The Origins of Vancouverism:
A historical inquiry into the architecture and urban form of
Vancouver, British Columbia

by

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Dedication:

This dissertation is dedicated to Jack Walsh, my father: engineer, inventor, musician, art collector, mentor and friend. Your boundless curiosity, your willingness to challenge assumptions, and your love of great storytelling have been profound sources of inspiration. Your tireless support and encouragement in my pursuit of this Ph.D. helped inspire me to make what began as a dream, at last into a completed accomplishment. Thank you!
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Chapter 11

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ABSTRACT
This study focuses on understanding the development of Vancouverism, a new variety of high density residential urbanism responsible in recent years for the visible transformation of Vancouver, British Columbia. The emergence of Vancouverism has coincided with recognition of Vancouver as a livable city, stimulating widespread interest in this urban phenomenon. However, significant fundamental questions remain to be examined. How did Vancouverism originate? Does Vancouverism represent a new generalizable urban solution that should work well in other cities, or is it a skillful response to a unique cultural, economic and physical context? Understanding what Vancouverism is, why it is successful in Vancouver, and the relevance that it might have to other urban settings are questions directly linked to better understanding the origins of Vancouverism.

The research begins by proposing a framework of five essential elements that together provide a workable description of Vancouverism: Spaced Point Towers, Row House Enclaves, Active Urban Landscape, Outdoor Urban Rooms and Protected Public Views. In the historical analysis that follows, the development of Vancouverism is traced though the successive introduction of these elements. Drawing from a wide range of source material, including: built projects, un-built proposals, planning documents, archival photographs, discussions with many key participants and original photographs by the author, this dissertation argues that Vancouverism emerged over the course of an entire century as the city itself struggled to adapt to changing local conditions.

Although several general factors proved relevant, including changing building technologies and the global flow of capital from Asia, the physical form of development in Vancouver was ultimately defined by local architects who initiated a protracted search for new, precedent-defying solutions better able to respond to local conditions. The new perspective offered by this research dismantles entrenched misconceptions that suggest Vancouverism was imported from elsewhere or recently invented. Instead, new lessons become available focused on improving processes for developing innovative, locally relevant urbanism and better understanding the contribution that local design knowledge can play in facilitating successful urban revitalization.
Chapter 1: Introduction: the essential elements of Vancouverism

Figure 1.1: Vancouver BC in 1985 and in 2010 (Berelowitz, 1985; Shields, 2010).
1.1 Concord Pacific Place, Coal Harbor and the new face of Vancouver BC:
In 1988 the provincial government of British Columbia finalized the sale of 205 acres of land along the northern shore of False Creek, near downtown Vancouver B.C. to Concord Pacific, a development company owned by Hong Kong based real estate developer Li Ka-Shing. The sale of this land set in motion the long overdue redevelopment of a prominent underutilized tract of waterfront property that had previously been a center for industrial production, and then briefly in 1986 a world Expo site. Once developed, the result would be Concord Pacific Place, the largest mega project in North America. Yet although the project was large, Concord Pacific nevertheless was part of a larger process of privately funded urban redevelopment that would transform the surrounding sections of the City.

While Concord Pacific Place was reinventing the skyline of the southern approach at False Creek, another mega project, Coal Harbor was contributing to a rapid redefinition of the urban edge and skyline of Vancouver along its northern harbor waterfront. Development also spread to the nearby warehouse district of Yaletown and on into the downtown core. At the eastern end of False Creek a separate development of new residential towers named City gate was also developed at this time. Although for most of its history the downtown peninsula of Vancouver had been bracketed by industrial train yards, lumber mills and ship yards, today this part of the city enjoys a rejuvenated waterfront on both sides, overlooked by some of the most sought after residential real estate in the City (see figures 1.1, 1.2). As of 2011 Vancouver had a population of 603,000 and it continues to grow in population; it is however the only Canadian city that since 1980 has grown in population while becoming more densely developed (Statistics Canada, 2012). Since the sale of the Concord Pacific site at False Creek in 1988, a total of 234 new residential

1. At one time the land at Concord Pacific Place and the land at Coal Harbor had both been owned by Marathon, the real estate development arm of the Canadian Pacific Railway (CPR). In 1980 Marathon sold its holdings at False Creek to the Province of British Columbia. Marathon retained ownership of its land at Coal Harbor, which it began developing as a successful megaproject during the same time period that Concord Pacific was developing.
high rises have been constructed in the downtown peninsula of Vancouver, including 55 so far at Concord Pacific Place itself. ²

As impressive as the scale of the recent transformation of Vancouver may be, the reason the Vancouver has emerged as a city of general interest is that these recent developments have coincided with the emergence of a new pattern of urban development with distinctive visual characteristics now associated with Vancouver’s emerging status as a extraordinarily livable city. This new form of urbanism, frequently referred to as “Vancouverism,” combines residential high rises, low rise infill, a pedestrian oriented streetscape, and a network of linked waterfront parks. At a time when interest in viable alternatives to suburban sprawl are of increasing interest, the example of Vancouver is noteworthy as an approach to urban redevelopment that is considered appealing (Economist, 2005, 2011; Mercer 2011, 2010), resulting in an attractive and well used public domain, while at the same time providing a model for housing development that has proven economically viable for private developers.

As might be expected, the perception that something new and effective form of urban development has been taking place in Vancouver has generated a significant level of research interest in understanding this phenomenon, its causes, impacts and applications.

Urban development is of course complex and multifaceted activity involving a diverse range of political, aesthetic, technological, cultural, environmental, legal and economic factors, all of which come into play in the recent development of Vancouver. Some of these dimensions have already been well explored. The role of globalization and the flow of Pacific rim capital and immigration has been explored in relation to the development of Concord Pacific Place (Olds,

² There is no universally agreed upon standard for what constitutes a high rise building. In this research a standard of ten stories or more is used, even though higher and also lower standards have been used elsewhere. From 1929 through 1956 Vancouver zoning rules generally restricted building heights to six stories or less; in 1973 planning documents indicate that the then current city planners in Vancouver considered anything over six stories to be a high rise (City of Vancouver, 1973). This lower standard however, was rejected for use here for two basic reasons: the lack of reliable data at this lower height and concern that this would result in confusion, since standards of 10, 12 or 15 stories are more typically used. Due to the lack of an agreed upon definition of what constitutes a high rise, the figures cited in this research may at times be different from those found in other published sources. For example, a figure of 47 total high rises has been cited as the projected complete extent of the Concord Pacific Place master plan of 1989. (Fader, 2004) Of the 55 new residential high rise towers presently completed in this development 45 are 15 stories or taller, suggesting that this is the standard applied by Fader. My tabulation of high rises began with several online databases of tall building construction in Vancouver, including one made available through Emporis.com (2008, 2012) and another through skyscraperpage.com. The combined results were cross checked for redundancies, and classified according to uses.
2002), and in relation to development throughout Vancouver (Gutstein, 1990). The role of changing regional politics and their connection to economic development policies has also be explored in terms of the development agendas recently pursued in Vancouver (Harcourt and Cameron 2007; Hardwick 1994; Mitchell, 2004; Ley 1992). The role of current and recent planning methodologies in implementing the new developments in Vancouver has also been studied in detail, as well as some of the historical and political context from which these practices emerged (Gutstein 1975; Harcourt 1996; Hardwick 1974; Ley 1980; McDonald 2008; Punter 2004; Tennant 1980).

Figure 1.2: Converted industrial lands in Vancouver and related development. This image is a detail view from a 1927 planning map by Harland Bartholomew (color shading and text added by Robert Walsh). Red areas represent the Coal Harbor and Concord Pacific Place megaprojects. Green areas depict areas of recent residential high rise development from 1988-2010. The blue zone is the West End, Vancouver’s first residential high rise district developed 1956-1973. Gray areas depict industrial operations. Yellow tinted area depicts Granville Island, an industrial area converted in 1976 to mixed uses.
In theory, preexisting models of urban development could have been used in Vancouver to address the changing political, economic and cultural conditions that fueled the recent wave of development that transformed the city, and yet this is not what happened. Instead something new and different emerged and from an architectural perspective this is potentially of major interest because it suggests that even though political economic and cultural conditions are significant, there is something additional at work here worth examining more closely.

The perception that there is something new in the physical form, the architecture and urban organization of recent developments in Vancouver has also resulted in a variety of research primarily concerned with understanding and evaluating the performance and impact of this new environment. The potential suitability of Vancouver’s new waterfront living environment, and especially the low rise townhouse units, has been studied in terms of residents’ satisfaction, including the availability of public amenities such as outdoor recreation (MacDonald, 2005). Because Vancouverism has spread throughout the downtown, including into the Yaletown district at some distance from the waterfront, the impact of Vancouverism on urban settings that
are not as connected to the waterfront is also a topic of interest. One issue that has emerged as Vancouverism has become increasingly common throughout the downtown peninsula has been a tendency for buildings to be reduced to a formulaic pattern that is becoming repetitive to the point of being perhaps even somewhat oppressive (Bogdanowicz, 2006; Soules, 2010). At a larger scale, the impact of Vancouverism is being explored as an urban phenomenon that is changing the identity of the Vancouver and turning it into a new model of urbanism that is being replicated elsewhere, even when this might not necessarily be appropriate (Berelowitz 2005; Boddy: February 2004, July 2004, 2007).

Despite significant research examining the economic, political, social and regulatory conditions that have informed the recent transformation of Vancouver, and additional research concerning the form and performance of this new environment, at present there nevertheless remains a fundamental gap in understanding concerning why and how the urban form of Vancouver came to take this particular novel configuration. The nature of this gap has been rendered obscure by a tendency of many researchers to accept convenient myths about the origins of Vancouverism, such as the false notion that this was a typology imported from Asia (Boddy 2005; Bogdanowicz, 2006). This presents a potentially serious problem, impacting not just how Vancouverism is understood in relation to the context of Vancouver, but also with regard to how Vancouverism is coming to be applied in other settings outside of Vancouver.

When the questionable notion that Vancouverism was imported from elsewhere is accepted as a basic premise, the essential question: why this happened in the unique setting of Vancouver, ceases to matter. Furthermore this leaves unexamined the question of which aspects of Vancouverism might be especially well suited to conditions unique to Vancouver. Instead, accepting the myth that Vancouverism was imported from elsewhere tends to support the flawed conclusion that there is something inevitable about the form Vancouver came to take, inevitable as a result of larger social and economic forces operating at a global level., independent of context.

Although there are a number of misconceptions concerning Vancouverism that continue to enjoy substantial popularity, yet can be fairly readily dispelled, the notion that Vancouverism was imported from Asia is more challenging to dispel because this requires telling the more accurate story of how Vancouverism actually did develop within the context of Vancouver, and this is a
story that is neither concise, nor as of yet particularly well understood. This dissertation explores
the role that local architects played in the development of Vancouverism, and how this unique
pattern of urban development emerged through their sustained engagement with trying to
effectively reshape the built environment of Vancouver in response to important local conditions.
By revealing the history of this extended process of design development and adaptation, a
hopefully clearer picture emerges in which the claim that Vancouverism was an imported
typology brought in from Asia ceases to be a central concern, while new insights emerge that
challenge still other commonly held assumptions such as the preeminent role assigned to city
planners in the development of the urban form of Vancouver.

1.2 Vancouverism redefined
Coinciding with the dramatic transformation of the urban center of Vancouver has been
emergence of a view that the new projects collectively represented something different, unusual
and possibly better: a new variety urbanism. At first this development approach was actively
promoted as “The Vancouver Style,” but this label has not persisted, perhaps because the term
“style” tends suggest a visual interpretation of a phenomenon that not only looks different but
also functions differently.

Around 2004, the term “Vancouver Model” briefly displaced the term “Vancouver Style,” and
still continues to be used. Meanwhile, since 2005, the term “Vancouverism” has also begun to be
used with increasing frequency, now to describe Vancouver-urbanism.

With the term Vancouverism emerged a need for a clear definition, something which had been
lacking with respect to the Vancouver Style and also the Vancouver Model. One definition
frequently cited describes Vancouverism as:

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3 Review of available sources seems to suggest that the term “Vancouver Style” may have originated in the writing
of Gordon Price, a former City Councilor, academic and writer who has taken an active interest in framing the
discussion of the recent developments in Vancouver around this phrase (Price, 2012). “Vancouver style” has also
been used occasionally by Trevor Boddy (Boddy, 2007).

4 The term “Vancouver Model” is of uncertain origin, but may be traceable to an article by Trevor Boddy published
in 2004, titled “New Urbanism: The Vancouver Model.” this piece appears to have given rise to additional
confusion, erroneously linking New Urbanism to Vancouverism apparently because both aspire towards a pedestrian
friendly form of residential urbanism. The use of the phrase “ New Urbanism” appears to be intended as a clever
play on words referring to a new variety of urbanism, and not the work of the CNU, yet confusion over this
continues to persist (Boddy, July 2004).

