i>	<i>Households/ dwelling</i>	<i>Population/ dwelling</i>				
	1,17	6,31				
						<i>1891-1901</i>
						2,19
						<i>1901-1911</i>
						2,35

B. Housing production from Montreal Building Inspector Annual Report 1866-1942

	<i>Houses</i>	<i>dwellings</i>	<i>dwellings/house</i>
1866-1880	3898	4511	1,16
1880-1900	9450	16795	1,78
1900-1918	17957	37762	2,10
1918-1935	19899	51945	2,61
1935-1942	3147	6989	2,22
total	56291	118002	2,10

C. The city below the Hill; Ames, 1896, comparison with US figures

	<i>number of persons to a dwelling house</i>	<i>average poor districts to a dwelling house</i>	<i>average to a dwelling</i>
Philadelphia	5,6	7,34	7,34
Baltimore	6,2	7,71	7,71
Chicago	8,6	15,51	5,2
New York	18,52	36,78	

D. A Report on Housing and Slum Clearance for Montreal, Nobbs, 1935, Board of Trade, 1935

	<i>estimated classes of dwellings</i>
tenement flats 2 and 3 storeys:	75%
self-contained house, single family:	8%
Old houses converted into tenements	10%
small apartment (3-4 storeys)	7%

Finally, a few studies were conducted in Montreal and supply partial information about living conditions. Herbert Ames' work in 1896, "The City below the Hill", Percy Nobbs' report for the Board of Trade in 1933, the Bélanger study for the city in 1938, and the first planning report submitted in 1944 present snapshots of the housing stock in some districts of Montreal, (Ames 1897; Nobbs 1935; Bélanger 1938; Nobbs 1945). The first three studies focused on working-class districts in search of slums. Describing the housing types found, the authors agreed on the importance of superposed flats as the main typology in these city sections. However, the lack of comparison with the other wards, make such facts appear as a peculiar character of the study area, and therefore supported the general conclusion that "plexes" were a working-class housing type. The 1944 planning report, which covered the whole municipal territory, showed that such a typology was found all over the city, in most neighbourhoods, including middle-class ones. Single-family houses represented 19% of all houses and counted only for 5% of the dwelling stock. Their distribution was not exclusive to the wealthier wards but was found also at the urban fringe, replicating the little houses described by Lewis a century before in Montreal's suburbs.

The development of a residential typology index which recognizes single-family houses, superposed flats and apartment buildings assumes initially that density, defined by the number of dwellings per building, could measure the quality of living conditions. Lower density would sustain healthier conditions and higher density would lead to overcrowding and support unhealthy living or even immoral behaviour. The powerful logic of such a simple correlation is certainly open to question; density is affected by the plot size and the dwelling's number of rooms and total area. But the index clearly highlights the single-family house as an ideal. Indeed Ames' partiality to the single-family house is found in his description of density based on the number of persons per building and not per dwelling. The comparative data he presented on American cities showed strong differences between them. These dramatic variations gave a better impression of cities made of single-family houses like Philadelphia and Baltimore, much to the detriment of cities made of multi-family buildings like Chicago (3-deckers) and New York (tenements)⁴ (see Figure 1.2).

Nevertheless, as Ames acknowledged, Montreal's situation was notably different from that of New York⁵. A similar comment was made in front of a Royal Commission for working relations, cited by Choko⁶. Ames found an average of two dwellings per building, where Nobbs, 25 years later, observed an average of three dwellings per tenement. Nobbs distinguished four building types: the two or three-story "plex", the single-family house, the converted house, and the apartment building, showing that at least one source got Montreal's typology right. Bélanger (1938) did not consider the number of dwellings per building nor any building typological classification, because *it is very difficult to ascertain the property's limits in row houses*⁷. However, by comparing the number of properties (1990) with the number of dwellings (4216) surveyed, we find an average of 2.11 dwellings per building (see Figure 1.2).

Nobbs' observations on converted houses, 10% of the building stock, allows us to question the assertion of an American lecturer made in 1921 claiming that *"A large proportion of "new" working class housing had been created by subdividing older single-family houses into flats. The middle class retreated to the suburbs on the edge of the mountain and "once fashionable areas as Dufferin Square were transformed into teeming slums."*⁸ This example was easily turned into a general rule by many authors looking for picturesque and distressing details about popular housing in Montreal like Copp, Choko, Holdsworth, and Ward (Copp 1974; Holdsworth 1998; Choko 1979; Ward 1999)⁹. It is true that such types of tenements were commonly found in cities built of single-family row houses. Evans described the conversion of formerly middle-class residences into working class dwellings in London (Evans 1997). It was even argued that such a fate was deliberately programmed. For instance, with regard to leasehold property, the landlord would only allow single-family houses to be built in order to pretend to be attracting a certain class, while knowing perfectly well that a few years later the houses would be subdivided into flats. In Montreal, this type of housing strategy provided only a marginal contribution to the dwelling stock because, with its numerous plexes, it did not need to resort much to this formula.

The four studies referenced here are contributions to the urban reform movement. Fully aware of international trends and ideas, the authors conducted surveys which appear to be fairly objective in the data collection. On the other hand, their assumptions and conclusions, and therefore the overall inclination of the reports are less about describing the housing conditions than providing arguments for urban reform. Hence, in each case, the authors concluded the imperative need for a vast programme of housing reconstruction which would replicate locally the fashionable models of the time, and therefore depart from the local tradition. Paradoxically, the survey results described a situation far from the dramatic depiction of the suspected slums. The contradictions between the initial assumptions and conclusions of the surveys call for a critical reading of such references. The reform movement discourse may be less about the urban living conditions than about the professional authority and social status of the authors as part of the middle and intellectual classes. The discrete agenda explains much of the nature of the studies and should be critically acknowledged when used as historical references.

1.3 Morphological Analysis

1.3.1 Cartographic Limitations

Despite the limitations of municipal records for the description of the housing production and typology, research was conducted for the construction cycles of 1866-1880 and 1880-1900. The results of this work are discussed in chapter 4. The data assembled combined the annual reports records, the examination of the annual assessment rolls which indexed each property and the number of dwellings for tax purposes, and a comparison of the maps and the Insurance Atlases produced between 1866 and 1907. Such a procedure seems reliable but extremely time consuming. The housing production for the cycles following 1900 was two to three times superior to the previous one. Since more than 19,000 buildings were built from 1880 to 1900, the task seems colossal in scale and therefore far beyond the means of this study. The post 1900 period was therefore omitted from this detailed study.

The morphological analysis considers different scales of spatial structure: the overall territory, the neighbourhood, the building and the dwellings. There is conceptually a hierarchical impact of the larger spatial structure on the shape of the next one, and studies abroad in Venice or San Francisco clearly illustrate such relationships (Maretto 1986; Muratori 1959; Vernez-Moudon 1986; Lipsky 1999). The implementation of a similar demonstration in Montreal runs into a lack of information. There is no accurate topographical survey of the island and the subdivision patterns, either at the scale of street and city block, or at the finer detail of the plots. Marsan's demonstration of a Côte-des-Neiges farm division guiding the later street grid is in fact a conjectural example (Marsan 1974). For the whole city, each subdivision submitted to the Registry Office should be considered, analysed and compared with the actual development which often occurred decades after the initial speculative proposal.

The lack of proper cartographic sources for the topography or land subdivision reveals the limitations of the Canadian military tradition and the peacetime planning process until now. Whereas in many American cities planning was initially set up through a speculative plan imposed on different landowners, Montreal presents the development of an organic orthogonal street grid and subdivision plan where decisions remained foremost in private hands.

The morphological analysis intends to integrate different scales of spatial structure to explain their mutual relationships in the shaping of the built environment. The local decisions are also bound to a set of economic, social and cultural prerogatives which rely on the local customs and foreign precedents. This need for adapting new concepts and ideas may be supported by the evolving urban conditions for which the tradition has to adapt or is challenged by exterior references. The pattern can be traced in the changing dwellings of working class housing, but also in the residential premises of the affluent classes. Montreal cultural duality, which also reflected social hierarchy, meant that such dialogue was not leading to a common and consistent solution, but to a broad range of options displaying the accommodations made to tradition and taste, convenience and style, and the two cultural perspectives, French and British.

The introduction of GIS (geographical information systems) should, in theory, provide a flexible base allowing for different scales and layers of information through the use of computer technology. The Quebec government provided each municipality with the initial base-map, which could be corrected and completed by local authorities. However, the change of technical means does not imply a better use of the tools. The continuous amendment process means that contrary to the past, we no longer have snapshots at different times in order to compare the evolution. Second, the layers are not systematically corrected or completed. For instance the city of Montreal does not have a completed map of land subdivision on its territory. Finally, the mercantile presumptions set by the provincial government, makes access to the files expensive. In fact, while public utilities purchased such computerized documents, no formal provisions were made for academic research.

At the building scale, the Information Access Act considers the plans submitted for building permits as private documents only deposited in the city archives. The copying of such plans may be granted only by the architect or the building owner. This decision is in contrast to subdivision plans which are public documents accessible at the Registry Office. In fact, morphological analysis at the building scale is possible in Europe because interior plans have to be included in subdivision documents registered. National surveys of historic buildings, including both the monumental and the vernacular, could be supplied in other countries such as the United States, Scotland or France. But such a scheme was never established by the provincial or federal governments. Between 1985 and 1995, the Montreal Urban Community conducted a photographic survey of the built heritage, however, it did not deal with the "plexes" for lack of methodology and the sheer number of buildings available.

The combination of the two previous points explains that the mapping presented in this study covers the two cycles for which research could be completed. The evolution of building types could be followed over these two cycles with the following criteria: the exterior materials on walls and roofs, the number of floors, the footprint and the number of dwellings.

1.4 Montreal's Building Tradition; A General Bibliography

The general bibliography is first an opportunity to collect different books, papers and theses covering issues on Montreal urban form and its housing tradition. The social and economic history of different wards, parishes and buildings is as fragmented as the initiatives supporting their development. The information is precious and relevant for future fine-grained study at one of the spatial scales mentioned above. It must be underlined that the methodological deficiencies of most authors means that the physical reality remains poorly understood.

Larger scope studies have been consulted in order to provide a general reference framework which could guide the overall morphological analysis. Montreal's development is customarily seen through a Canadian or Quebec perspective for which the housing tradition presents a puzzling reality. As noted by Choko, when compared to Toronto, Winnipeg and Vancouver, Montreal appears in the 20th century as the "unique city" with its superposed flats and a majority of tenants. On the other hand, Montreal's urban scale overwhelms comparisons with other cities in Quebec.

Without rejecting such references, three remarks are in order. First, most studies have been unable to provide a satisfactory explanation of Montrealers' preference for rental tenure and multi-family building since the 18th century, even across the pivotal changes of political regimes and the radical shifts in the city's economic base. Second, the constitutional framework gives a very large responsibility for urban development to the regional political structure. At the same time, housing development occurred in a country largely dependent on a dominant foreign market for export and supply of labour, goods and capital, first Great Britain, then the United States. Trade patterns are likely to be more influential than governmental decisions in Ottawa or Quebec City. Comparative analysis would benefit from an expansion beyond the contemporary Canadian or Quebec context in order to consider the larger Anglo-Saxon urban traditions during the 19th century.

A third point raised by Paul-André Linteau, underlines the fact that municipal governments constituted the main source of public spending in Canada until 1929 (Linteau 1992). Urban development was clearly regulated by municipal authorities. In this respect, a better understanding of Montreal's housing tradition should assume the presence of a resilient housing strategy developed locally. Finally, the local building tradition was supported by the local population, whether old families or newcomers whether from the countryside or from overseas. As housing development was a private initiative loosely controlled by the municipal authority, it should be expected that tradition and innovation was mainly a private choice made by the small investors, builders and landowners of Montreal. The challenge, therefore, is to look at Montreal's astonishingly enduring building tradition, rather than focus on occasional but rare interruptions or departures. The real question is how has this building tradition kept going for over two centuries?

1.5 Remarks for Further Research on Housing

This critical introduction to the methodological and epistemological problems raised by the research proposal are not specific to Montreal. The following remarks are intended primarily as warnings and suggestions to researchers interested in housing studies, morphological analysis and historical urban studies anywhere.

Municipal records, census and housing studies provide a snapshot with the data describing some characteristics of the housing stock. When exploring the same topic – housing – in the same place and at the same time, cross comparisons of information are difficult because of the nominal goals of these records. The criteria and the definitions used by the different sources are different. Municipal data recorded fire hazard potential and later building value as a reference to the assessment roll and the potential fiscal revenue. Federal censuses, in theory more concerned with a description of the living conditions or level of development, turn out to be fairly irrelevant because of the inadequate criteria used to reflect the real housing stock. Finally housing studies offered,

partially, the most reliable information based on extensive surveys. However the political framework of urban reform hijacked the objective results of the survey for the benefit of specific urban renewal proposals. Thus the studies reflect mainly the ideological choices of the authors. Therefore, any reference and use of these sources should be made with an awareness of the initial purpose of the records and the ideological discourse of the authors responsible for the survey.

It seems also imperative to establish definitions for tenure, residential typology, and building settings to avoid the confusion in most recent databases. Not that such characteristics fully measure living conditions, but the distinction of the three parameters should prevent the syllogism of affiliating density, tenure, setting and housing quality. Tenure describes the type of contract binding households to their dwellings. In Montreal, tenure is today mainly divided between tenants and owners - exclusive or through the co-property procedure. There is also a marginal ratio of co-operative housing ownership and social housing tenancy.

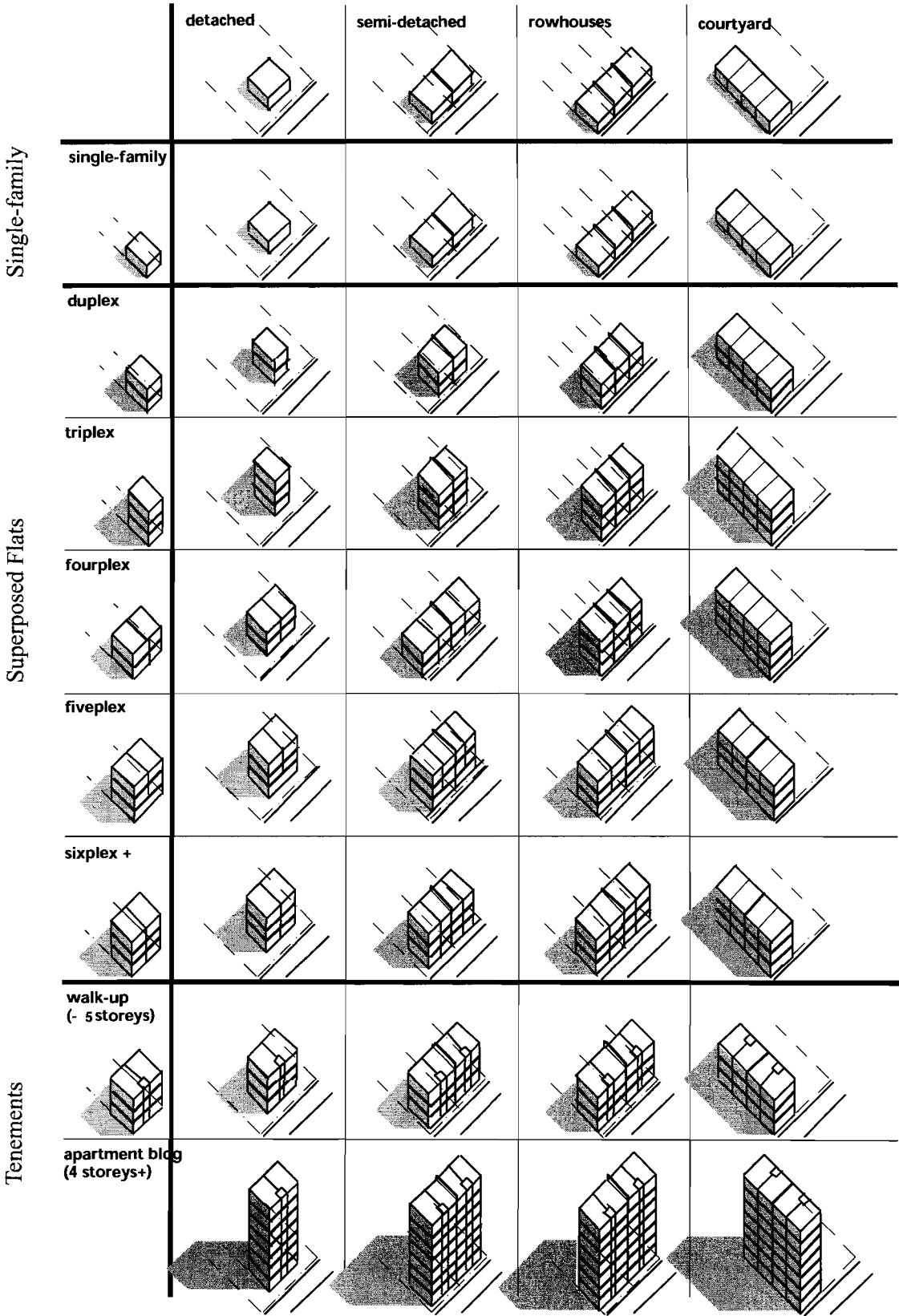
Residential typology, in Montreal, defines a building type by the number of units in one building over one plot and the dwelling's, type of access to the street. The three main groups are single-family house, superposed flats of the plex type and apartment buildings. The flats group could be subdivided in five main sub-groups: duplex, triplex, fourplex, fiveplex and sixplex. Superposed flats in Montreal, known as "plexes", usually provide for each dwelling to have an individual door opening directly to the street and another to the courtyard. The apartment building or tenements are defined by the number of dwellings, usually above eight units, where each dwelling is connected to the exterior through a communal entrance, hall and staircase leading to the street. The apartment building could be sorted in two categories of less than five storeys and more than four storeys. The difference is originally related to fire prevention as lower buildings can be built with a wooden structure, while taller ones have to be incombustible and serviced by an elevator.

The building setting describes the relationship between one construction and the neighbouring properties. The fourfold criteria set off detached, semi-detached, in row or terrace, and on courtyards. The reduction of lateral setbacks conceptually presents an increase of land coverage and potential density. The three criteria do not precisely measure the living conditions, but they constitute typical bylaw requirements governing the building type, its setting and volume (Figure 1.3).

The morphological analysis considers the different scales composing the built environment and takes into account the impact of decisions taken at one scale over the other ones. These design decisions, from the land subdivision down to the dwelling layouts are in the hands of different professionals and authorized by autonomous administrative authorities. The attempt to reunite these contrasting scales of decisions raises two difficulties. First the access to the information is restricted by cost or legal considerations. Second the unexpected complexity of the decision process is ultimately defined by a multitude of individual and private choices which prevent general rules and standard norms.

The introduction of Geographical Information Systems (GIS) for the mapping of the information at different scales opens a new field of research and experimentation. The current results presented in chapter 4 used earlier software developed at Uqàm in 1995. The city of Montreal uses a MapInfo database and cartographic system. Since 1999, under the responsibility of Sherry Olson, McGill University Department of Geography implemented a new project integrating historical maps and databases: "Montréal l'Avenir du Passé". The recent and dramatic improvements in the technology points toward the use of GIS as a flexible strategy to gather and process cartographic and information sources.

Figure 1.3: Residential Typology and Building Setting



A final remark addresses more specifically the theoretical framework of housing studies. It should be considered first that the prevalence of one housing strategy in terms of tenure, investment return, leasing conditions and building typology, is the result of a consistent system of rational decisions linking them. The comparative exercise between cities' housing markets should not seek to support or condemn one typology, or tenure, against the others, but look to understand the fundamental economic, social and cultural choices backing one housing strategy. In this respect, the macro-economic urban growth is stimulated in a colonial context by exterior demand or inputs, and the micro-economic urban development, in which is found housing, remains a local decision. Changes in the housing tradition are bound to the changing dynamic between these two worlds.

In this regard, it became important to explore further the origins of Montreal's housing tradition to review the framework and assumptions behind their characteristics. The different explanations of the importance of rental tenure and multi-family building raised contradictions between geographers', historians' and planners' studies, notably in the relationship between local practice and other cities. Can we compare or link Montreal's housing strategy with other cities in North America or Europe? Second, as the origins of both criteria preceded the industrial revolution, can we trace the potential influences supporting the building evolution? Do Montreal's superposed flats derive from one example or are they at the crossroads of different housing traditions?

The fact that Montreal's housing tradition does not fit pattern-book models and standard figures of North American urban housing is a clue of the peculiar compromise behind its development. The next two chapters develop two new hypotheses on the origins of Montreal's housing tradition; the sustaining historical conditions behind rental tenure and multi-family dwelling, and the influences over the evolution of the built form.

CHAPTER 2

TENURE AND TYPOLOGY: A NEW HYPOTHESIS ON MONTREAL'S HOUSING TRADITION

2.1 Urban Housing: The Unsolved Issues

"The characteristics of housing tenure in Montreal.... You will find that, to your despair and mine, I still do not have the answers to these phenomena. Even worse, I will try to show that the problem is still the fundamental one of getting some very basic data and asking the right questions" (Choko 1987).

The main issue addressed in this chapter is the link between the historical conditions that supported the development of rental tenancy and flatted or tenement buildings. The discussion is two-fold as it raises, firstly, the question of the origin of both rental tenancy and tenement structure, and secondly, the evolution of these supporting requirements on housing production.

There is no definitive answer in the current literature on Montreal's housing preferences for rental tenancy and multi-family dwellings or what we have referred to as Montreal's rich tradition of medium-density housing. It appears that past historical research was often too limited time-wise to foresee the continuity of both aspects across conventional study periods¹⁰. For instance, historians inquiring of the eighteenth century housing conditions in Montreal or Quebec City, unaware of nineteenth and twentieth century conditions, were unable to link them (Desloges 1991; Stewart 1998). Social and economic studies were also narrowly bound to developmental models supporting modern policies. Montreal's urban tradition contradicts the late 20th century bias for home-ownership and single-family houses and this negatively biased most studies against Montreal. In this regard, the conventional contrast of Montreal's rental and flats situation to Toronto's home-ownership and single-family cottage environment is revealing. This chapter intends to follow the two paths suggested by Choko's article: a comparative

discussion of Montreal's housing conditions, and an exploration of the reasons supporting the supply of rental tenure and superposed flats.

Martin J. Daunton's article on cities of homes and of tenements offers four examples of housing traditions that are compared, and the discussion is supplemented here with data on Montreal and Toronto (Daunton 1988). It must be underlined that most historical narratives on the development of Montreal, or Canada as a matter of fact, are tempted by the heroic description of the local forces and players forging a new world. At the same time, research data-based explanations of the economic, social and political evolution clearly highlight the links between local development and the colonial interests of a dominating foreign power. Thus, the fate of Montreal's expansion reflects a balance between the local concerns and the exterior expectations; within that framework, housing strategies were only possible when fitting this dual agenda.

This same argument can be extended with the inclusion of the supply side of rental tenure and flats. Choko argued that traditional explanations for the prevalence of rental tenure and flats have centred on the "demand" side of the equation, and implicitly on why Montreal households were not property owners and living in single-family houses¹¹. The account of rapid urban expansion, low wages and poverty do not support the "preference" for rental tenure and flats as a defective demand for home-ownership and houses. Other arguments on the supply side, such as transportation and land availability do not seem to have the expected impact on tenure and typology one would assume. The evolution of housing price, access to credit, scale of development and old investment, cultural factors, especially when applied to the legal and regulatory framework seem to hold much more promise. The different arguments point to the competitive offer from rental tenancy as reason for Montrealers' love of flats.

The reading of these arguments and the comparative structure opens the debate rather than closes it with final answers, but as proposed by Choko, this provides a new set of questions and hypotheses which might be heading more in the right direction.

On Montreal's housing tenure, all authors agree in defining the prevalence of rental tenure at over more than 80% of the housing market after 1860 (Lewis 1986). This proportion remained unchallenged until the 1960s. The rate of home-ownership was therefore limited to about 15 to 20% of households. The conventional explanation for the development of rental tenure and multi-family building linked both phenomena with the industrial revolution starting in the 1850s.

Initially, Lewis' and Herzog's article inquiring into social class distribution of home-ownership was able to identify this rate of tenants and owners between different trades for 1847, 1861 and 1881 via water tax records (Hertzog 1985)¹². A second paper by Lewis, comparing the census figures of 1842 with the 1847 water tax records, provided challenging new figures on the number of households, houses and the ratios between tenants and owners.

Lewis first noted that as early as 1842, the home-ownership rate in a largely pre-industrial Montreal was comparable to the level of 1861 when the industrial revolution had already been under way for about a decade. The 1842 data confirmed the ratio of home-ownership by trade and their location as found in 1847. One found more homeowners in the suburbs where a poorer population was living. The city centre sheltered mainly the more affluent classes of merchants, professionals and skilled labour, which were mostly tenants. The data also found that about 26% of the houses had more than one dwelling, which counted for about 48% of the dwellings. Rental tenure was bound to an economic model preceding the industrial revolution. The ratio of home-ownership, or conversely rental-tenure, was not a direct measure of the standard of life, quality of housing and social status, as Lewis and Hertzog initially trusted¹³. The production of multi-family housing structures also clearly preceded the industrial revolution.

Therefore, the common hypothesis linking the origins of rental tenure and tenement structure with industrial development can no longer be supported. Furthermore, the British origin of industrial manufacturing, which led one to believe that both the

tenure mode and building type were also foreign – or colonial – imports to North America needs to be revised.

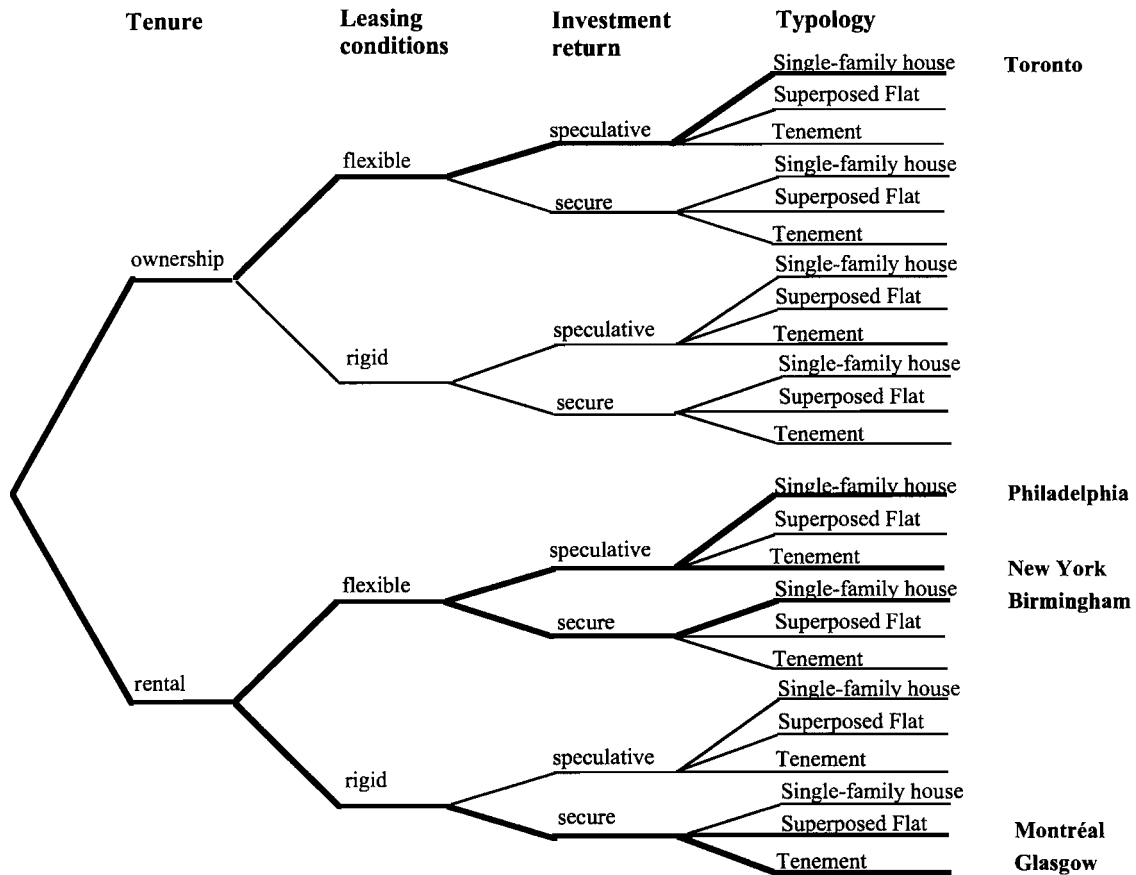
In fact, the combination of rental tenure and the tenement building type were commonly found in certain cities of Britain (e.g. Glasgow) and the United States (e.g. New-York). Similarly, the dominance of rental tenure through single-family houses can be found historically in certain cities as Birmingham, Philadelphia, or Toronto. Home-ownership would come later. The morphological changes revealed that Montreal's housing tradition was extremely conscious of new building technology or fashionable architectural details (Auger 1997) (Benoît 1991). The dialogue between local and specific conditions, on the one hand, and broader forces and larger exchanges, on the other, constituted the typical staple of colonial development. Such a perspective opens the possibility for a new hypothesis on the nature of the development model established in Montreal.

2.2 Cities of Homes, Cities of Flats and Cities of Tenements

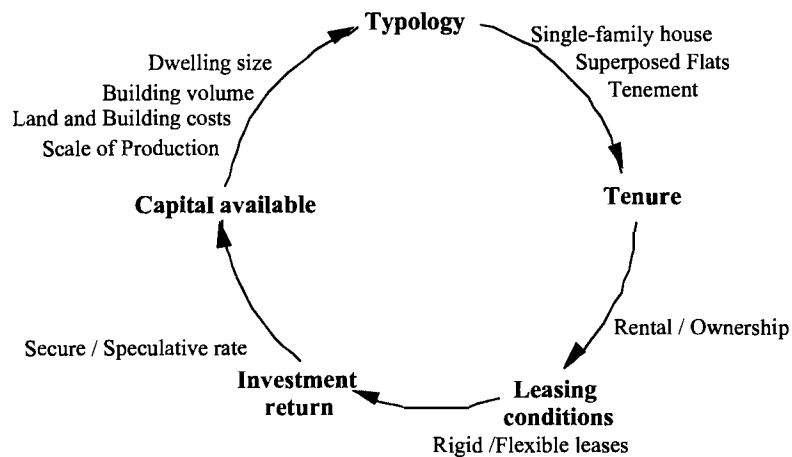
Daunton's research expected that a building's typology – namely the tenements – would lead to a typical set of economic constraints and legal rules framing the landlord-tenant relationship. His main finding was that such a scenario was unpredictable when based only on the building typology. Tenant and landlord relationships were bound to four main factors within an urban housing strategy: tenure mode, leasing conditions, investment return, and lastly, building typology (Figure 2.1). The tenure could be rental or home-ownership. The leasing conditions were tributary of the operational flexibility of a rental contract: its length, the payment schedule, the delay in ending the contract, and the arbitration process between tenants and landlords. Housing suppliers could seek modest to steady returns on their investment or target large speculative profits. Building typology was divided in three main categories according to the increasing order of the number of dwellings: the single-family house, the collection of superposed flats (2 to 7 dwellings), and tenement structures containing a large number of dwellings (8 and more).

Figure 2.1: Housing Strategy

A. The Four criteria structuring residential development strategy



B. Conceptual diagram of the relationships between the sustaining conditions in housing development



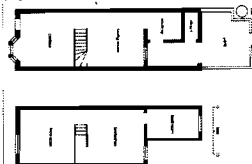
The combination of these four factors (tenure, leasing conditions, investment return, and typology) did not lead to environmental determinism as urban reformers often claimed where the single-family home-ownership would secure family life, and the rental of dwellings in a tenement would lead to unhappiness and moral decline within society. It described the housing development rules within the local economy, and therefore managed the city dwellers' and investors' expectations regarding housing tenure, cost, building type and legal protection.

Daunton compared four cities at the end of the 19th century, two British –Glasgow and Birmingham–, two American –New York and Philadelphia. Glasgow and New York were cities of tenements; Birmingham and Philadelphia were cities of single-family row houses. The four parameters are related to different decision levels which are related in providing the sustaining conditions of a housing strategy. The tree-like graph presents these relationships leading to a potential range of housing strategy structures. Daunton's four examples, with Montreal and Toronto added in, each follow a specific path combining the four parameters in different ways (Figure 2.2). The description of the different strategies summarised by the conceptual diagram sets Montreal's apparently peculiar urban housing tradition of high rental tenure and flats as a halfway option between the five other examples (see Figure 2.1).

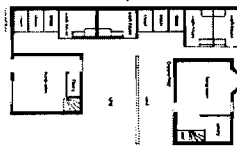
Tenure and typology are not bound to a political state as the four British and American cities all present contrasting strategies. They seem rather to be subject to a regional legal framework, within English and Scottish laws in the United Kingdom and each individual state's legislation in the United States. Thus in Canada, the differences between Montreal, located in the province of Quebec, and Toronto, located in Ontario, can be traced to the understandably different legal traditions found in each city and province regarding civil matters.

