The Emergence of a "Loft" District in Montreal

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A unique set of circumstances seems to have contributed to a pattern of densely-built, partywall buildings in certain areas of central Montreal. A complex of voids and passageways are integrated with these “loft” structures. The special circumstances include the property patterns of French colonial rule, the use of rights-of-passage accompanying title to the land and finally the need for flexible and economical commercial space from the late 19th century to the mid-20th century. Three successive waves of change in building fabric and building type have not altered the first built- and open-space relationships. Rather, the voids within the block became increasingly entrenched, raising the value of space locked within the built-up perimeter. The contiguous fabric of buildings and voids, the varied scale and geometries of its individual elements, thwarts major restructuring today.

The loft districts form an eastern boundary to the expansion of the tower forms of the Central Business District of Montreal. Alternatively, they might be seen as an exemplary model of economy, flexibility and multiple use for the downtown.

It is not immediately apparent how the ultimate specific pattern of enclosed voids derives from the subdivision pattern (Figure 2a), although the great variety of parcel sizes and their distribution seem a significant factor. The growing functional specialization of the perimeter streets is another important factor, for example, in keeping the scale of buildings down on the rue Ste. Catherine retailing frontage. There has been less property assembly here although in relative terms, this block and others of its type reveal little assembly and none at the scale of the block. The accidental look of the parcelling pattern, with its ambiguous meanings, would appear to be evidence for the absence of specific intention with regard to the whole district or even individual blocks. At the level of the parcel, however, a rule-based spatial system provided a clear idea of the potential of the property and its ultimate configuration. A similar pattern can be seen throughout residential districts east of the downtown where the systematic treatment of the interior spaces, using the porte-cochère, enclosed courtyards, wing and finally back buildings made clear the order in which the development would take place and the succession of buildings and spaces. The detailed arrangement initially depended on considerations at the level of the lot and not on building arrangements on neighbouring properties.

The spatial system has antecedents in Paris, where it was supported by Civil Code provisions concerning the rights of joint properties (mitoyenneté) and locked-in courts. It is tempting to speculate on a possible transferral of vernacular architectural practice in the course of the nineteenth century to the North American context, and in particular to a French-speaking city. It seems as likely that the depth structure of the block and the absence of formal means of access to the interior would logically result in the invention of informal means to render the deep ends of lots useable and valuable. The ultimate patterns would at least in part result from a logic of patterns of scale and dimension in the horizontal plane.

Specific decisions taken in building up the block affect the ultimate spatial system. The present location of voids in the block can in some cases be traced to specific building patterns which have entirely disappeared. The serial redevelopment of adjacent lots (in contrast to the contemporary practice of assembling prior to complete redevelopment) makes more likely voids which straddle the property line after redevelopment. At the least, serial redevelopment maintains voids in their locations longer and would suggest massing solutions across the property line. Limits on unlighted building depth might be thought of as another factor in the development of such voids. The presence of enclosed courts in parcels of varying size in our case and their near absence in loft districts in a city such as New York, seem to strengthen the idea of a consensual approach to development in situations of complex property patterns and building projects in series.

While the evidence for this process is limited by the small sample of blocks and the tedium of title searches, it is strengthened with an overlay of legal forms of access.

The block illustrating these principles in the accompanying diagrams is bounded by the following streets: Ste. Catherine, de Bleury, St. Alexandre and Mayor.

An examination of the patterns of building massing in each successive period reveals a pattern of change which may be a consequence of the increasing density. Urban buildings were mapped on this block as early as 1825. An initial built structure of homogeneous buildings placed without a clear pattern of building and void evokes the temporary nature of this development, circa 1880 (Figure 2b). In fact, nearly all the structures were replaced within a generation, this replacement being assisted on the de Bleury and Mayor frontages by a street widening and realignment of the frontage respectively. The successive wave of development brought buildings with wings in contrast to the simple cubic shapes of the first period and hence egress at the rear. One also observes...
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Figure 1
The block described in this study (dark shading) is shown within the original concession of 1648 (broken line) together with the pattern of streets and blocks circa 1960.