5 The first published usage of the term Vancouverism that I have been able to identify concerns an alternative
meaning referring not to Vancouver urbanism, but Vancouver elitism as interpreted by a former resident who had
moved to Edmonton (Dolphin, 1994).
"characterized by tall, but widely separated, slender towers interspersed with low-rise buildings, public spaces, small parks and pedestrian-friendly streetscapes and facades to minimize the impact of a high-density population."


While this definition touches upon several important features of Vancouverism, it is not especially helpful as a basis for distinguishing Vancouverism from many other urban patterns of development. The New York Times definition also could be an apt description of any number of places that in many respects are quite unlike the recent developments typical of Vancouver.

For example, Lafayette Park (completed 1958 - 1965), in Detroit Michigan is a residential development designed by Mies van der Rohe that fits all of the requirements of the definition offered for Vancouverism, aside perhaps from the question of slenderness, and even here the issue is not entirely clear. Viewed from the side the slab towers of Lafayette Park appear quite slender, as do slab towers in Vancouver. In all other respects, the mixture of park spaces and the combination of low rise and widely spaced high rise residential towers, as described in the New York Times definition of Vancouverism are clearly present in Lafayette Park, even if the resulting organization and spatial characteristics are entirely different from those seen in Vancouver (see figure 1.4).

Clearly there is something different at work in Vancouver which distinguishes it from Lafayette Park or other typical approaches to the development of urban architecture. For example, the buildings in Vancouver form part of a more continuous urban fabric in which row houses wrap around protect interior garden spaces often inaccessible to the public. Meanwhile, the street grid of Vancouver has been maintained and extended into the areas of new development and the new system of parks and waterfront walkways are developed to form a continuous urban network. In Lafayette Park, the low rises and high rises are located in separate areas and do not work together in defining an urban spatial environment; the original urban street grid was obliterated while the development created its own internal order separated from the larger urban setting. These distinctions are significant, yet they are not addressed in the New York Times definition of Vancouverism indicating that something more is needed.
Developing a clearer understanding of Vancouverism is important in orienting the research that follows. In Vancouver the most recent towers are sited in particular relationships to one another and are not always slender. The towers have balconies. Building heights are restricted to maintain pedestrian access to scenic views. Roads are set back from the waterfront and this space is given over to pedestrians. These are but a few of the important facets of Vancouverism that begin to suggest that it is substantially different from the approach used in the Detroit example; the challenge then is how to convert this to an operational framework?
1.3 Five essential elements of Vancouverism

In evaluating the Vancouverism phenomena and comparing this against other forms of urbanism, a basic pattern of recurrent features or characteristics becomes evident; each of these may appear in other urban settings individually, yet through their combined impacted when deployed in concert result in something new and different. In choosing a framework around which to build this analysis, the concept of an urban “element” was eventually settled upon somewhat reluctantly, not so much because it might be especially illuminating but because it is a term that has fewer complicating associations than other options. Previously when this research was in development I had suggested that these elements might be described as “patterns” (Weese, 1958), yet within the context of architectural design theory the term “pattern” has come to have a somewhat different meaning when it is associated with the work of the Center for Environmental Structure (CES) and Christopher Alexander (Alexander 1977, 1978). This specialized usage of the term “pattern” comes to the forefront in Chapter 7, when discussing the important contribution of Vancouver architect and Professor Ron Walkey, who had worked at CES, and brought his own particular interpretation of the pattern concept to Vancouver where it would eventually exert considerable influence. Although Walkey used the term “pattern” in Vancouver without resorting to the somewhat more loaded term “pattern language,” his work, to be understood properly, must nevertheless be viewed in relation to this specialized use of the term promoted by Alexander. Under these circumstances to avoid confusion in the dissertation the decision was made to restrict the use of this term pattern to describing the work directly related to Ron Walkey and his associates.

The terms: “type,” “typology,” and “model,” were also seriously considered as the basis for a framework to describe recurrent aspects of the Vancouver phenomenon. The advantage of these terms was their long history of prior usage tracing back to 1832 and the work of Quatremere de Quincy. In brief, a “type” describes an abstract conceptual idea of a particular kind of building, while a “model” describes a tangible representation of the concept in physical form. In contemporary architecture practice these two concepts often find expression in ordinary projects, where the “type” might be best understood as the basic conceptual description of a building that is developed at the outset before any actual designing takes place. The “model” in this context is the representation of the finished work to be built and may take the form of scale drawings, scale models, computer aided renderings or in some cases completed sample structures such as model
homes, all of which are meant to accurately define the form and materials that will be used in the final version. The more recently used term “typology” generally is used to refer to groupings of similar yet different items based upon a single unifying type.

The “type,” “typology,” and “model” framework tends to focus predominantly on the building as an artifact, as the originator of built form, without respect to context. Although in the process of realization of a finished project a type or a model may need to be adapted to accommodate or conform to unique site conditions, the underlying orientation of this model is based upon the building as the abstract entity driving the process. While in many cases, especially those in which generalized standard solutions are being applied the type and model distinction may be illuminating (Krier, 2009), in a highly unique context such as Vancouver where buildings are actually being developed to a significant degree in response to the setting, this framework proves inadequate due to its inward, abstracted focus.

This issue of larger scale context specific factors playing a guiding role in the shaping of Vancouver’s urban form suggests another possible framework in which the organizing and developmental principles are broken down into “Grand Urban Rules” (Lehnerer, 2009). This approach has an advantage in the context of Vancouverism in that it begins to contend with the influence of the spectacular natural setting and the way that architects and planners have developed particular urban forms in response to this. Furthermore, one such “Grand Urban Rule” at work specifically in Vancouver has already been identified, concerning the use of a three dimensional system of view cones that have contributed to the form, height and placement of recent high rise towers throughout the urban center of Vancouver (Lehnerer, 2009).

There are, however, also limitations to the “Grand Urban Rules” approach to understanding the urban form of Vancouver. One drawback is that this approach tends to emphasize the significance of planning regulations, while at the same time down playing the role of creative architectural design as an influence on urban form. Not all of the characteristics observable in the recent developments in Vancouver emerged from general rules or principles. As will be discussed in subsequent chapters, the city planners in Vancouver have not always had the upper hand. While Vancouver has had a complex and evolving set of urban rules, these rules themselves have also been repeatedly adjusted, revised and adapted in response to efforts of architects and developers to defy established rules. Sometimes developers and architects have
been unduly inhibited by regulations, while in other cases they have managed to circumvent the rules, yielding unanticipated outcomes; in both cases planner expectations were defied and the rules were adjusted. Over emphasizing the importance of the rules risks ignoring this fluid, changing dynamic.

A second, perhaps more substantial limitation of the “Grand Urban Rules” approach, in the context of analyzing the architecture and urban form of Vancouver, is that some of the aspects of what makes Vancouverism unique and interesting are smaller scale issues of architecture in which overarching urban rules play at most a limited role. For example part of what makes Vancouver different is that a different high rise began to be built in Vancouver in the 1980’s, exhibiting a new range of morphological principles that eventually resulted in an urban impact through their repeated application, yet remain difficult to express as actual urban rules.

What is needed, therefore, is a hybrid format capable of drawing, as needed, from the unique advantages of a type and model framework, while in other cases, making use of larger context specific principles for generating form at the urban scale. Although the “pattern” concept has the potential to bridge the gap between these two frameworks, for reasons of conceptual clarity, a workable alternative had to be devised. Although perhaps somewhat less than ideal, the framework I chosen to use is something I am calling an “element.” In this context an element is meant to indicate an essential feature or characteristic of the built environment that can be identified as being recurrent and significant in its impact. An element may take the form of an overarching rule, an accepted local design practice or principle, or as a building type. The intention is to provide a framework that is flexible enough to accommodate the full spectra of issues having an impact on the urban form of Vancouver. Although this framework has the apparent disadvantage of being perhaps conceptually loose or imprecise, the somewhat less obvious advantage this presents is the necessity for a greater emphasis on understanding what has actually transpired in Vancouver without the embedded structural assumptions, limited perceptions or prefigured solutions that an overly restricted framework might otherwise tend to impose.

Invoking the term “element” also is intended to focus attention on the most essential characteristics of the Vancouver environment, those critical features and operational principles that most directly inform and define the built form of this particular urban setting. Accordingly,
rather than attempting to produce a comprehensive description of as many elements as possible, the intention has been to restrict the list to as few essential patterns required to illuminate the subject. This has resulted in a list of five essential urban elements, each of which can be further described as consisting of several related sub elements (see figure 1.5).

The five essential urban elements of Vancouverism:

- Active Urban Landscape
- Row House Enclaves
- Spaced Point Towers
- Outdoor Urban Rooms
- Protected Public Views

The seemingly obvious step of defining Vancouverism in terms of five essential elements has had profound implications for the nature and organization of the research that follows. This research began out of an interest in contemporary conditions in Vancouver; at the outset the relationship between current conditions and their conceptual origins in Vancouver was by no means clear (Berelowitz, 2005; Coupland 2009; MacDonald, 2008; Punter, 2004). Had popular claims been actually correct, that Vancouverism had simply been imported quite recently from Asia (Boddy 2005; Bogdanowicz 2005), then the research would have focused almost exclusively on the most recent developments in terms of current technical, economic and cultural considerations. Instead, however, what became apparent after the five essential elements were initially identified was that each element appeared separately, before eventually being combined to result in the form of urbanism today known as Vancouverism. Rather than being an instantaneous creation, or form of urbanism borrowed from elsewhere, the development of Vancouverism was the result of an extended evolutionary process of adaptation and innovation in response to a field of concerns that are either local concerns, or local expressions of larger issues. Although this research has therefore become primarily a historical inquiry, the interest in understanding the origins of Vancouverism remains anchored in understanding Vancouverism as a contemporary urban and architectural phenomenon. Understanding where Vancouverism came from impacts perceptions of what Vancouverism is, how it works and what sorts of lessons relevant to designers, developers and planners working in other cities might be effectively derived from the success of Vancouverism.
Figure 1.5: Five essential elements of Vancouverism (images 1-3 by Robert Walsh; image 4: bing 3-d, 2012; image 5: view cone e. 1, from Cambie bridge, City of Vancouver, 2012).

1. **Active Urban Landscape**

In Vancouver the public space of the city including streets and parks and the public waterfront are all remarkably well developed and this aspect of the urban environment remains important to
the residents of the city. The public domain plays a defining role in the identity of Vancouver, and a significant aspect of this is the way that the pedestrian experience has been supported and defined through the establishment of a well landscaped action-oriented public urban landscape. “Active urban landscape” refers to the active participatory landscape of Vancouver: a system of parks connected by multiple pathways dedicated to a variety of purposes that include separate routes for pedestrians, bicyclists, roller-bladers, and vehicular traffic. It also refers to the profusion of fountains and other forms of public art found throughout the downtown peninsula.

The active urban landscape in Vancouver also features the highly developed network of street trees which have been developed at considerable expense and with great care to produce a lush green environment even in streets where towers loom over the canopy of foliage. This urban landscape is action oriented and has been shaped in Vancouver with the intention not of being looked at and admired from a distance but as a network of places to be occupied (see figure 1.6).

Four particular sub-elements that play a contributing role feature prominently:

- Parks System
- Street Trees
- Waterfront Promenades
- Public Space Furnishings: fountains, benches, sculpture

The basic foundations for the Active Urban Landscape were first introduced into Vancouver at a surprisingly early point in the history of the City; how this came to pass is examined in Chapter 1. Today Vancouver is a city where the access to and enjoyment of the outdoors forms defines part of the local identity, influencing the form of buildings and even the typical local attire. The importance of this element in describing the recent development of Vancouver should not be underestimated; although it is common to define Vancouverism in terms of the recently constructed buildings, the establishment of a network of park spaces has been crucial in determining where the new developments would be permitted, defining the setting from which these new buildings are most often viewed. This urban element also plays a role in making the downtown more hospitable to families with children and supporting the widespread impression that Vancouver is a livable city. For a city which was once a horribly polluted industrial city the establishment of an outward oriented identity steeped in the appreciation and enjoyment of
nature and amounts to a remarkable transformation of local cultural values that continues to inform development and urban design throughout the city of Vancouver.

Figure 1.6: Active Urban Landscape: sub-elements in Vancouver (Robert Walsh).

2. Row house enclaves

When viewed from street level as a pedestrian, the recently constructed building complexes typical of Vancouverism frequently appear to consist of towers sitting atop lower bases, resulting in a popular misconception that Vancouverism consists of towers built atop of podiums. While there are exceptions where this is an accurate characterization of recent buildings in Vancouver, generally speaking towers and podiums are not typical of recent construction. Instead new towers are built at a distance from one another and the streetscape between is typically filled with row houses, townhouses two or three stories tall. Towers and townhouses together surround ground level semi-private garden courtyards for the enjoyment of residents. In contrast to what is happening in Vancouver, in cases where an actual tower podium format is used the interior courtyard zone would be filled in.
Understanding that these ground level units are surrounding empty space and not infill is important in gauging the density of development in Vancouver correctly; while Vancouver is dense, it is not as dense as it might seem to be. The new developments at Concord Pacific in Vancouver are developed now at density of only about 6.0 FAR\(^6\), and many are less dense than this.\(^7\) Meanwhile the solid street front presented by the row housing infill between the towers results in an urban form that appears higher in density than it actually is. This may also contribute somewhat to the popular misconception that Vancouverism was imported from Hong Kong, where Tower/Podium developments indeed are common (Shelton, 2011).