Figure 2.2: Comparative Building Typology,

Birmingham: single-family type, rental, secure investment, lease flexibility

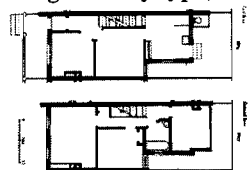


• 14 feet wide rowhouse, ground, first floor plans
Source: M. Dauntton, Birmingham Archives, Building 6037; Building 819



• 14 feet wide rowhouse + backhouse, ground, first floor plans

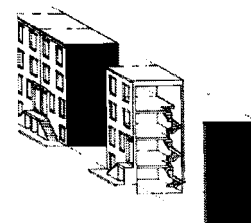
Philadelphia: single-family type, rental, speculative investment, lease flexibility



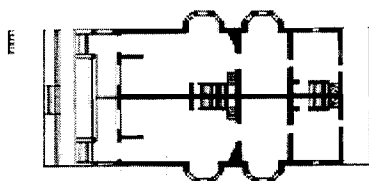
• 16 feet wide rowhouse, ground, first floor plans
Source: M. Dauntton, from "One Million People in Small Houses"



• 14 feet wide rowhouse + backhouse, ground, first floor plans



Toronto: single-family type, ownership, speculative investment, lease flexibility

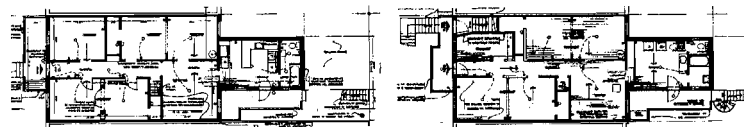


16 feet wide semi-detached houses, ground floor plans



Source: S. Holl, Rural & Urban House Types in North America

Montréal: superposed flats type, rental, secure investment, lease rigidity

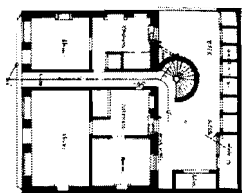


25 feet wide triplex, in row, ground and first floor plans

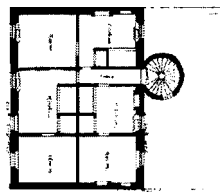
Source: F. Dufaux, CDH Architectes, Montréal



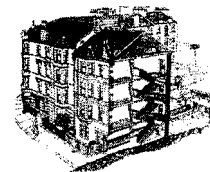
Glasgow: tenement type, rental, secure investment, lease rigidity



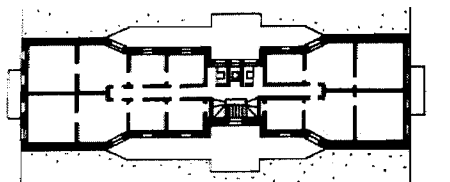
36 feet wide tenements, in row, ground and first floor plans



Source: F. Dufaux, Strathclyde Library, Glasgow

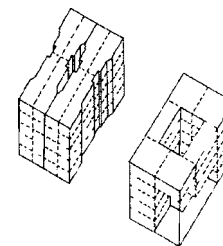


New York: tenement type, rental, speculative investment, lease flexibility



25 feet wide tenements, in row, typical floor plans

Source: M. Dauntton, from "Hidden Social Agendas and Housing Standards"



scale 1:500

Rental tenure was a common prevalent feature in the nineteenth century on both sides of the Atlantic. Montreal's tenancy rate of 85% was not especially high, even when compared to Philadelphia, a city of rowhouses, where it was 79%. One should notice that the building typology played a structural role. A single-family house is normally owned by only one family, though it may also be rented. In a Montreal duplex, triplex or fourplex, only one of the 2, 3 or 4 families could be the property owner. Larger tenements in New York or Glasgow limited the direct ownership to one in every eight families or more. The fact that larger housing structures were well adapted to corporate ownership and management fit the description of the Glasgow and New York examples. This was also the case in continental Europe, notably in France, where Haussmann's rebuilding of Paris is presented as the first chapter of the nineteenth century development of French capitalism. Rental tenure dominated the housing markets (80%) of Montreal and Quebec City, and remained relatively stable between 1861 and 1961. Toronto shared a similar rental rate in 1862, but the rental tenure rate decreased from then onwards (about 70% between 1871 to 1901, 45% in 1921, 60% in 1941, and 40% in 1961). The decrease from 72% to 52% between 1899 and 1914 is attributed to the comparatively cheaper cost of buying property as compared to renting (Harris 1987). This pattern of decreasing rental tenure was found in many growing North American cities prior to 1940.

In the nineteenth century, the appeal of real estate ownership resided in the potential rental income, rather than the propriety of one household to own its dwelling. Thus in Philadelphia, we observe that the working class home-owners did not hesitate to rent out their rowhouses and themselves rent elsewhere resulting in a low owner-occupant rate. In Birmingham, rental income guaranteed a secure sideline revenue to industrialist landlords. In Glasgow, tenements brought modest and steady income to an old gentry and trusts by "benevolently" supporting these two less economically dynamic sections of the urban population. New York's speculative real estate market only made sense because it benefited a large spectrum of "dealers" from the landowners down to tenants subletting a room. The situation in Montreal and Quebec City appears similar to that in Glasgow, as described earlier, where income could be raised from land through the seigniorial fees until 1842 and 1854, and from dwellings with a lease. It is interesting to

notice that Toronto, despite its higher level of home-ownership and home occupation, did not completely escape such a rationale. Harris estimated that, between 1900 and 1940, single-family houses would include a large proportion of boarders and families doubling-up in order to raise income and pay expenses, thereby hiding a large tenant population in a seemingly single-family home landscape (Harris 1987).

The return on investment patterns differ somewhat between British and American cities. Birmingham and Glasgow presented cases where housing was rented aiming at a steady but modest rate of return. New York and Philadelphia, on the other hand, both supported a speculative process in the real estate operation. In New York, the scheme was engineered into a rental pyramid made-up of the landlord, the building owner, the sub-landlord, and even the tenants themselves, each extracting rent from the same building. In Philadelphia, the speculative benefit was peculiar to the housing development and sales. In New York, one could believe that the speculative spin was linked to the limited land supply on Manhattan Island, and to the higher construction costs implied by larger tenement buildings. It appears that the speculative dynamic is less a rational consequence than an economic development model.

In Montreal and Quebec City, from the early colonial period onwards, secure and steady income was associated with real estate investment. The Toronto example, on the other hand, shows a surge in home-ownership only after 1900. This occurred while rents increased dramatically – in a speculative manner – following an extremely rapid expansion period¹⁴. Richard Dennis mentioned the landlord's concerted strategy to keep rents high (Dennis 1987). At the same time, suburban development of single-family houses by developers or self-built by home-owners, was made possible by speculative capital invested from Britain looking for a quick return on land development and house sales (Harris 1987).

Land value is only partially a natural constraint, as in Manhattan. Land ownership seems to have a more significant role over price control. In both Glasgow and New York, the traditional gentry and "nouveau riche" controlled suburban land outside of the

eighteenth century town. In both cases they made a point of securing income through high land values which translated into a fixed feudal annuity in Glasgow or a ground rent in New York. Conversely, Birmingham presented the case of the extension of freehold property and diffused ownership. This suited a freer market where prices reflected supply and demand, which could explain the lower cost of land. Ground rents appeared to be common features in Glasgow, New York, Philadelphia, and many other North American cities. Land value affected the ground rent level, which influenced the building typology. It did not, however, imply speculative urban development.

Ground rent and other feudal annuities were also found in Quebec City and Montreal. The feudal annuities were attacked in the first half of the 19th century in Quebec. It was denounced as part of an obsolete and regressive constraint on speculative development. This attack took an ethnic connotation, as it was an obvious legacy of the French regime where fees accrued to an old landed gentry or the Roman Catholic clergy, whereas the abolitionist forces were drawn from the British element of the population. The system was, in fact, gradually abolished first in Montreal after 1842, where the pressure was the greatest, then across Lower-Canada in 1854 (Young 1986). Louise Dechêne demonstrated how in Quebec City's St-Roch ward, the ground rent extracted from the seigniorial duties and fees offered a secure income which attracted both French and British Canadian middle-class investors until the 1850s. Dechêne calculated a gross return of 10% on urban land in the first half of the nineteenth century, which she considered inferior to the return from dwelling rents. In 1845, the Saint-Roch ward was razed by fire and landlords had to postpone the annuities for five years in order to leave dwellers time to rebuild their properties. The end of the seigniorial regime in 1854 reduced and closed the potential investment return from granted land.

Daunton defined the leasing flexibility by considering both the lease length – which would also include the rent cost – and the notice period to end or renew the tenant's contract. Birmingham worked on short weekly leases and notice. Philadelphia offered both short and annual leases but allowed short notices. New York favoured annual leases and a yearly rent increase, but opened the door for breaking contracts

within a five-day notice period. Glasgow presented the least flexible conditions with a fixed annual lease, a general moving day on May 28 and a four-month notice period. The leasing conditions did not determine the return on the investment or the rent level. The shorter leases appeared to be easier to manage in a predominantly single-family structures environment, such as those found in Birmingham and Philadelphia. Longer leases were better adapted to tenements and to the management structure of factors (Glasgow) or sub-landlords (New York). The apparent rigidity of Glasgow tenancy was also found in Montreal. The annual lease was the rule with a fixed renewal day on May first, which became the annual moving day. Notices for the lease renewal or termination were three months. Such conditions are consistent in both cities, which sought the stability associated with rental investments.

How were tenure, investment return, and leasing conditions supportive and suited to each city's main housing typology? Dauntton's four examples around 1900 are either in the lowest or highest of housing densities. New York and Glasgow were mainly composed of tenements; while Philadelphia and Birmingham were predominantly composed of single-family rowhouses. Montreal's flats were of the intermediate kind, housing between two to six dwellings.

Rental tenure is not bound to a specific typology. Home-ownership and home occupation, are two middle-class concerns primarily of the 20th century. It may be easier to apply in single-family houses but it is also possible in an apartment building with condominium ownership. It is interesting to notice the introduction of this type of ownership for flats in Paris after 1900 with the return of its middle-classes to the city centre (Eleb, Debarre, 1995). In the Anglo-Saxon world, the single-family house became the political hallmark of increased home-ownership and occupation in the twentieth century. However, condominium ownership became legal after the 1960s in North America as affluent urban households supported a new demand for privately-owned residential flats and apartments.

Speculative real estate, which developed or secured modest returns, was also blind to the building typology. It could manage similar goals with opposite densities as found, on the one hand, in New York and Philadelphia, and on the other, in Glasgow and Birmingham. However, the financial and economic structures appear to be more decisive factors. The single-family houses were prevalent where land was cheap, abundant and where land ownership was diffused. Tenements were found where land was scarce, more expansive and controlled by fewer players. Heavy stone masonry construction and the size of a builder's operation were invoked in Glasgow as secondary reasons for high tenement costs. On the other hand, the very large ratio of small dwellings and the non-speculative rents could have compensated for the relative higher land and building costs (see Figure 2.2).

The combination of tenure, investment return and leasing conditions supported and required a specific building typology in order to make housing development profitable considering each city's – society's – expectations. The comparison between four different real estate strategies only demonstrates how important fine-tuning was between the different parameters sustaining urban housing. In Canada, the differences between Montreal and Toronto seem comparable to Glasgow and Philadelphia with opposite building typology and goals on investment returns (see Figure 2.1).

In Montreal, the importance of the superposed flats structure is clearly bound to the web of legal, economic and social concerns¹⁵. Since the colonial period, real estate through land and building property was one of the few opportunities for local capital investment. This modest, but safe, income was framed by legal and leasing conditions. However, the building typology changed gradually during the nineteenth century. The increased density may have been fuelled by increased land value or better rental prospects.

At this point, the explanations are conjectural. It is possible that the seigniorial system had favoured increased land value in order to upgrade the assessment of feudal annuity. Robert Sweeney argued that in the 1840s land was expensive, which made higher density the best way to cope with land cost (Sweeney 1995). On the other hand, he observed that the development of neighbouring plots showed extreme variation in density and building value.

The conventional attack on the seigniorial system argued that it had a regressive impact on speculative capitalism. Ground rent disappeared with the abolition of the seigniorial system between 1842 and 1854. Did land costs decrease or did the landlords' profit margin increase?

Rental prospects may offer a more complete explanation. Following Dechêne's description of Saint-Roch, it appears that property rental became the only option to derive real estate income due to the termination of the seigniorial regime. This could have been an incentive to switch investment from land sales, with the feudal fees and ensuing mortgage toward building rental property including multiple dwellings. This structural change in the economic system, combined with the prescriptive building material requirements and a massive need for dwellings in Montreal after the fire of 1852, encouraged the construction of the multi-family residential structures. The choice of superposed flats of two to six dwellings, rather than larger structures as in New York or Glasgow, can be explained by the small-scale builder operations and limited capital availability, as described by Hanna (Hanna 1986). Furthermore, despite rapidly growing demand, a combination of the relatively non-speculative nature of real estate investment return and diffused land ownership, all conspired to keep housing cost down and prevent the profitable construction of high-density tenements. Such a housing typology, defined in Montreal as an apartment building, did indeed appear around 1900 in well-to-do districts, imitating the middle-class urban flats of New York, Boston and London (Choko 1994).

The supply explanation of rental tenure and tenement dwellings has the benefit of looking at the interests of small and large capitalists, who controlled segments of the city's economic base. It is surprising to consider how much effort has gone into the study of the demand side of housing with the parallel assumption of a powerless and exploited working class, whether of skilled or unskilled labour. How could they exert such powerful housing typology choices considering their deprived conditions? This could be one of the misleading questions suggested by Marc Choko. The next two sections address the issue of rental tenure and building typology in an attempt to trace the origin of both characteristics.

2.3 The Legacy of the French Regime

In the essay "Quebec, a city of tenants", Desloges found a majority ratio of between 60 to 70% of tenants at the end of the French Regime in the 1750s were city dwellers. In Montreal the proportion was estimated to be between 30% to 35% (Dechêne 1974), (Desloges 1991; Massicotte 1999). In Quebec City, the demand for rental premises fluctuated with economic activity. The two peak periods, in terms of the number of lease contracts at the beginning and at the middle of the eighteenth century, experienced a period of rapid urban growth. New city dwellers preferred to commit themselves to a lease rather than buying or building a property. This choice was found across the social classes, from military officers down to the unskilled labour hired in shipbuilding after 1744. The rather limited and slow urban growth of Montreal during that same period explains the lesser share of rental tenure in the housing market.

Among building owners, historians repeatedly found a large ratio of widows and craftsmen from the building trades (Desloges 1991; Lambert 1992; Stewart 1998; Dechêne 1974)¹⁶. In Quebec City, the real-estate ownership class was further reduced by having less than 20% of the owners holding more than a house, and in Montreal the case was considered inconsequential (Dechêne 1974)¹⁷. The leases mainly describe the renting

of houses or apartments, with only 10 to 20% of them including workshops or spaces associated with trades, suggesting that tenants were not self-employed.

Rental tenure was found in Quebec City and Montreal during the French Regime even though these towns had only a small population of a few thousand souls. Real estate was not a speculative venture as the return on the investment, and, therefore, rent levels were framed by the same rules governing land feudal annuity covering all real estate properties. With the sale of a piece of land, built or not, a double contract was written including one bill of sale and one mortgage set at an interest rate of 5% including the payment of capital in rate of 100 or 200 £fr¹⁸. It was fairly common that a landowner paid only the interest, postponing the payment of the initial capital. Religious communities set-up a strategy of "double-annuities" combining seigniorial duties to a mortgage on sold land that could not be purchased. This would be a kind of open leasehold, insuring a steady income¹⁹. Stewart described the example of the Montreal's Hôtel-Dieu erecting houses across from the hospital in 1695, which was anticipated to have raised an annual income of 300£fr on an estimated value of 6000£fr, thus providing a 5% return. This modest fare was itself ruled by the canonical law preventing usurious rates. Desloges found comparable rates in Quebec City and these are similar to those found in Rouen, France, during the same period (Desloges 1991; Bardet 1983).

It seems possible to find an overall common economic rationale between the expectation of investment returns in urban properties and the seigniorial system established for the colonial settlement. Both aimed at a modest interest rate, but also at securing a long-term steady income. In both cases, the sale of property outside kinship required the payment of a tax "lods et vente" of 12% of the transaction value. This measure directly affected the potential speculative benefit, while growing income rose from having a better developed property – either from rental income in town, or agricultural production in the countryside – and was subject to a nominal annual feudal duty. Desloges did not estimate the ratio of urban properties in Quebec City which would still pay a mortgage as part of the double contract. However, a likely hypothesis would be that most city dwellers, as either tenants or landowner, paid some sort of yearly annuity

through their rent, their mortgage and the feudal annuity. This system of mutual trust and limited financial commitment was bound to a low-capital economy which was described for a much later period by David Hanna's thesis on housing development between 1866-1880 (Hanna 1986).

The legal limitations on the speculative benefit from property sales and the modest investment return out of real estate did not attract large capital investment. Merchants in Quebec City or Montreal would rather invest in the colonial export trade where returns were clearly greater. Louise Dechêne underlined how the conquest did not much affect this outlook. Merchants were part of a transatlantic trade network who locally translated the economic dynamism of the colonial metropolis. On the other hand, the settlers "*who would incidentally join the mercantile plans*" followed a development pattern "*of successive waves opening new land*" based "*on the demographic growth supported by strong moral and material family bonds*" (Dechêne 1974). Dechêne concluded with the definition of two distinctive social groups: that of the merchants linked to colonial capitalism, and those of the settlers bound to their community development. For the latter, real estate became the natural means of increasing income and capital. This explanation is partly confirmed by Robert Sweeney on Montreal's real estate development in the 1840s, where the author considered this economic sector as the first accessible opportunity for capital formation for an urban population normally excluded from colonial trade (Sweeney 1995).

In Montreal, rental tenure became prevalent after 1815, when colonial trade and immigration greatly increased due to the Napoleonic wars. It is estimated that by 1825, 70% of city households were tenants. The need for rental properties increased largely with the rise of British immigration.

The main observations on the rental tenure in the urban context are fourfold. First, the pattern of extracting income from real estate was bound to the colonial development pattern of the French Regime. In town, it came from the sale of land and the ensuing mortgage or through the leasing of property, mainly houses and flats.

Second, the interest rate remained modest and partly ruled by religious covenants – the canonical law, which prevented speculative real estate operations. This had a dual economic impact, affecting two segments of the colonial population. It favoured secure and steady income for the local settlers short of capital, and it prevented large amounts of capital from being invested locally in housing; keeping it preserved, instead, for mercantile colonial operations.

Thirdly, the British conquest did not affect this development model, either in terms of the rental tenure in town or the seigniorial system in the countryside. Louise Dechêne noted "*in changing colonial power, in substituting one class of merchant by another, Canada did not escape from its contradictions.*" It meant the gradual replacement of the merchant class, from French to British and then American-born subjects connected to commercial networks in Great Britain. This group was not initially concerned with the modest venture in the local economy. Their interest in local real estate opportunities developed after accumulating capital from colonial trade. In the late eighteenth century, many English-speaking fur trade merchants secured seigniorial properties and titles in the countryside. Later in Montreal, a new middle-class, largely English-speaking, would request the abolition of the same seigniorial system. The contentious issue concerned seigniorial duties affecting real estate transactions. They argued that it would impair the potential speculative benefit of this new economic activity, challenging the traditional settlement development model.

Finally, the growing importance of rental-tenure was not strictly speaking a cultural choice. It was rather an economic strategy by marginal investors tapping the rapid rates of economic development and demographic growth within the framework of tradition and legal constraints. Rental tenure increased in the eighteenth century in Quebec City following the development of shipbuilding and the arrival of French state and military personnel. Similarly, in Montreal, growing trade and immigration after 1815 translated into the development by marginal investors of rental premises to shelter short-term immigrants and a new swelling permanent population of city-dwellers, from artisans to merchants.

2.4 An Emerging Housing Typology: Quebec and Montreal during the Eighteenth Century

As mentioned earlier, Lewis estimated that in 1842 about 26% of the houses in Montreal had more than one dwelling, which represented 48% of the city's dwellings. These figures suggest that multi-family buildings existed before the industrial revolution while only a slight majority of dwelling units were single-family occupied.

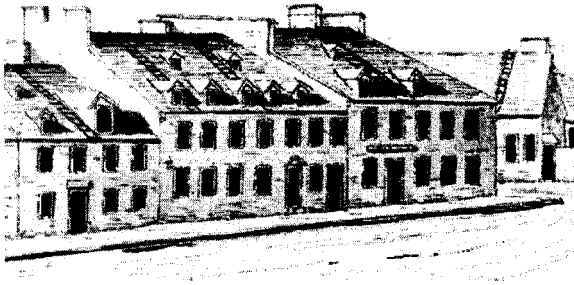
The following definitions derive from modern planning regulation. The single-family house is defined as one dwelling set in one exclusively residential building typically built on one lot, defining one legal property. Multi-family housing covers all cases where more than one dwelling, within one residential or mixed residential-commercial building, are typically built over one lot defining one legal property. The legal dimension is bound to the surveying of the cadastral subdivision as well as in the definition of the property's title. The spatial dimension is defined by the number of dwellings found on the same property. These two variables are disconnected from the tenure mode. The definition of a property title does not infer any information about the dweller's status as shared-ownership tenants or exclusive homeowner. For many years, these legal and spatial variables guided the data gathering of the different censuses. It was important to define the number of buildings – or properties – and the number of dwellings without describing precisely their distribution in building types.

The definition of typological classes along the number of dwellings is a much more entangled issue than the tenure mode. Historical records were less concerned by the number of dwellings per house than by the building materials, which would convey more information on the quality of construction, the property value, the building size and the fire resistance - a recurrent urban fear until the twentieth century. On the other hand, historians dissecting notarial contracts -for a building's erection or for a property's sale or lease – seemed unable to extract typological information. It is likely that researchers assumed that urban dwellers were living in single-family homes in the early colonial period. This case of conceptual blindness partly derives from the contemporary bias for

the single-family house, and conversely, from the belief that multi-family housing was the negative result of the industrial revolution. It could also arise from a somewhat romanticised view of 18th century cities as little more than big villages. Both Desloges on Quebec City and Stewart on Montreal, in the eighteenth century conducted extensive archival research but came up short on describing the housing structure and building types. Typically, Desloges commented how incongruous it was that city dwellers would seek housing in the most jammed part of Quebec City's lower town, while so much space was available in the upper town in an ideal pre-suburban setting.

Desloges's inventory of leases in Quebec City during the French Regime showed, however, that as the city became denser, the share of rented flats within a house rose to equal that of rented single-family houses. The share of multi-family housing structures therefore grew between 1690 and 1759. Anne Vallières's masters thesis on the evolution of the building type in Quebec City's historical centre, compiling morphological information from the many studies done until now, highlighted how multi-family housing structures were simply ignored by architectural historians (Vallières 1999). The identification of the ideal conceptual type assumed a single-family occupation despite evidence from notarial contracts of dwelling leases confirming a certain level of premise-sharing among households. Desloges found in leases an average number of rooms occupied by homeowners (from 2.6 to 4.2 rooms) larger than tenants (1.5 to 2.3 rooms) in different parts of the town. However, he did not consider the average number of rooms in houses or dwelling leases. He only noticed that the division of dwellings was more vertical than horizontal. Dwellings would be piled up in rows within one building rather than stacked one atop each other as they would be during the later era. As for Montreal, we can only state that 30% of city dwellers were tenants and we suspect from this lower figure that house-leasing was more common than rental flats (Figure 2.3).

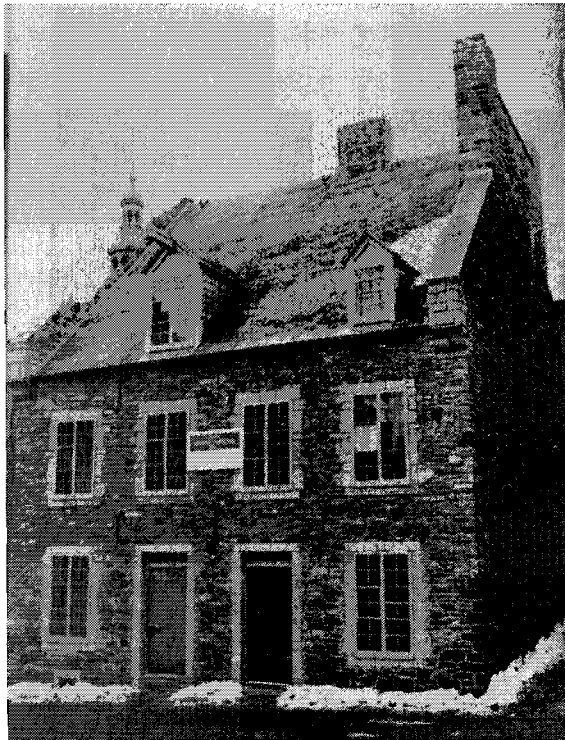
Figure 2.3: Quebec City: the Legacy of the French Regime



Côte de la Fabrique, Quebec City, 1806, detail: Note the two doors on the middle building, the left one probably serving the ground floor, the right one leading to the upper floor (Public archives of Canada)



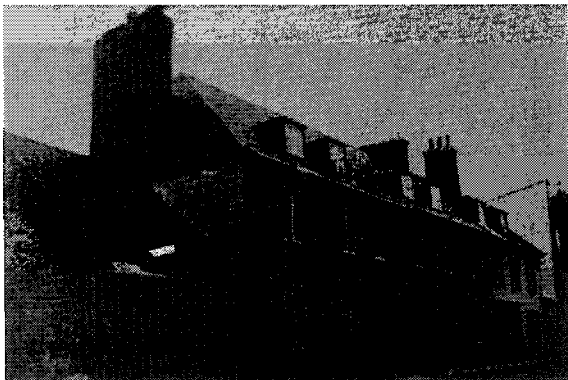
St-Jean Street, Quebec City, 1806, Two houses, each has two doors, one serving the ground floor and shop, the other the dwelling on the second floor. (Public archives of Canada)



Three houses in Quebec City presented in "Encyclopédie de la maison québécoise".

On the left, Légaré House, rue des Jardins; the two doors are serving either the shop and the dwelling, or two shops and dwelling suites, ca. 1780.

Above, rue Sainte-Famille; the original entrance door is on Ste-Famille street, now only the central window, while the wooden addition provides an extra door leading to the upstairs dwelling. Another door on the side wall serves the ground floor dwelling, probably built around 1825.



Bottom left, rue Ste-Geneviève, a four unit building in a row, two single-family houses on the left and one duplex at the right end of the building, ca. 1825. The authors underlined the British influence on the roof slope and chimney structures.

2.5 A Typology Hypothesis for 1825 Montreal

In 1825, Denis-Benjamin Viger conducted a census across the Island of Montreal. It was firstly an account of the population: the age distribution, the number and description of households and the ethnic origins. Viger also recorded the buildings according to a few distinctive criteria: the building materials (stone, wood and brick), the houses (occupied, vacant or under construction), the stores and workshops, and public buildings like churches or schools.

Viger's census divided the island territory into 3 sections: the rural parishes, the City, and the Suburbs. Notre-Dame parish included the municipal territory defined by the 1791 boundaries, which was subdivided between the urban and suburban wards. In all rural parishes and suburbs, houses represented about 90% of the buildings. Only in the City, did three wards have a larger proportion of stores and workshops.

The data are explicit about building materials. The city's buildings in the urban wards were largely built of stone as required by law since the French Regime. In the growing suburbs, one found a much larger percentage of wooden buildings. In the rural parishes, buildings were more likely to have been built of stone in older settlements and in wood in the newer ones (Figure 2.4).

However, the census did not directly make the distinction between single-family houses and multi-family buildings. Considering the hypothesis that some houses had more than one dwelling, it becomes possible to calculate the potential share of buildings with flats in Montreal around 1825. Figure 2.4 shows the average number of household members. The average in rural parishes is slightly higher (6.21) to the suburbs (5.13), while comparable to the City (6.04). The difference between the suburbs and the City imputes the presence of a servant or an apprentice in the latter. In the countryside, the difference is attributed to an extra family member. A still higher ratio was found in one central ward, Pointe-à-Callières (6.62). The Grey Nuns' convent-hospital and the large

Figure 2.4: Data from Montreal's Viger Census of 1825

A: Houses, Materials

<i>Paroisses/Parishes</i>	<i>wood</i>	<i>wood+masonry</i>	<i>brick</i>	<i>stone</i>	<i>total</i>
Longue-Pointe		90		32	122
Pointe-aux-trembles	101			36	137
Rivière-des-Prairies	52			45	97
Sault-au-Récollet	152			91	243
St-Laurent	248			93	341
Ste-Geneviève	170			47	217
Ste-Anne	55			23	78
Pointe-Claire	147	1		59	207
La Chine	114			77	191
<u>Notre-Dame</u>	<u>364</u>	<u>6</u>	<u>2</u>	<u>163</u>	<u>535</u>
total parishes	1493	7	2	666	2168
<i>faubourgs/Suburbs</i>	<i>wood</i>	<i>wood+masonry</i>	<i>brick</i>	<i>stone</i>	<i>total</i>
Ste-Marie	438		6	63	507
St-Louis	108			15	123
St-Laurent	781	2	17	145	945
St-Antoine	183		1	41	225
St-Joseph	288		10	53	351
Ste-Anne	81		27	16	124
<u>Pointe-à-Callière</u>	<u>14</u>			<u>20</u>	<u>34</u>
total suburbs	1893	2	61	353	2309
<i>la ville/the City</i>	<i>wood</i>	<i>wood+masonry</i>	<i>brick</i>	<i>stone</i>	<i>total</i>
	36	33	11	520	600
total Montreal	1929	35	72	873	2909

B: Houses, Building types and population

<i>Paroisses/Parishes</i>	<i>total houses</i>	<i>closed</i>	<i>const.</i>	<i>work shops</i>	<i>total Bldgs</i>	<i>house-holds</i>	<i>Population</i>
Longue-Pointe	122	2	1	1	126	124	791
Pointe-aux-trembles	137	7	1	1	146	146	1004
Rivière-des-Prairies	97	1		2	100	122	701
Sault-au-Récollet	243	3	3	0	249	291	1586
St-Laurent	341	24	1	4	370	361	2274
Ste-Geneviève	217	8	3	4	232	233	1405
Ste-Anne	78	4	0	2	84	83	571
Pointe-Claire	207	14	2	1	224	223	1375
La Chine	191	9	0	5	205	230	1406
<u>Notre-Dame</u>	<u>535</u>	<u>33</u>	<u>2</u>	<u>17</u>	<u>594</u>	<u>610</u>	<u>3614</u>
total parishes	2168	105	20	37	2330	2423	14727
<i>faubourgs/Suburbs</i>	<i>total houses</i>	<i>closed</i>	<i>const.</i>	<i>work shops</i>	<i>total Bldgs</i>	<i>house-holds</i>	<i>Population</i>
Ste-Marie	507	14	9	10	540	769	3670
St-Louis	123	3	8	4	138	173	875
St-Laurent	945	28	21	15	1009	1423	6645
St-Antoine	225	6	8	7	246	294	1409
St-Joseph	351	9	5	7	372	589	2764
Ste-Anne	124	2	11	13	150	222	1192
<u>Pointe-à-Callière</u>	<u>34</u>	<u>1</u>		<u>12</u>	<u>47</u>	<u>94</u>	<u>622</u>
total suburbs	2309	63	62	68	2502	3564	17177
<i>la ville/the City</i>	<i>total houses</i>	<i>closed</i>	<i>const.</i>	<i>work shops</i>	<i>total Bldgs</i>	<i>house-holds</i>	<i>Population</i>
	600	31	11	93	735	888	5363
total Montreal	2909	94	73	161	3237	4452	22540

number of recently arrived immigrants are proposed as two possible explanations (Linteau 1974).

Figure 2.5 presents the density as described by Viger where he divided the population by the number of houses. Because the number of houses is always inferior to the number of households figure, we observe two different densities between households and buildings. The density per house remains always superior to the density per household. The difference is smaller in the rural parishes (6.12 to 6.81), but much greater in the suburbs and the City wards. The average jumped from 6 to 18 persons per building where the average household counted between 5 and 6 members. The gap was the widest in the southwest wards of Pointe-à-Callières (18 persons/building), Ste-Anne (9.61 persons/building) and St-Joseph (7.87 persons/building). It is obvious that such wards had more persons per building. Does it translate literally into overcrowded dwellings, or does it signify multi-family buildings are present?

In accepting the hypothesis that for each household we find an independent dwelling, and assuming the presence of some kind of multi-family housing type, we can revise the density figures to reach a more consistent result across the census. In the rural parishes, there is an average of 1.02 to 1.20 households per house, which confirms that most buildings are single-family dwellings. In the suburbs, the average of households per houses increased between 1.31 and 1.79 and to 1.48 in the City. The Pointe-à-Callières ward reached a peak of 2.76 households per house. The building with flats hypothesis suggests that the number of household members (and thus dwellings) varied among the City, its suburbs, and the rural parishes without the dramatic shift supported by the number of persons per buildings. Desloges study on Quebec City found in 1760 that 40% of leases were for "apartments". In Montreal, notarial contracts and travellers' descriptions underlined the option of renting dwellings in "tenements"²⁰ (see Figure 2.5, section C).