In other words, the typical development pattern is from an assemblage of similarly scaled structures without a clear, overall structure to a clearly defined structure incorporating a great variety of forms and geometries.

Origins in the subdivision

Downtown Montreal’s modified grid is based largely on two lateral (that is, parallel to the St. Lawrence river) dimensions associated with the original concessions: one or two arpents, that is, 58.8m or 117m. The first of these concessions was created by a notarial act signed by the Sieur de Maisonneuve in 1648, under the regime of the Compagnie des Cent Associés (1627 to 1663), and was 20 perchés wide by 200 deep, located immediately south-west of the existing city. The beneficiary was Pierre Gadois, labourer, who cultivated some of the land briefly before his death. It was then subdivided by his heirs to allow expansion of the city by the Recollets mission in its southernmost end.

For the purposes of urban development, access was more easily obtained in the long dimension of the original concessions. Weaving new access roads across the concessions was more difficult since this involved more than two property-owners and resulted in dog-legged and dead-ended roads as well as “T” intersections. The two dimensions parallel to the river together with considerable variation in the dimension perpendicular resulted in a considerable variety of dimensions in the urban blocks. Moreover, right angles were the exception rather than the rule, starting with the acute angles created by the roads parallel to the St. Lawrence river and concessions not quite perpendicular to the river.

The deep and sometimes large block that resulted from the road layout were developed without service lanes. In order to gain access to the interior of the block, various access systems were created which guaranteed access rights for owners and users of locked-in lots. The generous width of the individual properties does suggest that secondary means of access might be incorporated into the development pattern, since this dimen-
Figure 2.
The subdivision plan of one block, Quartier St. Laurent, Montreal, in 1870 (a) and as developed in 1879 (b).
In 1912 (c) most of the first buildings erected have been replaced and several shared passage-ways are incorporated in the redevelopment.
In 1940 (d) and later, a new passage-way is seen, and some of these coincide with interior courts.

The encumbrance thus created certainly restricted future options in terms of development, but also conferred value derived from improved secondary access. Moreover, in some cases secondary access was a practical necessity, if not for delivery of goods, then for emergency egress from the interior of the block. It would appear that in this case as well as in many other blocks in this sector that the advantages of secondary access prevailed in the process of development.

As a consequence of these shared pathways which formed a barely visible but more or less permanent accessibility structure, flexible approaches to building were required in order to develop to full potential. It seems probable that a certain flexibility with regard to planning might have built up over time as a consequence of rather irregularly formed parcelling patterns over the oldest part of the city. (Right angles in plan were rather the exception than the rule).

In the first replacement of buildings, one observes at least five passageways which straddle property boundaries. These subsequently disappeared entirely and were replaced by passageways contained within the property lines but shared by neighbours. One of the more recent of these was modified in 1948, again modified in 1953, to permit the passage of vehicles and was then transferred ten times before 1963. It serves ten lots front-
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Another passageway, via the Albee Building on rue Mayor, serves the rear of the buildings at the corner, as well as the Theatre Imperial. It is a three-metre wide tunnel which proceeds through to a narrow light shaft before turning left at 900, under an elevated wing, before entering another narrow, tall court. Two shared stairways rise in this court, one of them serving the Albee Building, the other subdividing to serve the three other buildings accessing the court and located on separate parcels of land. This particular passageway, while hardly in daily use today, was essential for the full exploitation of the frontage potential on rue de Bleury.7

The Albee passageway is superimposed on an earlier open-air passageway, serving the cluster of buildings visible at the top of Figure 2c. All of the original structures served by the passageway or contiguous with it, have long since disappeared, yet the common means of access to these four parcels has been preserved in altered form.