The row housing enclaves typical of Vancouverism has particular features that can be described as consisting of the following sub-elements (see figure 1.7):

- Street-facing townhouses
- Hidden garages
- Courtyard gardens
- Layered entry sequence

One important aspect of row housing that motivated the City of Vancouver to begin insisting on the inclusion of these units as part of larger development projects involving high rise units was the expectation that these would be improve the diversity of the downtown community by being more family friendly and potentially less expensive.

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\(^6\) FAR or Floor Area Ratio is a common measure of construction density relating the square footage of construction to the area of a parcel of land. If a 100 foot by 100 foot parcel of land has an area of 10,000 square feet, then to attain an FAR of 1.0 one would need to construct no more than 10,000 square feet of new construction. This could be achieved by constructing a single story building covering the entire site, or a two story building covering half the site, or a ten story building covering 10% of the site, and so on. An FAR of 6.0 means that six times as much development could be allowed compared to the FAR of 1.0 example. For example, a building covering half the property could be constructed 12 stories tall and achieve an FAR of 6.0. It is useful to bear in mind that FAR is a cumulative calculation which means that by decreasing the size of upper stories, a building would be allowed to go taller while still maintaining the original FAR. FAR sometimes also appears as FSR, for Floor Space Ratio, although this term appears to be falling out of usage. FAR does not actually define a rigid height limit for buildings because it measures aggregate floor area and this remains the same regardless if ceilings are high or low. For example a ten story tower with a floor to floor height of 10 feet would have an approximate total height of 100 feet, while an otherwise similar building with a 16 foot floor to floor height would be 160 feet tall. Nevertheless if the two buildings had the same floor areas and were built on parcels identical in area, then they would be of identical FAR, despite an apparent discrepancy in overall size. For this reason FAR alone often is not the only factor used by planners to define building height limits. It is however often used to establish a limit to development density.

\(^7\) Generalizing about development density in Vancouver is problematic because allowable density in the Downtown Peninsula is no longer fixed by established zoning regulations; instead it is negotiated on a case by case basis. This is further complicated by factors such as the construction of new park spaces by developers adjacent to high rises, which when included in FAR calculations result in a perceived density that is higher than actual.
3. Spaced Point Towers

The downtown peninsula of Vancouver has twice been transformed by periods of rapid construction of residential high rise towers, the first from 1956 - 1973 and the second which began in 1989 and is continuing into 2011. Partially due to their visible impact on the appearance of the city and partially due to the increased residential density that has accompanied these waves of construction, the residential high rises of Vancouver continue to be studied by architects, planner and developers. Consequently small-footprint glass and concrete residential towers, like those recently constructed in Vancouver, are now a key component of urban design schemes that are conscious attempting to apply a Vancouver derived model in a new location (see figure 1.8).
What separates the towers of the first high rise boom and the second, however is a complex set of physical characteristics that include site specific relationships to context, and a locally developed vocabulary of building forms. Whereas the towers of the first high rise boom tend to be bilaterally symmetrical freestanding structures apparently organized around a need for internal consistency, and typical of towers built in the 1960’s around the world, the more recent towers typical of Vancouver’s second high rise boom are substantially more varied, responding to unique view opportunities. These new towers are also different from their earlier predecessors in how they relate to the streetscape at ground level. The earlier towers were freestanding objects poorly related to the streetscape, while more recent structures are conceived of as parts of building complexes which are typically connected at the ground level by auxiliary structures, such as townhouses and similar low rise elements.
A second important aspect that often seems to be over looked in discussions of the high rises in Vancouver is that the residential towers are now required to be located at a substantial distance from one another. This separation requirement was less explicit during the first period of intensive high rise development and architects therefore responded with a different set of typical solutions based upon an expectation that adjacent properties might yet be developed, as was normal in other urban contexts. Slab towers were quite common in these earlier high rises. The more recent high rises, however, developed under a planning regime that requires adherence to substantial setbacks from existing tall buildings, ensuring that views and daylight remain available on all sides of a structure long into the foreseeable future. This change encouraged the construction of towers with glazing fully developed on all sides, while select features such as bay windows, protected balconies and curving façade elements began to appear with greater frequency to take better advantage of available views that result from tower spacing.

4. Outdoor Urban Rooms

The fourth urban element concerns a particular design strategy that emerged fairly late in the process of the development of Vancouverism. In essence this element, which to the best of my knowledge is not discussed anywhere in any other text on Vancouver, concerns the way that towers and low rise structures are sometimes organized together to define larger room-like outdoor urban spaces. Not only do the towers work together to frame and define different zones of the city, but they work together with the row housing elements to define coherent urban places at the ground level. In the chapters that follow it will become more apparent that there is actual hard evidence that supports the contention that the use of high rises and low rises together in this manner is a particular design innovation that plays a crucial role in defining Vancouverism, and separates this form of urbanism from earlier uses of high rise development in Vancouver. Curiously this element also happens to represents one aspect of Vancouverism that is frequently lacking in efforts to recreate similar outcomes in other cities, perhaps because this element is not yet widely appreciated.

The outdoor urban room element may also help to explain why Vancouverism seems to be especially effective in those parts of downtown Vancouver where several city blocks have been designed in one masterplan; at this larger scale designers are able to develop a balanced
configuration of multiple towers well related to one another while at the same time defining larger urban events (see figure 1.9).

This element also finds expression in smaller developments, although in a more limited form, in which towers and townhouse enclaves work together to frame and differentiate quieter spaces. The outdoor room element crosses the boundary between architecture and urban design. It is one reason why the grand urban park spaces are critical to the success of Vancouver; it is through these outdoor rooms that the towers and the parks enter into a coherent place making relationship at a very large scale.

Figure 1.9: Urban Outdoor Rooms (images 1 and 3: Robert Walsh; images 2 and 4: Bing 3-d).

5. Protected Public Views

“In 1989, Vancouver City Council adopted 27 view cones to protect views to the North Shore mountains, the Downtown skyline and surrounding water bodies. Any
development occurring within these cones may be further restricted in height beyond what is specified in the Zoning and Development Bylaw or Official Development Plans.”

City of Vancouver website (http://vancouver.ca/commsvcs/views/index.htm).

Figure 1.10: View Cones Over the Downtown, and resulting building height restrictions 12/12/1996, City of Vancouver Planning Department. Additional view corridors were also established outside the boundaries of this drawing (City of Vancouver website).

The final urban element to be discussed in this introduction concerns the unique method that Vancouver has developed to protect public access to distant scenic views and especially views from positions south of False Creek looking across the downtown to the Coastal Mountains towering over the Burrard Inlet to the north. The strategy for protecting views that has evolved consists of protected view cones, but which more accurately might be described view corridors.8

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8 Were these actual cones, then the projected view that is protected would take the form of a circle or an ellipse while the views that are actually being protected consist of rectangles projected into space. As recently as 1990,
Each view cone defines a rectangular view shed to be protected as observed from a particular public vantage point. The resulting shape is not actually circular, as the term cone seems to suggest, but rather is actually an elongated pyramid whose apex is the origin of the view point, typically a pedestrian accessible point in a public park or street (see figure 1.10).

The story of how these views came to be protected begins in 1976 and emerges out of a combination of changing planning values, increased public participation and to an extent, the improved visibility that began to emerge as large scale smoke producing industrial operations ceased to operate around False Creek. The establishment of legally protected public views has had real and lasting impact on the architecture of Vancouver, yet this urban element is highly specific to the setting in which the City of Vancouver has developed. This element appears to be the main reason that the City abandoned the practice of building tallest on the parcels closest to the waterfront, instead adopting an approach in which views become available to towers several blocks further back by permitting the towers furthers from the water to grow the tallest.

**Five essential elements Summary:**

Taken collectively these five essential elements begin to describe the unique set of urban forms that are typical of the recent developments in the downtown of Vancouver BC (see table 1.1). Distinguishing characteristics such as the spaced residential towers, row house enclaves, protected public views and outdoor urban rooms clearly differentiate what is happening in Vancouver from developments such as Lafayette Park which might conform to the earlier definition of Vancouverism.

Far from being an imported typology, Vancouverism is a homegrown form of urbanism that developed in Vancouver over an extended period of time. Framing this development as a process of successive introduction and combination of essential elements added to the planning, design and development of Vancouver makes it possible to examine this process of development more closely while at the same time understanding how these particular innovations developed in response to the unique context of this city.

official documents were actually describing these protected views as “view corridors.” (source: City of Vancouver website)
### Essential Elements of Vancouverism

<table>
<thead>
<tr>
<th>Elements:</th>
<th>sub-elements:</th>
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<td>waterfront promenade</td>
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<td>fountains, benches art</td>
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<td>2. Row house Enclaves</td>
<td>street facing townhouses</td>
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<td>layered entry sequence</td>
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<td>courtyard gardens</td>
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<td>hidden garages</td>
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<td>3. Spaced Point Towers</td>
<td>small footprint towers</td>
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<td></td>
<td>tower separation</td>
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<td></td>
<td>Vancouver point towers</td>
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<td>4. Outdoor Urban Rooms</td>
<td>towers and enclaves</td>
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<td>5. Protected Public Views</td>
<td>view corridors</td>
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<td></td>
<td>view cones</td>
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Table 1.1: Essential elements of Vancouverism and corresponding sub-elements

**Rejected elements: three popular notions often associated with Vancouverism**

In the literature and informal public discussions surrounding Vancouverism there are several different factors that are commonly discussed, but which do not appear on the above list: the absence of freeways, the use of towers with podiums and the alleged importance of scissors stairs. These three items do not appear on the list for somewhat different reasons and yet each
has played a role in shaping how people have come to view Vancouver and the unique urban form that has developed there, in some cases leading to wide acceptance of misconceptions.

Lack of urban freeways
Occasionally the claim is made that Vancouver is a city without freeways and then from this has derived some of its special qualities as an urban environment (Coupland, 2009; Price 2003). Strictly speaking Vancouver is not a city without any freeways within its borders; at the eastern edge of the City runs a several mile stretch of the Trans-Canada Highway (Route 1), a road which connects Vancouver to remote points in British Columbia, as well as much of Canada. Vancouver also is approached from other directions by several other major highways that terminate just short of the City limits. As a result, the automobile has played and continues to play a significant role in the lives of many Vancouver residents. Nevertheless, while claims that Vancouver has no urban freeways seem somewhat overstated, the lack of a comprehensive network of freeways crisscrossing the City is a significant aspect of Vancouver, at least for some people, made more important because of the way that this unusual result was achieved.

Vancouver lacks a freeway network not for a lack of trying, but because opponents of the freeway succeeded in preventing their construction, in a fight that had significant and ultimately lasting political repercussions. Because the freeway fight was a watershed moment in the political history of Vancouver, it is understandable that people would want to attribute some of the present day success to this important struggle (Harcourt and Cameron, 2007), yet it is also important to maintain a balanced perspective. Former City Councilor Gordon Price has argued that Vancouver is a successful as new type of urbanism due to its combination of high rise housing and its lack of freeways, which according to him leave the downtown peninsula well poised to thrive in a post oil and hence post-automobile centered lifestyle. In proclaiming that Vancouver does not have freeways, but instead has planning (Price, September 2003), he conveniently appears to overlook the problem that the same planners who had encouraged the first wave of high rise construction were also attempting at the same time to impose a comprehensive freeway system carving through the heart of the city. Meanwhile, their successors, who had opposed the freeways also were quite active in opposing the high rises and when they succeeded in eventually gaining political control of the government, they enacted
policies they enacted policies to ensure that high way construction and high rise construction were for all practical purposes shut down, at least for a time.

Having a downtown that contained high rises but no freeways was not the result of effective urban planning, but rather the somewhat accidental by product of two competing factions with competing ideologies that have been locked in opposition throughout much of the history of Vancouver. Each side got part of what it wanted. Understanding the nature of these events and how this conflict played out is essential to understanding how Vancouver eventually came to be the city that it is today; the shifting political landscape and the ongoing battles over the future of the city directly influenced the work produced by developers and architects as Vancouver grew and developed, but this was far from a simple or straightforward.

Classifying the lack of urban freeways as a defining element of Vancouverism presents an additional practical problem in terms of how one would apply the lack of something as a defining characteristic? Even if the protestors were correct that the freeway plans that they had opposed might well have damaged the city quite severely, this does not actually mean that all other freeway configurations would have been as detrimental.