Figure 2.5: Data from Montreal's Viger Census of 1825

C. Density, by houses, by dwelling, by households

<i>Paroisses/Parishes</i> <i>house</i>	<i>Houses</i> <i>house</i>	<i>Households</i>	<i>Persons/ Dwelling</i>	<i>Households/</i>	<i>Persons/</i>
Longue-Pointe	122	124	6,48	1,02	6,38
Pointe-aux-trembles	137	146	7,33	1,07	6,88
Rivière-des-Prairies	97	122	7,23	1,26	5,75
Sault-au-Récollet	243	291	6,53	1,20	5,45
St-Laurent	341	361	6,67	1,06	6,30
Ste-Geneviève	217	233	6,47	1,07	6,03
Ste-Anne	78	83	7,32	1,06	6,88
Pointe-Claire	207	223	6,64	1,08	6,17
La Chine	191	230	7,36	1,20	6,11
Notre-Dame	535	610	6,76	1,14	5,92
<i>faubourgs/Suburbs</i> <i>house</i>	<i>Houses</i> <i>house</i>	<i>Households</i>	<i>Persons/ Dwelling</i>	<i>Households/</i>	<i>Persons/</i>
Ste-Marie	507	7,10	7,24	1,52	4,77
St-Louis	123	6,89	7,11	1,41	5,06
St-Laurent	945	6,92	7,03	1,51	4,67
St-Antoine	225	6,07	6,26	1,31	4,79
St-Joseph	351	7,72	7,87	1,68	4,69
Ste-Anne	124	8,70	9,61	1,79	5,37
Pointe-à-Callière	34	13,52	18,29	2,76	6,62
<i>la ville/the City</i>	600	7,74	8,94	1,48	6,04

D. Building distribution hypothesis

<i>Paroisses/Parishes</i>	<i>Household(s)</i> <i>house</i>	<i>2 Dwllgs.+ %</i>	<i>Single-family %</i>	<i>Total houses</i>	<i>Single- family</i>	<i>2 Dwllgs+ %</i>
Longue-Pointe	1,02	1,64	98,36	122	120	2
Pointe-aux-trembles	1,07	6,57	93,43	137	128	9
Rivière-des-Prairies	1,26	25,77	74,23	97	72	25
Sault-au-Récollet	1,20	19,75	80,25	243	195	48
St-Laurent	1,06	5,87	94,13	341	321	20
Ste-Geneviève	1,07	7,37	92,63	217	201	16
Ste-Anne	1,06	6,41	93,59	78	73	5
Pointe-Claire	1,08	7,73	92,27	207	191	16
La Chine	1,20	20,42	79,58	191	152	39
<u>Notre-Dame</u>	<u>1,14</u>	<u>14,02</u>	<u>85,98</u>	<u>535</u>	<u>460</u>	<u>75</u>
Total parishes	1,12	11,56	88,44	2168	1913	255
<i>faubourgs/Suburbs</i>	<i>Household(s)</i> <i>house</i>	<i>2 Dwllgs.+ %</i>	<i>Single-family %</i>	<i>Total houses</i>	<i>Single- family</i>	<i>2 Dwllgs+ %</i>
Ste-Marie	1,517	51,68	48,32	507	245	262
St-Louis	1,407	40,65	59,35	123	73	50
St-Laurent	1,506	50,58	49,42	945	467	478
St-Antoine	1,307	30,67	69,33	225	156	69
St-Joseph	1,678	67,81	32,19	351	113	238
Ste-Anne	1,79	79,03	20,97	124	26	98
<u>Pointe-à-Callière</u>	<u>2,765</u>	<u>100</u>	<u>0</u>	<u>34</u>	<u>0</u>	<u>34</u>
Total suburbs	1,71	60,06	39,94	2309	1080	1229
<i>la ville/the City</i>	<i>Household(s)</i> <i>house</i>	<i>2 Dwllgs.+ %</i>	<i>Single-family %</i>	<i>Total houses</i>	<i>Single- family</i>	<i>2 Dwllgs+ %</i>
	1,48	48	52	600	312	288
Total Montréal	1,595	54,03	45,97	2909	1392	1517

Carrying on with the hypothesis, it becomes possible to estimate a distribution of the building types between single-family dwelling and the ones sheltering more than one dwelling. The proposal in Figure 2.5 attributes to the housing stock a maximum number of single-family units. In rural parishes, single-family houses accounted for 80 to 98% of the buildings. This result seems realistic in an agricultural economy based on family farms. The parishes, with a higher share of houses with more than one dwelling, up to 20%, have a small village nucleus surrounding the church. In Montreal's suburbs, except Pointe-à-Callière, the average ratio of single-family houses was estimated at 23% to 44% of all residential buildings. In the City wards, about two thirds of the houses would have been single-family ones. Pointe-à-Callière revealed an average of 2.76 dwellings for each of the 34 houses of the ward (see Figure 2.5, section C).

Figure 2.5 presents an estimation of the average number of units in the flat type considering the maximum possible account of single-family dwellings in each census tract. In the rural parishes the buildings with flats had an average of 2 to 2.2 dwellings. The higher average was found in parishes with a village. In the suburbs, the average was between 2.32 and 2.79 dwellings in multi-family houses. The 2.79 average in Ste-Anne ward and the 2.76 average in the adjacent Pointe-à-Callière, were also comparable. Historians consider these two wards to be the ones settled by labourers and new immigrants. In City wards, about one third of the buildings had an average of 2.48 dwellings. We are potentially looking at a situation where two-flats and three-flats houses were common (see Figure 2.5, section D).

This short processing of Denis-Benjamin Viger's data of 1825, assuming the presence of a building with flats reduces the extreme variations based on the number of dwellers per building. These results were correct, but suggested an inexplicable overcrowding in Pointe-à-Callières, the smallest of Montreal suburbs. Such contrasting records seem odd in a small town such as Montreal in 1825. Why would city dwellers pack into the smallest ward at a density three times superior to that of the other districts only at a five-minute walking distance away? In assuming that each household should match one dwelling, the variations in the dwelling density and household size present a

more credible allotment. In extending the assumption to a distribution of buildings between single-family dwellings and building with flats, it appears that Pointe-à-Callières had 34 buildings with an average of 2.76 dwellings. These figures are comparable to the bordering City (195 buildings with an average of 2.48 dwellings) and the suburb of Ste-Anne (55 buildings with an average of 2.79 dwellings).

These figures are partly speculative estimations. This research is waiting to be done through painstaking notarial contract research, as Desloges did for Quebec City during the French regime. However, it supports the hypothesis that small buildings with flats were found in Montreal in 1825, counting on average two to three dwellings in about one third of the City's buildings and between 25% to 40% of the suburbs. The Pointe-à-Callières ward showed unusual results, which, as explained previously, were derived from its small size, the few buildings and specific urban activities located there – the harbour and a large convent-hospital. When the data were processed through the building with flats hypothesis, the results suddenly become comparable to bordering districts. The growing importance of flats seems to coincide with the rise in the rental tenure following the faster economic growth after 1805 and the rise in British immigration following 1815.

There are strong similarities between the growth of rental tenure and the development of buildings with flats. The proportions found in Quebec City in 1760 – 70% of city's dwellers were tenants and 40% lived in 'apartments', are analogous to Montreal's data around 1825 – 70% of tenants and probably one third of the dwellings in a building with flat. The single-family house was the most common housing type, but it seems reasonable to estimate a significant presence of buildings sheltering an average of two to three dwellings. Their number was as small as in the rural setting, but increased with urban development.

The spatial arrangement of buildings with flats is largely unknown. Desloges suggested a vertical separation between dwellings set in rows within one building. It is also not clear whether historians dissecting notarial contracts and Viger's statistical data clearly distinguished between properties and buildings in counting the "houses." For

instance, three dwellings on one property could be made either of one building divided in superposed flats or three small rowhouses with no fire walls. In both cases, dwellings could be leased. The typological difference is partly bound to the construction system and fire-prevention by-laws forbidding wooden houses in the city while allowing them in the suburbs. It is also unclear whether these buildings with flats were purposely built as such, or resulted from the subdivision of originally single-family houses. This type of building "flexibility" became marginal in the twentieth century (Nobbs 1935). Early photographic evidence coupled with investigation of map resources point clearly in the direction of several vernacular duplex and fourplex types, and therefore an established tradition of horizontally divided superposed flats (Figure 2.6).

The fact that we found areas of higher density in both Quebec City and Montreal challenges the bucolic myth of pre-industrial city life on which the nostalgic legitimacy of the modern suburban lifestyle is based. The most active urban districts, next to the harbour in Quebec City's lower town or Montreal's West Ward and Pointe-à-Callières, appeared to be the most sought-after living areas. This suggests that work opportunities and potential social networking were more important issues for new city dwellers in their survival strategy than the propriety and "comfort" of the detached single-family house. It also suggests that there was no shortage of small builders in whose interest it was to erect small buildings divided in two to four flats (Hanna 1986).

2.6 Montreal's Housing Contribution: Original yet not Exceptional

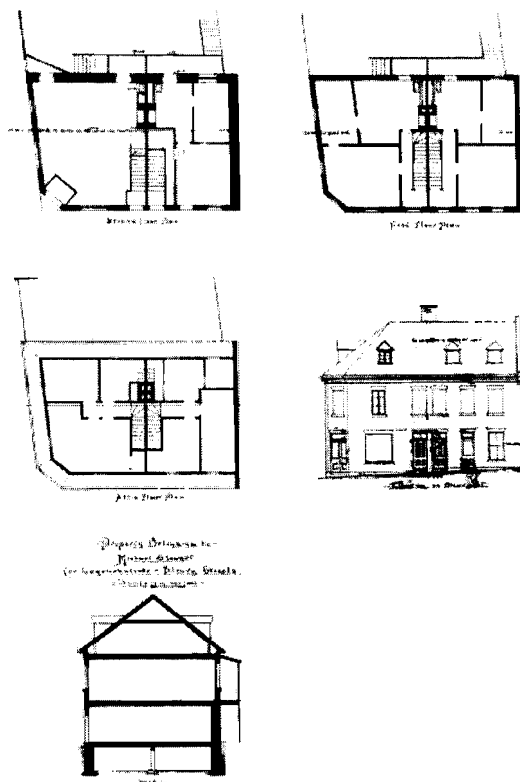
The comparative literature review on Montreal housing conditions cannot support a definitive explanation for the prevalence of rental tenure and superposed flats typology. The complete and final demonstration requires more in-depth historical research on the economic, legal and social competitive advantages of both criteria against home-ownership and single-family housing. It must also be understood that any answers would have to consider the evolving conditions in Montreal. The growth of rental tenure in the

Figure 2.6: Examples of Multi-Family Buildings Built in 1825

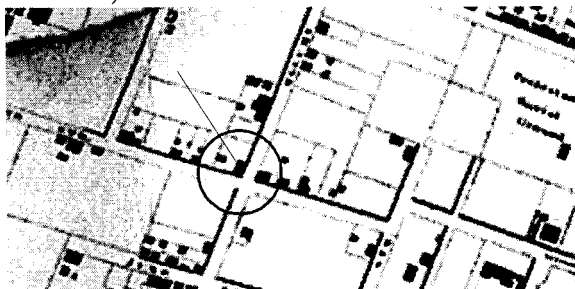
The census conducted by Denis-Benjamin Viger coincides with the preparation of a map of Montreal by the military engineer John Adams in 1825.

The location and footprint comparison of building plans found in the Archives Nationales du Québec suggest that multi-family buildings were found in Montreal, close to the city centre and further in the suburban setting.

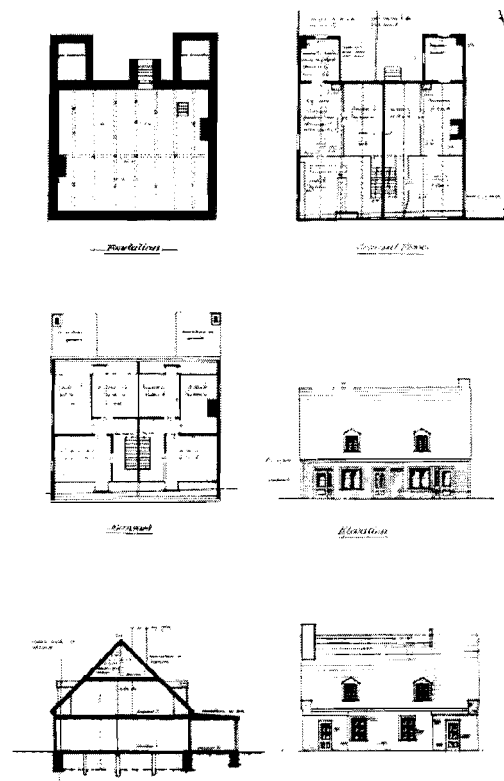
House on Bleury Street, built before 1825, demolished in 1895, 4 dwellings. Ground, second, third floors plans, elevation, section, (1:500)
(Archives Nationales du Québec)



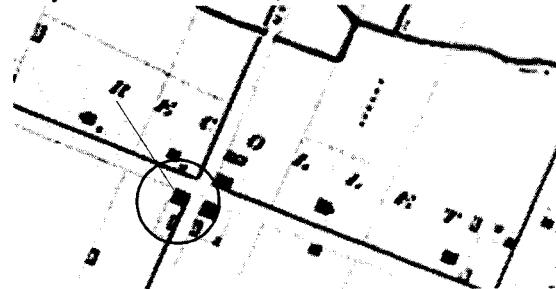
Detail of the 1825 Adams Map of Montreal: corner Bleury and de LaGauchetière streets (McGill University Rare Book Collection)



House on Notre-Dame ouest Street, built before 1825, demolished in 1895; 2 dwellings. Basement, ground, second floors plans, front and rear elevations, section, (1:500)
(Archives Nationales du Québec)



Detail of the 1825 Adams Map of Montreal: corner Guy and Notre-Dame ouest, former St-Joseph streets (McGill University Rare Book Collection)



early nineteenth century, and flats in the new housing until the 20th century, reminds us that beyond the facts, we are describing a process of housing strategy. However, we can underline two main conclusions. Montreal's housing tradition is original in the combined nature of the parameters structuring its housing strategy, including the building typology, yet in themselves, the different characteristics are not exceptional for a city developing in the nineteenth century.

The four parameters structuring the housing strategy (tenure, leasing conditions, investment return, and building typology) were together finely tuned in supporting a consistent urban tradition. On the supply side – for the landlords – it favoured a modest, but safe, return on real estate operation, where land acquisition and the building typology required little capital. On the demand side – from the tenants – rental dwellings offered relatively affordable housing compared to home-ownership or the rental of a full-house. The small multi-family building provided, on average, flats large enough to avoid overcrowding and presumably kept families sharing the same dwelling down to a minimum. Rental accommodations also allowed a valuable moving flexibility when households were dealing with regularly changing family size and unstable income. These housing conditions remained prevalent from the nineteenth century until 1950. The building with flats typology seems to have evolved in terms of the number of dwellings per building, their arrangement and the number of rooms allocated by flat.

These conditions were not exceptional in the nineteenth century. The importance of rental tenure is found in the United Kingdom and the United States, with no specific preferences for a speculative or a modest expectation on investment, rigid or flexible leasing conditions, or the building typology. Montreal's real estate practices seem closer to the British view of a non-speculative investment, and the leasing covenants are comparable to Scottish pattern (e.g. Glasgow). In terms of building typology, Montreal's superposed flats, of two to six dwellings on average, depart from the four examples explored by Dauntton for single-family row-houses and tenements of eight dwellings and more. The intermediate density could have resulted from higher land values and restricted building construction norms. However, the truth is that limited capital prevented the

construction of large structures while regulations restricting lot width further prevented tenements from taking hold [Hanna, 1986]. Furthermore, net and gross density should be compared, as it includes the number of dwellings, the lot size, and the street right-of-way. The typological choice may be less about density than about a pattern of co-presence between households within a small building (Dufaux 2000).

The traditional Canadian comparisons of Montreal and Toronto, which juxtaposed the city of tenements to the city of homes, have shown first that the argument is more political than one describing housing conditions. Toronto households increasingly became home-owners in the twentieth century, but at the same time home-sharing remained a common way to cope with expenses. As Choko summarised, "*Toronto has a higher percentage of owner-occupants resulting from a situation of fewer larger units which allow more doubling up, while Montreal has more tenant households living on their own in smaller premises.*" (Choko 1987). One is tempted to conclude that Montreal had the saner typology of the two because at least its shared living spaces were purpose-built with separate dwellings rather than awkward co-habitation in supposed single-family houses.

The historical perspective suggests that the four parameters structuring the housing strategy (tenure, investment return, leasing conditions and building typology) found their origin during the French regime as part of a colonial development model established in the seventeenth century. The British conquest of 1760 had a limited initial impact. The 1774 Quebec Act preserved French Civil law and property rights that insured the survival of earlier real estate development patterns. Second, British rule did not affect, for 50 years, the demographic structure and economic base of the colony, and therefore could not have supported any new development model. Only the ruling class of merchants and officers were replaced in order to control the lucrative colonial trade. Yet, the residential architecture serving them would only introduce, at the end of these 50 years, British residential models.

With the increase of colonial trade sustained by new staples like wood and grain, and with the level of British immigration after 1815, a new colonial prospect opened up for British North America, including Lower Canada. In Montreal, both rental tenure and multi-family building gradually became prevalent characteristics somewhere between 1825 and 1842. This double feature preceded the industrial revolution and this fact should resolve the conventional cause-effect relationship woven between rental tenure, flats, and working-class housing. However, it is likely that the industrial revolution had a multiplier effect on the housing strategy. Indeed, it fit both the landlords' and tenants' means and expectations.

The industrial revolution probably was more decisive for a new middle-class of industrialists, traders, and professionals in providing them with the means for the development of Montreal's New Town. This new, mainly residential, district reproduced typical British components of squares, terrace houses, and mews (Hanna 1977). The formal change, in urban form and housing typology, most probably demanded consistent changes in the other factors monitoring housing strategy. This hypothesis raises a set of new questions, for that part of town, about the rate of home-ownership, the speculative prospect on investment, and the property/leasing conditions. It may partly explain the aggravating rhetoric against the seigniorial system between 1840 and 1854, a system that had previously suited middle-class investors regardless of their ethnic origins.

The New Town introduced a new economic real estate model limited in scale to the affluent residential market. In terms on housing - as a good, an investment, and as a built form - the impact of the New Town affected the building of other parts of the city. It was not the replacement of the housing strategy, but rather a process of sedimentation of new values and ideas combined with the existing ones.

The historical conditions of Montreal's housing strategy evolved throughout the nineteenth century. It was framed by the legacy of traditional patterns of real estate operations. It was negotiating a solution between the shortcomings of a developing country and the emblematic features of residential premises of its ruling class. This

explains why Montreal followed its own consistent and peculiar path, departing from the French tradition and outside of the literal reproduction of English, Scottish, or American urban model and housing strategies. With regards to the four parameters regulating housing strategy, rental tenure appeared stable from 1842 to 1960. The prospect on investment return remained stable as well as the leasing conditions in the city, except, potentially, the most affluent wards. The morphological changes on the tenements, between construction cycles or the tenants targeted, reflected the adaptation of the most flexible criteria of housing production.

The proposed hypothesis is that both the provision for rental tenure and multi-family typology are part of a development model implemented in Montreal during the French Regime. The larger comparison with other cities in the United States, Britain, and Canada should provide a more balanced assessment of this different housing strategy. It should also highlight how much housing is a part of the local urban economy, which is governed by specific goals relevant to a development model. A colonial development model presents a specific strategy established in relationship to the local resources and expectations of the colonial metropolis. This last "framework" suggests that Montreal urban development, as New France, then Lower-Canada, and finally, Quebec shared the same rules of development. This would explain partly the strong continuity in the housing development strategy across the nineteenth century, beyond economic cycles and the technological revolution.

CHAPTER 3

BUILT FORM: SOME EARLY CULTURAL TRANSFERS

3.1 The Weakness of Urban Vernacular Architectural Research

Architectural history is a field which has long been dominated by architectural historians such as Leonardo Benevolo, Harold Kalman, William Pierson or Vincent Scully, whose seminal publications are based on the intensive examination of architects' works and their influence in shaping the field of architecture, as well as developing theories of architectural and stylistic currents. These works have guided our understanding of the built form to such a degree that labels such as "Gothic Revival" or "Richardsonian Romanesque" have become virtual household words. Where the field is particularly strong is in the recognition of "monuments", the exceptional or the outstanding products of the built record. This success has been most evident in society's long-standing acceptance of what is worthy of documentation, reverence and preservation in our built heritage, typically a mansion, a railway head office, a city hall, a cathedral or any other exceptional monument.

Where the discipline of architectural history has had difficulty, is in dealing with the rest of the built environment, typically 90 % or more of the built record. While middle-class housing, particularly single-family detached, has had some success in benefiting from the trickle down of theoretical concepts, particularly stylistic, the field of urban vernacular housing has gone largely unnoticed or considered to be not worthy of treatment. This is particularly noteworthy given early and systematic treatment of the rural vernacular as in Ramsay Traquair's (1947), Gérard Morisset's (1949) and Michel Lessard's (1972) attempts to deal with the distinctive product of rural Québec, the French-Canadian farm house, or Marion McRae's 1963 work on the Ontario farm house.

Traquair's and Morisset's earliest works actually go back to the 1920s. Why the lack of interest in a parallel urban vernacular?

In the urban arena, rarely have architectural historians dared tread very far into the reaches of the urban vernacular, such that noteworthy works by Eric Arthur on Toronto or Jean-Claude Marsan on Montreal, while granting some recognition to the existence of an urban vernacular tradition, have done so only fleetingly. Other architectural historians who have attempted to focus exclusively on the subject of the urban vernacular, such as Stefan Muthesius and the English terraced house or Lucie K. Morisset, on Arvida, are of a fairly new breed and stand out as unusual. More typical are works like Norbert Schoenauer who, in a massive life-consuming investigation of urban housing, seems to have missed entirely the existence of rich traditions of superposed flats in Scotland, France, Italy and the United States, to name but a few countries. Having spent the better part of his career in Montreal, he felt the need to at least acknowledge their existence, devoting one page to the genre out of an opus of 500, and dismissing it as a mere regional peculiarity. Apparently, one is left to conclude that urban housing historically is made up of single-family housing and apartment buildings!

The same blind spot towards superposed flats crops up in virtually all the architectural guides to individual cities in North America. The American Institute of Architects' *Guide to Chicago* is symptomatic of the tendency. Despite having North America's largest volume of two-flat and three-flat housing both historically and today, the architectural historians selected only eleven such sites out of a total of 1527 sites covered in the guide, excluding the central business district. Of course the guide is full of single-family houses, even very modest ones, and none of the eleven superposed flats are discussed in any depth, almost as though they were of little meaning. Other cities where superposed flats are common (e.g. Boston, Richmond, St. Louis to name but a few) have not even been that lucky in their architectural guidebooks.

How does such a systematic blind spot arise? Perhaps the obsession with single-family housing in twentieth-century North America has conditioned researchers to ignore

other forms of housing, excepting, of course, apartment buildings because of their sheer bulk and the fact that they tend to be architect designed. Perhaps also superposed flats are seen superficially as merely single-family type houses which have been divided into two or three flats, ignoring the fact that they are a house type of their own. Clearly what has been missed are the deep cultural and historical roots of such housing and their powerful significance in terms of generating eminently habitable low-cost housing in dense yet human-scaled neighbourhoods.

Since virtually no research has been done on older urban housing involving flats, either from a culturalist, historical or architectural perspective, we have inherited a huge gap in our understanding of historical urban housing. It is not surprising, therefore, that government agencies would have managed programmes such as CHIP or LOGINOVE in the 1970s and 1980s, which saw entire streetscapes of finally crafted nineteenth-century facades disappear in the dumpster, from foundation stones, to semi-artisanal bricks, to milled window and door surrounds, to beautifully crafted cornices and gable decorations. What emerged was functionally successful, but aesthetically and historically a wasteland creating a huge mortgage on these older neighbourhoods for the future in terms of their capacity to socially and culturally regenerate themselves. The result in terms of individual renovations in the 1980s and 1990s has been hardly better as entire streetscapes of Arts & Crafts oak doors, Art Deco stained-glass window sashes, delicately artistic wooden or cast-iron balconies and beautifully formed sheet metal parapet and cornice work have all been consigned to the city's garbage pick-up in favour of big-box hardware store products. Thus historically, culturally and aesthetically inappropriate elements such as cheap American Colonial or Spanish Baroque doors or simulated Georgian window grilles find their way onto what were authentic expressions of the urban vernacular tradition where colour, style and proportion, until recently, predominated.

The field of urban vernacular architecture has not, however, been bereft of academic attention of the cultural and historical kind; it simply has arisen from other disciplines such as urban history and historical geography. Perhaps the most ground-

breaking works in Europe and in North America were Harold J. Dyos's 1961 book on south-side London and Sam Bass Warner's 1962 book on Boston where a clear understanding of the multidisciplinary approach required for the understanding of the urban vernacular emerged for the first time in these significant studies. Combining historical analysis with geographical, urban planning and architectural history methods, Warner especially showed the way methodologically.

Later works on the urban vernacular like Frank Worsdall on Glasgow, Martin J. Daunton on several British cities, or David B. Hanna on Montreal have clearly drawn from this approach²¹. Besides these comprehensive approaches to urban vernacular housing, several parallel purely architectural works on vernacular traditions, have emerged, particularly in Europe, thereby bringing to light various regional practices²². Also some geographical works have attempted to place vernacular housing typologies in their spatial contexts²³.

Vernacular architecture in an urban environment can only be understood and brought to light once the geographical and planning dimensions of urban subdivision and transportation are explored, once the economic aspects of house financing are revealed, once the identities, origins, networks and techniques of builders are discovered, and once the architectural and cultural influences and transmission paths are investigated. Only then may Montreal's predilection for superposed flats (duplexes and triplexes), row housing, Italian architectural forms, outside stairways and balconies and so much more be understood. Only then does the urban vernacular take on a meaning, removing it from the realm of mere functionalism or commodity usage, to a higher plane of understanding of any city's true urban origins and evolution. It is a field the French very aptly refer to as "la géo-architecture".

Geo-architecture also presents architecture as a series of nesting parameters influencing the building form. The example of San Francisco presented by Anne Vernez-Moudon's work underlines the framing relationship of one larger scale of design over a smaller one, where the topography affects land division and where these spatial features

guide the street grid, the urban block size and the plot subdivision. The building footprint and volume adapt, of necessity, to the plot, reflect the construction system, but also implicitly structure an interior layout which defines the dwelling's room dimensions and shape. The pyramidal relationship between these different urban components orient the production of housing. Chapter three presents material gathered at the building scale and focussing on the variety of types of superposed flats and the provision of private or common entrances to the dwelling through exterior and/or interior stairways.

One area of the vernacular tradition which remains completely unexplored, is the origin of superposed flats. Whether it is Montreal in Québec, Boston in Massachusetts, or Richmond in Virginia, we simply do not know how or from where the superposed flats type of housing arrived on these North American shores, assuming, of course, that like single-family models, they were not invented here. The paucity of research on superposed flats in Europe does not make the endeavour any easier. What follows therefore is a series of reasonable hypotheses based on extensive field work using classic geo-architectural tools as well as a number of assumptions based on known historical sociological data. The focus here is exclusively on Montreal's case.

3.2 The Western French Connection

If, as has been demonstrated in Chapter Two, a tradition of housing with superposed flats is discernable in urban Québec, from a re-examination of the statistical record in the early 19th century and even in the 18th century going right back into the French Regime, it should come as no surprise to the architectural historian. Superposed flats appear in several European housing traditions as a minority form. People in Italy, Switzerland, France, England and Scotland have been living in superposed flats for many centuries. One area where the tradition has deep roots is in northwestern France, or more specifically Anjou and Bretagne. Farm houses in these two provinces often featured an attic space under the gable roof, accessed by an outside stairway carved out of stone blocks, running up alongside the gable end wall, until a door pierces the wall.

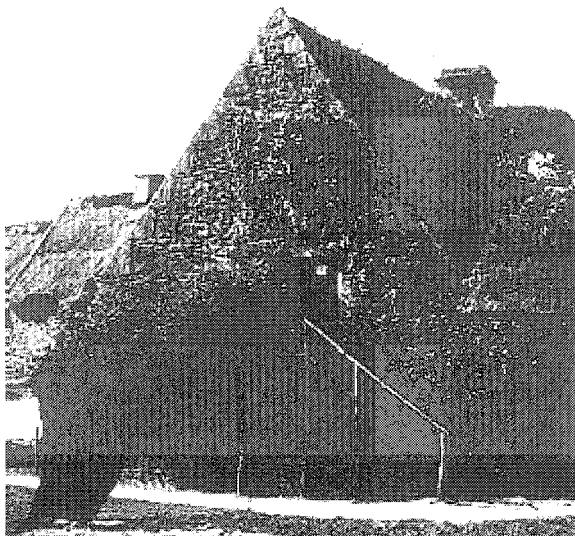
Traditionally, its function was to keep grain crops dry, but certainly by the 17th century at least, farm couples were sending their children or farm hands up there to sleep (Figure 3.1).

The Morbihan region of Bretagne is particularly rich in outside stairways and the purpose varies frequently. In many cases the upstairs-downstairs relationship is reversed somewhat insofar as the stairway leads to the family's lodgings under the roof. Meanwhile, the ground floor space is reserved for livestock or for artisanal manufacturing activities²⁴. Occasionally, even by the 17th century, one finds purpose-built multi-family houses with outside stone staircases leading to upstairs flats while ground-floor units lie below. This becomes increasingly common in 18th and 19th century Anjou along the Loire (Figure 3.2).

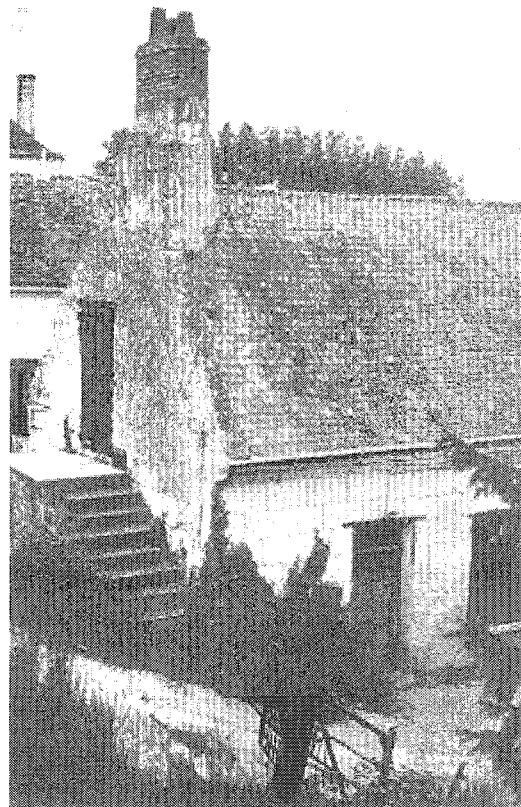
The townhouse duplex goes a long way back in Bretagne where upper flats were reached by a circular stone staircase set in a round tower attached to the front wall of a house (Figure 3.3). In this regard, the traditions of Bretagne and Scotland, both ancient celtic territories, are identical and in selected towns and cities, such as Stirling or Cupar, these old 14th to 18th century flatted townhouses with round-tower stairwells may still be found. In Bretagne, the circular staircase flatted townhouse evolved into a simple twin-door duplex with an interior staircase inside one of the doors, essentially much the same as Montreal's stock twentieth-century duplex. The same evolution also occurs in Scotland.

When one matches migration data out of France into New France and realizes the importance of Anjou and Bretagne as sources of migrants, it should not be surprising to eventually encounter superposed flats in Quebec City and elsewhere²⁵. Chapter two has already demonstrated the presence of superposed flats in pre-industrial Quebec City and Montreal. Quebec City and eventually Montreal clearly became the hearths for the propagation of superposed flats in part of North America, although it is equally evident through the built record that other cities such as Boston, Massachusetts, and Richmond, Virginia, also played key roles in the development and propagation of flats in the New

Figure 3.1

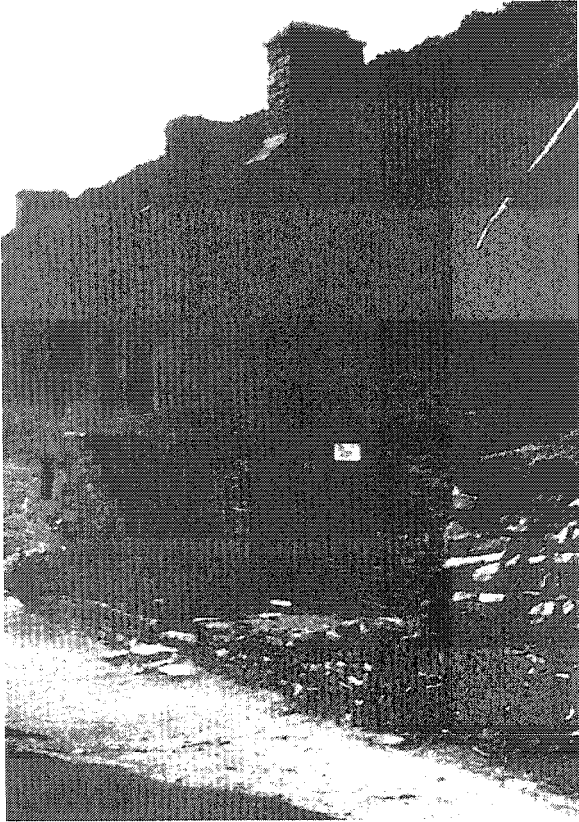


Poul-Fétan-en-Quistinic, Bretagne. Single-family farm house with sidewall outside stairway to granary and children's quarters upstairs, ca. 1640s. (Photo by David B. Hanna)



Saint-Clément-des-levées, Anjou. Single-family farm house with sidewall outside stairway to granary, 18th century. (Photo by David B. Hanna)

Figure 3.2



Poul-Fétan-en-Quistinic, Bretagne. Single-family farm house with a stone outside stairway on the front of the house accessing lodgings and granary upstairs, ca. 1660s. (Photo by David B. Hanna)

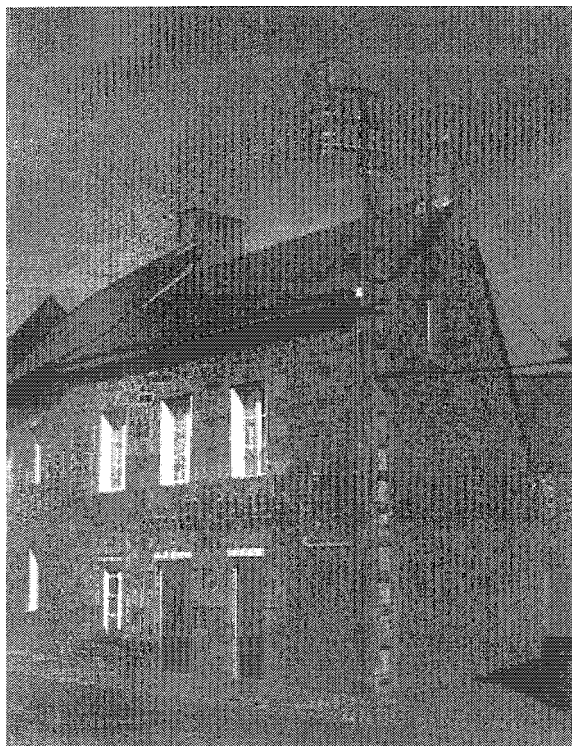


La Ménittré, Anjou: 8-10-10bis, rue de la levée. Three-dwelling house, two flats below and a third upstairs accessed by sidewall outside stairway, ca. 1850s. (Photo by David B. Hanna)

Figure 3.3



Beignon, Bretagne: rue Saint-Cyr Coëtquidam. Traditional two-flat town house with access to upper flat by circular staircase corner tower, 16th century. (Photo by David B. Hanna)



Hédé, Bretagne: 10-10bis, place de l'Église. Interior staircase two-flat town house. (Photo by David B. Hanna)

World. Other influences would make Montreal North America's richest and most diverse duplex and triplex metropolis.