Similarly, the early development of Alexander Place, visible in Figure 2b, included a row of dwellings fronting onto a lane 4.6m in width, located along the property line. Successive replacement on St. Alexandre itself completed the corner formed by the lane and the street. Replacement of the structures at the Mayor/St.-Alexandre corner with the 11-story Italianate Mayor Building included windows and a lightwell facing Alexander Place. When the latter was replaced with the Sternthal Building, a large court was located over the former lane and in symmetry with the Mayor...
Building's court. Another court on the other side of the Sternthal Building parallels the existing lane adjacent to this property line. This building could as easily have been structured around an interior court but would have lost the advantages offered by linking with the neighbours' courts. In this way, each inner face of these buildings is unique and appears to be formed to take advantage of adjacent spatial conditions.

St. Joseph Place, on the other hand, facing de Bleury and of similar dimensions, was planned with an interior street 3m to 4.5m in width, and developed with buildings arranged around this space. This property became the object of assembly for the property-owners at the corner, particularly after it was devalued by the increased scale of the replacement structures to both sides. Its central space was reduced to a sideyard for the purposes of giving the new corner office building windows on four sides.

Many more individual studies would be required to demonstrate a strong pattern of development from particular initial conditions, especially those evident in the subdivision. In any event, it is clear that the piercing lanes and passageways always occur midway on the block's side and never at the corner property and this for the obvious reasons of accessibility. However, these same midblock properties are those that are most subject to assembly pressures and so to the constraints imposed by complicated servitudes.

**The arrival of “loft” buildings**

It is of some interest that these same deep blocks were redeveloped for light manufacturing and office activity in this century at the same rate as those blocks presenting a more conventional and regular situation. Assuming that accessibility is somehow a key factor in the rate at which a block builds up, it might be reasoned that the depth structure of the block would retard development. Given that weaving passageways into the block encourages partywall construction, it might be assumed that this would lead to lower building forms and less intensive development. The emphasis on horizontal growth, intensive site coverage and contiguity does not, however, mean lower density. At any rate, it would appear that the building type associated with manufacturing and office activity was well adapted to the particular spatial conditions which had developed over two generations of building and could be implemented with minimal disruption to the built form of the block and its functions.

The “loft” type observed here and elsewhere in many North American cities with a manufacturing history is clearly distinguished by partition-free floors, partywalls along which elevators and stairwells are arranged, high site coverage and enclosed courtyards. Floor-planning is constrained only by a columnar grid, there being no necessity for shear-walls, for example, in buildings of this modest height. Flexible partitioning, daylighting and cross-ventilation characterize the internal arrangements. This definition includes medium-height buildings but not tall structures, which must be detached at higher elevations if not for their entire height and so usually centre the mechanical services in the floorplan.

In our case, successive replacement did not lead to interim wastelands which had to be assembled or otherwise reformed to allow major integrated development as happens typically with tower projects. It seems evident that the loft type was perfectly adapted to the relatively large block dimensions and the informal or self-organized means of access to the interior of the block. These in turn allowed the simultaneous development of a variety of functions and building scales. These same characteristics and the highly developed state of the blocks today account for their resistance to redevelopment pressures. Assemblies have continued until today on the small properties on this block and on others in the area, but within the context of the overall block structure. They seem to be closely associated with the expansion of particular functions, retailing and wholesaling principally, rather than on strategies for the longer range assembly of the whole block, or at any rate, a tower block site.

In this context, it is of note that the expansion of the Central Business District in Montreal has taken a southwesterly direction, avoiding the already built-up and complex parcelling patterns of the wide concessions, preferring the blocks to the west, smaller in dimension and subdivided later with incorporated public lanes. Spatial characteristics may have been a factor until now neglected by theories concerning the development of the downtown core.