Understanding the freeway fight is important in understanding the political and social environment of Vancouver, and the impact that this has had on the development of Vancouverism, and this issue is examined in detail in chapter 5 of this dissertation. However, the position taken here regarding the significance of the lack of urban freeways is that this is best understood not as an element of the built environment, but as a significant game changing political event.

The Scissors Stairs Misconception

In Vancouver (B.C.) we have scissor stairs: two separate exit stairwells that cross each other in a shaft, generally in the core of the building next to the elevators. That means the building can be very slender (the so-called point tower) with a high efficiency ratio (usually above 85 percent) - a nice combination of aesthetics and economics.

Figure 1.11: Scissors stairs examples (Mokashi, 2008) Note: the drawing at left is technically incorrect because as you can see, there is insufficient head clearance and too few steps between floor levels. Typical interiors in Vancouver have a ceiling height of 9 feet or more, which means that each run of stairs would have approximately 17 risers instead of the 9 shown in this image. This matters in the analysis that follows because it means that the total horizontal extent of the stairway shaft is about eight feet longer than the image shown above. Also note that the two stairways are divided by a solid wall which must prevent smoke from one stairway from entering the other in the event of a fire.

A common misconception surrounding Vancouverism is that the slender towers seen in Vancouver only exist because the use of a particular form of fire egress stair known as the scissors stair allegedly makes this uniquely possible. A scissors stair is a type of double stair case that makes it possible to locate two separated fire stairs inside one single but substantially larger shaft (see figure 1.11). Fire codes in Canada and the United States are organized around fundamentally different methods and principles, yet both require two separate stair routes out of a typical apartment tower. The scissors stair approach was previously commonly used in many parts of the United States and it remains an option in several code jurisdictions, including New York City, although they have ceased to be common throughout most of the rest of the United
States, contributing to the false impression that Vancouverism is unattainable here because scissors stairs are not allowed. Scissors stairs are common throughout Canada and in many other countries.\footnote{There are three reasons that scissors stairs fell out of favor in the United States. The first is that they make actual firefighting more difficult, for instance in cases where firefighters need to drag a hose up multiple flights of stairs the point at which one exits the fire stairs could be closer or further away from the fire depending upon whether one is on an odd or an even stair. The second concern is that if smoke gets into one portion of the stairs it could get into both portions, preventing both forms of egress. The number one source of fatalities in high rise apartment fires, aside from those involving people in the room where the fire itself began, is due to smoke inhalation, making this a serious cause for concern. (Tubbs and Meachum, 2007) The third issue is that in the United States, the fire egress codes have tended to emphasize keeping the means of egress separated from one another in the interest of ensuring a clear escape route is always possible. In the Canadian code, the emphasis is instead on making egress from the building as quick as possible by keeping egress routes short.}

The chief advantage of the scissors stairs over having two separate stairs in separate locations is that the scissor stairs approach is potentially slightly more compact, eliminating a stair landing at the mid-point between each floor. Excluding other potentially relevant considerations, the use of a scissor stairs approach to fire egress might save somewhere in the vicinity of 65 square feet of floor space per floor level. In a 32 story tower this could translate into an additional 2080 square feet of space, which if all other things were equal could then translate into perhaps $1-2 million of additional developer revenue in the Vancouver market. The cost of including fire stairs, hallways and elevators are included in the cost of the apartment unit, but developers have a strong motive to reduce the construction cost of these items because apartment real estate values measure only the unit interiors in pricing units. For similar reasons, balconies though desirable as an amenity that makes a unit more appealing, do not factor into the calculation of the actual size of a unit. If all other considerations are considered equal, then it is understandable that this type of stair would be the first choice of developers in Canada, where the use of scissors stair in new buildings continues to be legal.

A more careful study of the issue, however, reveals that all other things turn out not to be equal after all. The scissors stairs approach has the potential to introduce other apparently underappreciated inefficiencies that offset the advantages gained by eliminating a fire stair landing, and these inefficiencies actually tend to increase as floor plates get smaller. The significance of this is that at least in some cases, Vancouver developers appear to have been have been losing money by using scissors stairs as a the default option in all towers, and that
Vancouver’s point towers succeed not because of the scissors stairs but despite their apparent inefficiency.

A careful study conducted in preparing this dissertation revealed that while some of Vancouver’s more talented designers, such as Richard Henriquez had devised clever means to circumvent these inefficiencies\(^{10}\), in general in cases where there are more than one dwelling unit per floor level, as floor plates get smaller, the advantage to using a scissors stair also diminishes. In multiple unit dwellings the advantage gained by the elimination of a stair landing is offset by the necessity of including additional public hallway space to access both ends of the stair. The scissors stair itself becomes an obstacle requiring additional hallway floor space to get around to access units and both stairs, regardless of how small the rest of the building becomes.

In contrast to this, in the separated stairway approach required in most American building code jurisdictions, the separation between the stairs is a function of the building diameter and as the footprint gets smaller, the stairs can move closer together, reducing the hallway length needed to connect the two towers. Eventually when a tower becomes small enough, the separated stair approach becomes more efficient than the scissors stair approach.

The following drawing demonstrates this at work in the floor plan of a recent residential tower at 1200 Alberni Street by one of Vancouver’s most celebrated architects James Cheng (see figure 1.12). The plan of this building is an ellipse divided to accommodate six residential units on a typical floor. On the right is a drawing based upon publicly available plans of this structure, showing the hallways, elevators and fire egress stairs. The image on the left uses the same overall floor plate configuration; from the outside the building would appear identical to the tower built in Vancouver. The only difference is that in the image on the left, the building code used is a common American standard, the so called International Building Code (IBC), which of course discourages the use of scissors stairs. Hallway widths, elevators and associated lobby space have all been maintained from the original design of the actual building. The hallway spaces have been gridded to make comparison of their relative floor area easier.

\(^{10}\) For example the Richard Henriquez tower known as The Sylvia has a single apartment unit per floor. This arrangement permits a floor plan in which the elevator opens onto a small elevator entrance for each unit at one end of the scissors stairs, while the other entry to the scissors stair is accessed elsewhere in the unit interior, thereby eliminating the need for exterior corridors, maximizing the ration of interior unit floor area to necessary shared circulation space.
Figure 1.12: Scissor stair circulation efficiency: 1200 Alberni Street (design by James Cheng; drawings and analysis by Robert Walsh). Left: floor plan with IBC rules typical of the US applied. Right: a typical floor as built. Below each image is shown the square footage required for both hallway and stair: 853 square feet on the left and 899 square feet as built, on the right. The key to understanding the issue is that the scissors stairs requires additional hallway.

Visually the combined area of the stairs and the hallway appears to be larger in the American version on the left, perhaps because it is spread out over a longer extent in one dimension. The Vancouver version, while certainly more compact, actually requires more floor area in total. The difference between the two schemes is a difference between 899 square feet and 853 square feet,
or 46 square feet which overall is not especially huge. This suggests that perhaps there are other considerations that may have had an influence such as the familiarity that local builders have with the scissors stair configuration. More significantly these results strongly support the possibility of effectively constructing towers that appear identical to those found in Vancouver in other locations, regardless of whether scissors stairs are allowable. In some case such towers without scissors stairs would even be more efficient.

**The tower and podium misconception**

In seeking a convenient and accessible explanation of the urban development approach recently used in Vancouver, it has become unfortunately quite common to refer to Vancouverism as consisting of a combination of towers and podiums (see figure 1.13). The idea that the slender point towers typical of recent construction in Vancouver are sitting on a low rise base covering much of the rest of the site is an appealingly easy concept to understand that seems to fit with what one experiences upon visiting the city; therefore it is not surprising that this should have come to be a widely adopted view.\(^{11}\) Furthermore there actually are occasional instances in Vancouver where the tower and podium concept actually does reflect what has been built, further adding to the confusion, even though these cases represent exceptions rather than the rule.

The most typical configuration in use in buildings typical of Vancouverism is a combination of adjacent high rise and low rise structures, with the low rises often being positioned so as to reduce the tendency of the related high rise towers to have an overbearing presence on pedestrian experience. Typically the low rise structures face onto the streetscape on one side, while on the other side they face onto a substantial ground level space in the form of a garden or courtyard. The towers themselves meanwhile are often held aloft by piloti reminiscent of the work of Le Corbusier.

There are several additional distinctions between “tower and podium” developments and the development most commonly being built in downtown Vancouver. In a podium type of project, the podium roof level itself often takes the form of being a semi private recreational space shared by residents of the building. In contrast to this, it is more common for the rooftop areas of the

\(^{11}\) Some of the Vancouver city planners I have met with continue to speak of towers and podiums and the term was even used at meeting of the Vancouver Urban Design Panel that I attended. Some planners are starting to use an alternative term: tower and townhouse, which more closely matches actual development trends.
perimeter low rise buildings to be separately developed as protected roof garden or terrace spaces, for the exclusive use of the individual townhouse unit below it.

Figure 1.13: Podium and Tower claim. The caption reads: “Broken down into basic mix and match components, the typical podium and tower configuration represents a do-it-yourself kit of parts, a fool proof recipe for Vancouver urbanism (Bogdanowicz, 2006).”

In other cities, a typical podium and tower development favors a separation of uses in which the uses for the lower level podium spaces are organized to serve larger commercial functions, especially those for which interior daylight access is less critical; upper levels in the towers might be used for either offices or residential purposes where access to both day light and views is considered advantageous. In contrast to this, the low rise structures typically used in between high rise point towers in Vancouver most often consist of residential and occasional commercial office spaces. At ground level on busier streets in Vancouver the ground level is frequently dedicated to retail, but on many quieter streets retail use is not feasible. Nevertheless, the continuous street wall of low rise residential structures makes the streets that they overlook feel safer, a result that is undoubtedly aided by the use of a town house approach that distributes
entries along the street front.\textsuperscript{12} This is significant because to have actually used a podium and tower approach would have resulted in an excess of commercial space, while effective excluding residential uses from the ground level developments, simply because residential development requires access to daylight that would not have been available in a podium covering most of the site. Vancouver is a different city today in part because it encouraged an increase in residential density and the low rise townhouse units were seen as a way to make the city more appealing to families. Had podiums been used instead of row house enclaves, the result would have been substantially different.

Figure 1.14: Theory and reality: Towers and Podium versus Tower and Enclave. The first image portrays the commonly promoted view that Vancouver is a city of Tower/ Podium buildings (Bogdanowicz in: Vancouver Matters, Min 2009). The second image shows part of the Marina Crescent, by James Cheng. From the street these may read as podiums, but these townhouses surround protected ground level garden spaces (bing 3-d).

Another important distinction between the tower and podium idea and the typical form of development used in Vancouver is that the actual density of construction is somewhat lower than it would be if an actual tower and podium approach was being used. Although Vancouver has been compared to Manhattan and is often spoken of as being high density development (Boddy,

\textsuperscript{12} Vancouver architect Peter Cardew has been careful to call my attention the difference between how buildings appear in Vancouver and how they are actually used. Specifically, he has observed that one seldom sees residents coming and going from their dwellings via the street facing units; instead more often residents access their dwellings even in the townhouse units through interior stairways that are connect to the below ground parking zones which are most often accessed via a shared private entrance off of the rear alley. Nevertheless even if the entries are only infrequently accessed the appearance that they might be used at any moment by a resident still seems to have the effect of making the streets safer to pedestrians.
September 2005), most of Concord Pacific Place has a development density of 6.0 FAR or less, while portions of Manhattan have an allowable development density of 50.0 FAR. Another way to view this distinction is that developing Vancouver at its current density using actual tower and podium approach in which the central open space was filled in would mean that the towers would need to be reduced in height by roughly half. Although the tower podium notion seems likely to persist its designation as an essential urban element of Vancouverism is unwarranted; the key issues that it raises are better addressed as other elements.

**Discussion: the importance of Vancouverism in a larger urban context**
To understand the architecture and the urban form that has developed in Vancouver requires a broader perspective incorporating the influence of the natural setting, but also recognizing the importance of the diverse and creative local culture, the thriving multifaceted economy and the geographic position of the city as a remote outpost linking Canada to the Pacific. The appreciation people have come to have for the beauty of their natural setting in Vancouver is an essential influence on the way the urban environment has been shaped however, and this should not be underestimated. Reverence for and access to the outdoors is a recurrent theme that has played an important part in the ongoing development of the city, even as planners, architects, developers and residents continue to struggle to find an appropriate balance accommodating both public access and private developer interests.

New York City makes an interesting contrast to Vancouver that illuminates the significance of this orientation towards the outdoors as a fundamental character on Vancouver. In *Delirious New York* (1978), Rem Koolhaas explores how the “culture of congestion” characteristic of New York City has enabled that metropolis to become an exceptionally vital city. One of the spatial dynamics that enables this to happen is a principle which Koolhaas identifies and labels as “lobotomy,” by which the function and character of building interiors become radically disassociated from the exterior building form. As a result, the functions of various building interiors are free to change and undergo substantial revision, while to all outward appearances the urban exterior is left to maintain a separate persistent urban order. Lobotomy enables New

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13 In recent developments in downtown Vancouver an FAR of 4.5 is often used. Establishing a uniform figure however is not feasible because this portion of Vancouver has been zoned to be developed on a discretionary project by project basis in which height limits and building density are determined in negotiation between the City and the developers as needed.
York to function by permitting a ceaseless flow of traffic on the exterior to coexist with a diverse and ever changing collection of significant interior spaces and uses. This coexistence only succeeds because the connections between interior and exterior have largely been severed, allowing each to operate and develop independently (Koolhaas, 1978).