3.3 The Scottish Stamp on Montreal

The Scottish influence on early and mid-nineteenth century Montreal was great, partly through its dominant business elite (Hugh and Andrew Allan, Matthew and Andrew Gault, James Ferrier, Richard Angus, Duncan McIntyre, Alexander Ogilvie, Donald Smith, etc.), partly through its close business ties with Glasgow (MacKay 1987). But what stood out visually at the mid-century was the Scottish stamp on the built environment of the city. Montreal's fabled New Town (now its Central Business District) was a showcase of 18th-19th century British planning. Along with a grid pattern of wider streets (60 and 80 feet) complete with rear lanes and town squares loosely modelled on Edinburgh's New Town plan of 1767, came entire streetscapes of British terraces (Hanna 1977).

The creation of Edinburgh's New Town, that impressive and extensive Georgian development, began in the last decades of the century to attract the aristocracy, the gentry and the wealthier businessmen or professionals away from the old city and to create a new and distinct environment from which, for the most part, the tradesmen, artisans and other workers were excluded. Places were provided for the domestic retainers and for some craftsmen and a few tradespeople but by 1830, when the New Town had some 5,000 houses, there had been created a fundamental social as well as architectural division which remains to this day. The creation of the New Town was a very deliberate and dramatic step in the formation of ecological and social barriers in the city²⁶.

Just as this ordered venture in urban planning offered the new bourgeoisie of Edinburgh a reassuring townscape of dramatic row housing projects completely segregated from the dense tenemented cityscape elsewhere in the city, so too did Montreal's mainly Scottish elite seek an ordered and segregated neighbourhood in Montreal's New Town, interpreted as often as not in the typically dour Scottish Classical Revival Style cut out of Montreal's Trenton Limestone. Many carried obviously Scottish

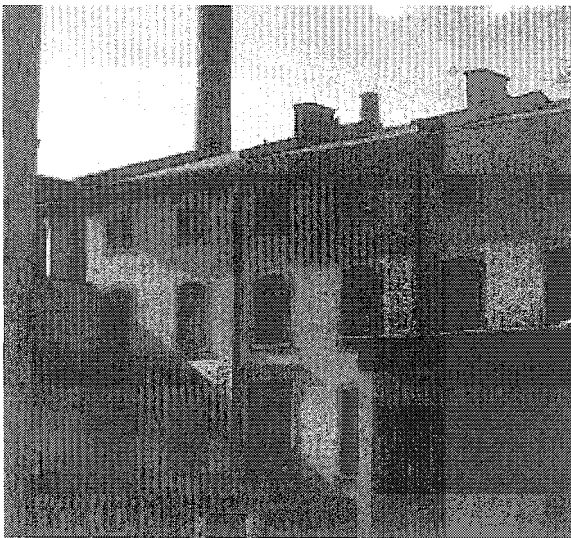
place names such as Callander Place (1844), Balmoral Place (1856), Argyle Terrace (1857), Burnside Terrace (1858), Dunedin Place (1859), Holyrood Place (1861), etc. (Hanna, 1977). One would be forgiven for thinking they had somehow reversed direction mid-Atlantic and returned to Glasgow or Edinburgh (Figures 3.4 and 3.5).

None of this is too surprising given the overwhelming control on business by the new Scottish business elite, replacing the formerly dominant Scottish fur-trading elite. What is somewhat more surprising and particularly intriguing are the strong parallels between Scottish vernacular traditions in houses with superposed flats, and the same traditions in Montreal. Yet the production of this lower-end housing was clearly not dominated by Scottish business interests or society as it was primarily a French-Canadian domain (Hanna 1986). Nonetheless, the building environment offers a compelling case for the marked influence of Scottish typologies on Montreal. Let us first examine the houses themselves and then generate hypotheses as to why this influence was so strong.

3.4 Scottish Influences on Montreal's Outside Stairway Flats

The first point to establish is the strong similarities between the Breton and Anjou housing models already examined and a typical Scottish vernacular type, all of which feature outside stairways. In many regions of Scotland just as in Bretagne and Anjou, the principle of accessing an upstairs flat by an outside stone stairway, running up a blank sidewall and gaining entry from the side, is an ancient and formerly common house type still found in many regional towns and cities. This could also be found throughout Montreal and regional towns in the early and mid-19th century, but is now quite rare due to urban renewal programmes or just plain old age deterioration and replacement. In the Montreal cases, the outside stairways are almost always rendered in iron and wood rather than stone (Figures 3.6 and 3.7).

Figure 3.4



Edinburgh, Scotland, "Lynedoch Place". 3-unit single-family row, ca. 1820s. (Photo by David B. Hanna)

Montréal, Québec, "Kilmun Terrace". 3-unit single-family row, built in 1864, demolished in 2001. (Photo by David B. Hanna)

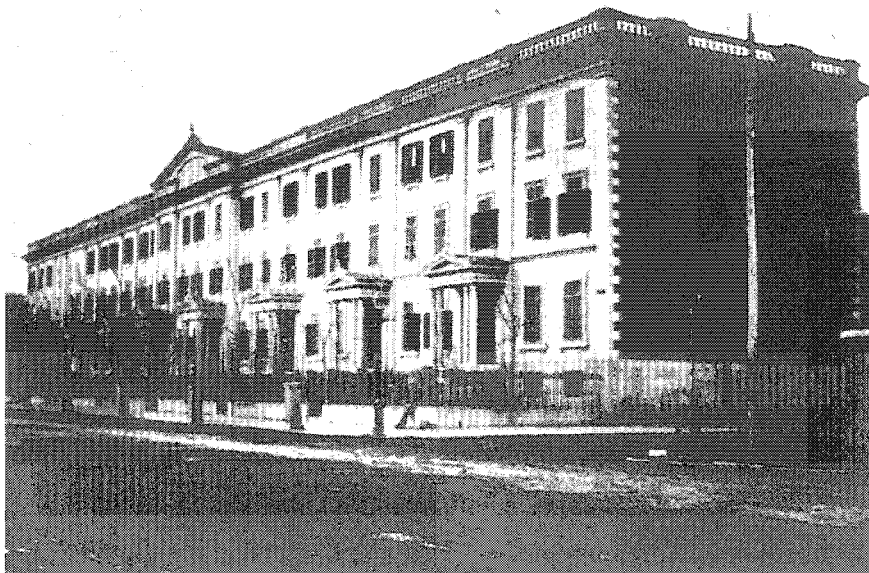


Montréal, Québec, "Tamworth Place" on Peel Street, a nine-unit single-family row of limestone houses built in 1864. (Photo from the McCord Museum of Canadian History, Montreal)

Figure 3.5



Glasgow, Scotland. "St. Vincent Crescent". Row housing, single-family, ca. 1855. (Photo by David B. Hanna)

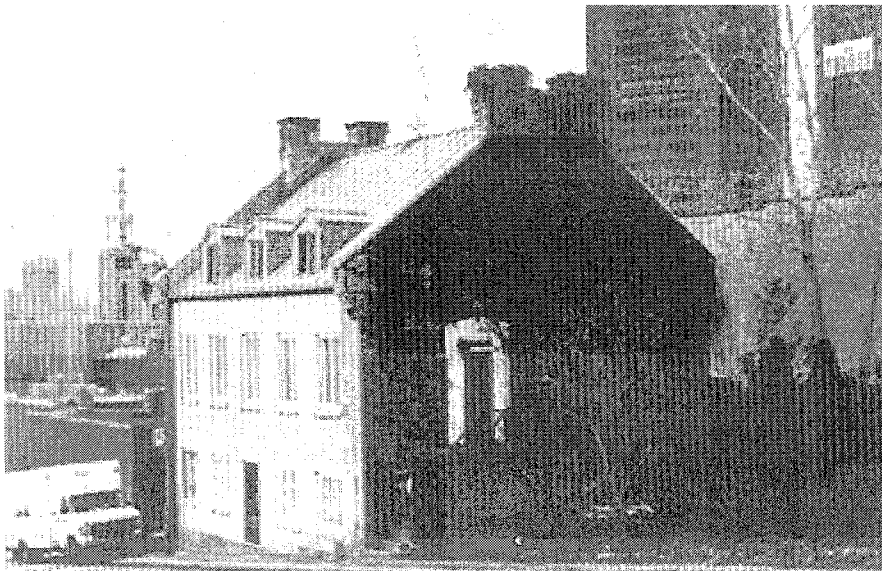


Montréal, Québec, "Prince of Wales terrace". 9-unit single-family row housing, built 1859-60, demolished in 1974. (Photo from the McCord Museum of Canadian History, Montreal)

Figure 3.6

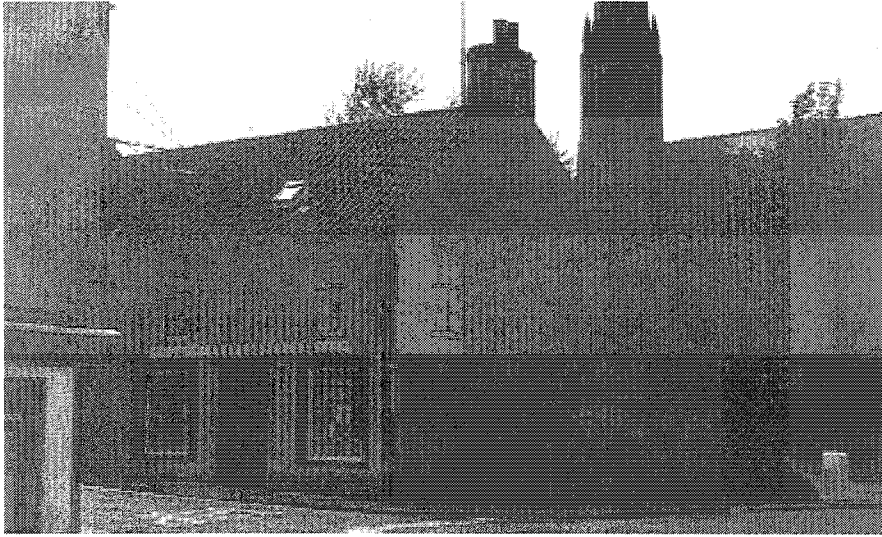


Poul-Fétan-en-Quistinic, Bretagne. Single-family farm house with sidewall outside stairway leading to upstairs grain storage and children's quarters, ca. 1720s. (Photo by David B. Hanna)

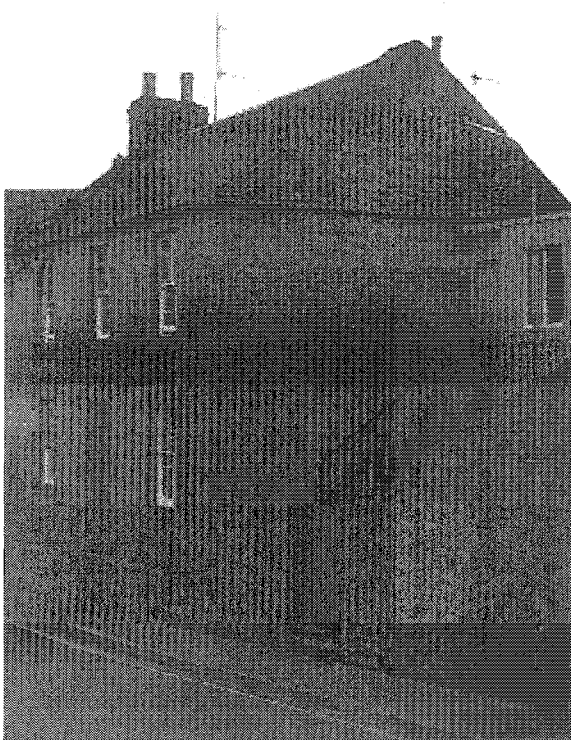


Montréal, Québec: 511-513 rue Montcalm, Faubourg Québec. Probably a former single-family house, ca. 1810s, transformed with an outside sidestair to the upper flat, probably ca. 1850s.(Photo by David B. Hanna)

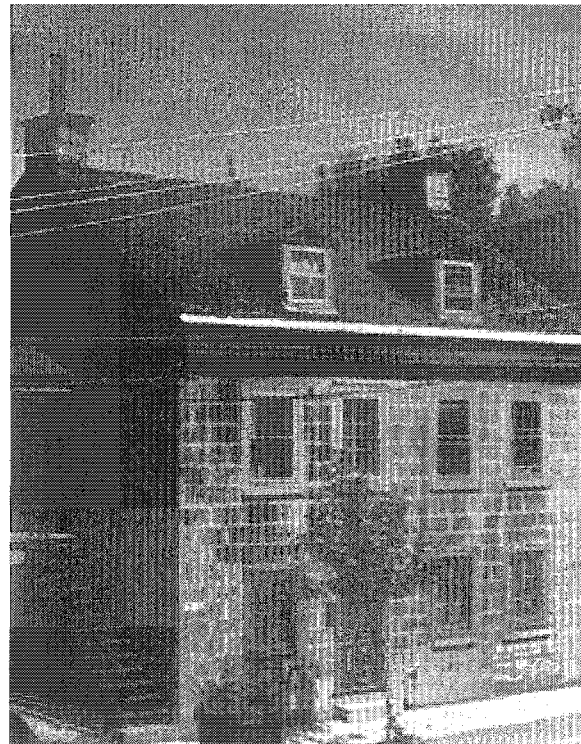
Figure 3.7



Cupar, Scotland: 31 Lady Wynd. Flat with sidewall outside stairway over a shop, ca. 1830s. (Photo by David B. Hanna)



Cupar, Scotland: 17 Kirk Wynd. Two-flat house with sidewall outside stairway accessing the upper flat, ca. 1850s. (Photo by David B. Hanna)



Montréal, Québec: 1669-71, rue Ste-Rose, Sainte-Marie Ward. Two-flat house with outside sidewall stairway accessing the upper flat, ca. 1860s. (Photo by David B. Hanna)

Sometimes, though much less frequently, in Bretagne, Scotland and Montreal, the outside stairway is located across the facade rather than up the sidewall (Figure 3.8). Another variant, this time a Québec creation, features an outside sidewall stairway running in the reverse direction, back-to-front, but with the purpose of accessing a shared front gallery with doorways leading directly into the upstairs flats. This variant was applied to fourplexes, that is, two upstairs flats over two downstairs flats (Figure 3.9). If a front gallery was not present, then the outside stairways were located on the sidewalls at both ends, running front to back. A further variant of the galleried type was the Montreal rear courtyard fourplex with a central stairway leading straight up to the gallery from the courtyard.

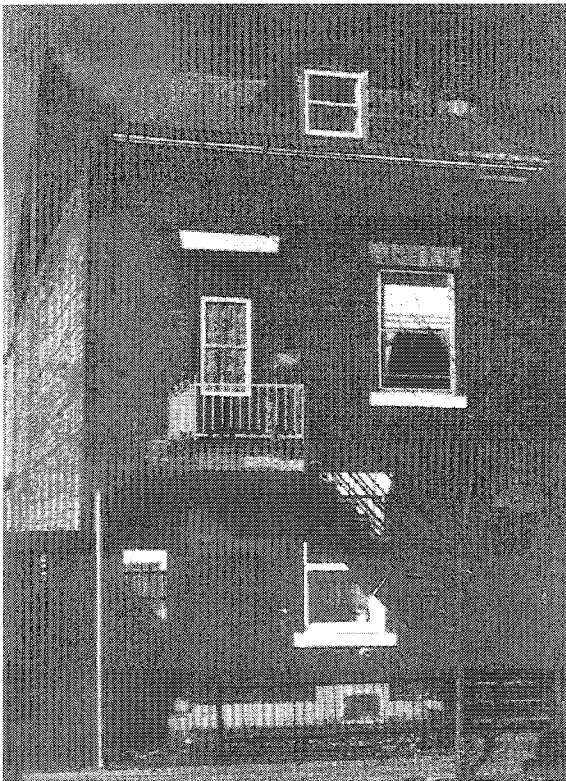
The final situation involving outside stairways common to both Scotland and Montreal, is the ambiguous double-facade fourplex where the lower flats are accessed from the street level, while the upper flats are reached by a common central outside stairway located at the rear of the building and accessed either by a rear lane, or a passageway leading to a rear courtyard (Figure 3.10). These double-facade fourplexes are quite prevalent in Edinburgh and, to a lesser degree, in Montreal but are not easily recognized as such since the rear upstairs flat accesses are invisible from the street. Indeed, they look like paired single-family houses from the street and are usually dismissed as such.

The advantage of the Scottish double-facade fourplex was two-fold. First, it offered a fair degree of privacy over most other outside and inside stairway models where access points were often clustered together and where everyone shared the street front. Second, it allowed the builder to utilize the full width of the lot, as long as there was a small covered passageway to the rear or a rear lane access. None of this was lost on Montreal builders who embraced it willingly in west-end Sainte-Anne ward and east-end Saint-Jacques ward.

Figure 3.8

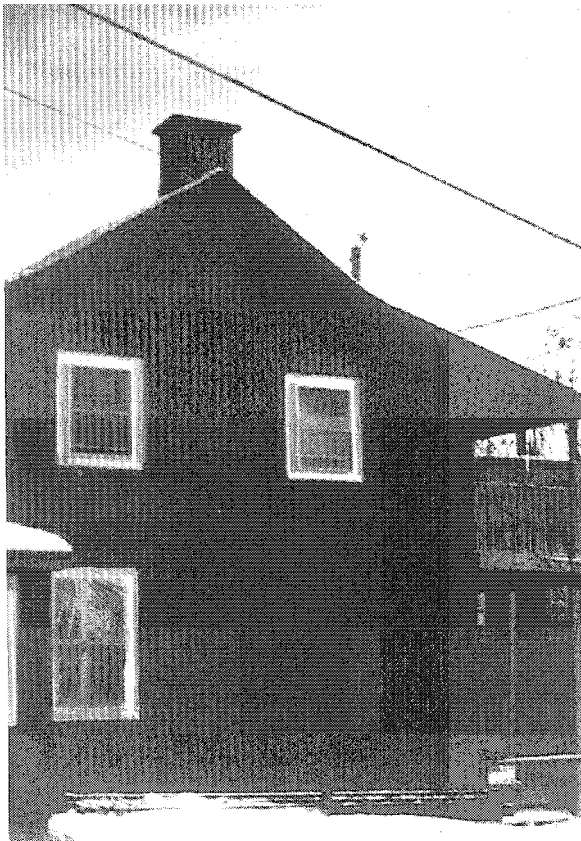


Lilithgow, Scotland: behind 20-24 High Street. Rear courtyard flats accessed by stone outside stairway on front of house, ca. 1840s. (Photo by David B. Hanna)



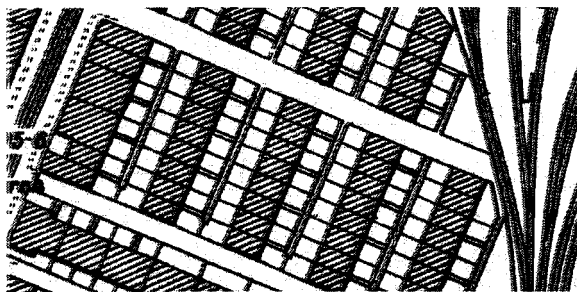
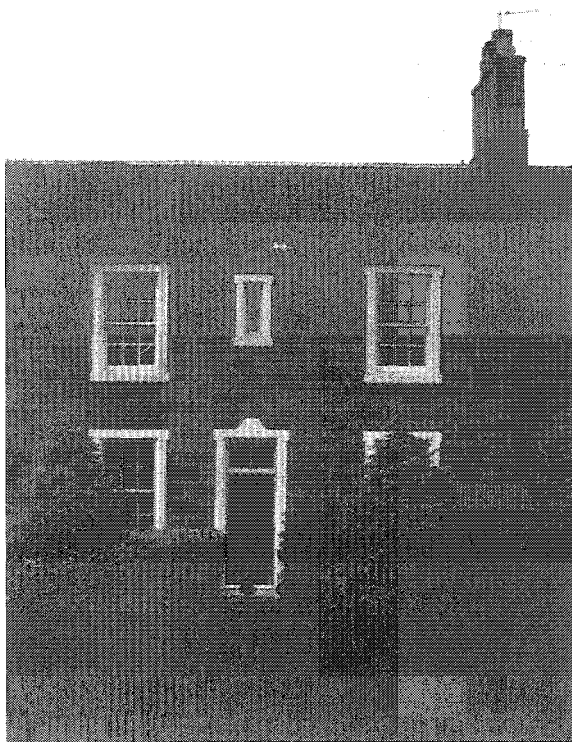
Montréal, Québec: 547-49, rue Congrégation, Pointe-Saint-Charles district. Front and rear access duplex, ca. 1869, modified with front outside stairway access. (Photo by David B. Hanna)

Figure 3.9



Sainte-Anne-de-Bellevue, Montréal, Québec: 33-35-37-39, rue St-Thomas. A sidewall outside stairway fourplex with front gallery accessing flats, ca. 1866 (Photo by David B. Hanna)

Figure 3.10



Edinburgh, Scotland, "Rosebank Cottages", Haymarket district. Terraced flats (row of fourplexes), featuring a double facade, upper flats accessed by common outside stairway at rear, lower flats accessed from street at front, built in 1857. (Photo by David B. Hanna)

(Left) Detail of the Ordnance Survey of 1892, Edinburgh showing "Rosebank Cottages" neighbourhood.



Montreal, Quebec, rue Beaudry north of Robin, Saint-Jacques Ward. Rear of double-facade fourplex, ca. 1872. (Photo by David B. Hanna)

Most of these outside stairway variants existed throughout the nineteenth century and are summarized schematically in Figure 3.11. These outside stairway models would eventually coalesce into a new Montreal vernacular where the access points to all flats would always be at the front and where upper flat doorways would be reached by a front spiral stairway of amazing grace, though dangerous in winter. This is the true Montreal vernacular of the twentieth century (Figure 3.12).

3.5 Scottish Influences on Montreal's Inside Staircase Flats

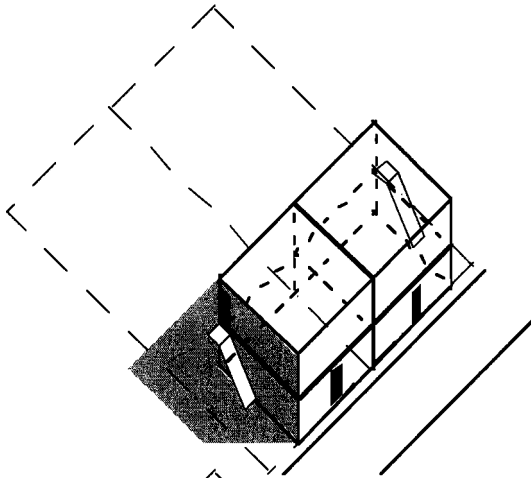
If ever there were a standard duplex model in Montreal throughout the 19th and 20th centuries, it was the twin-door duplex. Its claim to fame is its very simplicity with a door near the firewall leading to an inside flight of stairs, and another door right next to it, leading into a hallway. Rooms are all off to one side of these stairs and hallways (Figure 3.13). Towns in Bretagne have them in small numbers, Scotland's towns and cities have them in vast numbers and in Montreal old or new, they are ubiquitous. Frequently, the adjacent duplex was conceived as a mirror image of the first one so that one could find a daunting set of four doors all together, simplifying the door framing (Figure 3.14). These are as common in Scotland as they are in Montreal.

A derivative of the four-door concept creating a fourplex exists in the form of a grouped three-door version, where the middle door serves as a common access for both upper flats. It saved on materials and space but is only evident in very localized areas of Scotland such as Perth (Figure 3.15). In the Scottish case, the common middle door leads to a corridor often emerging into a rear courtyard where outside stairways take the tenants upstairs. Montrealers took to this model no doubt because of its cheaper building costs relative to the four-door model. It also allows the duplex to be built right out to the lateral lot lines unlike the sidewall outside stairway type. The Montreal version always has a staircase going upstairs just inside the door, rather than a corridor to the rear, probably an adaptation due to a cold climate.

Figure 3.11 Diagram of outside stairway access patterns

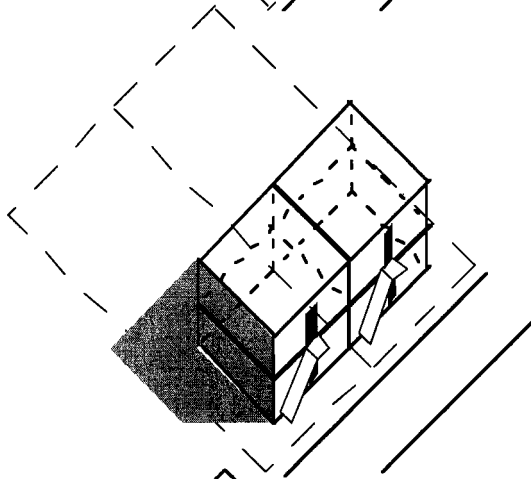
Side stairway

Ground floor dwelling access on the street, upstairs dwelling access with an outside stairway on sidewall, over the side passage.



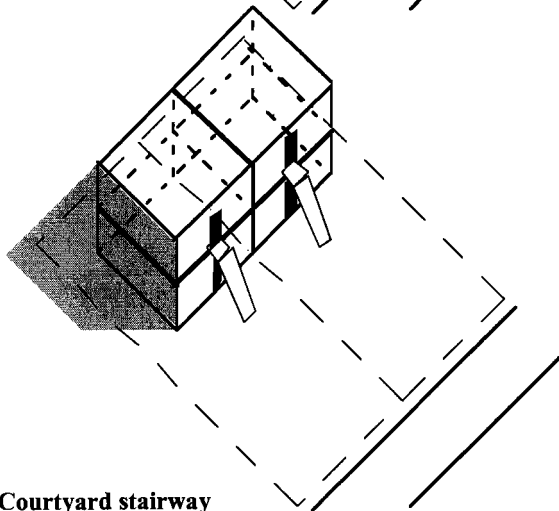
Front stairway

Ground floor dwelling access on the street, upstairs dwelling access with an outside stairway on front facade, facing the street.



Courtyard stairway

Ground floor dwelling access on the courtyard, upstairs dwelling access with an outside stairway in the courtyard.



Ground floor dwelling access on the street, upstairs dwelling access with outside stairway in the courtyard.

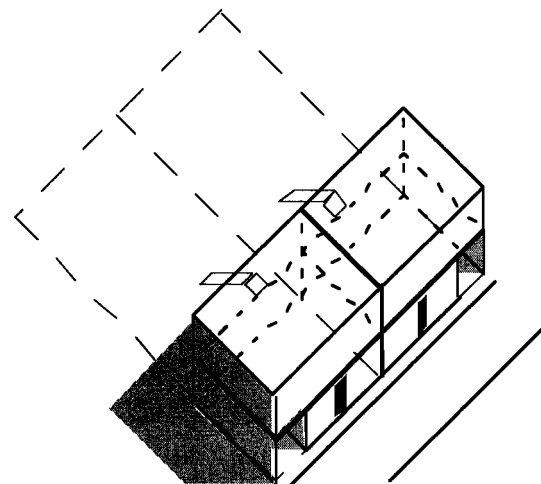
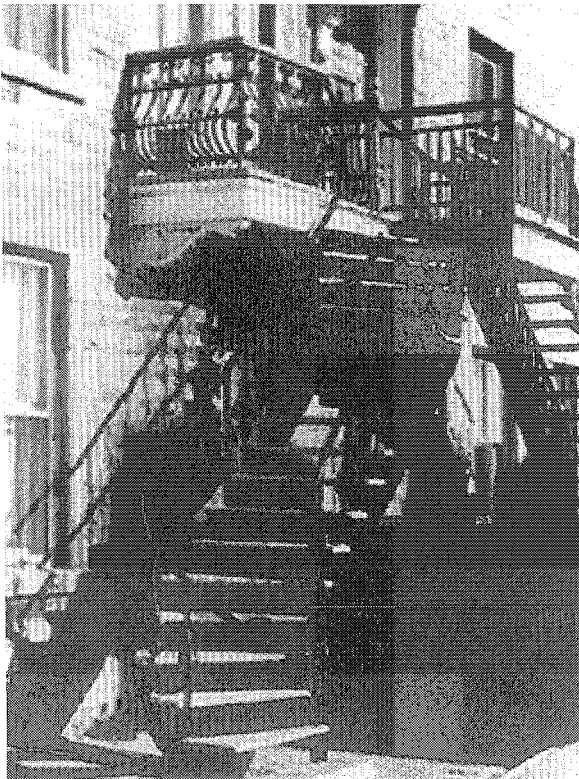


Figure 3.12



Montréal, Québec, avenue Delorimier, Delorimier district. Row of triplexes with outside front spiral stairways, ca. 1910s. (Photo by W.T. D. Ross, coll. Fine Arts Dept., Concordia University, Montréal)



Montréal, Québec, in Saint-Jacques district, typical of the artistry of Montreal's early twentieth century outside winding stairways providing economical access to upstairs flats, although dangerous in wintertime. (Photo by David B. Hanna)

Figure 3.13

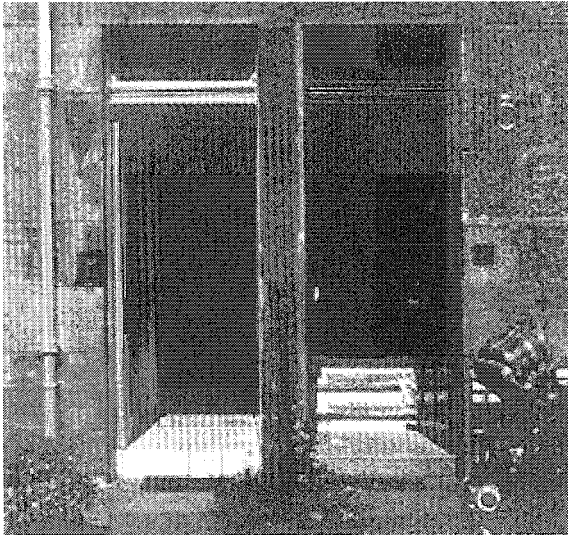


Falkirk, Scotland: 36-38 Meeks Road. A twin-door duplex on the left with access to the upper flat by an inside staircase behind one of the doors, adjacent to a double-facade duplex on the right, ca. 1890s. (Photo by David B. Hanna)



Montreal, Québec: 1371-73, 1377-79 rue Argyle. A pair of twin-door duplexes with inside staircase access to upper flat, built in 1869-71. (Photo by David B. Hanna)

Figure 3.14

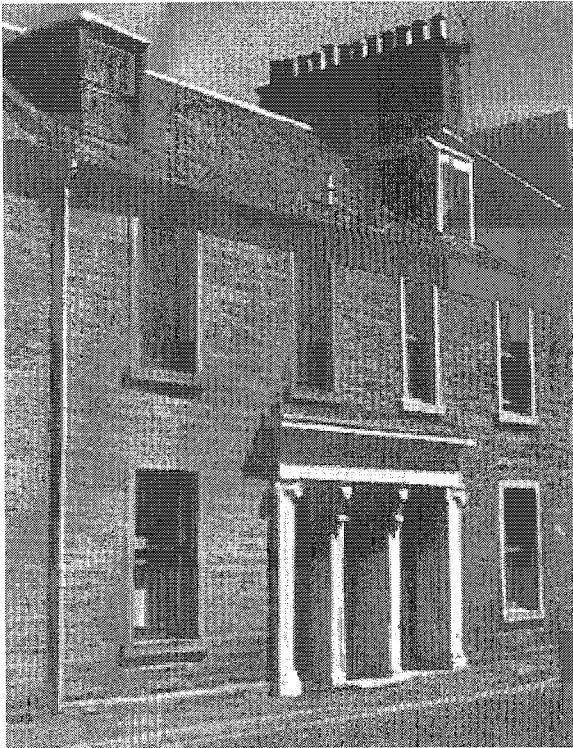


(top and left) Edinburgh, Scotland, "Alderbanks Terrace" Shaftesbury Park district. Four grouped doors front-access fourplex row, with inside staircase access to upstairs flats, built in 1884. (Photo by David B. Hanna)



Montreal, Québec: 1660-66 and 1672-78 rue Saint-Christophe, Saint-Jacques Ward. Two fourplexes with four grouped doors with inside staircase accessing upper flat, ca. 1872. (Photo by David B. Hanna)

Figure 3.15



Perth, Scotland: 36-40 St. James Street. Triple-door fourplex with common middle doorway, hall and outside staircase at rear to upper flats, ca. 1840s. (Photo by David B. Hanna)

Montreal, Québec: 1457-63 rue Moreau, Hochelaga ward. Triple-doorway leading to staircase accessing upper flats, between two regular twin-door duplexes, ca. 1870s. (Photo by David B. Hanna)



A more complicated superposed flat type, very prevalent throughout Scotland, is the variant on the grouped three-door model. This type separates the three doors evenly over the facade. The two downstairs flats each have a centre hall plan allowing a window to flank the door on either side. The third door is in the centre but gives access to a shared corridor, featuring secondary side doors into the ground level flats, and twin or single stairways leading to the upper flats (Figure 3.16).