The malleability of this loft type and its differentiated faces are of particular interest in the current context of efforts to conserve energy in buildings, increase contact with the outdoor environment and integrate new structures in the heart of existing cities. At present, it is not obvious how an existing and changing urban core, which has been adapted to the tower model, could be re-adapted to lower and more connected building
forms. The redevelopment of the downtown for the purposes of accommodating the office function has resulted in a decline in the diversity of activity without a real increase in overall density.\textsuperscript{10}

The patterns of development, some of which can be seen as highly desirable, are a consequence of particular and complex spatial patterns. Modernist approaches to the downtown preclude any attempts to somehow reverse the process of large-scale integration by enforcing complexity in the groundplane. At least, complexity as an end would hardly justify a radical reversal of approach. At the same time, the apparent successes of complex structures in one city call into question widely-held assumptions concerning contemporary building practices; in particular, that they represent optimal arrangements from the point of view of the rational use of land and the functional arrangement of land uses.

More generally, how can the lessons of historic growth be integrated with contemporary approaches? The philosophical problem is not trivial. Nevertheless, it is modestly suggested here that certain lessons from historic development patterns regarding the functioning of the city fabric might form the basis of a more broadly-based spatial theory.

Conclusion

A series of replacement buildings with the constraints of a complex and deep block plan have allowed us to examine some ideas about development of the city core. The replacement of a domestic environment by commercial, industrial and entertainment functions of considerable variety paralleled the emergence of loft buildings. The ultimate structure of
The block did not develop independently of pre-determined patterns, property subdivisions and access routes. They were not, for example, entirely function-dependent. The built form structure is, to some degree, autonomous. One might speculate that the degree of autonomy is related to the heterogeneity of the original patterns. These buildings are uniquely adapted to the legacy of circumstances and constraints which mark these blocks.

It appears, in addition, that the complexity of spatial relationships is not directly related to growth. The variety in scales and in the ways in which solids and voids mesh within the block could not easily be planned without a multiplicity of interests and actors, and these act in concert when conditions demand that they do.

In this way, these loft districts may represent an alternative model of development, if not for their specific spatial characteristics, then for the process of their development. These block structures are certainly less well disposed to the late 20th century tower model for the downtown, isolated from its immediate context and an intensive user of land. The double barrier of the tower, in the form of a wall and an empty space fronting the street is impossible in this context.

Is this kind of multi-purpose block, structured over time around its internal open space and accessibility system rather than around the emergent volume, a model for the future downtown?

### Cartographic references

2. Cane, James. Topographical and pictorial map of the City of Montreal: 1946.

### Notes

2. In fact, their absence in New York would appear to be largely due to regular subdivisions of 25 feet parallel and 100 feet perpendicular to the street, which tended to elongate the built forms. See Broner, Kaisa. New York face à son patrimoine: le secteur historique de Soho. Bruxelles: Pierre Mardaga, 1983.
3. This characterization recalls Herbert Spencer. "What is social evolution?" Nineteenth Century, 44, 1898, p. 353.
4. A perche is 1/100 of an arpent.
6. Servitude of right-of-passage, created in a deed of sale no. 1003186, Bureau d'enregistrement, Montréal
7. Adequate security in the case of fire makes these passageways all but obligatory, although their specific efficient arrangement is the object of choice.
8. In a sample of 62 blocks in Montreal, it was found that block depth and the presence of an internal service lane had no impact on the rate of development or the density level actually attained. However, when streets are included in the calculations, it is seen that the rate of development and density are somewhat higher in large blocks. These data are presented in the author's doctoral thesis, La Morphologie architecturale du centre-ville ou l'émergence d'un nouvel ordre spatial a Montréal, Université de Montréal, 1990.
9. In the case of towers, the wells centred in the building serve in part to reinforce the structure against lateral forces, but they restrict the free circulation of air across the floor and in particular exclude ventilation through windows. In the case of the loft, the floorplan is free from facade to court, allowing transversal ventilation through operable windows. The courts, relatively high for their width, function fairly well for the purposes of lighting for most floors, in part due to the size of the windows. They are very efficient for ventilation purposes, especially when there is an opening at the ground-level. The air is literally pulled from the interior of the building by the region of low pressure near the roofs.
10. The loft districts in Montreal attain the density levels of the tower clusters, that is, between floor-space-ratio 5 and 6. The block presented here has a net density of approximately 6.