In contrast to this, despite its apparent density,\textsuperscript{14} Vancouver could be characterized as a city with a culture of *decongestion*: efforts continue to be taken in Vancouver to reduce vehicular traffic, while the design of buildings and urban districts is intended to emphasize and strengthen connections between the interior and exterior environment. Instead of boxy high rise office buildings crammed together and housing vast interior spaces occupied by windowless cubicles, the towers throughout Vancouver tend to be primarily constructed for residential use. These towers are organized internally and at ground level carefully spaced apart from one another, all to maximize access to distant views for both pedestrians and building occupants. Interior and exterior alike are organized around improving visual access to the outside world; moderate density has been achieved by going upwards while staying spread apart.

The park spaces of Vancouver are in some respects another inversion of that which is encountered in New York City. Instead of having an industrial waterfront and a Central Park as in New York City, in Vancouver the major park spaces now form a necklace surrounding the City: the pedestrian friendly waterfront is the organizing principle, with the most valued properties typically being those with access to this periphery. Although there have been a few buildings in Vancouver, such as the Electra\textsuperscript{15}, which have changed their interior functions from being an office high rise to a residential high rise, this transformation is not really evidence of the lobotomy principle Koolhaas observed in New York City. Instead this revised use reflects the importance given to access to views in this building when it was originally designed as an office structure: the original owner required that all desks be within 15 feet of a window, resulting in a thin lozenge plan configuration more typical of an apartment building than an office tower (see figure 1.15) (Kalman, 1974, Liscombe, 1997).

\textsuperscript{14} Vancouver appears to be more dense than it actually is; zoning codes have kept the FAR from exceeding 6.0 in the recent high rise developments and high rise developments dating back before 1980 had kept the development density below 4.5 FAR. In some instances the impression from the street is of a dense city because interior courtyard gardens occupying the centers of city blocks are not visible to the public.

\textsuperscript{15} This building when originally completed in 1957 was named the BC Hydro Building. The Architects were Thompson, Berwick and Pratt.
1.7 Conclusion: Towards a new model of architecture and local urbanism

Understanding the origins of the urban architecture of Vancouver matters because the views held appear to be impacting how the example of Vancouver is being utilized as a development and architecture model in other cities. For example in Toronto a large development based upon the alleged podium and tower combination of Vancouver has recently been constructed. In the United States developments based explicitly on the example of Vancouver have been implemented in Portland Oregon, San Francisco, San Diego and Fort Worth Texas, despite substantially different local conditions. Undoubtedly the most extreme version of this effort to recreate the success of Vancouver in a much different context is the large scale development in Abu Dhabi known as the Dubai Marina in which a full scale replica of Vancouver’s False Creek has been carved out of the desert and surround by a seawall and development patterned after those seen in Vancouver (see figures 1.17, 1.18, 1.19) (Boddy, February, 2004).

While it will always be possible to transpose one building or development type into new urban settings where such an approach might be considered questionable at best, this is not the only lesson that planners, architects and developers could be or actually ought to be deriving from the success of Vancouver. Fortunately there are other possible options waiting to be explored that hold the promise of making a new range of interpretations possible. One critical issue concerns
the question of whether the urban form of Vancouver represents a universal ideal solution or instead a creative response to a unique set of local conditions? In a sense the current gap in the existing body of research persists because it has been widely assumed that the success of Vancouver derives from a viable fairly universal solution that can work well almost anywhere. This dissertation explores the other possibility: that Vancouver architects, developers and planners developed a solution that works well there, in response to unique local conditions. This position represents a shift away from explanations based exclusively on the current form of the most recent developments, towards a more complex analysis tracing historical roots and the process of development. By carefully analyzing the unique characteristics and features of the urban form of Vancouver, and the history of how they came to be part of the local building culture of Vancouver, a new interpretation becomes possible in which the creative contributions of local architects comes to be understood in relation to the urban form they helped to create. The advantage that this presents to developers, architects and planners working in other cities where conditions may be substantially different is that it becomes possible to learn from the example of Vancouver in terms of how this form of urbanism developed through a process of learning about and responding to local conditions, thereby shifting the focus away from merely imitating the form of Vancouver towards a more open and potentially valuable insight into the process of using creative design to develop unique locally appropriate solutions.

Despite the increasing frequency with which the City of Vancouver is being used as an example to be replicated in other urban contexts, the fundamental question of how this urban form developed remains relatively unexamined, supporting a potentially misleading set of expectations that have encouraged planners, architects and developers to view Vancouverism as a fairly universal solution readily transposed into new settings and cultural contexts quite different from those found today in Vancouver. The popular and persistent myth that Vancouverism was simply imported wholesale from Asia, is easy to accept given the pronounced role that Asian investment has played in the recent development, in the absence of other more reliable information. Such a perspective then supports the expectation that Vancouverism is something that can be translated easily to other contexts as well.
Figure 1.16: Dubai Marina at left, Vancouver False Creek seawall in 2009 at right (Boddy February, 2004; Robert Walsh, 2009).

Figure 1.17: Portland, Oregon: South Waterfront (Robert Walsh; Google Earth).

Figure 1.18: Vancouver on steroids in San Francisco: One Rincon Hill (One Rincon Hill).

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16 The term “Vancouver on steroids” was used by a San Francisco City Planner during an interview to describe this and several related projects in downtown San Francisco ostensibly attempting to emulate Vancouver.
This investigation takes a different approach to the fundamental question of where Vancouverism came from, arguing instead that it is a locally developed form of urbanism which evolved over a substantial period of time, beginning in 1912 and continuing to evolve today. The chapters that follow trace this process of development, including both the advances and setbacks that occurred as the diverse factions living and working in Vancouver struggled to find a new form of urbanism appropriate to their own particular needs and circumstances.

Outside influences have also been important in this process, as might be expected of any city which has grown substantially under the combined impacts of the British Empire, the United States and several Asian cultures, yet the synthesis of these diverse influences into a new variety of urbanism was also deeply connected to the particular and unique physical context of Vancouver and their own cultural values. The result has been an urban approach that makes sense in Vancouver because it fits the people and the setting of Vancouver.

The development of Vancouverism is not an instant solution but the result of a process that has been both contentious and creative, spanning decades of political, economic and social change. Examining this unfolding process permits the development of a different set of lessons less directly connected with the particular urban forms that have succeeded in Vancouver and more concerned with the processes by which this formal approach developed. While this research will hopefully add to the growing body of literature directed towards understanding and appreciating the remarkable success of Vancouver, the more significant point is the process by which Vancouverism developed.

Vancouver has succeeded in finding its own way, becoming a vibrant city uniquely shaped in relation to an unusual context; the process by which this unfolded is in itself a remarkable, complex and revealing story. Vancouverism resulted from a locally grounded process, based on the creativity of locally based designers responding to the needs, aspirations and opportunities present in their particular urban community. By shedding light on this developmental process the hope is that, in addition to gaining an improved understanding of the urban form of Vancouver, British Columbia, this dissertation also will yield insight into the production of locally appropriate urbanism in a way that is relevant to people striving to produce unique and effective new forms of urbanism appropriate to other urban settings.
References:

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Mercer. (2011). “Quality of Living Survey” Note: Mercer is a subsidiary of Marsh & McLennan LLC, a human resource consulting business, with offices in 42 countries, with headquarters in New York City. The annual Quality of Living Survey Ranks 221 cities worldwide. In 2011 Vancouver BC ranked 5th, a slight decline from the 2010 ranking of 4th place.
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Chapter 2: Thomas Mawson and the first Vancouver Master Plan

City planning is not the attempt to pull down your city and rebuild it at ruinous expense.

It is merely deciding what you would like to have done when you get the chance, so that when the chance does come, little by little you may make the city plan conform to your ideals.

…

There are three broad principles on which all city builders must proceed and each is of such vast importance as to deserve a separate lecture. The City Beautiful can only be realized by the due observance of each principle and their proper correlation. …

Convenient transit, whether by water, rail, street car, automobile or other vehicle and the proper grading and division of these several modes of transit so as to attain the highest efficiency and therefore least waste of time and energy, forms two-thirds of the anatomy of our subject. In this connection you must bear in mind the rapid evolution of transit.

Hygiene, controlling density of population, provision of ample open spaces for physical recreation and especially playgrounds for the children, water, and perfect sanitation.

Beauty, or the comely external presentiment of the city’s life and activities and the correlation of features which individually may be antagonistic. The perfect orchestration, I shall call it, of Nature, Art and Science.

-Thomas Mawson, (1912), excerpt from a speech delivered at Calgary, Alberta Canada.

This chapter concerns the first steps taken in the City of Vancouver, British Columbia towards the development of its unique form of urbanism, now known as Vancouverism. In particular the chapter focuses on understanding the contribution made by British landscape architect and town planner Thomas Mawson through his introduction to Vancouver of the essential foundations of the active urban landscape element. As the first of the fundamental elements of Vancouverism to be introduced into the planning and design culture of the city, the active urban landscape element began to establish values that were eventually embraced as additional urban elements were introduced. Mawson’s work established important precedents for the eventual pursuit in Vancouver of a new form of urbanism that was pedestrian centered, contextually responsive and open to diverse sources of inspiration. Mawson impacted the development of Vancouver through
his writing, through his speeches on the design of public space and through his own design commissions in Vancouver. His work therefore impacted the city in several ways, both directly and indirectly, influencing later planning and design practices in Vancouver. Evidence also suggests that Thomas Mawson exerted influence on the subsequent work of Harland Bartholomew in Vancouver.

Thomas Mawson was an outspoken and prolific designer who undertook numerous public and private planning and design commissions throughout Canada, operating during the early years of the Twentieth Century from the Vancouver branch office of his England based design firm. He introduced his own particular hybrid approach to urban landscape design to Vancouver at a time when interest in city planning was first emerging there. Discussion of Mawson’s influence on Vancouver however has tended to focus only on the master plan for the city, a design which Mawson completed in 1912 and published in 1913 (Berelowitz, 2005; Mawson 1913; McDonald, 1984).

While Mawson’s plan for Vancouver is an important urban design precedent for Vancouver, the extent to which his other work, his commissions, writings and lecturing, influenced subsequent planning efforts in Vancouver has been largely overlooked. Partially this oversight may be a reflection of bad timing or bad luck; Mawson was most active in Vancouver in the years immediately prior to the First World War.¹ The resulting shift in economic priorities over the four years of the war, followed by a post war economic slump, combined to dampen the rapid pace of economic growth that had previously existed. The ambitious design that Mawson had proposed for Vancouver in 1912 during better times came to be seen as extravagant and unrealistic indulgence, due to economic conditions that had changed after his design was completed.

Another reason that Mawson's work in Vancouver may have been largely overlooked is that in the aftermath of the war the official planning values in Vancouver became realigned, like those of the rest of Canada, with an emerging trend focused less on aesthetic considerations in favor of a more mechanistic, efficiency-oriented approach more closely aligned with the needs of business and industry (Ward, 1999).

¹ Canada as a part of the British Empire entered World War I in 1914 at the start of the war.
Mawson's plan for the City of Vancouver is more properly described as a large scale urban design, yet Mawson also developed planning documents for other cities, most notably Calgary, and he could have done likewise for Vancouver had the City acted sooner. However, by 1926 when the Vancouver finally decided to commission a more complete and comprehensive plan, Mawson was beginning to suffer difficulties with his health that made travel abroad impractical. The job went instead to Harland Bartholomew and Associates, a well-known but relatively young American planning company. The change in the perspective offered by Bartholomew, who emphasized the City Efficient in his work, also must have appealed to powerful business interests in Vancouver (Hodge, 1985; Mawson 1928; Ward 1999). Nevertheless, certain aspects of Bartholomew's work bear an unmistakable similarity to the prior work of Mawson, suggesting that Mawson’s influence may have been greater than has been previously acknowledged.

The story of Mawson's influence on Vancouver does not end with the emergence of Harland Bartholomew as his eventual successor, however. The planning and design culture of Vancouver has been prone to occasional yet pronounced shifts in fundamental values and eventually urban planning and design values consistent with those previously championed by Thomas Mawson were to remerge, many years later. Although the bureaucratic, efficiency-oriented approach to urban planning and design that came to dominate Vancouver from roughly 1920 onwards remained in place, vocal public opposition to this planning approach eventually began to develop. At first these protests were ineffective, but finally they gained traction in 1968, eventually culminating in the ouster of the local elected government in 1972, as well as the replacement of the planning director and the city manager. The result of this power shift was a new more experientially grounded planning approach embracing urban design values, methods and perspectives that happen to be quite similar to those which had originally been promoted by Thomas Mawson. The eventual success of this approach is one of the reasons Vancouver’s planning regime is celebrated today.