Montreal loosely copied this model or portions of it but it never reached the popularity of the others, probably because of higher building costs. Where Montreal really distinguished itself was in the construction, for the Grand Trunk Railway, of a long row of fourplexes called "Sebastopol Row" in 1857 in Pointe-Saint-Charles district, facing the shop complex. Thomas Scott, a prolific Montreal architect, designed the row, following the Scottish case very closely (Figure 3.17). This model actually saw some diffusion along the railway lines to smaller Quebec cities such as Saint-Hyacinthe, Granby and Valleyfield. The organizations of these different inside staircase flats are schematically shown in Figure 3.18.

The influence of Scottish flats probably also extended into triplex models as they have been common enough in Scotland across the ages, whereas Montreal only started building them in the late 1860s. A comparison of some such early triplexes bear strong familial resemblances to some Scottish models, though more work needs to be done to demonstrate the transfer more clearly (Figure 3.19).

Eventually, probably around the 1880s or 1890s, superposed flat traditions seem to diverge between Montreal and Scotland. The Scottish models became much larger, moving into sixplex and eightplex configurations. They also abandoned outside stairways in favour of the indoor varieties. The lengthy Scottish tradition of shared indoor staircases prevailed in the end (Figure 3.20).

Figure 3.16

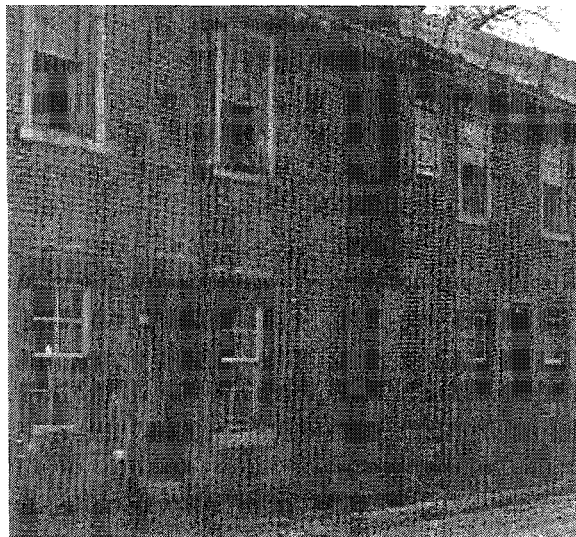


Linlithgow, Scotland: 20-22-24 High Street. Three-door fourplex, each lower flat with a centre-hall plan, and common central passageway to rear and to inside staircase accessing upper flats, ca. 1840s. (Photo by David B. Hanna)



Montreal, Québec, Pointe St-Charles district. Duplex with a centre-hall plan on lower flat and door at end with inside staircase to upper flat, ca. 1870s. (Photo by David B. Hanna)

Figure 3.17

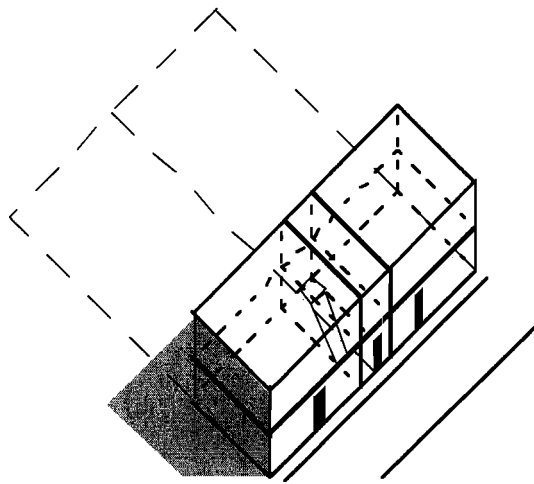


Cupar, Scotland: 44-45-46 Kirk Wynd. Fourplex with two centre-hall plan lower flats and one central passageway at firewall, leading to rear accessing two separate inside staircases each leading to an upper flat, ca. 1820s. (Photo by David B. Hanna)

(left and bottom) Montreal, Québec: 802-808 Sebastopol Street, "Sebastopol Row", Pte St-Charles district, Thomas Scott, architect. Fourplex row with two centre-hall plan lower flats, and a central doorway leading to a common hallway and inside staircase to upper flats, built in 1857. (Photo by David B. Hanna)

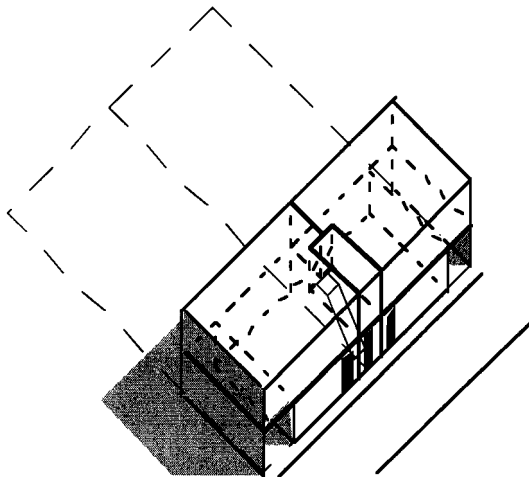


Figure 3.18 Diagram of interior staircase access patterns



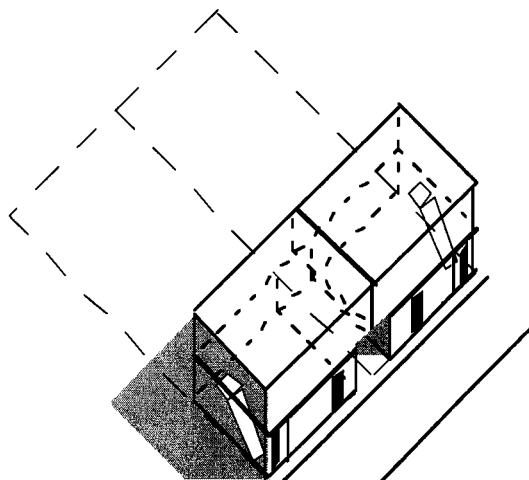
Shared entrance and hall

Ground floor dwelling access on the street, upstairs dwelling access with a common interior stairway and hall providing access to the courtyard.



Shared entrance

Ground floor dwelling access on the street, upstairs dwelling access with a common interior stairway, provision of two carriage ways.



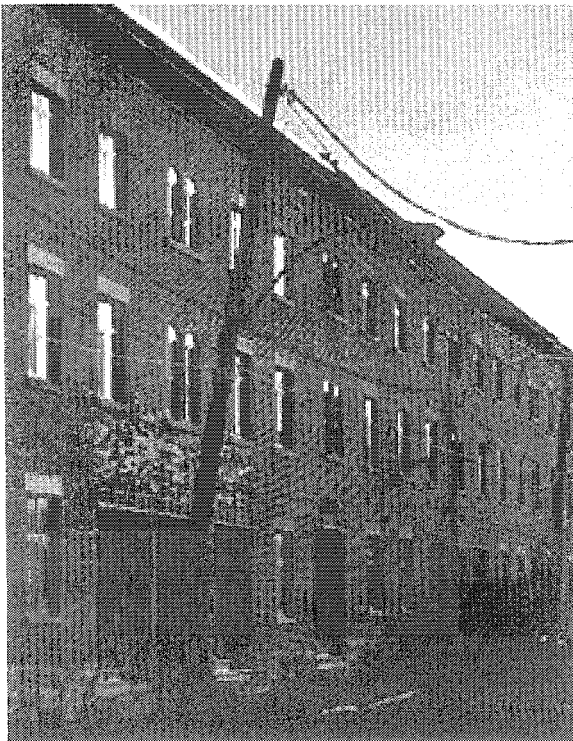
Separate entrances

Ground floor dwelling access on the street, upstairs dwelling access with an interior stairway on sidewall, provision of one common carriageway.

Figure 3.19



Edinburgh, Scotland; "Rosemount Buildings", Haymarket district. Tenement project made up of triplex and sixplex rows with three storeys of superposed flats accessed by a single spiral stairwell, built in 1859. (Photo by David B. Hanna)



Montreal, Québec, rue Barré, St-Anne district. Row of triplexes and sixplexes with common access by one inside staircase to all four upper flats in each block, and individual accesses to the downstairs flats, built in 1872-74. (Photo by David B. Hanna)

Figure 3.20



Edinburgh, Scotland: 27-28-29 Angle park Terrace, Viewforth district. Row of luxury sixplex tenements, with common door and inside stairwell for the four upper flats, ca. 1890s. (Photo by David B. Hanna)



Edinburgh, Scotland: 54-55-56 Ashley Terrace, Shaftesbury Park district. Row of eightplex tenements with common door to the six upper flats, ca. 1910s. (Photo by David B. Hanna)

Montreal went in a somewhat different direction. First of all, outside stairways became the norm, the complete opposite of Scotland. Secondly, the triplex seems to have become more and more prevalent in the early 20th century, occasionally accompanied by fiveplex and sixplex models (Figure 3.21). The move towards eightplexes just did not happen here. The divergence seems to be most attributable to a clearcut distinction between scales of development on either side of the Atlantic, where Scottish estate developers became much larger-scale by the late 19th century, while Montreal housing development remained in the hands of small and medium-scale builders.

3.6 The English and American Contribution

We will not go into the many forms of single-family housing present in Montreal, nor their origins, for such is not the focus of this work. One distinctive type will be isolated, however, because of its powerful architectural influence on superposed flats; this is the English terraced house. The idea of constructing a series of identical luxury single-family houses and placing them behind a unified facade of palatial proportions was very popular in English and Scottish bourgeois circles during the late 18th and early 19th centuries. These palatial facades were moulded and articulated in a classical vocabulary to such a point that the identity of each individual house almost disappeared, were it not for the front doors. People loved living in these building projects where the individual house was meaningless, except for the inside, and the terrace's grandeur of scale and style, bearing a fashionable name, meant everything in terms of validating one's status. The popular spa city of Bath was built of almost nothing else but grand terraces.

The lineage of such terraces is obvious as only in Italy, and particularly its grandest Renaissance cities, did the wealthy build enormous Roman palaces called *Palazzi* using all the symmetry and grandeur that classical Renaissance architecture could convey. *Palazzo Pucci*, a 16th century set of three architecturally coordinated *palazzi* in Florence, is a particularly powerful representative of the genre (Figure 3.22). The fascination which the British had toward the Italian Renaissance is already well documented (Hitchcock 1958). That it gave rise to banks, offices, hotels, clubs and terraced housing is well established. “Thornhill Crescent”, an 1850s terrace in the north-end Islington district, is typical of the thousands of like projects filling west-end and north-end London, west-end Liverpool or New Town Edinburgh, or any other British city of the time (see Figure 3.22).

The phenomenon was exported to the continent to a certain degree (see Nancy in France), but also cropped up in the United States and throughout the British Empire. Famous projects like “Tontine Crescent” (1793) in Boston or “Colonnade Row” (1846) in New York City bear strong testimony to the terrace’s hold on North Americans in the late 18th and early 19th centuries.

Less well known was Montreal’s spectacular terrace architecture in its own New Town of the 1840s (Hanna 1977). Here, impressive terraces were erected during the building boom of the 1850s and early 1860s. “Mount Royal Terrace”, on McGill College Avenue in the heart of the New Town, was a 12-unit single-family terrace, built in 1858, which followed the *Palazzo Pucci* formula very faithfully (see Figure 3.22). Other adjacent streets offered many more impressive projects, all architect designed.

One terrace in particular introduced a profound building revolution of its own. “Wellington Terrace”, built in 1855 on Sainte-Catherine Street, complete with Roman statuary above the cornice in the fashion of Michelangelo’s *Piazza del Campidoglio* (1536), was equipped with a flat roof (Hanna 1986). Italian and British roofs were typically very shallow sloped gable roofs hidden behind large protruding classical cornices. In 1854, C.M. Warren & Company had introduced the new “patent roof” to

Figure 3.22



Florence, Italy, Palazzo Pucci. Three successive palazzos showing remarkable unity and classical rigour, 16th c. (Photo by David B. Hanna)



London, England, Islington district, 16 unit single-family 3 storey terrace, "Thornhill Crescent" ca. 1850



Montreal, Québec, 12-unit single-family "Mount-Royal Terrace" on McGill College Avenue, built 1858. (Illustration from the McCord Museum of Canadian History, Montreal)

Montreal from Boston; this innovation involved laying rolls of manufactured felt over a heavy wooden truss gently sloping to the rear, overlaying it with “composition”, a form of tar, acting as a sealant²⁷. This new roof from the United States was a rapid success as builders found it was cheaper to build than other roofs and, as a bonus, solved the winter problem of falling snow and icicles.

The spread of the British terraced housing form and the new American flat roof into Montreal’s vernacular was both rapid and enduring. Already by the next building cycle, 1866-1880, flat roofs were being used everywhere, in particular in British working-class Pointe-Saint-Charles district and French working-class Saint-Jacques Ward. Eventually, it became Montreal’s dominant roof type, with the shift to the central drain plan in the early decades of the 20th century.

More visibly, however, was the mark of the British terrace and its Italianate styling on the Montreal vernacular. By the 1860s and 1870s, miniature British terraces with flat roofs were occurring all over working-class districts and most heavily in the overwhelmingly French Saint-Jacques Ward between Saint-Christophe and Visitation Streets. The significant difference, however, is that these French-Canadian built terraces were organized in duplex and fourplex arrangements, melding Montreal’s vernacular typology of superposed flats with a foreign bourgeois import and an innovative roof type. A row of fourplexes on Logan Street near Plessis in Sainte-Marie Ward, built by Jean-Baptiste Deslongchamps in 1870, typifies the adaptation (Figure 3.23).

The new model represented a brilliant synthesis of seemingly unrelated building currents and the evidence makes it clear that it was small and medium French-Canadian builders who orchestrated it (Hanna 1986). Its enduring impact is easily measured by the vast numbers of similarly designed Italianate terraces built in the 1900s and 1910s, this time around in triplex configurations, in dominant French-Canadian working-class neighbourhoods like Hochelaga (see Figure 3.23). The genre has continued down to the present day in a variety of modern styles and configurations to the big multiplexes, detached fourplexes and semi-detached single-family houses, from the postwar plexes to

Figure 3.23



Montreal, Québec, Series of fourplexes on rue Logan in Sainte-Marie Ward, built in 1870. (Photo by David B. Hanna)

Montreal, Québec, 1613-1693, rue Saint-Germain. Series of 3 storey triplexes, ca 1910s. (Photo by David B. Hanna)



Montreal, Québec, LaSalle district, Semi-detached houses on Cordner Street, ca. 1980s. (Photo by David B. Hanna)

the latest vernacular creations produced, rather ironically, by Montreal's prolific Italian builders as well as many French-Canadian firms (see Figure 3.23).

3.7 A Hypothesis on the Significance of the British Influence on the Montreal Vernacular

While dominance of the building trades by French-Canadian tradesmen is well documented (Hanna 1986; Desloges 1991; Massicotte 1999) and the presence of a vernacular tradition of superposed flats stretches back into the 18th century in Québec, as shown in Chapter two, it remains to be explained how Scottish flatted models, English terraces and American flat roofs found their way into the vernacular tradition. The simplest general explanation would be the logical assumption that a vernacular tradition, desperate for innovation in the face of growing urban pressures, even in pre-industrial Québec, could only be fed from British and American sources given the socio-political climate of the time and the migratory patterns of the 19th century. This would fit in with explanations of industrial and commercial innovation in 19th century Québec.

What is lacking is a clearly proven itinerary for the architectural and cultural demonstration mounted in Chapter three. How did Scottish flats come to proliferate in Montreal? How did the English terrace and American flat roof get disseminated throughout Montreal? While research has not progressed that far, some lines of inquiry can be laid out for future investigation.

Scottish flats, based on scanty historical photographic evidence, seem to go back to the 1830s and 1840s at least. They probably go back even further. What needs to be demonstrated through the notarial records is the presence of Scottish builders erecting flats in Montreal during the early decades of the 19th century. Montreal had proportionately far more Scots then than it would later, so it is reasonable to assume that small builders would have been among them. That their traditions would have been

somewhat familiar to French builders has already been demonstrated here. What needs to be proven is that they actually existed, and if possible, that they might have formed partnerships with French builders, though that need not be a necessary condition for cultural transfer to take place. What is known is that by the 1860s, French builders had already fully absorbed these Scottish flat models.

The question of how the English terrace and the American flat roof made their way so rapidly into the vernacular is somewhat easier to speculate on. Contrary to the Scottish flats, we already know the starting point as it has been demonstrated (Hanna 1977, 1986). Terraces and flat roofs were introduced here by British trained architects like George Browne, John Atkinson, Thomas Scott, John Ostell, Edward Hopkins, William T. Thomas and several others. The residential building projects they designed were huge by the standards of 1850s Montreal. While we do not yet have the proof, it is reasonable to assume that, given their overwhelming dominance of the building trades, French contractors and tradesmen would have worked on these projects at all levels. It is not difficult to conceive therefore that they would have carried the new ideas away with them and applied them to their own more modest building projects elsewhere in the city.

Research has also shown that French-Canadian builders worked their way up through the trades; joiners and carpenters eventually become builders and contractors in many cases. The same research has also shown that many of these small-scale builders actually cruised up and down the social ladder depending on conditions, declaring to be joiners one year, undertakers the next, builders the third, and back to joiner the fourth (Hanna 1986). Such mobility tends to indicate that they would indeed work on other people's building projects some years and launch one or two of their own other years. The pathway from English terrace to flat roofed fourplex seems fairly straight-forward under the circumstances.

What emerges is a very dynamic system where old traditions are easily blended with new influences. The vernacular tradition in Montreal has shown both remarkable persistence in the face of massive socio-economic change, yet a flexible adaptability by

constantly absorbing new ideas and new people into the system, be they Scottish tradesmen, French rural migrants or Italian workers. What has come out of it all is one of the most useful and successful cityscapes modern North America has seen, not the failure it was thought to be some 50 years ago. It just keeps on surviving and adapting.

CHAPTER 4

THE DISTRIBUTION PATTERNS OF HOUSING IN MONTREAL 1866-1900

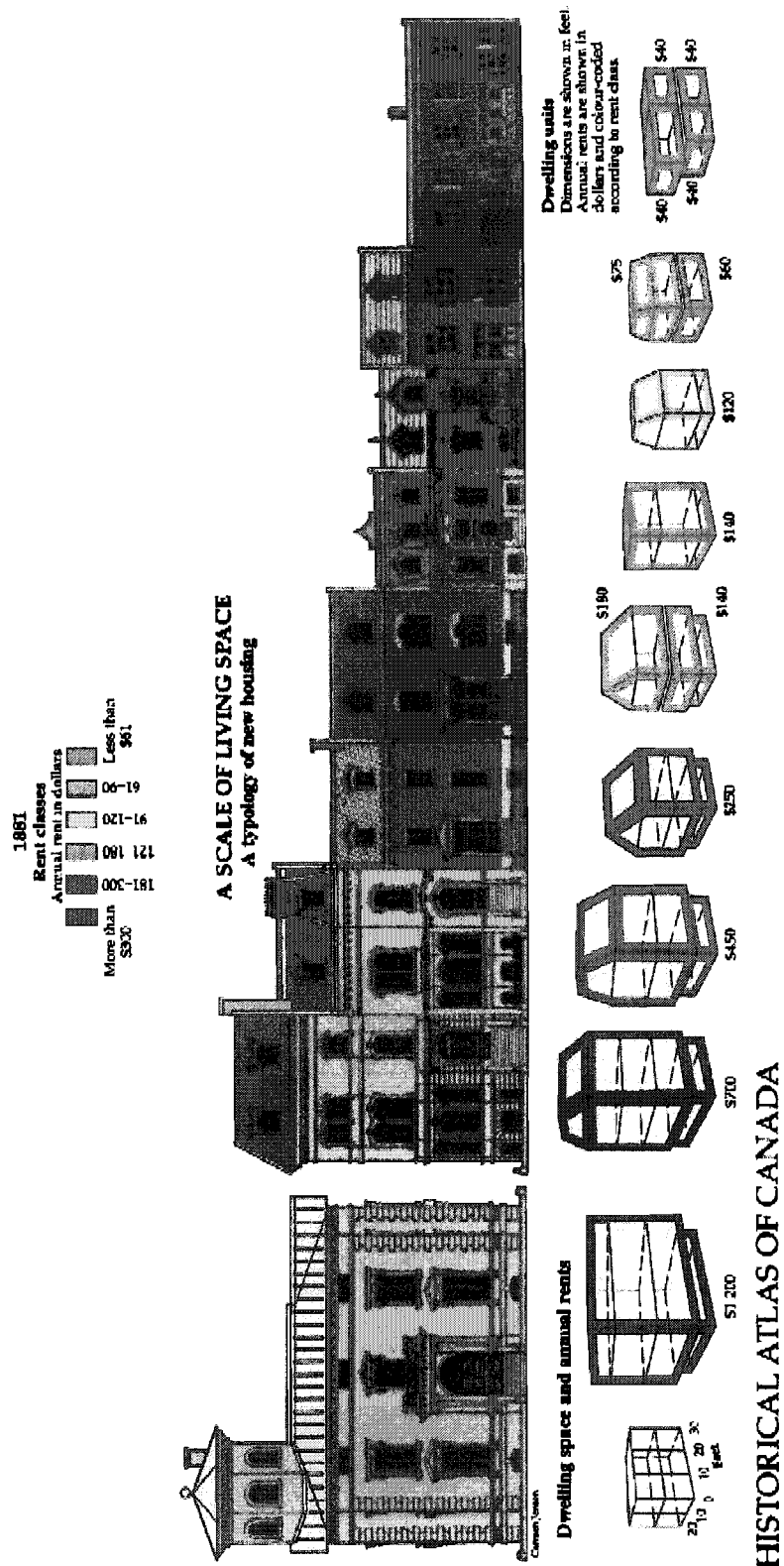
4.1 The Establishment of Multi-Family Housing in Montreal

4.1.1 A Unique Housing Typology

During the second half of the nineteenth century, Montreal's housing typology became much more complex than it had ever been. Housing evolved rapidly in architectural terms and it was during this period that new standard forms of multi-family housing made their appearance. The new typology may be viewed as a tripartite one made up of single-family housing, duplex housing with all its variations, and triplex housing. Although the three segments tended to respond to a hierarchical market where single-family housing occupied the top layer and triplexes the bottom, they also overlapped with one another to a considerable degree. This overlapping series featured juncture points where a variety of housing models co-existed.

The accompanying illustration (Figure 4.1) shows how this typological series might look if the most common Montreal house models of the 1860s and 1870s were assembled on one street. The series of nine houses are organized along a sliding scale of rent levels per household (i.e. house or flat) based on 1881 rental evaluations²⁸. Triplexes are absent from this illustration because they did not yet constitute a common house model in the 1870s.

Figure 4.1



The first type of the series is the single-family house. At the top of this category is the mansion, a large detached house set on a spacious lot. A fairly tight and workable definition of mansions allows them to be separated from the rest of the single-family housing. Mansions are taken to be detached houses (or semi-detached in one special instance). The term mansion simply means a large single-family house and Montreal had plenty of them. They were hardly ever flat-roofed. Most were square in shape, with a frontage of 36 feet (11 metres) or more, occupying a ground area of over 1800 square feet (167 m²) and situated on a large lot. Such a definition leaves practically no ambiguous cases, allowing for a clean break between large attached houses and free-standing houses set on large lots (see Figure 4.1, house no. 1).

What follows next in the single-family series are the luxury multi-storey houses attached to one another. They were commonly two-and-a-half storeys high, although three-storey and three-and-a-half storey versions did exist. Semi-detached housing (i.e. two single-family houses joined by a common wall) was so rare as not even to warrant any inclusion. Except for mansions, houses for the well-to-do in Montreal always shared their side walls with neighbours, whether such houses were built individually or in series. Conversely, these houses were often very deep (see Figure 4.1, houses no. 2, 3, 4).

From this point on in the typology of housing, single-family models share the market with duplexes. Such is the case for two-storey and one-and-a-half storey single-family types, with or without a basement, usually found in rows in neighbourhoods where the larger duplexes could be found (see Figure 4.1, houses no. 6, 7). At the bottom of the series are the small individually built attached single-family houses that could be found scattered among working-class neighbourhoods.

The duplex family form the next series. Multiple-dwelling houses are commonly known as “plexes” in Montreal with a prefix signifying the number of units contained. At the top of the series is the luxury two-and-a-half storey attached duplex built on a raised basement. This model offered four complete floors of living space, divided two per

family. This upper-income duplex model was in competition with smaller single-family models (see Figure 4.1, house no. 5).

More commonly found is the two-and-a-half storey basement-less attached duplex. This type allowed the builder to satisfy two different residential markets at once. The bottom unit, on the ground floor, was quite small. The upstairs unit spanned two floors, with the upper floor under a mansard or gable roof. This upstairs unit was quite spacious, about twice the size of the downstairs unit. The prevalence of this model in working class neighbourhoods gave Montreal its distinctive vertical social stratification. Skilled workers, artisans or local businessmen might be found above unskilled workers making such areas a social layer cake (see Figure 4.1, house no. 8).

Finally, the two-storey attached duplex of working-class Montreal dominates the lower end of the market. This model was often found in a “fourplex” format, meaning two duplexes designed as one building with a common stairway to the upstairs flats (see Figure 4.1, house no. 9). Variants of these duplex models included shop and dwelling combinations which were basically two-storey and two-and-a-half storey attached duplexes with the ground floor flat used for commercial purposes.

A by-law of 1865 imposed certain limits on houses and the amount of squeezing that could be done:

Every Building, except a private dwelling [meaning a single-family house], over thirty and under fifty feet in width, shall have at least one brick or stone wall running from front to rear; or if over fifty feet and under seventy-five feet width, shall, have two partition walls as above; or if over seventy five feet and under one hundred, shall have three partition walls as above²⁹.

This means that single-family houses or “private dwellings”, had no limits placed on them. But multi-family houses could be no wider than 30 feet (9.1 m) if built singly, no wider than 25 feet (7.6 m) if built in pairs or rows. No other constraints applied during

the 1866-1880 building cycle. Height, number of units, windows, and ventilation were of no concern yet to the Municipal Government.

These limits set the tone for minimum housing in Montreal. Since masonry fire walls were expensive, they were to be avoided at all costs. So builders opted for duplexes, which were two superposed flats, no wider than 25 feet (7.6 m), occasionally as narrow as 12 feet (3.7 m). The 30-foot (9.1 m) individually built duplex allowed for some imaginative combinations. Such buildings were used to incorporate a “porte-cochère” or enclosed passageway in the building and still allow for one or two dwelling units upstairs and a smaller one downstairs. These two-over-one duplexes or “three-plexes” became quite popular as part of Montreal’s growing family of plexes. The classic approach for obtaining higher housing densities, however, was the option of building rear courtyard housing accessed via the enclosed passageway incorporated in the front buildings. These rear duplexes or fourplexes were usually built first, followed by the front building later.

The attached triplex as the third type of the tripartite typology was a natural derivative of the duplex. Constrained by the 25 or 30 foot (7.6 or 9.1 metre) by-law, it was found in two basic forms: a two-and-a-half storey mansard-roof or a three-storey flat-roof building containing three superposed flats. The upstairs flats generally shared a common outside door. The idea of pairing up duplexes into fourplex blocks with common upstairs access was transmitted at the outset from the triplex into a sixplex format with a common street level access to all the upstairs flats. The triplex was a new housing type in the 1860s and its full development lay in the future, becoming a major player by the 1890s. Duplexes and triplexes remained the two mainstream models of multi-family housing right up to the 1930s when triplexes rapidly faded out of the housing market, leaving duplexes (and fourplexes) to carry the field until 1978 when triplexes staged a return³⁰.

The presence of multiple doorways in duplexes and triplexes distinguishes Montreal’s multi-family dwellings from Boston’s double-deckers and triple-deckers which typically have only one main outside doorway. During the 1866-1880 cycle in

Montreal, working class house doorways were at ground level, and those for luxury duplexes were up a stone staircase. Only later, during the 1890s, was the outside wood and iron staircase adopted with setbacks, features which came to define Montreal's urban landscape during the 1910s and 1920s in particular.

The shape of Montreal housing during the second half of the nineteenth century was fairly standardized except for height. The width of a house could vary from 12 feet (3.7 m) to 36 feet (11 m), but the overwhelming majority were between 20 and 25 feet wide (6.1 to 7.6 metres). Depth also varied little. The standard depth was 25 to 32 feet (7.6 to 9.7 metres), although the homes of the wealthy often reached back as far as 50 feet (15.2 m). The differences in ground area of a single-family house ran from a typical 500 to 700 square feet (46.5 to 65 m²) up to a maximum of 2000 square feet (186 m²). Montreal houses were always built to the lot line, and the idea of allowing a side path for direct access to the rear of the lot did not come into usage until the beginning of the twentieth century. Thus with the exception of mansions and a few isolated cases of detached houses, all housing, single-family or multi-family, for rich or for poor, inner-city or suburban, was attached housing.

4.2 The Spatial Organization of the Housing Market: 1866-1880

4.2.1 Construction Features as Social Cues

Having identified and located every residential structure built during the 1866 to 1880 building cycle (i.e. buildings produced from 1867 to 1880 inclusive), we can look into how the housing market was segmented. Housing typology and construction features provide convenient ways of examining the segmentation. The distinctions between single-family, duplex, triplex and mixed commercial-residential buildings create a system by which we can observe how housing producers viewed their market spatially. We will see how the single-family house became increasingly restricted in spatial terms. We will

also see how a relatively new and distinctive model the duplex, overwhelmed the housing market, and how and where the triplex emerged during this building cycle.

Housing also differed in the quality and types of materials used and in the basic form of the house. While typological data had to be reconstructed from other sources, an analysis of materials and form is possible directly from the permit records. In themselves they reveal interesting spatial patterns worth examining for their social implications. As we relate the details of form and materials in housing, we will examine how they were distributed in the city and who lived in such housing. The object is to sort out their social meaning as their distribution reflects a social structure.

Building materials can be a reliable indicator of social class. Several materials and methods of construction were available to the builder. The 1860s and 1870s were a turning point for construction materials and techniques. Prior to the 1840s, Montreal had been a wood and stone city. After World War I, it was destined to become a brick city. According to the 1825 census, for example, wooden houses accounted for 64.3 % of all houses, stone houses for 31.9 %, and brick houses only 2.6 %³¹. In the Census of 1852, the proportion of wooden houses remained virtually unchanged at 63 %, but brick houses (13.7 %) had made rapid gains at the expense of stone (23.3 %)³². Fires and anti-wooden construction bylaws in the 1850s changed those proportions radically.

By 1868, wooden houses were a purely residual form of construction allowed only in exceptional circumstances. Instead, a brick-clad wooden house was the standard. The method of construction was a combination of old and new techniques. The ancient French method of construction was known as “*pièce-sur-pièce*” and consisted of stacking squared timbers horizontally between upright squared timbers using a mortise and tenon technique. From this, builders in the nineteenth century developed the plankwall technique. It employed broad boards sawn two inches thick, stacked horizontally edge on edge and toenailed to substantial posts³³. The result was a solid freestanding wooden house whose only voids were window and door openings, the antithesis of the light balloon frames being introduced in the United States. A brick veneer was then built up

course-by-course, covering the plankwall construction and linked to it by small metal tabs set in the mortar. This constituted the legal fireproofing.

Figure 4.2 shows the ward and municipal boundaries as they stood in 1881. The 1866-1880 building cycle was evenly divided between the production of masonry structures, either brick or stone, on the one hand, and plankwall structures and a residual number of wooden structures, on the other hand. In masonry structures, brick had overtaken stone as the favoured material (see Table 1). These house-building materials correspond to social divisions. Plankwall construction, a cheaper method, was synonymous with working-class housing. Thus western Saint-Marie Ward, a solid working-class district, featured 92 % of its new housing in the plankwall category. At the other extreme, northern Saint-Antoine Ward, Montreal's wealthiest district, had only 3.7 % of its new houses of plankwall construction and two-thirds of stone. Indeed over half of all new houses built of stone citywide were in that area. Stone was a sign of affluence in a city increasingly dominated by brick. The social distinction of stone was of particular importance since brick masonry and brick-clad plankwall were indistinguishable except to the trained eye.

Figure 4.2

MONTREAL 1881

MUNICIPAL ADMINISTRATIVE BOUNDARIES
FRONTIÈRES ADMINISTRATIVES MUNICIPALES



**TABLE 1 BUILDING MATERIALS USED IN HOUSING CONSTRUCTION
MONTREAL: 1866-1880 BUILDING CYCLE**

WARD SUB-DIVISIONS	STONE MASONRY	BRICK MASONRY	WOOD FRAME	BRICK-FACED PLANKWALL	
	#	#	#	#	%
Northern St-Antoine	563	253	0	31	3.7
Saint-Laurent	149	186	1	60	15.2
East-Centre-West	12	9	0	9	30.0
Saint-Louis	81	321	6	241	37.1
Western St-Jacques	111	168	1	223	44.3
Southern St-Antoine	75	266	12	327	48.1
Sainte-Anne	8	160	11	311	63.5
Eastern Ste-Marie	15	48	1	170	72.6
Eastern St-Jacques	3	44	13	377	86.3
Western Ste-Marie	2	45	14	701	92.0
	1019	1500	59	2450	
	MASONRY CONSTRUCTION		WOOD CONSTRUCTION		
	2519		2509		

NOTES Figures are for the years 1868-71 and 1873-77 only, years for which we have detailed permits.

For map of wards, refer to Figure 4.2.

Roofing also showed distinctive features and some social differentials. The gable roof with its two sloping sides, Montreal's traditional roof, was on the wane in the 1870s. Two new types of roof were now dominant. One was the mansard roof. It took hold in Montreal by the mid-1860s and swept the gable roof out with amazing rapidity. Although counted as a half story (quite accurate for the old gable roof), it probably should be called a three-quarter storey because it allowed for more usable floor space under the roof. In the 1860s and 1870s this roof was used everywhere in Montreal, on one-and-a-half storey single-family houses, two-and-a-half storey duplexes, just as much as on big luxurious three-and-a-half storey single-family houses.

After 1855, the flat roof made rapid inroads in Montreal following its introduction from Boston³⁴. In 1868, the first year for which we have detailed permit data, 41 % of all new residential buildings had flat roofs. In Sainte-Anne, Sainte-Marie and eastern Saint-Jacques Wards, all strong working-class areas, they constituted the majority of new roofs. The cheapness of the innovation had obviously not escaped builders. The principal hold-out against the flat roof, in spite of such prestigious flat roof terraces as "Wellington Terrace", "Mount Royal Terrace", "Prince of Wales Terrace", "Holyrood Place", "Roxburgh Place" and several others was the wealthy enclave of the northern half of Saint-Antoine Ward³⁵. This area swung to the new stylish mansard roof. To a lesser extent, so did Saint-Laurent, Saint-Louis and western Saint-Jacques Wards, all of which had pockets of affluence.

Of all new residential buildings erected according to the permits, 42.2 % had gravel roofs – that is, flat roofs – as opposed to 57.8 % with slate or metal roofs which included both gable and mansard types, although field observations found the gable to be scarce (see Table 2). There was a strong class dimension to roofing as only a minority of new housing had flat roofs in the central and western wards where the bourgeoisie was present. In the mainly working-class wards in the east and southwest of Montreal, the flat roof was the norm. Yet the class connotation was never exclusively applied as prestigious houses did have flat roofs while scores of two-and-a-half storey duplexes had mansard roofs. In the subsequent 1880-1900 building cycle, the two dominant roof forms –

TABLE 2 **HOUSE ROOF TYPES IN NEW HOUSING**
MONTREAL: 1866-1880 BUILDING CYCLE

WARD SUB-DIVISIONS	SLOPING ROOFS		FLAT ROOFS	
	#	%	#	%
Northern St-Antoine	747	88.2	100	11.8
Saint-Laurent	276	69.7	120	30.3
Western St-Jacques	352	70.0	151	30.0
Saint-Louis	445	68.6	204	31.4
East-Centre-West	18	60.0	12	40.0
Southern St-Antoine	383	56.3	297	43.7
Eastern Ste-Marie	105	44.9	129	55.1
Eastern St-Jacques	191	43.7	246	56.3
Western Ste-Marie	281	36.9	481	63.1
Sainte-Anne	109	22.2	381	77.8
	<hr/> 2907	<hr/> 57.8	<hr/> 2121	<hr/> 42.2

NOTES Figures are for the years 1868-71 and 1873-77 only, years for which we have detailed permits.

For map of wards see Figure 4.2.

mansard and flat – were married producing a flat roof dressed with a false mansard facade, made out of slate or sheet metal, covering the front of the upper storey. This new roof type was already in evidence by the end of the 1866-1880 cycle.

A basement was also a good indicator of the quality of the building. It was expensive to excavate and required a lot of additional materials. If a builder could get away with simply scratching down below the frost line to provide footings, he did away with much of the capital expenditure required in building a house. Houses without basements were dug out to about four feet below ground level and a stone foundation laid in around the perimeter to provide a footing. This type predominated in working-class neighbourhoods. About 59 % of all houses built during the 1866-1880 building cycle had no basements. The relationship between housing construction and social class is easily grasped when one realizes that in a working-class neighbourhood like western Sainte-Marie and eastern Saint-Jacques Wards, about 94 % of all new housing built had no basements. In working-class Sainte-Anne Ward, the proportion was much the same, about 93 %. In contrast, wealthy northern Saint-Antoine Ward had only a little over 10 % of its new housing built without basements (see Table 3).

Basement-less working class houses offered only an earth dugout in which coal and perhaps provisions could be stored, but the space was otherwise unfit for habitation. Basements in the wealthier districts, on the other hand, constituted a fully usable floor. This full-height finished space was generally used as a service area. Where income permitted, domestic servants laboured away preparing meals, washing clothes, receiving deliveries and storing goods. Where income did not, the woman of the household laboured there at these tasks.

These spaces were well lit with natural light as most Montreal basements were well out of the ground by half or more of the basement height. Some houses, particularly in wealthier areas, also had “tails”, that is rear wings narrower than the width of the house. Although common in many other cities, they were not particularly prevalent in this city.

**TABLE 3 USE OF BASEMENTS IN HOUSING CONSTRUCTION
MONTREAL: 1866-1880 BUILDING CYCLE**

WARD SUB-DIVISIONS	HOUSES WITH BASEMENTS		HOUSES WITHOUT BASEMENTS	
	#	%	#	%
Northern St-Antoine	759	89.6	88	10.4
Saint-Laurent	248	62.6	148	37.4
Saint-Louis	355	54.7	294	45.3
Western St-Jacques	269	53.5	234	46.5
Southern St-Antoine	287	42.2	393	57.8
East-Centre-West	12	40.0	18	60.0
Eastern Ste-Marie	33	14.1	201	85.9
Eastern St-Jacques	35	8.0	402	92.0
Sainte-Anne	33	6.7	457	93.3
Western Ste-Marie	36	4.7	726	95.3
	<hr/> 2067	<hr/> 41.1	<hr/> 2961	<hr/> 58.9

NOTES Figures are for the years 1868-71 and 1873-77 only, years for which we have detailed permits.

For map of wards, see Figure 4.2.

The point that emerges from these analyses of construction features is that there were important architectural distinctions in the housing that carried strong social connotations. Whether building materials, roof types or basements are used as measuring sticks, the city's housing stock appeared to be polarized around two extremes. Northern Saint-Antoine Ward was at one extreme, reflecting a bourgeois reality, while Sainte-Anne, eastern Saint-Jacques and Sainte-Marie Wards were at the other extreme, reflecting a working class reality. Between the two a middle ground represented by southern Saint-Antoine, Saint-Laurent, Saint-Louis and western Saint-Jacques Wards stood out suggesting areas of considerable mixing of social classes or areas undergoing redevelopment and social change. For further refinement, we will now approach the spatial attributes of the housing market from a typological angle.

4.2.2 The Persistence and Expansion of Single-Family Housing

Nearly half of all houses built from 1867 to 1880 were duplexes³⁶. Once other forms of multi-family housing are added in, the proportion climbs to 60 %. That includes flats over shops (9.4 %), triplexes (4.3 %) and a few boarding houses (see Table 4). Montreal was transformed. The other 40 % of production was taken up by single-family housing including the 1 % that were mansions. There was decidedly a dual market. Where were these new houses of each type distributed, and what do the distributions tell us about the sorting out of urban society in the 1870s?

The individual's ability to pay for housing is best indicated by assessed rent. Montreal possesses an annual rental evaluation for each and every household whether actually rented or owned by its occupant. This special assessment has been compiled since 1856 for the purpose of computing an assessed property rental tax known locally as the "water tax" as it was introduced as a means of financing the new Montreal Water Works system. It was only abolished in 1982. Though despised by Montrealers for generations, this rent assessment by household is a boon to social scientists. Its systematic nature provides a good relative measure of the value of housing by household.

**TABLE 4 PERCENTAGES OF HOUSES BY TYPE
BUILT IN MONTREAL: 1867-1880**

DISTRIBUTION BY WARD	SINGLE FAMILY HOUSES	DUPLEX HOUSES	SHOPS WITH FLATS	TRIPLEX HOUSES	ALL NEW HOUSES
STE-ANNE	8.5	11.9	8.9	29.3	11.0
ST-ANTOINE (south)	12.4	15.8	13.6	10.7	14.0
ST-ANTOINE (north)	34.5	2.7	9.5	1.0	16.1
ST-LAURENT	10.1	4.3	14.0	3.3	7.4
ST-LOUIS	16.0	10.6	13.0	6.2	13.0
ST-JACQUES (west)	8.3	9.9	7.4	2.6	8.7
ST-JACQUES (east)	1.9	13.6	11.4	24.1	9.1
STE-MARIE (west)	5.4	25.3	13.7	17.3	15.8
STE-MARIE (east)	2.5	5.9	7.2	3.9	4.5
EAST-CENTRE-WEST	0.4	-	1.3	1.6	0.4
ALL WARDS	100.0	100.0	100.0	100.0	100.0
# OF NEW HOUSES	2887	3295	677	307	7179
% OF NEW HOUSES	40.2	45.9	9.4	4.3	100.0

NOTES All figures, except number of new houses are expressed as percentages.

Total of 7179 new houses includes 13 new boarding houses.

Ward subdivisions occur at St-Antoine Street for St-Antoine Ward, Amherst Street for St-Jacques Ward, and Colborne Avenue (Delorimier) for Ste-Marie Ward.

See Figure 4.2 for map of ward boundaries.

It can be used as a substitute for income since the ability to pay for housing of a certain standard reflects overall purchasing power.

Any use of rental assessments should bear in mind the pitfalls outlined by Gregory Levine³⁷. We need not be overly concerned with these problems here, as the use of rent assessments (hereafter called “rents”) is used only as a relative, not an absolute value, to show gross patterns of distribution. By grouping all the rents in a pair of block faces (the two facing sides of a street between two major cross-streets) and picking out the median rent to represent the group, many anomalies are eliminated. The median is preferable to the mean as the latter can be heavily influenced by exceptional values, such as a mansion. To counter the bias that Levine notes in over-evaluating the poor or under-evaluating the rich, we have divided up the lower end of the rent scale more finely than the upper end. Although caution must be exercised in interpreting the absolute values, the overall picture of low rent versus high rent remains a valid one. The date chosen for this “snap-shot” of the city’s housing is at the end of the building cycle in 1880 with construction at a near standstill.

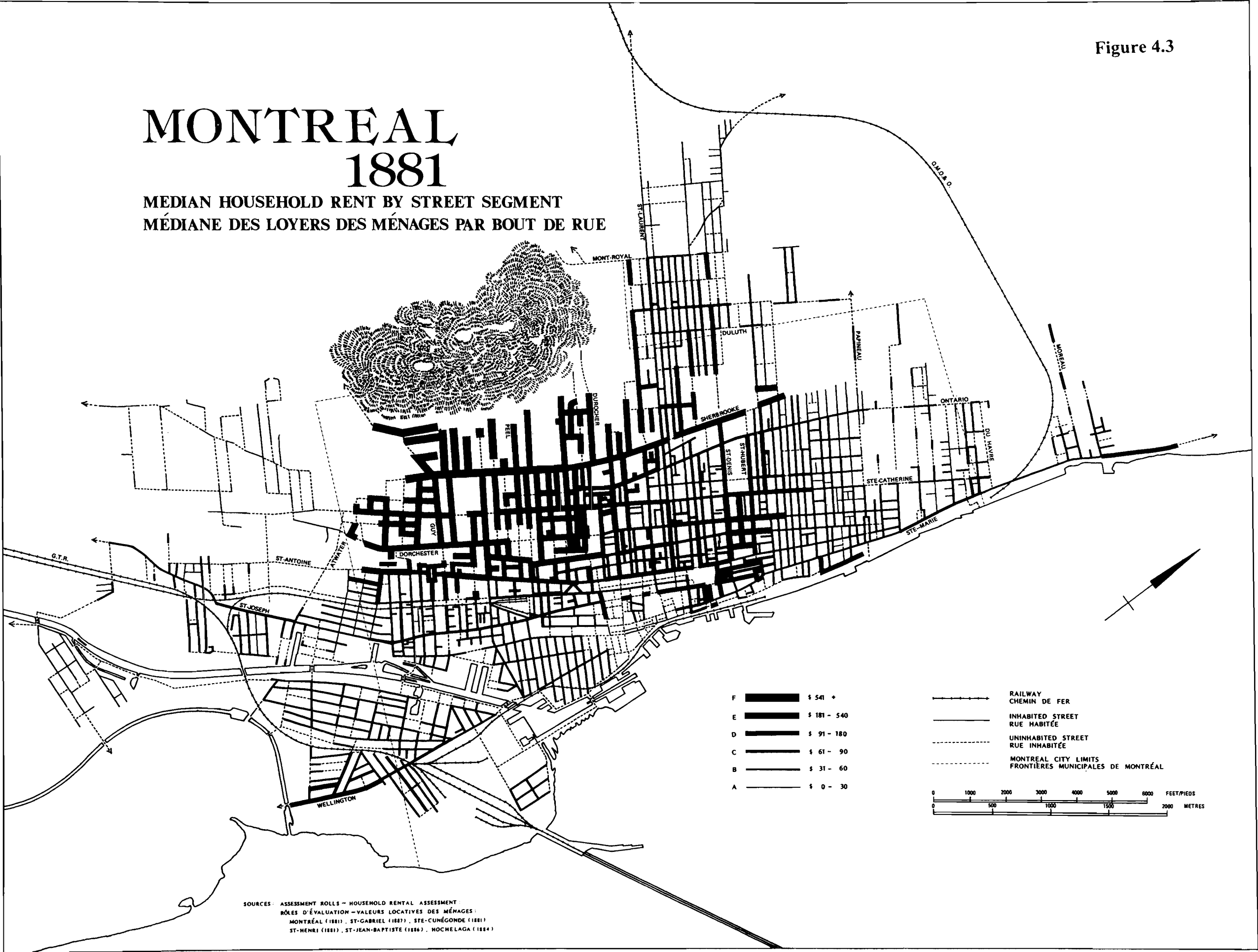
Figure 4.3 – the map of median household rents – shows two major concentrations of high rent housing³⁸. The first covers Saint-Antoine Ward from Saint-Antoine Street north to the mountain, and a good portion of Saint-Laurent Ward as well. The second, more modest, includes the western half of Saint-Jacques Ward and most of East Ward in Old Montreal. If we had data for the village of Côte Saint-Antoine (later Westmount), we would see an extension of the high value rents of northern Saint-Antoine Ward. Aside from pockets of low rents in southern Saint-Louis and Saint-Laurent Wards, a new low-rent zone in the North End stands out (made up mostly of northern Saint-Louis Ward) with pockets of affluence evident here and there. An extension of the assessment data into Saint-Jean-Baptiste Ward in 1886, following annexation, demonstrates that low rents clearly prevailed in that end of the city (see Figure 4.2).

Two immense zones of low rents stand out. One is the East End including virtually every single street east of Saint-André Street. The rents dipped even lower still

Figure 4.3

MONTREAL 1881

MEDIAN HOUSEHOLD RENT BY STREET SEGMENT
MÉDIANE DES LOYERS DES MÉNAGES PAR BOUT DE RUE



as one reached the northern edge of this zone around Ontario Street, and immediately west of Papineau Avenue. The other major zone of low rents is the south-west, mainly Sainte-Anne Ward and Saint-Antoine Ward south of Saint-Antoine Street. These areas north and south of the industrial corridor along the Lachine Canal extend into adjacent suburban towns, Saint-Gabriel south of the canal and Sainte-Cunégonde and Saint-Henri north of the canal. Only in the extreme southern end of Sainte-Anne and Saint-Gabriel Wards did a few streets escape the overall pattern of poverty.

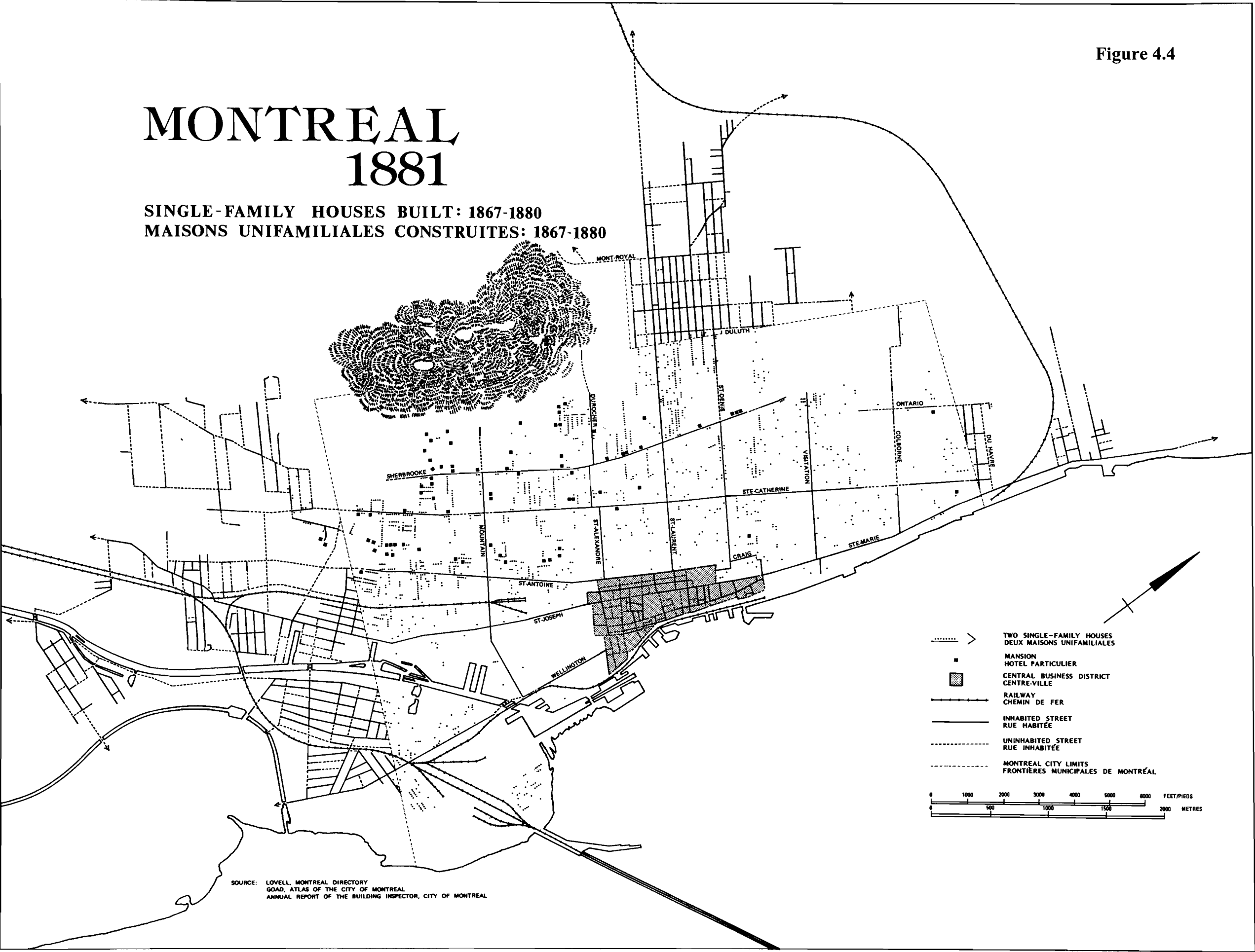
How does the pattern of new housing construction mesh with this distribution of household rents? If we look at single-family housing first, Figure 4.4 shows that the general pattern of development was for builders to aim for the mountain. Single-family housing shows a very heavy concentration in a crescent surrounding Mount Royal from the upper reaches of Saint-Denis Street at the city limits to the vicinity of Saint-Bonaventure Street where the Grand Trunk Railway penetrated the city. This swath corresponds with the northern portions of Saint-Antoine, Saint-Laurent and Saint-Louis Wards. Together they accounted for almost two-thirds (62.5 %) of the single-family housing built in the city.

The correlation between high rents and single-family houses is strong but by no means perfect. The western half of Saint-Jacques Ward is notably absent from the pattern described thus far. This niche of affluence had only 37 % of its new housing in single-family format while 53 % was in duplex format, on the whole very luxurious duplexes. The standard model was a two-and-a-half storey stone masonry building with raised basement and mansard roof. The four complete floors of living space gave each family two floors of its own. These were tall elegant structures at complete variance with the squat brick-clad duplexes of the working class. This was the locus of the French bourgeoisie while the single-family bastion near Mount Royal was the home of the Anglo-Scottish-Irish bourgeoisie³⁹.

Figure 4.4

MONTREAL 1881

SINGLE-FAMILY HOUSES BUILT: 1867-1880
MAISONS UNIFAMILIALES CONSTRUITES: 1867-1880



The single-family market near Mount Royal was not by any means uniform in the type of single-family housing built. Many different sub-markets existed within this zone. A distinctive market for mansions showed a marked tendency to concentrate in northern Saint-Antoine Ward (76.7 % of all new mansions). The rest were strung out along Sherbrooke Street. The identification of mansions with the British-Canadian bourgeoisie is an indication of real economic power. The occupants read like a “who’s who” list of financiers, merchants and industrialists in the national economy⁴⁰.

On the fringes of the vast northern Saint-Antoine Ward were modest one-and-a-half storey cottages built in rows to one or the other of two standard designs. One was a Gothic Revival design featuring a prominent front-facing gable decorated with the carpenter's delicate vergeboard (“gingerbread”). The other was a Second Empire design dominated by a heavy mansard roof with dormers. These modest little cottages were quite different in size, style and material from the swath of luxurious two-and-a-half storey single-family row houses loosely filling the space in a wide arc from Saint-Antoine Street to upper Saint-Urbain Street. The fringes of little cottages were concentrated in the northern portion of Saint-Louis Ward where they shared the market with duplexes. There was a sizeable pocket of little cottages in southern Saint-Antoine Ward around Coursol, Fulford, Canning and Saint-Martin Streets as well, and two small pockets along Baile and Tupper Streets in the west of Saint-Antoine Ward. A fourth was along Saint-Christophe and Saint-André Streets in western Saint-Jacques Ward where they also mingled with duplexes.

These fringes are worth singling out not only because they are visually distinctive but also because they represented an alternative to the roomy duplexes that dominated that segment of the market. They are worth studying for another significant reason. These fringe zones stand out with the highest proportions of speculatively-built single-family houses in the city. The rates of permit-holder occupied single-family houses were around 3 to 6 % in these areas while the norm elsewhere in the city was generally between 12 and 34 %⁴¹.

Working-class Montreal, represented by Sainte-Anne Ward, and both eastern Saint-Jacques and Sainte-Marie Wards, accounted for 18.3 % of the new single-family houses but also half (56.6 %) of the new duplexes. The single-family houses here appear as a sprinkling across the entire area. The only portion of working-class Montreal where single-family housing registered a much stronger showing was in Pointe Saint-Charles and Victoriatown (both neighbourhoods located in southwestern Sainte-Anne Ward). These residential areas surrounding the Grand Trunk Railway Shops were presumably high-wage areas. Half (50.4 %) of the new housing in Victoriatown was single-family in character as was 62.4 % on the other side of the shops southwest of the G.T.R. main line.

A high proportion of these houses were non-speculative, that is, occupied by their permit-holders. In fact, the areas with the highest proportions of permit-holder-occupied houses in the city were precisely these areas. Even northern Saint-Antoine Ward with all its mansions did not come close to these areas in non-speculative single-family housing, with only 8.5 % of new houses being occupied by permit-holders. In eastern Saint-Jacques and Sainte-Marie Wards the proportion was 25 %. In western Sainte-Marie north of Sainte-Catherine Street, it was 34 %, and in Sainte-Anne, 26.6 %. The highest level of non-speculative single-family housing found anywhere in the city was in Victoriatown at 50.4 %.

In short, the city's building cycle yielded two distinct zones of single-family houses. One zone was for the well-to-do and those aspiring to be. Most of the single-family housing was built there, stone and brick row houses on streets reaching toward the mountain. The overwhelming majority were built by builders looking for profits, not a home. The other market was for the less affluent. There the single-family housing was almost invisible, submerged in a dense townscape of multi-family housing. Their scatter hid a reality of working-class life in Montreal usually overlooked – that some residents of working class neighbourhoods could afford their own self-contained houses. Houses were built individually, often for builder occupancy. All of it was small-scale enterprise. The numbers of such houses erected are not insignificant. We are talking about 528 houses in

the above-mentioned wards or 7.3 % out of the total production of houses of all types citywide.

4.2.3 The New Dominance of Duplex Housing

The map of duplex housing, Figure 4.5 contrasts with the single-family housing distribution in Figure 4.4. The area near the mountain, stretching from Saint-Antoine Street to Saint-Laurent Street is almost devoid of any duplex construction. Sainte-Anne and the central wards, southern Saint-Laurent and Saint-Louis, feature duplexes quite prominently. The most intense concentration of duplexes is found in Saint-Jacques and Sainte-Marie Wards in the East End and southern Saint-Antoine Ward in the West End.

Figure 4.5 actually shows both duplex construction and related shop and dwelling combinations. The standard shop and dwelling was a two or two-and-a-half storey structure containing an upstairs flat and a store where the downstairs flat would normally have been. Another variant, resembling a rooming house, had a shop below with a stairway leading upstairs to several apartments. Such buildings, often three storeys high, tended to be closest to the central business district. Combinations of shop and dwellings were typically located along important arteries such as Saint-Joseph, Saint-Laurent, Ontario and Sainte-Catherine Streets. Important groupings were also built along Sainte-Marie, Bleury and Saint-Antoine Streets. The rest were scattered across the city in corner-store fashion. In all there were 677 new shop and dwellings built or 9.4 % of the total house production.

The feature that immediately catches the eye is the intense development of duplexes in Saint-Jacques and Sainte-Marie Wards between Amherst Street and Papineau Avenue north of Sainte-Catherine Street. Virtually the entire district was developed in one fell swoop between 1867 and 1880, indeed mostly between 1870 and 1873, at the peak of the cycle. Prior to this development there had been nothing more than a corridor along Visitation Street north of Mignonne Street. That corridor was developed well in

advance of our period and contained mostly small wooden housing and several factories and workshops. The reason for this finger of development was to provide access to an early brickyard at the end of the street.

One-third of new duplexes and one-fifth of shop and dwelling combinations were built here. It was in this overwhelmingly francophone Saint-Jacques/Sainte-Marie area that the quintessential Montreal fourplex gained its strongest foothold. Street after street of terraced flats, four blocks almost uninterrupted along Amherst, Wolfe, Montcalm, Beaudry, Panet, Durham (later Plessis), Sydenham (later Maisonneuve, then Alexandre-de-Sève) and Seaton (later Champlain) Streets. Almost overnight, this became Montreal's densest neighbourhood⁴².

Why did this east-end district undergo such a massive transformation? The industrial base in the northeastern sector of the city may have attracted builders (see Figure 4.6). The existing Visitation Street corridor with its glue, leather, thread, wood and food factories, small but numerous, would have drawn builders in that direction. The extensive brickworks and other assorted factories out in the nearby fields north and east of the Papineau-Ontario intersection were a magnet to potential housing developers. The underlying reasons are the surge in the francophone population coupled with a delayed reaction to the Great Fire of 1852 which eliminated so much east-end housing. The francophone element of the population had more than doubled by 1871, a mushroom growth of 177 % between 1852 and 1871 against an overall population growth of 86 % for the total population of the City of Montreal⁴³.

There was a new and growing market for duplexes in the far East End next to the city limits. This area had started out as an artisanal village along Dufresne Street. With the arrival of the brick works in the north, the street railway car barns and the New City Gas Works in the 1860s just outside the city limits off Sainte-Marie Street, multi-family housing began to fill in the streets on both sides of the boundary. Several other factories, notably the MacDonald Tobacco Company, established themselves in the vicinity during the 1870s. Although the area was small in comparison with the district west of Papineau

Figure 4.5

MONTREAL 1881

DUPLEX HOUSES BUILT: 1867-1880
MAISONS DUPLEX CONSTRUITES: 1867-1880

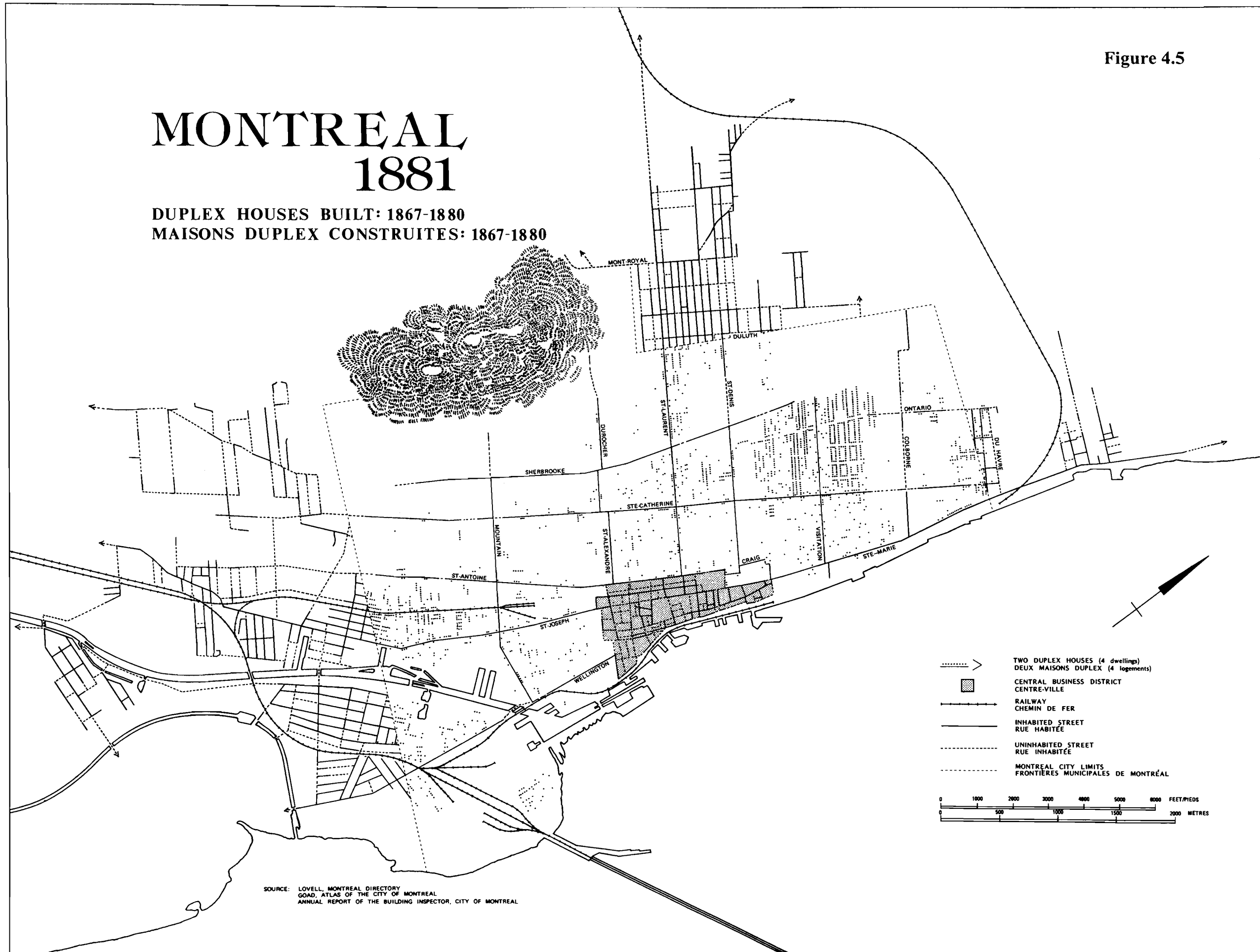
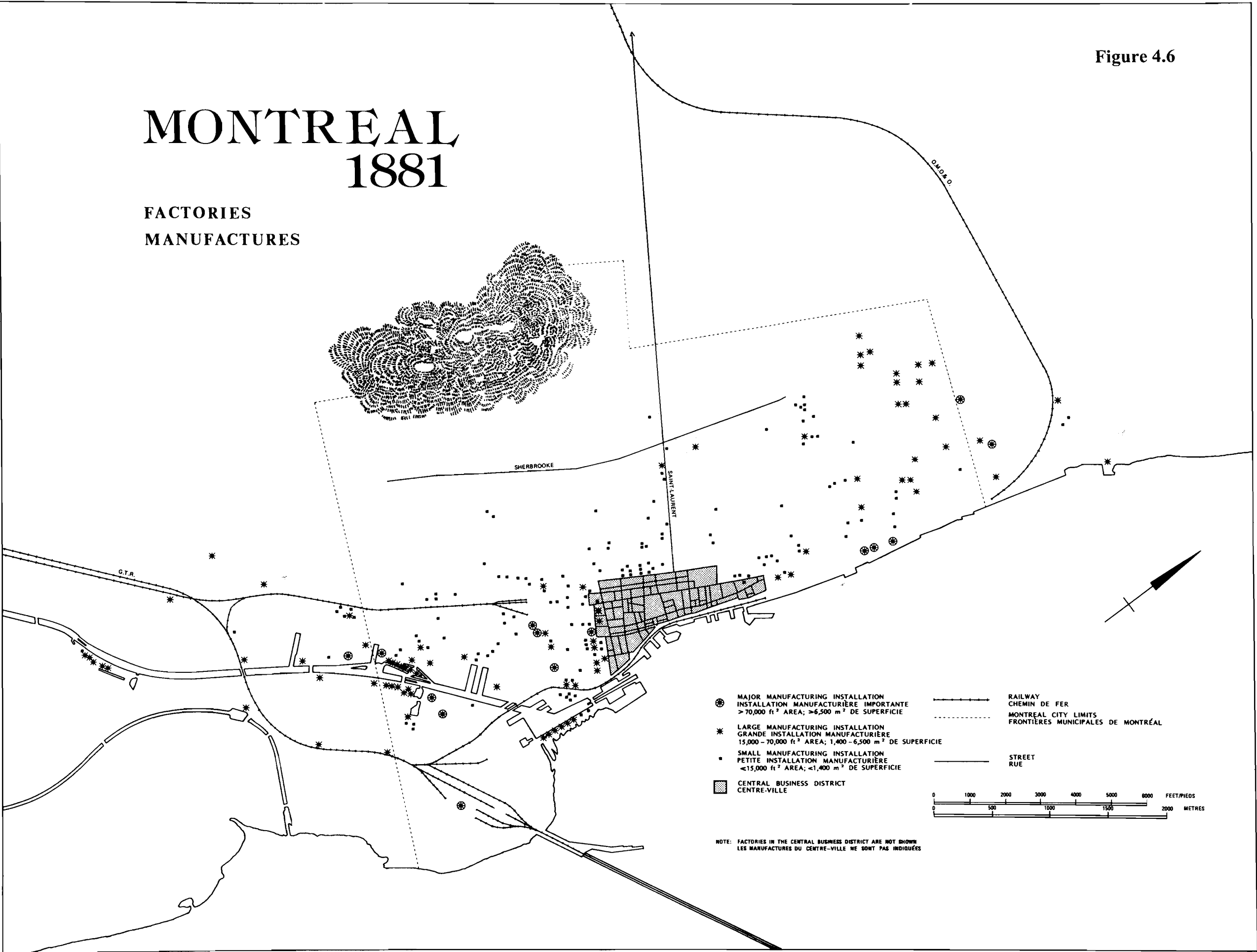


Figure 4.6



Avenue, housing densities in a few localized spots, such as Logan Street, resembled those of the area to the west, a portent of things to come.