2.1 The beginning of public parks in Vancouver

The landscaped environment of Vancouver has been under active development and improvement since the earliest days of the city. Founded in 1886, Vancouver was initially

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2 The work Harland Bartholomew and Associates completed for Vancouver was the first planning commission undertaken by the company outside the continental United States.
established on a heavily forested peninsula, in a moderate climate with abundant rainfall. Although this forest was logged throughout, conditions favorable to the growth of a wide range of vegetation persist today and a wide variety of local and imported plants now thrive in Vancouver (Hardwick, 1974).

The city street grid and property boundaries were first laid out and established, under the influence of railroad interests and a variety of industrial operations that the presence of the railroad encouraged. In 1888, only two years after the City of Vancouver was officially established, both the City of Vancouver Parks Board and Stanley Park were established. The Parks Board has a unique history as a separate publicly elected municipal body which remains both powerful and substantially independent of the Vancouver City Council. At 960 acres, Stanley Park is slightly smaller than San Francisco’s Golden Gate Park and slightly larger than New York City’s Central Park. In 1888, Vancouver was still a small settlement, little more than a clearing in the wilderness, making the establishment of such an immense public park unusual.

During the 1860’s the British Government had set aside the land that would later become Stanley Park, for use as the Burrard Inlet Military Preserve. During this time the area was logged although some of the largest trees still survived. Stanley Park was not actually founded with recreation in mind. Instead private real estate interests wanted to prevent the land from becoming available on the open market, thereby causing a glut that would drive real estate values downwards. In 1886, the same year Vancouver was founded, three businesses involved in land sales and real estate speculation in Vancouver petitioned Ottawa to convert the disused military property into a park belonging to the City. Two years later the Stanley Park was established (McDonald, 1984; Steele 1993).

This inauspicious beginning may help to explain why no clear direction or purpose was initially established for the park. The wealthy elites living nearby in the West End treated Stanley Park

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3 Around False Creek the railroad leased land to industrial operations at low prices, further increasing the presence of industry in Vancouver.

4 In 1891, at the time of Vancouver’s first census, the city had a population of 13,709 (source: statscanada.com)

5 The purpose of this military preserve was to prepare defenses against an invasion by the United States, which was seen by Canada as a reasonable concern and one of the motivating factors behind the decision of the British to finally organize its Canadian territories as an actual country in 1867. British Columbia became part of Canada in 1871. By 1886 however, fears of an American invasion had subsided and the military preserve was no longer needed in Vancouver.
like an exclusive precinct, a nature preserve with incredible natural scenery that they were free to enjoy. The land was permitted to remain heavily forested and undeveloped, aside from paths for horseback riding and carriage rides leading around the park (see figure 2.1).

Figure 2.1: Detail: Rand Brothers Real Estate Brokers Map of Vancouver 1887 (Hayes, 2005, p. 55, Image further color enhanced and modified using Photoshop by Robert Walsh). Note: the easternmost segment of False Creek, the shallow marshy False Creek Flats, would be filled in 1916. Also note the patchwork grid pattern. A Red tint has been added to indicate extent of railroad property. This red area and the southern shore of False creek would develop into a major industrial center in Vancouver. Additional Railroad yards also line the northern waterfront.

The location of the park proved to be advantageous in another significant respect: its location at the northwestern end of the downtown peninsula ensured that the air would remain clear here, due to prevailing easterly winds, even as dozens of nearby timber mills and other industrial operations frequently shrouded the much of Vancouver in smoke. As the city grew, this status as a vast natural oasis within an industrial city would eventually result in increased demand for improvements to the park that would make it better able to accommodate recreational use by the entire city (McDonald, 1984).
Archival Images help to convey a sense of the lingering impact of industrial air borne pollution in Vancouver’s early years. Figure 2.2 shows an image of the downtown in 1910 when the economy in Vancouver; early steel frame structures are being built, or have recently been completed. Sources of smoke are particularly visible at the right hand portion of the 1910 image, significant amounts of additional smoke would have originated at the lumber mills and industrial operations lining False Creek, and also from timber mills operating on the far shore of the Burrard inlet.
Originally a small mill town that had grown under the influence of the Canada Pacific Railway, by 1911 Vancouver had become a thriving industrial city with a population of 100,401, a dramatic increase over its 1901 population of 26,313. Both False Creek and the waterfront along the Burrard inlet were dominated by numerous lumber milling operations, whose refuse burners produced a large volume of smoke, carried further eastward by the prevailing wind (see figure 2.3). Most families continued to live in wood frame houses and apartment buildings, in a moderately dense pattern of development served by an extensive network of electric streetcars, however, in the Downtown the density of construction was increasing and buildings were getting taller. Masonry clad steel frame structures were proliferating. By 1913 the Central Business District boasted nine buildings at least ten stories tall, including the 17 story Sun Tower. By 1916, these early high rises would be joined by three others (see Figure 2.5).

Business leaders in Vancouver had reason to believe in 1912 that the pattern of growth and relative prosperity that they were experiencing would increase further, due to the anticipated benefits of the soon to be completed Panama Canal.⁶ Although Vancouver was initially established as the western terminus of the Canada Pacific Railway, in many respects it had remained a remote and distant outpost, cut off from the eastern Canadian Metropolises by the

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⁶ The Panama Canal was opened in 1914.
Rocky Mountains and the vast open prairies. No Canadian roads linked Vancouver to the eastern portions of Canada and to journey there by boat involved sailing all the way around the end of South America. The completion of the Panama Canal promised to change this isolation by opening up new shipping routes. Improved shipping was expected to transform the ability of Vancouver to sell its timber and agricultural products to customers on both sides of the Atlantic Ocean. This would also increase the importance of Vancouver as a convenient port city for shipping grain grown in the Canadian interior, linking this to foreign markets. As part of the British Empire, the position of Vancouver was also expected to become more important with the completion of the Panama Canal; Vancouver would become the new midpoint on a sea route linking Britain to Asia. These changes were expected to result in rapid growth in Vancouver, sparking interest in the emerging field of town planning as a source of solutions to evident problems arising in this rapidly developing industrial city (Van Nus, 1975; Ward, 1999).

Figure 2.4: The West End, Coal Harbor and Stanley Park in 1912 (City of Vancouver Archives). Note the reduced level of smoke in this north facing image. The prevailing eastward winds were known to keep the air here a bit clearer, since the major nearly industries in Vancouver were to the South and the West.

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*Vancouver BC is the only North American port on the Pacific Ocean to be part of the British Empire.*
Figure 2.5: Dominion Building completed 1911 (City of Vancouver archives, Robert Walsh).

Figure 2.6: Population growth in Vancouver and Surrounding area: 1891-2001. Chart by Robert Walsh, based on Canadian Census figures. Figures for Greater Vancouver include Vancouver itself. The jump in Vancouver population in 1931 is partially the result of the 1930 annexation of two large neighboring towns, South Vancouver and Point Grey. Another trend to notice is the rapid growth of outlying towns and suburbs after World War II, which have grown more rapidly than Vancouver itself. From 1971 to 1981 Vancouver underwent its only period of decline.
By 1910 the question of how best to develop Stanley Park and the entrance at Coal Harbor was becoming more urgent. Unable to find a satisfactory solution, the Park Board sought outside help, eventually turning to Thomas H Mawson of Lancaster, England for design advice, initiating what would prove to be for Mawson the beginning of a diverse range of urban design and city planning work in Vancouver and throughout western Canada (Mawson 1928: McDonald 1984).

2.2 Thomas Mawson: a self-taught designer of gardens, parks and urban plans
To understand the work of Thomas Mawson in Vancouver and his multifaceted approach to landscape design and city planning, it is helpful to understand where he came from and how this informed his development. At the height of his career Mawson demonstrated a highly accomplished ability to satisfy the needs of clients of wealth and privilege, yet at the same time he maintained a lifelong concern for improving the urban living conditions of ordinary working class people.

Eventually he would come to describe his understanding of town planning and the design of public landscapes as requiring both practicality and idealism, a reflection perhaps of the optimistic persistence and hard work that he brought to his work, and which he used to overcome obstacles and setbacks throughout the course of his career.

Born into a family of modest means in 1861 in a small village in Lancashire County in England, Thomas Mawson was one of five children and the eldest of three sons. Mawson was forced to abandon his formal education at the age of twelve in order to help support his family, and so began working for his uncle, who ran a local contracting business. Even at this early age Mawson showed an aptitude for drawing and for record keeping and was therefore set to work on tracing construction documents and keeping detailed accounts of the use of construction materials on various construction projects (Mawson, 1928).

Fortunately, the premature termination of Mawson's formal education did not dampen his insatiable curiosity and hunger for learning. Throughout his life he continued to educate himself, primarily though reading, a habit that he was to persist throughout his life. He developed an early

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8 One interesting example of Thomas Mawson's concern for others is his efforts to find a way to accommodate the unique needs of the large numbers of soldiers left handicapped as the result of injuries suffered during the First World War. In 1917 he decided that a useful way to help reintegrate these individuals back into productive society would be to construct an entire new town for them and their families, essentially a town designed to be handicapped accessible. After developing designs for this new town Mawson petitioned the British Government but was unsuccessful in his efforts to get support for the project. Perhaps the concept of handicapped accessibility was too ahead of its time although it might have been seen as too disruptive and stigmatizing to treat the wounded this way.
interest in horticulture and botany, and began borrowing books on these subjects, which he then studied intently after work. This interest was to first be tested as a teenager when he and his brothers Robert and Isaac attempted to plant and develop a commercially viable orchard and fruit farm under the direction of their ailing father, only to see the project go broke after several years of sustained effort. One cause of the failure was that despite planning all other aspects of the project carefully they had somehow neglected to include in their calculations the cost of waiting several years after the initial planting for the trees to then become mature enough to begin producing a worthwhile return. Another contributing factor in the failure of the project and an even more severe blow to the family was the death of Mawson's father in 1877, after an extended illness (Mawson, 1928).

After struggling to keep the orchard and fruit farm in operation for two more years, in 1879 Mawson's mother decided to sell the rural property and relocate the family to the London area, in the hope of finding work. Now eighteen, Thomas Mawson was sent ahead to London where he first found work at one of the several plant nurseries that would occupy his attention for the next six years. He soon was joined by his mother, his brothers and sisters. London initially made a strong and largely negative impression on Mawson, who had been used to the clean air and open vistas of the Yorkshire landscape of his early youth; the cramped and polluted conditions he experienced in London were therefore unsettling. Yet he persisted, working long hours, and then studying more and sketching the various species of plants being cultivated at the nurseries, learning about their appropriate care and use. In addition to acquiring detailed working knowledge necessary for one involved in the plant cultivation trade, he began to develop valuable contacts with garden designers and potential future clients. Mawson found work for his brothers in nearby plant nurseries and they too began applying what they had learned from their earlier failed orchard attempt (Mawson, 1928; Waymark, 2009).

His work as a nurseryman brought Thomas Mawson into contact with garden designers and landscape architects at a time when English garden design was divided between two competing schools of thought, one of which advocated a more abstract, formal or geometric approach to design, and an alternative approach that stressed naturalistic garden design. As debates between advocates for each side played out in the local trade journals of the time, Mawson became increasingly interested in becoming a garden designer himself. Characteristic of his later
approach to town planning, Mawson absorbed the arguments made by both camps and then produced his own unique fusion, learning from both and then drawing freely from each tradition instead of choosing one approach to the exclusion of the other. Ever the pragmatist, Mawson considered it best to understand both approaches and then depending upon the desires of the client and the suitability of a particular setting he would devise a plan that made the most of the particular opportunities at hand, making use of either the natural tradition or the abstract tradition, or a combination of the two, as necessary (Mawson, 1928).

In 1885, Mawson made an ambitious and bold move that would alter the trajectory of his entire subsequent career. At the age of twenty four Thomas Mawson had decided that he wanted to become a fulltime garden designer and he also was due to be married. He had lined up a promising new position as a partner in a prominent London based nursery that wished to expand its business to include landscape design, and Mawson was to become a new partner in the business, with responsibility for garden design. Upon returning from his honeymoon, however, Mawson learned that the partnership offer had been rescinded and instead the nursery had decided to offer him a position at greatly reduced wages as a mere nurseryman, wages that would have been insufficient to support his extended family. Instead of accepting this diminished offer, Mawson decided to move his entire family northward, back again to Lancaster, where he immediately started two separate businesses: a plant nursery and a garden design firm. His brothers ran the nursery, while Mawson ran the garden design business (Mawson, 1928).