Another market of increasing importance was the North End. Northern Saint-Louis Ward accounted for 4.7 % of new duplexes. The bulk of those duplexes lay in the narrow band between Saint-Laurent and Saint-Hippolyte (later Coloniale) Streets. As Saint-Laurent, Saint-Dominique and Saint-Hippolyte Streets reached north, the zone of duplexes widened out crossing the city limits and embracing most of Saint-Jean-Baptiste Village. Figure 4.3, the map of rents, shows this pattern. This part of Saint-Louis Ward and, increasingly, Saint-Jean-Baptiste Village (soon to be annexed) were becoming working-class suburbs, removed from any places of employment. A glance at Figure 4.6 confirms the lack of factories north of Sherbrooke Street. Most workers simply walked down the hill to their places of employment.

The old central wards reveal some changes in make-up. Saint-Louis and Saint-Laurent Wards south of Ontario Street, formerly known as Faubourg Saint-Laurent, featured much new single-family housing (see Figure 4.4). Duplexes built in this old district accounted for 8.5 % of the new duplexes in several small concentrations. Shop and dwellings were confined to Saint-Laurent and Craig Streets, and to a lesser extent Sainte-Catherine Street. This weave of small patterns is what made the district distinctive. Many factories in Figure 4.6 were closer to the scale of workshops. The area lacked the huge manufacturing installations so typical of the East End and West End.

Likewise in rents, we see a complex mixture of bits of streets with widely contrasting median rents (see Figure 4.3). Even the median rents do not do justice to the complexity of this area's housing as values differed widely within each street segment, especially in the Saint-Louis half of the district. What we have is the antithesis to the model prevalent elsewhere in the city. Here all housing types played a role. The new housing included 43.1 % duplexes, 30.9 % single-families, 21.5 % shop and dwellings and 3.9 % triplexes. This was the most diversified distribution anywhere in the city. The area was about evenly balanced between French and English, and claimed a high

proportion of the few non-French, non-British ethnic groups Montreal could lay claim to, according to the 1871 census.

Meanwhile, housing in the area was undergoing a densification process with the infilling of rear lanes, the redevelopment of old sites, and the occupation of the last vacant lots. In so doing, it was reaching out to several different markets. There was no single model. Its main arteries featured sophisticated commercial buildings with upstairs apartments. Duplexes could be either spacious and luxurious or narrow and cramped. The single-family houses ran the gamut from cheap back-yard or rear-lane dwelling to expensive mansion. Heterogeneity was the main characteristic of lower Saint-Louis and Saint-Laurent Wards.

In Sainte-Anne Ward, exactly half the new housing was of the duplex variety, its townscape resembling the East End except perhaps for the less frequent use of the mansard roof. Architecturally, the area looked very homogeneous as single-family and duplex houses blended together in brick-clad flat-roof rows, the only feature separating them being the number of doors at ground level. The duplex type was spread throughout the area, even in old Griffintown (northeastern Sainte-Anne Ward). Although we have no housing development information for the Village of Saint-Gabriel adjacent, rents in Figure 4.3 and field observations show a similar trend across the city boundary.

North of Saint-Joseph Street, in Saint-Antoine Ward, the situation was one of contrasts. The area between Saint-Joseph and Saint-Bonaventure (southern Saint-Antoine Ward), cut in two by the Grand Trunk Railway which ended here with its main freight and passenger terminal, was one of high densities, second only to the East-End cluster⁴⁴. That wedge of southern Saint-Antoine Ward also held the second highest concentration of duplexes in the city, about two-thirds of its new housing. The impact of new construction was especially felt in the numerous side lanes so common in this area, and in the new streets at the city limits -- Workman, Delisle and Albert (later Lionel-Groulx) Streets. In fact, these three new streets hinted at what was happening just across the boundary line. A new town had sprung up during the 1866 – 1880 building cycle. The

Town of Sainte-Cunégonde extended the several east-west streets of Montreal. A large and concentrated duplex townscape came into being, becoming one of Montreal's densest suburbs.

The reason behind the creation of this dense corridor of duplexes and the sudden existence of the new working-class suburb of Sainte-Cunégonde was heavy industrialization. Numerous factories, all large and all labour intensive, had been built along the north side of the Lachine Canal, especially at the Saint-Gabriel locks where des Seigneurs Street crossed the canal (see Figure 4.6). On the southern edge of Saint-Joseph Street, on either side of the city limits, lay two of the biggest employers in Montreal – the Montreal Marine Works, established in 1846 and the Montreal Rolling Mills, established in 1868. Each had payrolls in the hundreds. At the Saint-Gabriel Locks, a string of factories encompassed large foundries, flour mills, machine shops and woodworking shops.

There is no question that housing development, especially the duplex development on either side of the city boundary, owed its existence to this strong industrial presence. Montreal was still very much a walking city, at least for the working class who could ill afford the price of city transit.

The cost of a ticket and the slow pace of the tramcar were enough to convince any worker to remain within walking distance of his factory. He would have had to spend \$0.25 for six tickets or \$1.00 for twenty-five; a labourer would have to work for an hour in order to defray the cost of his transportation. No transfer privileges existed prior to 1892... The urban tramcar was not much of a match for a good walker⁴⁵.

North of Saint-Bonaventure Street, duplex development melted away quite rapidly. From Saint-Bonaventure to Saint-Antoine Street (in southern Saint-Antoine Ward), a transition took place, with pockets of small brick-clad working-class duplexes giving way to elegant stone or brick two-and-a-half storey mansard-roof duplexes with a basement. Although these two types were submerged in a sea of single-family houses and

although they were spatially quite close to each other, they looked in a different direction, figuratively speaking. The working-class duplexes looked across the tracks to the industries on the Lachine Canal, while the larger duplexes looked up the hill towards the mansions along Dorchester Street.

In this wedge of southern Saint-Antoine Ward where several housing markets co-existed side by side, and people of different class origins rubbed shoulders, house builders had conflicting ideas as to which way the area would ultimately swing. In 1887, the invasion of the Canadian Pacific Railway viaduct north of Saint-Antoine Street cut the area off from the luxurious mansions just up the slope, and cast the die in the direction of low-income housing, but that story properly belongs with the 1880 – 1900 building cycle. In the 1870s the area had very much the appearance of those other transitional areas like northern Saint-Louis Ward or Saint-Jacques Ward, especially around Saint-Christophe and Saint-André Streets.

4.2.4 The Arrival of the Triplex

As rapidly as the duplex burst onto the Montreal housing market in the second half of the nineteenth century, yet another form of housing, the triplex, seems to have made its debut sometime in the 1860s. Commonly associated with the 1900 – 1918 and 1918 – 1935 building cycles, triplexes began appearing at least two cycles earlier. Once the basic duplex model had been assimilated, it did not take much imagination to create a triplex. Still it is interesting that builders were prepared to build to such densities so early. The emergence of the triplex, even in small numbers, underscores the revolutionary impact of industrialization, mass migration to the city, and fires on the housing market in working-class Montreal.

To pin down the first triplex is impossible at this stage as detailed permits only go back as far as 1868, however the first was probably built not much before this date. Furthermore, triplexes are hard to identify from the permits as the typology must be

worked out in conjunction with other sources. There is a slight margin of error in interpreting what was built as a triplex, or a “three-plex” (2 side-by-side flats over one downstairs flat), or an overcrowded duplex, or a boarding house, but the error is towards under-reporting. Field work was used wherever possible to verify the identity of such buildings. In 1868 three permits were issued for a total of seven triplexes, all in the East End. The first identifiable permit for West End triplexes appears in 1870. By 1871, 20 permits had been issued for 55 triplexes around town. Basically, triplexes appeared in different parts of the city about the same time.

The number of triplexes built between 1867 and 1880 was 307 or 4.3 % of the cycle’s production, a small portion of the housing market. However, in localized terms they were significant as they tended to be highly concentrated in the densest neighbourhoods (see Figure 4.7). Saint-Jacques and Sainte-Marie Wards between Amherst Street and Papineau Avenue, north of Sainte-Catherine Street accounted for 40.7 % of triplex production city-wide.

A second concentration was in Sainte-Anne Ward along the north side of the canal, on Barré and Payette Streets, two relatively insignificant streets located behind commercial Saint-Joseph Street. They were a few steps from large industrial employers at Saint-Gabriel locks and near the Grand Trunk freight terminal (see Figure 4.6). The same logic of location applies to small clusters in southern Saint-Antoine Ward where the new Montreal Rolling Mills were located and in eastern Sainte-Marie Ward near MacDonald Tobacco.

In general, triplex development was suburban. The theoretical argument that cheaper suburban land permitted looser, less dense forms of housing does not apply. Most of these triplexes were located in areas where land was plentiful. The cluster on Poupart Street opposite the MacDonald Tobacco factory stood in the midst of fields. The largest grouping, between Ontario and Sherbrooke Streets, looked out at the vast totally undeveloped northern suburbs. The units down on Barré Street were surrounded by more vacant land than developed land.

The new factories employed vast pools of unskilled, low-wage labour. Wages of \$1.00 a day were common for unskilled workers in the Montreal Rolling Mills. Temporary wage cuts, rather than incremental raises, were the norm during the last third of the nineteenth century⁴⁶. With such an enormous increase in low-wage workers and with housing undergoing acute shortage problems as outlined earlier, contractors were coming up with new solutions to enable profit between the cost ceiling and the floor of purchasing power. Hence the squeeze of low wages and rising land costs produced the triplexes in the fields.

Overall the housing market was spatially segmented. Two vast almost mutually exclusive zones divided up the city. One was a zone of single-family housing clustered around the apron of Mount Royal. This corresponded with Montreal's wealthiest neighbourhood. The other was a truncated zone of duplexes with pockets of triplexes, part in the southwest, part in the East End. Both were contiguous to areas of industrial development. Yet there were zones of juncture and overlap. Here small single-family houses and large duplexes mixed. The most significant ones were the aspiring white-collar and small business zones lapped onto the outer fringes of the apron. The other ones were the smattering of single-family houses amidst the working-class areas where high wage earners and local businessmen lived.

The main story of the 1866 – 1880 building cycle, however, was the dominance of the housing market by the duplex. From a minority type of housing in the 1840s and 1850s, the duplex spread rapidly during the 1860s. By the time the end of the building cycle came in 1880, duplexes had overwhelmed the East End where once single-family housing had dominated, taken over in other working-class areas and even penetrated the middle-class market with a larger, more luxurious model. It had become Montreal's main house type. Behind this distinctive new element of the built environment lay another reality of industrial Montreal – the speculative builder.

TRIPLEX HOUSES BUILT: 1867-1880
MAISONS TRIPLEX CONSTRUITES: 1867-1880



SOURCE: LOVELL, MONTREAL DIRECTORY
GOAD, ATLAS OF THE CITY OF MONTREAL
ANNUAL REPORT OF THE BUILDING INSPECTOR, CITY OF MONTREAL

4.3 The Spatial Organization of the Housing Market: 1880-1900

4.3.1 Cycle Comparison with the Previous Building Cycle

The 1866-1880 building cycle had essentially been divided up between single-family houses (40.2 %), overwhelmingly of the attached or row-housing variety, and two-flat duplexes (45.9 %), virtually all sharing side walls. The residual elements of the market were divided between flats-over-shops (9.4 %) and the new insurgent triplex (4.3 %), a natural progression in density from the duplex.

The much larger 1880-1900 building cycle ushered in new possibilities. First of all there was the sheer volume of construction relative to the previous cycle. Some 19,240 residential buildings were erected in the City of Montreal and its burgeoning suburbs (Saint-Gabriel, Verdun, Côte-Saint-Paul, Saint-Henri, Sainte-Cunégonde, Westmount, Notre-Dame-de-Grâce, Outremont, Saint-Louis-du-Mile-End, Côte-Saint-Louis, Saint-Jean-Baptiste, De Lorimier, Hochelaga, De Maisonneuve, in clockwise order). The previous cycle had produced some 7,179 residential buildings in the City of Montreal and the suburbs accounted for fewer than a thousand more. This new cycle was easily double the previous one, and the suburbs, almost all about to be annexed, accounted for a good third of the total.

Figure 4.8 shows the spread of this new housing production in an inverted “T” pattern, still anchored in the old central wards of Sainte-Anne, Saint-Antoine, Saint-Laurent, Saint-Louis, Saint-Jacques and Sainte-Marie (see Figure 4.2), but increasing in density towards the northern edges of Saint-Laurent, Saint-Louis and Saint-Jacques, as well as in eastern Saint-Jacques and neighbouring Sainte-Marie.

Outside the 1880 city boundaries, several suburbs featured new construction densities on a par with the northern and eastern edges of Montreal's wards. Inner suburbs such as Saint-Gabriel at the southwestern edge of the City, north-end Saint-Jean-Baptiste and east-end Hochelaga, all three annexed during the 1880-1900 cycle, demonstrated such densities. West-end Sainte-Cunégonde and Saint-Henri did also but withstood annexation until after the cycle.

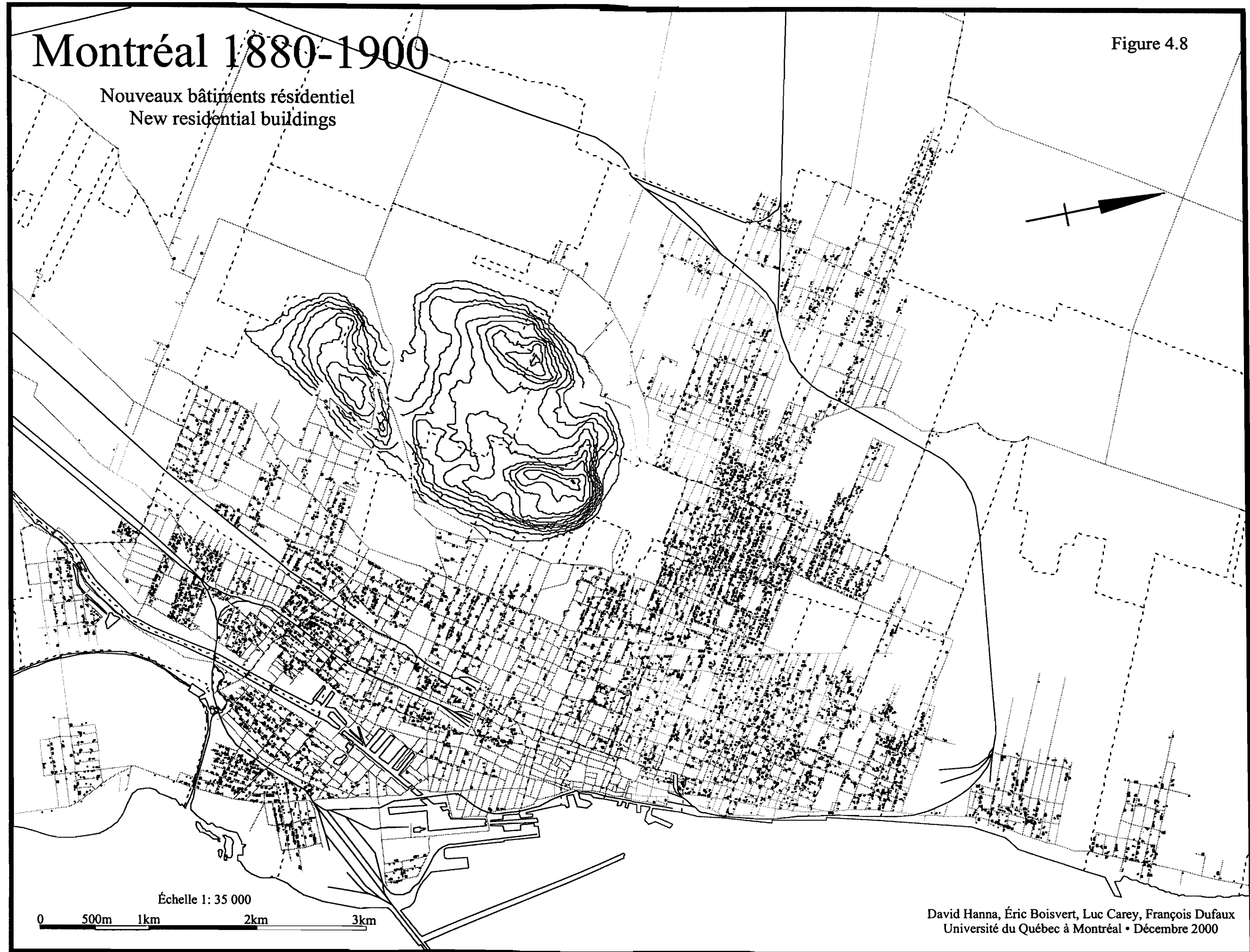
The rest of the suburban municipalities showed looser development patterns with strong localized pockets, together extending Montreal's urban tentacles very far into the rural landscape, thanks in part to the advent of the electric streetcar during the middle of the boom. Such was clearly the case with Côte-Saint-Louis, annexed in 1893 and renamed Saint-Denis Ward. Its far-reaching northern tentacles were attributable to substantial municipal investment on the part of the City of Montreal coupled with considerable streetcar development (see Figure 4.8).

The overall comparative statistics between housing production in 1867-1880 and 1881-1900 reveal some interesting trends. Table 5 demonstrates a clear stability in the dichotomous market between single-family and duplex houses. The ratio between them is about the same, with duplexes slightly more dominant as before (31.4 % of the market in 1900 as opposed to 36.9 % in 1880). Predictably, the new house type in the previous cycle, the triplex, gained more and more market share in the new one (from 4.3 % in 1880 to 12.5 % in 1900). Apparently, the city expanded its commercial street network considerably, no doubt due to streetcar development, because flats over shops jumped from 9.4 % in 1880 to 13 % in 1900.

Montréal 1880-1900

Nouveaux bâtiments résidentiel
New residential buildings

Figure 4.8



Échelle 1: 35 000

0 500m 1km 2km 3km

David Hanna, Éric Boisvert, Luc Carey, François Dufaux
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TABLE 5 NEW HOUSES BY TYPE
BUILT IN MONTREAL: 1867-1880; 1881-1900

	1867-1880		1881-1900	
	CITY OF MONTREAL		CITY AND SUBURBS	
	#	%	#	%
Single-family	2887	40.2	6048	31.4
Duplex	3295	45.9	7108	36.9
Triplex	307	4.3	2408	12.6
Flats over shops	677	9.4	2500	13.0
Fourplex	---	---	257	1.3
Fiveplex	---	---	36	0.2
Sixplex	---	---	44	0.2
Apartment bldg	---	---	7	---
Residual	---	---	91	0.5
Unidentified	---	---	741	3.9
TOTAL	7179	100.0	19 240	100.0

SOURCES:

- A- 1867-1880 data are from building permit tables published in the *Annual Reports* of the City of Montreal in 1868-71 and 1873-77. Missing years have been filled in from the John Lovell, *City Directory* for 1867, 1872, 1878, 1879, 1880 and Charles Goad, *Atlas of the City of Montreal*, vol. 1, 1881.
- B- 1881-1900 data are from Charles Goad, *Atlas of the City of Montreal*, vol. 2, 1890; vol. 1, 1881 revised to 1890; vol. 1-4, 1912-14; A.R. Pinsoneault, *Atlas of the Island and the City of Montreal*, ed. 1907; John Lovell, *City Directory*, 1900.

The remainder of the new housing market was divided up between some unidentifiable houses and a number of new house types. A few rare triplexes had emerged in Montreal in 1868, culminating in a four percent share of the market by 1880. Now new derivatives were cropping up in the late 1890s which would come to occupy a more significant portion of the market in the 1900-1918 and 1918-1935 building cycles. These new types were the fourplex (two flats over two flats, all between a pair of firewalls no farther than 30 feet or 9 metres apart), the sixplex (the same concept but with six flats spread over three floor), the fiveplex (identical except for the ground floor containing only one large flat), and the apartment building (generally a minimum of four apartments per floor with a central stairway from a common door).

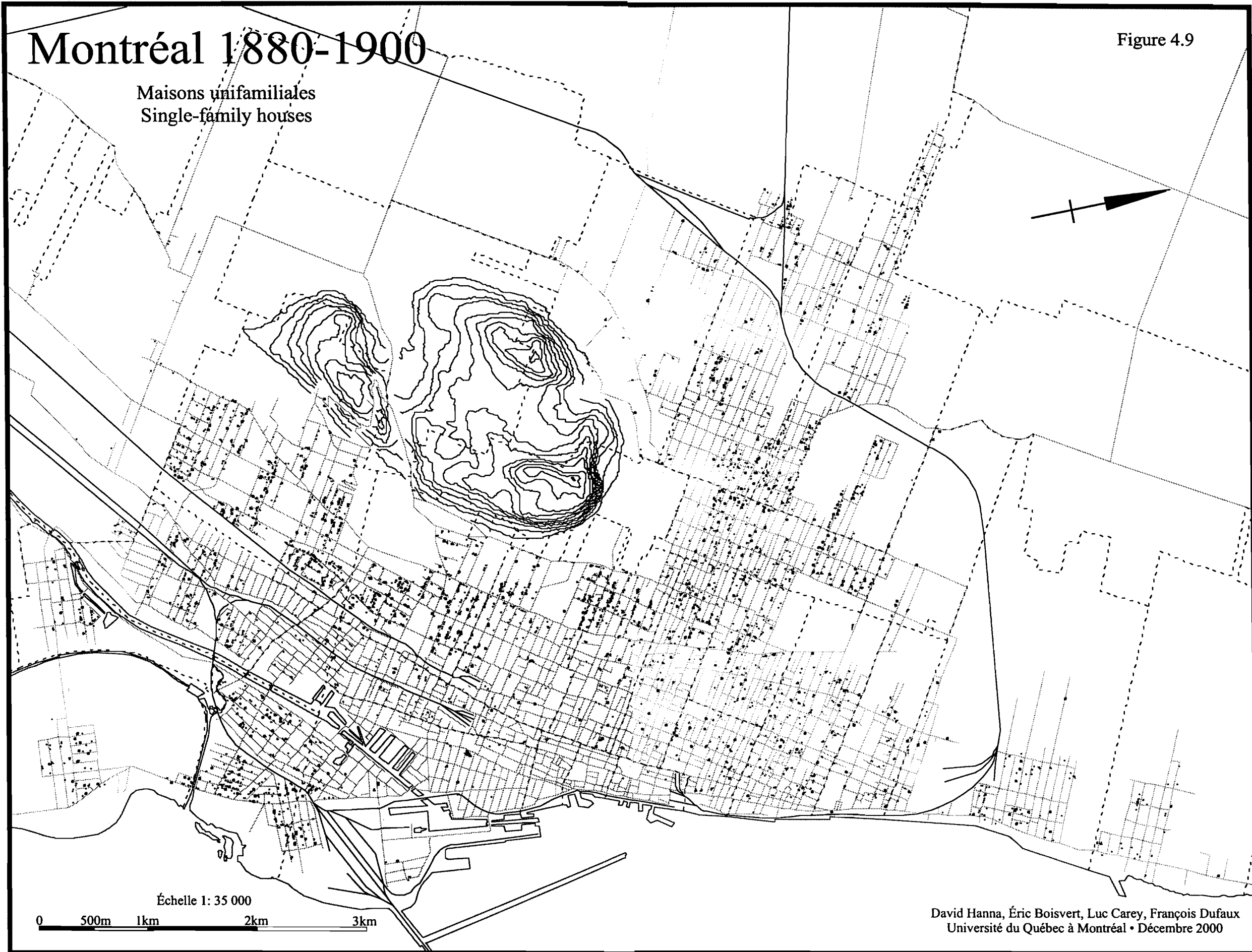
The distribution of new single-family houses during the 1880-1900 building cycle merely confirms the trends already established during the previous cycle (see Figure 4.9). The wide crescent of housing wrapped around the southern, eastern and northern flanks of Mount Royal continued to manifest itself with further densification in the older areas. New extensions in the growing north-end municipalities of Saint-Louis-du-Mile-End and Côte-Saint-Louis carried the trend far into the rural landscape, especially along Saint-Hubert and De Châteaubriand streets. In the west-end the trend was even more marked as Westmount, a high-income municipality, became an almost exclusively single-family housing area.

This strong pattern of single-family housing should not, however, blind one to the considerable number of small houses, always attached to others, in the various working-class neighbourhoods. In this regard, west-end Saint-Gabriel and Saint-Henri suburbs, more known for their duplexes and triplexes, stood out as champion single-family house builders. The same was true for north-end Saint-Jean-Baptiste. In fact, virtually all working-class wards and suburbs featured substantial numbers of single-family houses for their skilled workers, local merchants and professionals. These houses, moreover, were scattered throughout these neighbourhoods and rarely concentrated as one might expect. Single-family housing, therefore, remained a viable form of housing in any Montreal ward or municipality.

Montréal 1880-1900

Maisons unifamiliales
Single-family houses

Figure 4.9



Échelle 1: 35 000

0 500m 1km 2km 3km

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Duplex housing, on the other hand, presented a different pattern (see Figure 4.10). While duplexes continued to be the dominant form of housing in Montreal including most of its suburbs, their spatial distribution manifested some rather huge gaps as well as some major concentrations. The previous cycle's trends were perpetuated almost to the letter in 1880-1900.

Basically, the areas closest to Mount Royal were devoid of any duplex construction. Specifically, Saint-Laurent Ward and Saint-Antoine Ward north of Saint-Antoine Street offered very few duplexes indeed. West of these was Westmount which also had scarcely any duplexes. But now, during this new cycle, the trend was extending itself along the northern flank of Mount Royal as well. In fact, the six westernmost streets in Saint-Louis-du-Mile-End (Saint-Urbain to Hutchison) offered very few duplexes while at the same time single-family houses were plentiful. This tendency also spilled over into the just barely developing edge of Outremont. The mountain, with its higher income attraction capabilities, was a powerful exclusinary force relative to Montreal's dominant house type, the duplex.

The rest of the city was, however awash in duplexes. Every single municipality and ward, excepting those already named, had high concentrations of duplexes. This was true of the outermost reaches of the suburbs in every geographical direction, as much as it was of the older wards. Nowhere, however, were duplexes more concentrated than in Sainte-Marie and Saint-Jean-Baptiste. Here the densest core of 1866-1880 duplex construction located in the Saint-Jacques and Sainte-Marie boundary area either side of Visitation Street, was expanding both eastward and northward. This pushed Montreal's duplex heartland outward to Mount Royal Avenue in the north and De Lorimier Avenue in the east.

The vast expansion of this Montreal house type was clearly linked to a variety of residential neighbourhoods. Dominant in the factory areas, it was also dominant in the vast factory-less working-class enclaves such as Saint-Jean-Baptiste. But as new working-class neighbourhoods grew up in the far reaches of suburban Montreal along streetcar lines, so too did the duplex follow. Such was the case in northernmost Saint-Denis Ward (former Côte-Saint-Louis) and southwesternmost Verdun.

Triplex housing, three flats one atop the other in a three-storey configuration, were coming into their own during the 1880-1900 cycle (see Figure 4.11). Included in this category are the three-storey three-plexes, a pair of two-storey flats situated above a full width one-storey flat. The previous cycle's modest pioneering triplex production demonstrated how they were closely linked with major suburban factory concentrations. This pattern still held true during the 1880-1900 cycle, but now triplexes were also spreading over a variety of neighbourhoods, rapidly on their way to becoming a mainstream Montreal house type.

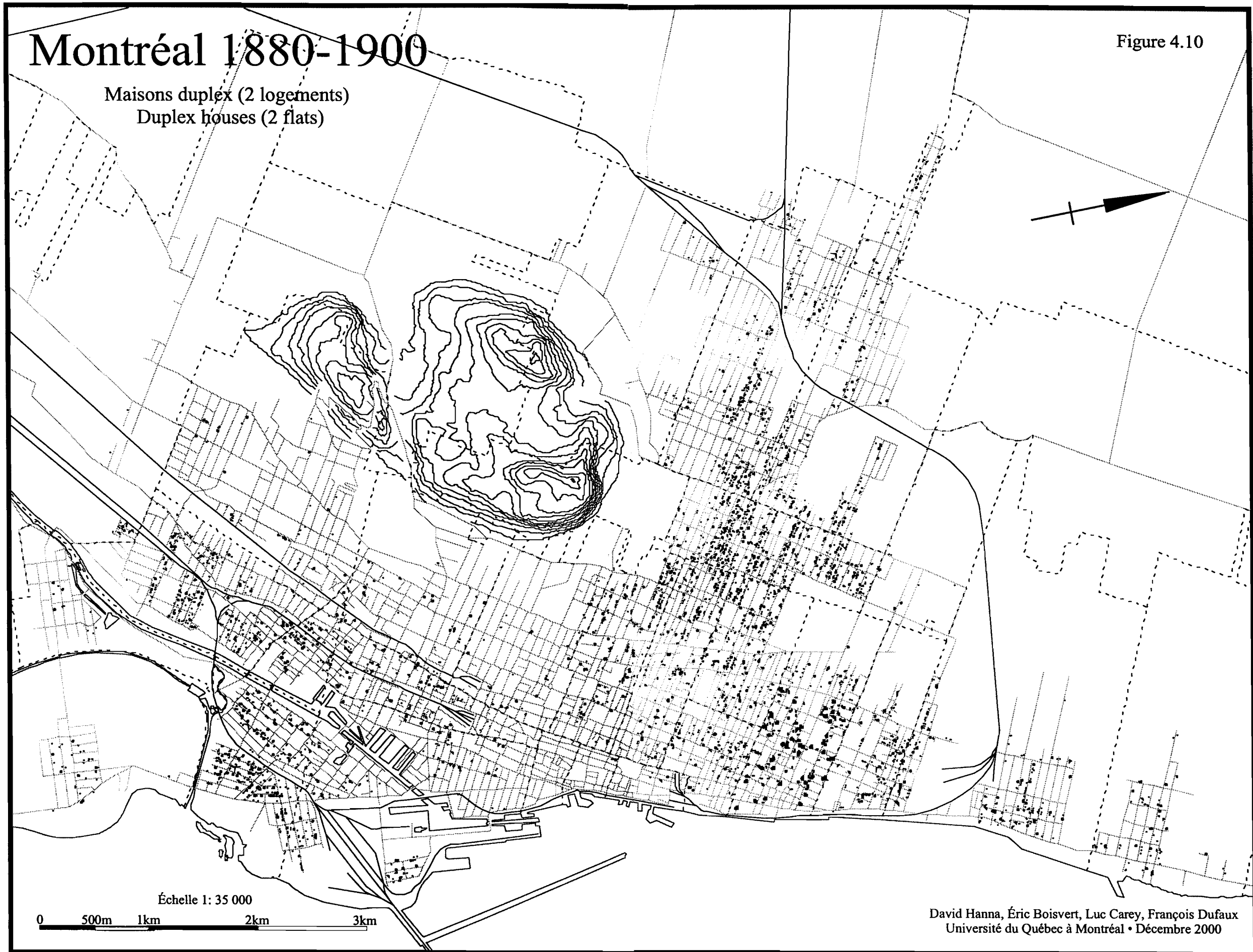
The factory concentration association was most evident in Sainte-Cunégonde and adjacent Saint-Henri municipalities. Here triplexes filled up entire blocks in what became Montreal's densest urban area by 1900⁴⁷. Elsewhere, however, the triplex was widely scattered. Evident in almost all the working-class areas as a minority house type, the only such places where they were generally absent were the extreme north-end and southwestern suburbs (Verdun, Côte-Saint-Paul, Mile-End and Saint-Denis Ward). Only the far eastern suburb of Maisonneuve offered triplexes, but then it also had factories.

The real heartland for triplex construction was the same heartland for the duplex: Sainte-Marie, Saint-Jacques and Saint-Jean-Baptiste. These neighbourhoods were also beginning to show substantial densities. The true age of the triplex lay in the future, however, during the first two building cycles of the twentieth century.