Through his contacts, Thomas Mawson began to secure commissions for garden designs, work which created demand for the plants grown by the nursery. Key to the success of both ventures was Mawson's astute assessment of the changes that would soon be coming to this once remote area due to the impending introduction of railway lines, making it accessible to a larger market. Although the nursery eventually folded, Mawson's design business prospered. Of his nine children, two of his sons eventually would join him in his business which was to stay in operation as Thomas H Mawson & Sons. By 1913 the firm had opened branch offices in Vancouver, New York and London, while Lancaster remained the central base of operations for the business, finally closing its doors in 1978 (Mawson, 1928; Waymark, 2009).
From garden design to the design of urban space:

After starting his own business in 1885, for the next twenty years Thomas Mawson focused on designing gardens, parks and occasional housing developments for a wide range of clients. As the scale and complexity of his commissions grew, so did his reputation as a landscape architect. He also began to write, in an effort to share his enthusiasm for English garden design with an even wider audience. After the success of his first book, *the Art and Craft of Garden Making* (1900), Thomas Mawson became increasing interested in issues of public space, or what today would be known as ‘urban design.’ In 1905 he began studying the issue in earnest and began writing essays and producing drawings that would eventually be incorporated into his book *Civic Art; studies in town planning, parks, boulevards, and open spaces,* finally published in 1911. *Civic Art* (1911) draws upon a combination of Mawson's own ideas, as well as presenting an illustrated historical overview and a variety of case studies illustrating Mawson's own design work, presenting a rich compilation of different approaches to the emerging field of town planning current at the time.

Mawson's prior experiences of crowded living conditions in London probably contributed to his interest in innovative housing initiatives, including the Garden City development of Letchworth. What he saw in this project then influenced his own work designing other moderate scale housing developments, including the industrial village of Port Sunlight developed by W. M. Lever (1906). Amongst other town planning projects completed around this time, Mawson designed Glen Cory, a village near Cardiff, a project featuring designs for ideal workers cottages in a traditional style that suggests some influence by the work of Parker and Unwin at their Garden City development at Letchworth (Mawson, 1911).

Thomas Mawson's interests were not limited to what he saw in England, nor was he exclusively committed to a Garden City based approach. At this point in his career, his reputation as a garden designer and landscape architect was becoming international in scope. He traveled extensively throughout Europe pursuing commissions from prestigious clients while also using the opportunity these travels provided to make thorough studies of the major urban spaces he visited. Mawson later claimed in his autobiography that at this point in his career he was traveling as

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9 During his lifetime, Mawson's *The Art and Craft of Garden Making* would be reprinted four additional times.
10 Mawson however had begun to refer to himself as a Landscape Architect.
11 The term "town" in British usage commonly is used to indicate what in American usage would be called "urban."
much as 30,000 miles per year, a prodigious amount of travel in an era when crossing the
Atlantic still involved a lengthy steamship voyage often lasting a week or more. During all of
this time consuming travel, Mawson nevertheless continued to work. His main office in
Lancaster had a well trained staff of thirty employees whom he kept busy working on as many as
twenty projects at a time, even while he was away for extended periods of time (Mawson 1928).

In 1905, Thomas Mawson made his first trip to the United States, an experience which was to
broaden his thinking related to town planning and urban design. In one passage written twenty
three years later, Mawson vividly recounts the profound impact that New York City first made
upon him in 1905, at the beginning of a period that would broaden his view of planning and
design:

At this date the rising mass of “skyscrapers,” now grown into a perfect mountain of
masonry, gave a unique first impression of New York, especially by night, when outlined
with myriads of insular light. With insular British contempt I had regarded “skyscrapers”
as monstrosities. I now began to see that they represented a new and necessary phase of
construction, which possessed imaginative and scholarly potentialities. It is interesting to
me to realize that so long ago I could cut adrift from English conceptions of art to the
extent of studying new forms of architectural expression with an open mind.


Indeed despite his reputation as a leading figure in his field, Mawson approached the subject of
Civic Art primarily as a student, eager to learn even as he worked on his book. During his travels
in the United States, Mawson’s international reputation as an landscape architect resulted in
numerous invitations to lecture at major universities, while also bringing him into contact with
leading American figures in the field of city planning, including Daniel Burnham and Frederick
Law Olmsted Jr. Years later, Mawson would recount how he spent hours discussing issues
related to city planning and the design of public space with each of these gentlemen, and his
eagerness to learn from them what he could (Mawson, 1928).

From Burnham, Mawson appears to have acquired an unwavering enthusiasm for the City
Beautiful. It is easy to understand why this approach, with its grand boulevards and monumental
focal points, would appeal to Mawson; the City Beautiful represented an application of spatial

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12 In his autobiography, Thomas Mawson describes in some detail one stormy crossing of the Atlantic that lasted a
total of eight days (Mawson 1928).
and aesthetic principles consistent with principles Mawson had long been using in his own garden designs. The City beautiful took these principles and enlarged them to the dramatic scale of urban space. For example, one rendering from a garden design developed by Mawson in 1909 for a trust established by Andrew Carnegie anticipates the organization structure of the master plan he would later develop for Vancouver. Each features a destination organized around a circular water feature surrounded by pathways and an eight part radial division of space. In each case this circular area is linked by a dramatic linear axis to a distant and more urban concentration of buildings. The biggest difference between the two schemes is one of scale (see figures 2.7 and 2.23).

Figure 2.7: 1909 Garden design for Andrew Carnegie (Mawson, 1911).

Mawson visited with Frederick Law Olmsted Jr. at a time when Olmsted was actively promoting an expansive conception of the emerging discipline of city planning as a fundamentally comprehensive activity. Olmsted strongly advocated moving beyond the creation of plans of the
visual environment alone, towards the establishment of city planning as an ongoing activity incorporating all aspects of city organization, function and design relevant to the healthy efficient functioning of the city. Mawson stayed at Olmsted's home in Massachusetts and visited his office. Mawson was particularly impressed by Olmsted's use of photography to record site conditions, work at all stages of construction in addition to completed work (Mawson 1928, Peterson, 2003).

As the field of city planning was taking shape Mawson kept abreast of emerging debates, methods and trends by attending major conferences in the field, including the 1910 National Housing and Town Planning Conference in Vienna, and the first British conference of town planning organized by RIBA in 1910. In 1911 Mawson attended the third National Conference in City Planning, in Philadelphia, organized by Frederick Law Olmsted Jr. (Waymark, 2009).

By 1910 Thomas Mawson had developed two separate programs of lectures that he was repeatedly giving at universities in Britain, the United States and Canada. One set of six lectures concerned the topic of Landscape Architecture and reflected his status as a garden designer and landscape architect.\(^\text{13}\) His second set of lectures was intended to be a comprehensive treatment of his emerging interest in Civic Art. The program of these lectures, which would have been similar if not identical to the lectures he delivered a year later in Vancouver, was as follows:

**LECTURES ON CIVIC ART**

City Planning. Ideals and first principles in City Building.

The Civic Survey and the collection of data upon which to base a City Plan.

Street Planning, with special reference to traffic problems, incidental to manufacturing, commercial and residential areas.

Park Systems, including civic centres, town gardens, playgrounds, public parks, reservations, and boulevards.

The Equipment of Streets, Parks and gardens, and Promenades, for utility and adornment.

Model Suburbs and Villages, and Housing of the Industrial Classes.


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\(^{13}\) Mawson’s commissions include: the grounds of Peace Palace at the Hague, work undertaken for Andrew Carnegie in Scotland, and a master plan for Athens Greece, amongst hundreds of other projects.
2.3 Civic art: studies in town planning, parks, boulevards, and open spaces

Mawson’s studies of the urban environment culminated in the publication of *Civic Art: studies in town planning, parks, boulevards, and open spaces* (1911). In addition to the influence of the individuals he met during his travels, his close interest in the Garden City Movement and his firsthand studies of major urban spaces, Mawson also evidently relied upon existing published sources for at least some of the conceptual underpinnings of his book. These precedents are revealing not just for the influence they apparently had upon Mawson, but also for what they reveal about his own particular contribution to the subject.

One inspiration mentioned by Mawson is Camillo Sitte, whose famous studies of urban space in Europe had at this point in time been published in German but not yet in English. In *City Planning According to Artistic Principles*, (1889) Sitte develops a framework for understanding the design of traditional and modern urban public spaces by approaching the question of urban order primarily from the perspective of a pedestrian occupying the environment. Although Sitte makes abundant use of plans of existing urban settings in his work, his focus is on coming to grips with how the particular urban configuration impacts the perceived experiences of the person in the space, in contrast to a view of a plan as representing an abstract order typical of that suggested by a map. By relying upon this pedestrian perspective as the primary vantage point from which to make sense of urban environments, Sitte develops a detailed series of arguments which reveal an underlying order and logic to medieval settings which otherwise might seem random or disorderly in their organization and conception. Although in Mawson's later work his use of the participant /observer as the essential vantage point from which to evaluate the urban environment is never explicitly described, he is nevertheless consistent in use of this perspective to evaluate the results of various urban settings and to explain necessary improvements to the design of both buildings and landscapes (Mawson, 1911; Sitte, 1889).

Camillo Sitte was highly interested in the entire visual experience of the urban environment, including the appropriate placement of statuary and public monuments as significant elements of public space. Sitte expressed the view that sculptures depicting esteemed individuals should not be placed in the exact center of civic spaces because this meant that the public would spend as much time viewing the back-side as the front, something which Sitte suggested was undignified. Instead he proposed that it was often more appropriate and more strategic to locate such statues
off to a side so that a major building might provide a suitable backdrop to the figure positioned to
gaze out onto a public space. In *Civic Art*, Mawson likewise addresses the issue of statuary in
public space, but instead of examining the subtleties of placement, Mawson explores the issue of
the design of the sculptural setting or podium onto which particular statues are placed. In his own
designs Mawson routinely places his sculptures squarely in the middle of the space.\(^{14}\) The
approach taken by Sitte incorporates a symbolic understanding of the subject portrayed; the
statue is treated almost as if it were a living breathing entity. For Mawson the experience he is
intent upon creating is focused on visual order and the statue is simply an ornamental object of
importance situated in a larger geometric composition (Mawson, 1911; Sitte, 1889).

Another source of inspiration for Mawson's Civic Art is the work of American town planning
theorist Charles Mulford Robinson. Mawson was an admirer of Robinson's books on town
planning including *Modern Civic Art, or the City Made Beautiful* (1903), and the influence this
book had on Mawson's subsequent work is unmistakable. Although Mawson makes no mention
of Robinson in his own *Civic Art* (1911), the transcript of a speech Mawson gave in Calgary in
1912 cites Robinson, paraphrasing an argument Robinson developed on the need for town
planning in *Modern Civic Art* (Mawson, 1912). Furthermore, in his autobiography, Mawson
praises Robinson's work and indicates that they had been corresponding long before finally
meeting in 1914 (Mawson 1928). An early advocate of the City Beautiful approach to planning,
Charles Mulford Robinson describes a three part approach to Modern Civic Art based upon
traffic circulation, hygiene and beauty, an approach that is adopted by Mawson and incorporated
into his own work. Robinson's use of particular terminology such as "Civic Art," "Parks System"
and "Comprehensive Planning," frequently find their way into Mawson's text.\(^{15}\)

Robinson, however, lacked the drawing ability one would expect of a planner, even though he
eventually would produce city plans for eighteen cities (Peterson, 2003). In Robinson's *Modern
Civic Art* (1906), therefore it is not surprising that there are few illustrations. Several images

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\(^{14}\) This departure from a fundamental principle proposed by Sitte may indicate a difference between German and
English culture, although it also raises the question of how much of Sitte's work Mawson had managed to read.
Mawson quotes Sitte, briefly, so there is at least some knowledge of his work, and Mawson makes use of plan
graphics that appear to be patterned after those used by Sitte.

\(^{15}\) "Park System" and "Civic Art" were terms in common use in the City Beautiful Movement by 1905. For example,
the McMillan Commission plan for Washington DC of 1901 makes explicit use of the Park System concept.
(Peterson 2003) Olmsted's father, Frederick Law Olmsted Senior, deserves credit for the Park System concept and
the development of the first park system in the United States, in Buffalo New York in 1868.
Robinson has used when compared to Mawson's later work, nevertheless indicate a strong influence. One comparison that is especially revealing concerns the topic of park systems. As an example of a successful park system, Robinson includes a plan of Boston, showing its extensive network of parks, linked by a well-developed system of pathways. As a counter example of a city possessing parks but lacking an interconnected park system Robinson includes a plan of London, England (see figures 2.8, 2.9).