Montréal 1880-1900

Maisons duplex (2 logements)
Duplex houses (2 flats)

Figure 4.10

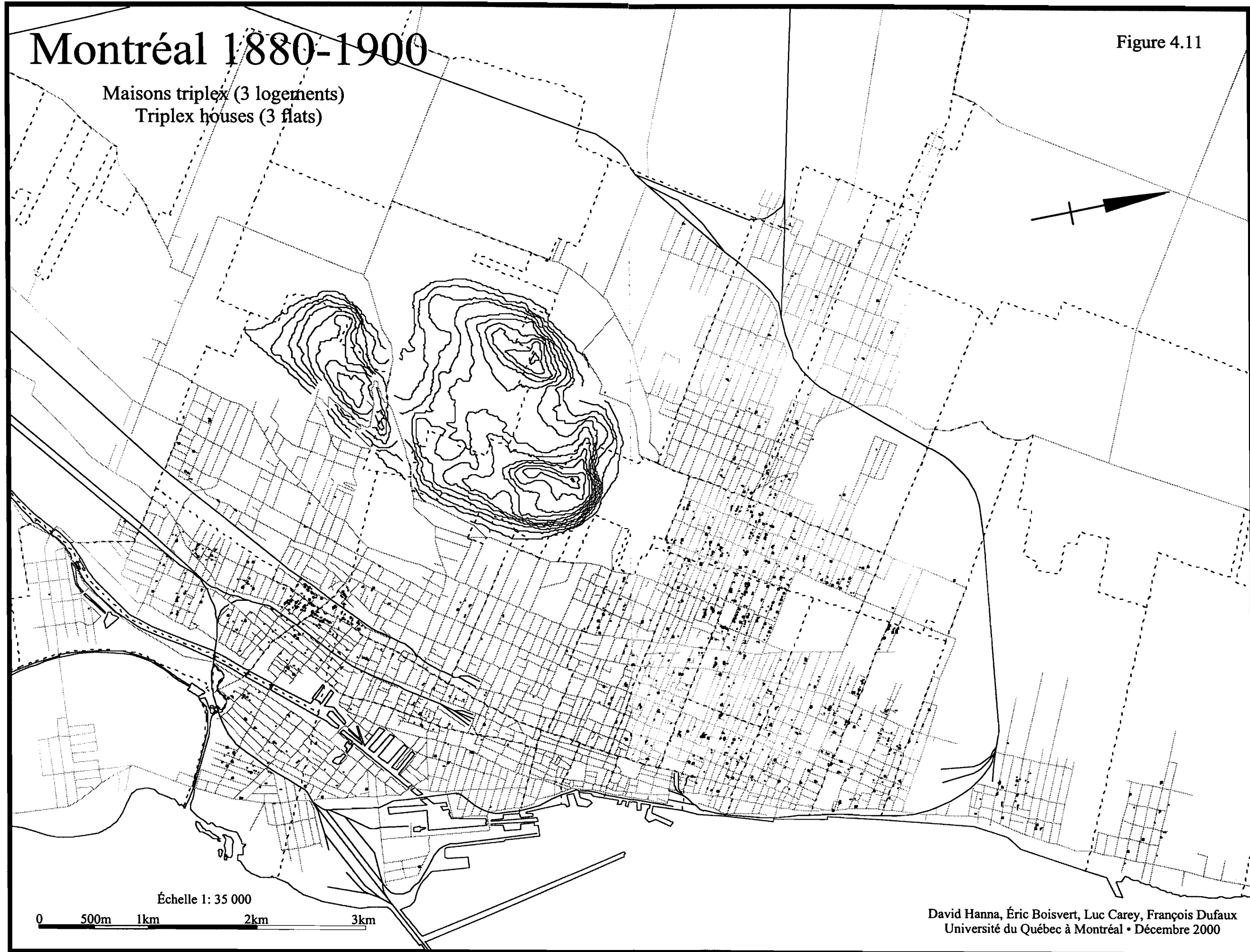


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Montréal 1880-1900

Maisons triplex (3 logements)
Triplex houses (3 flats)

Figure 4.11



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Behind the street facades of duplexes and triplexes, sometimes lay the hidden world of courtyard housing (see Figure 4.12). These houses were also duplexes and triplexes and were typically built up against the rear of the lot. To access them, one usually had to go through a covered passageway, a sort of tunnel wide enough to admit a horsecart, punched into the front buildings. Occasionally, these courtyard homes were built up along the lateral lot lines in addition to, or instead of the rear lot line.

Living in rear courtyard housing was certainly peaceful, at least insofar as street noise was concerned. It was, however, rather insalubrious given that it was on private property not directly adjacent to a public right-of-way. As a result, garbage with its rats tended to accumulate in these dirt or mud covered courtyards. Furthermore, because rear courtyard housing was almost always built on the rear or lateral lot line, such housing offered no windows or accesses at the rear and so were poorly vented.

There were only 986 such buildings produced during the 1880-1900 building cycle, all accounted for in the duplex and triplex totals. They were scattered all over working-class neighbourhoods in the city, almost equally located in inner-city wards or outer suburban municipalities. These courtyard houses were, in fact, a residual housing form from the past⁴⁸.

Rear courtyard houses tended to be located wherever old traditional French subdivisions existed. Such subdivisions typically featured lots 40 x 120 feet (12 x 36.5 m) approximately. Such lots were created right up to the 1840s and 1850s when English subdivision practices took over. The wide and deep French lots gave the owner plenty of scope to develop housing both at the front and at the rear of the lot, not to mention the sides too. The absence of rear lanes meant access through or around the front houses was vital. These building practices were quite typical of western France but also of Scotland.

English subdivision practices, featuring lots in the 20-25 foot range (6-7.5 m) in terms of width, with depths ranging between 70 and 100 feet (21-30.5 m), with or without a lane, gave little scope for rear lot development, although the practice of building rear housing clearly persisted as evidenced by the quantity of courtyard houses in the suburbs where English subdivision prevailed (except in Saint-Henri where old French practices prevailed). Rear courtyard housing cropped up in one more building cycle, the 1900-1918 one, before finally disappearing altogether due to increasingly restrictive regulations regarding an already dying practice.

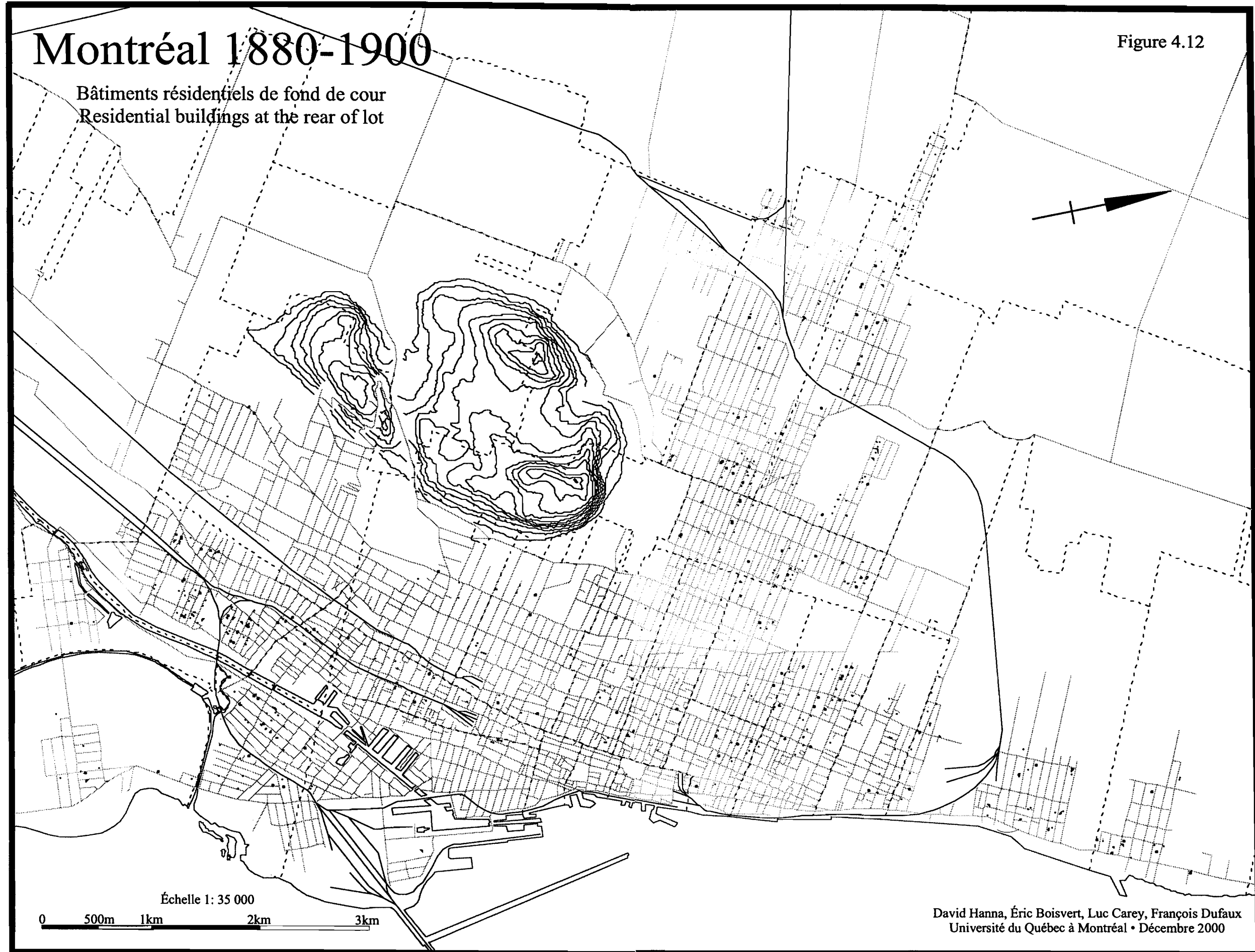
The final building type evident in the Montreal landscape of 1880-1900 was the flats-over-shops configuration (see Figure 4.13). These houses ranged from a simple duplex where the downstairs flat was given over to commercial usage instead of residential, up to the more complex multiple flats, all front to back, arrayed over two upper storeys and accessed by several enclosed side stairways, the whole arrangement sitting above one, two or three ground-floor shops.

Predictably, this house type was located almost exclusively on the main shopping arteries in the city and suburbs. What was new was how much this house type had expanded to 13 from about 9 % of the total since the previous building cycle (see Table 5). The new element in city building was the electric streetcar, a vehicle whose railway lines spread far and wide across the city, its suburbs and even into the countryside. Wherever they went, retailers were sure to follow as the concentration of passing traffic all but guaranteed good business. Figure 4.13, therefore is almost identical to the Montreal transit map of 1900, with important east-west lines and retail strips stretched along Notre-Dame, Saint-Antoine, Sainte-Catherine and Ontario streets, but not along Sherbrooke or Dorchester streets. Strong north-south retail strips also matched streetcar lines along Saint-Laurent up to the CPR tracks where the streetcar terminated, and north of that point along Saint-Hubert Street which the Montreal Tramways Company's most important suburban streetcar line served. Many secondary streets also served by streetcars were also becoming commercialized.

Montréal 1880-1900

Bâtiments résidentiels de fond de cour
Residential buildings at the rear of lot

Figure 4.12

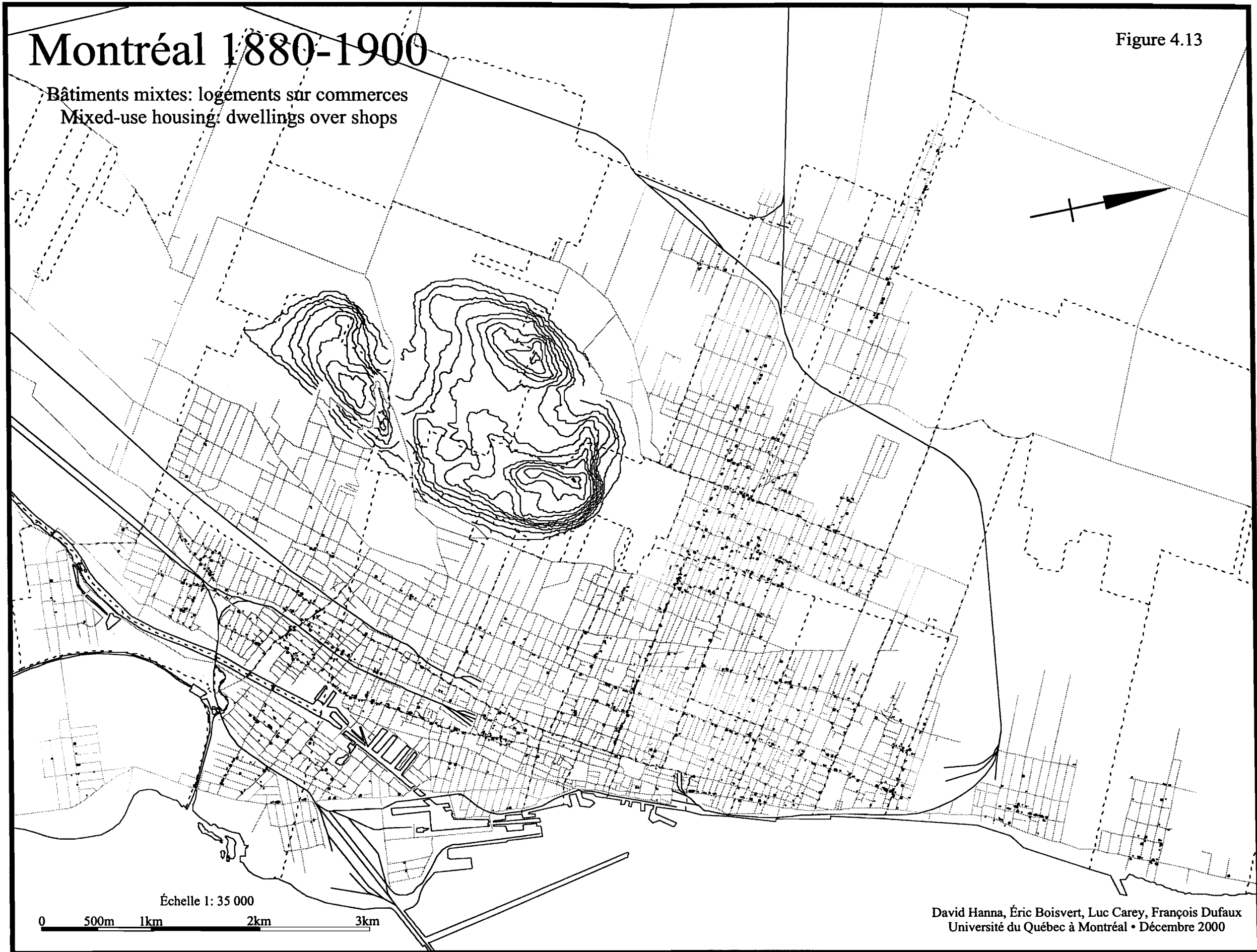


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Montréal 1880-1900

Bâtiments mixtes: logements sur commerces
Mixed-use housing: dwellings over shops

Figure 4.13



Échelle 1: 35 000

0 500m 1km 2km 3km

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The city's housing fabric was clearly spreading its wings into the suburbs during the 1880-1900 building cycle, using the full range of housing options. Single-family houses, duplexes, triplexes, rear courtyard housing as well as flats-over-shops were equally jostling for space in the new suburbs, Westmount only excepted. Despite radical lot subdivision changes, despite a revolutionary new form of transportation, the electric streetcar, the patterns evident during the 1866-1880 cycle continued unabated. Building practices were not about to change so rapidly. There was a great stability and consistency in what Montreal's small builders were prepared to build and what Montrealers were prepared to live in.

A winning formula for housing had been arrived at in the 1840s and 1850s as Montreal first industrialized. It worked and no one was in any hurry to change it, least of all, the builders.

CONCLUSION

This report starts from the point of view that Montreal's main housing typology, its vast cityscape of superposed flats, has been either ignored or misunderstood, while at the same time it objectively continues to be a highly popular and adaptable form of housing. This invites a critical review of the literature on housing in Montreal and raises some fundamental epistemological questions. It questions the interpretation of the data while taking into account the objectives of various authors' work. It also acknowledges the enormous methodological difficulties in dealing with the data because of their fundamental inconsistencies and imperfections. It pleads for a more objective definition and analysis of tenure, building typology and builder setting in order to better sort out the different builder strategies and building design options available in theory and applied in practice.

The comparative analysis between Montreal and other cities in North America and Great Britain reveals the peculiarity of Montreal's housing equation in handling tenure, investment return, leasing conditions and building typology. Yet, none of the parameters supporting the housing system are exceptional for a city expanding in the nineteenth century. The new hypothesis argues that the rationale behind the housing system is a legacy of the colonial economic system established during the French regime. The British conquest did not challenge such a system, which was evolving and adapting to the changing needs of fast growing Montreal by the 1820s, before industrialization. The mould for superposed flats as the housing of choice by local builders was, it is argued, already established by the time industrialisation set in. What followed was a rapid expansion of the system right down to the 1940s, with a remarkable degree of stability in the system, coupled with a rapid absorption rate of innovations coming from elsewhere and from within.

Research in vernacular architecture implies fieldwork in order to document the elements of the built environment neglected by conventional architecture scholars. The

material gathered in Montreal, in the northwestern France and in Scotland, suggests that the building type made of superposed flats may have originated in these countries. The superposition of flats and the location of the exterior and interior stairways show remarkable similarities between Montreal's plexes and the provincial housing of Bretagne, Anjou and Scotland. The finding is consistent with the immigration patterns between these regions and Montreal. It challenges the conventional architectural history's inclination for academic references in architecture. It also challenges the conventional focus on rural vernacular models while ignoring the urban ones, or the potential links between the two. The cultural transfer from Europe to Canada was more often carried by small town and countryside people who would more likely adapt their small-scale traditional housing models considering their limited means. Sophisticated metropolitan housing models, requiring more capital and cultural references, could only be reproduced for a small privileged class.

The careful examination of municipal records and the cross-referencing with historical atlases provide some objective description of the buildings erected during the two construction cycles studied. We can survey the exterior materials used, the number of dwellings, the number of floors (for both the buildings and the dwellings), the roof type and the footprint. Within the general framework proposed in chapter two on the housing system, and in light of the variety and complexity of stairway and flat organization demonstrated in chapter three, the data collected show a wide range of solutions within the plex typology. The chronological analysis shows the gradual production of larger dwellings. The different design options reflected by the type of material, roof and number of floors suggest a housing strategy able to accommodate different social classes. This building production also suggests the development of a new middle-class in nineteenth century Montreal.

A first general conclusion is that these limited findings argue for a new theoretical framework for the assessment of housing, more critical of our cultural bias and more objective toward the evidence gathered. Second it shows the importance of a detailed examination based on first-hand field survey and data. The field survey and archival

research in chapter three supplied evidence for a more comprehensive description of the evolution of Montreal's housing tradition. The morphological changes in the access to the dwelling, the roof technology and the facade composition successively reveal French, Scottish, English and American influences. These influences are mixed in varying degrees when producing housing for a market which ranges from houses for the wealthy down to the simplest working-class flat.

The historical conditions of Montreal's housing strategy evolved throughout the nineteenth century. It was framed by the legacy of the traditional patterns of real estate operations. It responded to the dire needs and shortcomings of a developing country and was not out of touch with the emblematic features of residential models produced by the bourgeoisie. This explains why Montreal followed its own consistent and distinct path, departing from the French tradition and beyond the literal reproduction of English, Scottish, or American urban models and housing strategies. With regard to the four parameters regulating housing strategy, rental tenure appears to be stable from 1842 to 1960. The prospect on investment return remained stable as well and so did the leasing conditions except, perhaps, for the most affluent wards. It was the housing typology itself which reflected a high degree of consistency coupled with adaptiveness.

Future research, based on the model presented in chapter three regarding the introduction and diffusion of the flat roof to vernacular housing, will no doubt focus on the technical and personal histories of other such innovations to the housing tradition. On the other hand, every housing project is also a replication of long-standing traditional patterns in the dwelling layout or construction system as is evident in the enduring plankwall system with masonry veneer so prevalent from the 1830s to the 1960s. Architectural design teaches that formal changes in style may disguise a very conventional spatial layout while a traditional facade or detailing may hide technological revolution and new social values.

The balance between innovation and tradition, so evident in Montreal's vernacular building record, is a powerful metaphor for a new cultural paradigm for

housing today. For architects and planners, the story of Montreal's long love affair with superposed flats suggests an evolutionary approach to housing design rather than a revolutionary departure. The absorption of innovations and the durability of Montreal's typology over the last two hundred years show a lesson in the value of striking a balance between new ideas and convention. This requires first an understanding of the existing building tradition, and secondly the development of an objective critical assessment of its strengths and weaknesses, in order to advance new ideas for urban housing and better living conditions rooted in the building experience accumulated over centuries of urban living.

The real estate conditions and strategies described for Montreal open two interesting fields of investigation. The discussion presented here in could be extended first to other towns in Quebec. It should bring a better understanding of the housing market evolution in the industrial towns where superposed flats of the "plex" type started to be built in growing numbers. There are many regional lessons to be learned. It should also structure the argument on different housing strategies in urban Canada. For instance, each Maritime city appears to present specific traditions of their own, while the models implemented with the development of Western Canada may derive from various patterns established in different Ontario cities. There are many rich building records yet to be explored.

FOOTNOTES

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- ¹ The data for the years between 1917 and 1921 are missing as the records were destroyed in the City Hall fire of 1922.
- ² The categories changed from one year to the other but the main groups are religious buildings, public institutions, commercial premises with or without dwellings, the industrial buildings, and the residential ones.
- ³ Find reference and address http://www.ville.montreal.qc.ca/urb_demo/.
- ⁴ See plate, table XXX.1 (Ames 1897).
- ⁵ (Ames 1897) *"Now our 'city below the hill' can scarcely in fairness be contrasted with the former series of averages for it does not contain the usual proportion of larger residences occupied by single family, nor, on the other hand, can it be justly compared with the so-called 'poor districts' of the above cities..... In fact the average house throughout the 'city below the hill' accommodates two families, one being above the other below, as many be proven not only by observation but also by our special census which showed 4709 separate buildings to contain 8390 tenements, or on an average 1,78 per building."*, p. 41.
- ⁶ (Choko 1979); « *il existe au moins un mal dont les Canadiens sont exempts. Nous voulons parler des grandes maisons d'habitations qu'on trouve en si grand nombre dans les villes d'Europe et des Etats-Unis* », p. 3 tiré "Commission royale sur les relations de travail.
- ⁷ (Bélanger 1938); « *il est très difficile de déterminer la ligne de mitoyenneté entre les maisons contiguës. Aussi a-t-on jugé à propos de ne pas tenter d'établir le nombre de maison mais seulement celui des logements* », p. 7.

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- ⁸ (Copp 1974); before 1914, the secretary of the Philadelphia Housing Commission “... Do you know you can go down St. Georges Street and find almost every house has a cellar in which people are living paying \$10 or \$12 for dark rooms?”, p. 71, p. 73.
- ⁹ (Copp 1974); “*Another feature was the marginal quality of much of this housing. A lack of rental accommodation accessible to labouring families with low wages was particularly prevalent, all along entire street, such as St. George, every house had a cellar that was sublet, even if the rooms were dark and dreary. In many cases, these terraces were a further subdivision into flats of former single-family houses*”.
- ¹⁰ Political: French Regime, English Rule, Canadian Confederation, eighteenth, nineteenth, twentieth centuries; Economical: colonial trade (before 1820), commercial (1825-1850) industrial (1850-1950).
- ¹¹ Superposed flats are defined here as meaning full-depth front-to-back rental accommodations stacked one a top the other (usually two to four such flats) and often attached in pairs (side-by-side) as well, within the confines of one house.
- ¹² (Hertzog, 1985); A city of tenants, p. 316 “*What is missing among the rare studies of housing conditions in Montreal (Choko 1980; Copp 1974; Hanna 1986; Linteau 1981) are the basic facts concerning homeownership rates in class over space. Hertzog, Lewis; A city of Tenants, 316 "To determine homeownership, our prime data source is the city of Montreal's tax roll. Montreal was one of the few cities in North America where tenants were directly assessed for the 'water tax'; thus its tax assessment rolls include all households head in the city, as well as the owner of each property. City enumerators went from door to door in early summer each year. For owner-occupied dwellings, the enumerators estimated a rental value on the basis of the space occupied.*”.
- ¹³ (Hertzog, 1985); A city of tenants; “*In his study on Hamilton, Katz (1975) asserts that 'the quality of a society may be measured implicitly by the number of people within it who can own the house in which they live'. By this measure, as will be demonstrated, the quality of life was declining in nineteenth-century Montreal*”.

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- ¹⁴ (Harris 1987); from the examination of asking prices for rental accomodation listed in the Telegram, Chambers has found that the average rent on a six-room dwelling increased by no less than 124 per cent between 1900 and 1913.
- ¹⁵ (Harris 1998); in Toronto, Harris noted the middle-class preference for simpler single-family homes adapted to changing social habits and ideals. For the working class, he estimated a large number of self-built houses – shacks – which would be intended for one family. The difference with Montreal can only be, at this time, attributed to the concept of propriety derived from middle-class influence.
- ¹⁶ Desloges, p. 113: « *sur le 20% de propriétaires ayant plus d'une maison: 16% 2 maisons, 3 % 3 maisons, 1% 4 maison, et seul l'entrepreneur Jean Maillou revendique la propriété de neuf emplacements et maisons dont six dans la Basse-Ville* ».
- ¹⁷ Dechêne claims that: « *le voyageur qui, vers quarante-cinq ans, abandonne un métier désormais trop pénible et veut vieillir dans sa famille, n'a pas économisé plus de 4000 à 5000£, placées sur une terre dans la banlieue ou sur un immeuble dans la ville qui lui assurent un petit revenu le reste de sa vie* », p. 392.
- ¹⁸ £fr: French pound.
- ¹⁹ (Stewart 1998) p. 57; Gauthier fait remarquer dans son étude sur le quartier Saint-Sauveur que certaine de ces rentes hypothécaires vont survivre l'abolition du régime seigneurial en 1854 jusqu'en 1931 alors que la province de Québec offrira une forme de commutation qui sera généralement acceptée quoique qu'aujourd'hui encore certaine propriétés soient sujettes à payer cette rente perpétuelle qui est assez modeste pour rendre le coût de la commutation sans intérêt.
- ²⁰ Archives nationales du Québec, Montréal, fond des notaires.

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- ²¹ Frank Worsdall, *The Tenement, A Way of Life; A Social, Historical and Architectural Study of Housing in Glasgow*, Edinburgh: Chambers, 1979. Martin J. Dannton, *House and Home in the Victorian City: Working-Class Housing 1850-1914*, London: Edward Arnold, 1983. David B. Hanna, "Montreal, A City Built by Small Builders, 1867-1880", Ph.D. thesis (geography), McGill University, 1986.
- ²² R.W. Brunskill, *Illustrated Handbook of Vernacular Architecture*, London: Faber & Faber, 1971. Daniel Leloup, *La maison urbaine en Trégor aux XV^e et XVI^e siècles*, Rennes : Presses universitaires de Rennes, 1996.
- ²³ John A. Jakle et alia, *Common Houses in America's Small Towns; The Atlantic Seaboard to the Mississippi Valley*, Athens: University of Georgia Press, 1989.
- ²⁴ Annick Stein, *La Bretagne*, « La maison dans sa région », series, Paris : Massin, 1990; Fons de Kort and Tiez Breiz, *Les maisons de Bretagne*, Paris : Eyrolles, 1996; Tal Houarn, *Maisons et villages bretons*, Rennes : Éd. Ouest-France, 1996.
- ²⁵ Ref. to Migrations from France.
- ²⁶ Elliott & McCrone, p. 1-2.
- ²⁷ The introduction and features of the flat roof are well described in *Montreal Business Sketches* by the Canada Railway Advertising Company (1864), p. 108-111.
- ²⁹ The following data are taken from the 1881 City of Montreal assessment rolls "feuilles de route" under the entry "valeur locative – rental value" : house no. 1, \$1200. annual rent; no. 2, \$700.; no.3, \$450.; no.4, \$270.; no.5, \$180. over \$140.; no. 6, \$140.; no.7, \$120.; no. 8, \$80. over \$60.; no. 9, \$50. over \$40. This illustration is taken from Sherry Olson and David Hanna, Plate 49 "The social evolution of Montreal, 1842-1901", in Historical Atlas of Canada, II, ed. Louis Gentilcore (Toronto : University of Toronto Press, 1993).

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- ²⁹ Corporation of the City of Montreal, *The Charter and By-laws of the City of Montreal*, (Montreal: John Lovell, 1865), chapter 9: “by-law concerning the erection of buildings”, section 26, p. 46.
- ³⁰ The prohibition on outside staircases enacted by the City of Montreal in 1945 was the prime force in the near disappearance of the classic Montreal triplex and its variants in favour of the three and four storey “walk-up” featuring a common outside entrance with one single street address, leading to a common inside staircase giving access to a number of flats. In 1978, the City of Montreal under the “10,000 logements” programme (later “20,000 logements”), repealed the prohibition on outside staircases, resulting in a modest return of the classic triplex.
- ³¹ Jacques Viger, *Tablettes statistiques du Comté de Montréal, 1825*, as cited in Groupe de recherche sur la société montréalaise au 19^e siècle, *Rapport 1972-73*, (Montréal : 1973), no. page numbers. Viger also recorded a small number of houses using mixed materials, accounting for 1.2 % of all houses.
- ³² *Census of the Canadas, 1851-52* (Quebec : John Lovell, 1853-55), II, p. 467.
- ³³ See John Rempel, *Building with Wood* (Toronto: University of Toronto Press, 1967); T. Ritchie, “Plankwall framing, a modern wall construction with an ancient history”, *Journal of the Society of Architectural Historians*, 30, no. 1 (1971).
- ³⁴ The introduction of the flat roof is well documented in *Montreal Business Sketches* (Montreal: Longmoore & Co., 1864), p. 108-111.
- ³⁵ For further discussion of Montreal’s great flat roof terraces, see David B. Hanna, “The New Town of Montreal – Creation of an Upper Middle Class Suburb on the Slope of Mount Royal in the Mid-Nineteenth Century”, M. A. Thesis, Department of Geography, University of Toronto, 1977.
- ³⁶ The year 1867, when construction began to climb after the 1866 low point, is the first year whose housing production is counted in the 1866-1880 building cycle.

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- ³⁷ See Gregory J. Levine, "Criticizing the Assessment: Views of the Property Evaluation Process in Montreal 1870-1920 and their Implications for Historical Geography", *Canadian Geographer*, 28, no. 3 (1984), p. 276-284.
- ³⁸ This map shows median household rent distributions for Montreal and the independent municipalities of Saint-Gabriel, Sainte-Cunégonde, Saint-Henri, Saint-Jean-Baptiste and Hochelaga (clockwise order). Data were not available for the municipalities of Côte-Saint-Paul, Côte-Saint-Antoine (future Westmount), Saint-Louis du Mile-End and Coteau-Saint-Louis (clockwise order). Data were obtained from rental evaluation rolls in the tax assessment registers at the City of Montreal.
- ³⁹ See Paula Kestelman, "The Evolution of an Urban Culture Core: A Study of French-Canadian Institutions and Commerce in Central East Montreal", M. A. Thesis, Department of Geography, Carleton University, 1983, and David B. Hanna, op. cit... Each demonstrates the strong ethnic, linguistic and religious homogeneity within each zone, French and Catholic in the one, British (English-Scot-Irish) and Protestant in the other. Despite the common social class position, these two areas developed separately.
- ⁴⁰ See Fennings Taylor, *Portraits of British Americans* (Montreal: 1865), I; also J. Douglas Borthwick, *Montreal History and Gazetteer* (Montreal: 1892).
- ⁴¹ The percentages of permit-holder occupancy are based on those years for which we have permits – that is 1868-71 and 1873-77, and not on the entire building cycle. Since these years capture the bulk of the cycle's building activity, the percentages quoted should not be very far removed from the actual situation.
- ⁴² Densities in 1881 were calculated at between 8,000 and 10,000 households per km² in this district. See Sherry Olson, David Hanna and Patricia Thornton, "Partage social et partage de l'espace à Montréal, 1847 à 1901", Rapport d'étape du 31 mai 1985 au Fonds F.C.A.R. Québec, Projet 84EQ, p. 18-19.

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- ⁴³ The francophone population rose from 26,153 to 56,856 people while the total population for the City of Montreal rose from 57,715 to 107,225 between 1852 and 1871. See Censuses of Canada of 1851-52 and of 1871.
- ⁴⁴ Densities in 1881 were calculated at between 6,000 and 9,000 households per km² in this district. See Olson, Hanna, Thornton, *op. cit.*, p. 18-19.
- ⁴⁵ Jean de Bonville, *Jean-Baptiste Gagnepetit : les travailleurs montréalais à la fin du XIX^e siècle* (Montréal : Éditions de l'Aurore, 1975), p. 115-116. « Le prix du billet et la lenteur des chars suffisent à convaincre l'ouvrier de demeurer près de son usine. Il lui faut déboursier \$0.25 pour six billets et \$1.00 pour vingt-cinq billets; un journalier devrait consacrer une heure de travail à défrayer le coût de son déplacement. D'autant plus que le privilège de correspondre n'existe pas avant 1892... Le char urbain ne concurrence pas un bon marcheur. »
- ⁴⁶ William Kilbourn, *The Elements Combined: A History of the Steel Company of Canada* (Toronto: Clarke, Irwin & Co., 1960), pp. 24-25. This wage is also confirmed in Jean de Bonville, *op. cit.*, p. 87.
- ⁴⁷ David Hanna, Sherry Olson, "The Social Evolution of Montreal 1842-1901", Plate 49 in R. Louis Gentilcore (Ed.), *The Historical Atlas of Canada*, vol. 2, 1800-1891 (Toronto: University of Toronto Press, 1993).
- ⁴⁸ Luc Carey, «Un type de maison ouvrière : le déclin de la maison de fond de cour à Montréal, 1880-1920 », MA thesis, Dept. of History, Université du Québec à Montréal (Montréal: 1996).

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