Figure 2.8: Boston Parks System, from Robinson. The caption reads: Chart showing the Public Reservations in the Metropolitan District of Boston. Note How the outlying parks are connected with areas of densest population by means of parkways (Robinson, 1903).
In his own volume on civic art, Thomas Mawson devotes an entire chapter to the concept of park systems, yet the example of London as a city lacking a park system presents a peculiar problem. As an English landscape architect and town planner, Mawson could expect to be writing for a London based audience, and he could not readily ignore London after it had been used as a negative example by Robinson. At the same time, however he would not have wanted to portray the city in a similarly unfavorable light, so he could not simply repeat the conclusions reach by Robinson. Mawson employs a novel solution to this dilemma while highlighting his own design aptitude and his close understanding of London. Mawson begins with a similar regional plan of London's parks similar to that used by Robinson, but then Mawson superimposes on top of this existing pattern of parks, his own elaborately developed proposal for a linked network of
pathways and boulevards. If implemented, Mawson's scheme would give London a Parks System, thereby illustrating the Parks System concept. Mawson reuses the London example, deflecting Robinson's critique, while at the same time demonstrating his own ability to contribute to the urban environment (see figure 2.10).

Figure 2.10 Composite drawing: London Parks. In 1911 Mawson divided London into two sections, rejoined here using Photoshop (Robert Walsh) to facilitate comparison with Robinson's early drawing (original images in Civic Art, Mawson, 1911). Mawson proposed his own hypothetical Park System of various connecting links between existing London parks. In actuality the network of connecting links did not exist, yet the parks system would remain an essential aspect of Mawson's city planning work. Compare with figure 2.9.
The character of the network Mawson proposes is also revealing. Parks scattered throughout the city are to be connected through the introduction of tree-lined boulevards and waterfront parks. A year after publishing his *Civic Art* (1911) Thomas Mawson would be recommending similar strategies for use in Vancouver; many of these ideas would come to play a role in redefining the character of the urban fabric of the city.

One issue impacting City Beautiful projects was the high cost typically involved. Thomas Mawson attempted to resolve this concern by taking a long view. In essence Mawson suggested that a City Beautiful Plan could be established and then gradually implemented as circumstances allowed, rather than having to be imposed at monumental expense in one heroic effort. The plan according to Mawson then becomes more of a guiding vision that might take many years to eventually be achieved instead of an operational blueprint that would be immediately implemented as proposed.

When the full range of influences present in Mawson's Civic Art is considered, a natural question emerges as to what, if any, contribution is attributable to Mawson himself? From Sitte, Mawson appears to have adopted an approach to understanding urban places through the perspective of the pedestrian participant observer. From Olmstead and also Ebenezer Howard, Mawson has adopted an approach to comprehensive planning that incorporates functional issues such as transportation, the relationship of industry to housing, and the establishment of appropriate commercial zones of activity. In addition to these practical considerations, Mawson also draws into his approach aspirations towards a larger and more significant if also elusive sense of a civic ideal, inspired by Daniel Burnham and Charles Mulford Robinson, a more artistic sense of urban space further tempered by Mawson’s own first hand experiences of grand civic spaces in Europe. The result is an approach to urbanism in which Mawson struggles to reconcile and combine the practical and the ideal.

The vantage point from which Mawson approaches the topic of city making is significant: instead of being exclusively analytical or philosophical, Mawson is grounded in a perspective that is ultimately experiential in character. While he has opinions on everything from the design of outdoor light fixtures, to garden design, urban space and street configuration, again and again he judges the appropriateness of a design based upon its apparent visual qualities, on the experience a user has when encountering and making use of a place or an aspect of the built
environment. Practical considerations are only considered relevant to the degree that they impact user experience, otherwise, Mawson's leaves these issues to be decided by engineers. Within this context, Mawson contributes workable knowledge helpful for actual implementation, especially relevant in the context of urban landscaping. For example, Mawson delves into such seemingly arcane topics as fencing design, preparation of laws for park space, the appropriate placement of utility poles, or the care and selection of street trees - a topic to which he devotes twelve full pages and an appendix in Civic Art. The result is that through this information he provides planners and landscape designers with detailed working knowledge, and for the public a greater appreciation for the work needed to bring abstract planning concepts to life. Yet always the ultimate criterion comes back to the question of shaping and improving the ordinary experience of people who will be using the environment.

Figure 2.11: Diagram of an ideal traffic configuration proposed by Thomas Mawson in his master plan for the City of Calgary (Mawson, 1913).
When Mawson attempts to distill his concepts into a more idealized and abstract form along the lines of the prior work of Ebenezer Howard, his results are graphically impressive yet functionally dubious, and hence relatively unconvincing. For example, his diagram of an ideal traffic configuration follows some Garden City principles, such as locating industry on the outskirts of town, and downwind of the residential areas. At the same time, the plan calls for a centralized circular pattern with eight converging axial roads with large urban spaces occurring where the axes meet the inner ring of garden spaces, suggesting the influence of the City Beautiful Movement. As a graphic image, the design echoes features of Mawson's garden designs, with its circle divided into eight equal wedges, but despite his claims that his plan represents a viable ideal plan, as an urban design the street plan seems needlessly complex towards the center and redundant to the point of producing disorientation. As a design for a fountain plaza or a rose window on a church façade, the plan seems fine, but as a city it makes little actual sense (see figure 2.11).

Figure 2.12: Mawson’s design for Thornton Hough (Mawson, 1911, 49).
In contrast to this abstract ideal, when Mawson approaches the challenge of developing an actual plan for a town, such as his work for the Village of Thornton Hough, in Cheshire, the result is a livelier, less regular and somehow more robust environment possessing immediacy and appeal somehow lacking in the abstract configuration. Part of this may be the result of the street trees and the other details, but also the design for the village provides Mawson with an existing context to which he can respond, as opposed to originating a design in a hypothetical geometrically pure conception (see figure 2.12).

![Figure 2.13: Detail Street Widths Diagram from Civic Art (Mawson, 1911).](image)

![Figure 2.14: Detail: Street Widths Diagram: Harland Bartholomew, Vancouver Plan (1929).](image)

The importance of the pedestrian experience of the environment is apparent throughout Mawson's work, including even the following illustration addressing the rather pragmatic question of appropriate road widths and uses. For comparison a similar illustration produced 18 years later by Harland Bartholomew in his 1929 Vancouver plan is also included. Although both diagrams feature similar concepts and basic information, in Mawson's illustration, additional measures have been taken to humanize the environment, including more detailed treatment of street trees, a detailed streetcar stop and street figures, information which is lacking in the
Bartholomew image. Bartholomew’s drawing appears derivative, as if it has lost detail through copying. Both drawings provide necessary information regarding street widths that can serve the basis for uniform standards, but Mawson's diagram goes further, providing information about the character of the place and how it is to be used. For example, the inclusion of the street car shelter between the two street cars, Mawson has resolved the question of how people are to get on and off which Bartholomew has left unaddressed. Mawson dedicated 15 feet to pedestrian sidewalk space, in the Bartholomew drawing only six feet are required; Mawson's example also includes groups of scale figures making active use of the space, while Bartholomew only depicts vehicles in his drawing (see figures 2.13 and 2.14).

2.4 Four designs for Coal Harbor and Stanley Park:
During 1912, at the invitation of the Canadian government, Thomas Mawson traveled throughout Canada to deliver a series of lectures intended to "stir up an interest in civic betterment" (Waymark, 2009, 141). He saw opportunity in the rapidly expanding but unimaginatively planned Canadian cities, many of which had been laid out by major railroad interests, including Vancouver. Mawson especially was interested in being hired to develop a master plan for the capital of Canada, Ottawa, but while he did not in the end secure this commission, he nevertheless was hired to develop a master plan for the Canadian city of Calgary in Alberta, and he also developed other encouraging leads (Waymark, 2009).

An invitation to deliver a series of public lectures and the promise of a significant design commission brought Thomas Mawson to Vancouver in 1912. Mawson was hired by the powerful Parks Board of the City of Vancouver to develop several designs for Coal Harbor and Stanley Park. It was Mawson's second oldest son, John, who traveled to Vancouver first and established the seven man branch office of Thomas H. Mawson & Sons that would become the base of operations for the firm’s subsequent activities throughout Canada. In addition to the work on Stanley Park, and the Calgary master plan, Thomas Mawson and his staff completed a wide variety of projects working out of the Vancouver office. He helped design four new college campuses in Canada, including the newly established University of British Columbia.  

16 Mawson

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16 The commission to develop the campus plan for the University of British Columbia was completed at a time when the grounds of the campus were located outside of what was then Vancouver, in the nearby City of point Grey. In 1930, Point Grey was annexed by Vancouver. Mawson was held in such high esteem by the college administrators
also eventually would complete additional private and public commissions in that included town planning projects, the design of new housing develops, parks and gardens, in several western and central Canadian cities, including Victoria, Winnipeg, Saskatoon and Regina (Mawson, 1928; McDonald, 1984; Waymark, 2009).

The Vancouver Parks Board was contending with in the development of Stanley Park while trying to meet the competing needs of the affluent and the working class residents of Vancouver, a divide that Thomas Mawson seems to have been well suited to contend with. While he was completely comfortable working with noteworthy individuals of high social standing, throughout his career Mawson also had maintained an active concern for the wellbeing of ordinary people. His familiarity with the changes brought about by the advance of the railroad into the rural landscape of his youth and his experience working in the teaming metropolis of London had given him a combined perspective relevant to the rapidly expanding and industrializing City of Vancouver. Meanwhile his diverse and multifaceted approach to landscape design and urban planning seemed a perfect fit for this remote yet diverse and rapidly growing city.¹⁷

Figure 2.15: Walkway to Stanley Park across Coal Harbor, 1912 (City of Vancouver archives). The signs read: Walk Your Horses Across this Bridge. Automobiles not allowed in this Park [between] 2&5 Pm Saturday and Sunday. No Heavy Wagons Allowed on Park Roads.

that hired him for this work that in documents describing the commission to do this work his name appears first and he is listed as Dr. Thomas H. Mawson, even though he had never attended college, let alone high school.

The timing of this work seems fortuitous. Vancouver originally had a polarized, split identity as a partially civilized frontier town divided between a rustic population and a more urbanized population. A detailed study of the adoption of flush toilets and indoor plumbing in Vancouver identifies 1912 as the decisive point at which the city ceased being a partial frontier town and became fully civilized (Andrews, 1990).
When Thomas Mawson began working on the redesign of Coal Harbor and the entry to Stanley Park, the main access to the park was across a wooden bridge that crossed over a portion of Coal Harbor (see figure 2.15, 2.16 and 2.17). Archival photographs show signage restricting the flow of different types of traffic permitted to use the bridge, with some periods of time limiting the use to pedestrians only, confirming that public demand for the park had become substantial.

Access to the park was limited by the topography and lax maintenance; the tidal flats over which the entry bridge passed were known for their foul odors, and the bridge itself was slowly deteriorating (McDonald, 1984). The offending odors may have had several causes including: industrial pollution from nearby mills, sewage that was still being dumped in the vicinity, and organic material exposed at low tide. Coal Harbor was not a scenic asset to be enjoyed, but an obstacle to be traversed en route to arriving at the desirable park spaces on the other side. This reality is reflected in the solutions Mawson eventually devised for the park.
Figure 2.17: Detail from 1911 Map of Stanley Park (City of Vancouver Archives). While the topography has remained unchanged, the network of paths has become more developed since 1887. See also Figure 2.1. In 1911 the seawall walkway at the water’s edge did not yet exist.

In 1913, the entry to Stanley Park at Coal Harbor was accessible to working class families from across Vancouver by street car line. Many of these families wanted to see at least part of the park space developed for recreational purposes, including athletics fields, a stadium and more. This desire for new sports facilities also reflected the growing popularity of recreational sports. Meanwhile, the more affluent members of Vancouver society, many of whom still resided in the nearby West End, were opposed to the creation of sports fields or other forms of public entertainment and instead wanted to see the park remain a naturalistic forest preserve, its use restricted. At the time, only the wealthy had access to vehicles that enabled them to enjoy the
more remote areas of the park, while blue collar and middle class families did not venture far from the entry near Coal Harbor, resulting in complaints of crowding by people unable to even find a convenient patch of grass to sit down on for a picnic (McDonald, 1984).

The clear divide between the different factions undoubtedly lead the Parks Board to request three different schemes from Thomas Mawson. As requested, Mawson developed three solutions, but then went a step further, proposing a fourth solution, meant to satisfy the competing interests in a single design. All four schemes included a sports stadium, although by the time the project was published a year later, strong opposition to a stadium was being mounted by upper-class interests. Therefore Mawson’s 1913 article about the project focuses instead on other concerns.

In one scheme he proposed filling in the tidal flats at Coal Harbor and using this for sports fields. From the perspective of working class families that wanted improved access to the park and more park space dedicated to recreational pursuits, this solution would have seemed appealing, while the elimination of Coal Harbor would have been seen as an improvement. In the Parks Board election of 1913, the candidate who had strongly advocated this approach, H. W. Owen gained the largest number of votes, indicating strong public support for this design proposal.
Nevertheless Mawson does not seem to have been particularly enthusiastic about this strategy. Although he mentions it in his 1913 article about Coal Harbor, he does not even include an illustration (Mawson, 1913). Mawson wanted to transform the concentration of human activity that was centered at this place and to simply fill in Coal Harbor would have tended to disperse this potential for a grand civic event, while wasting the naturally occurring opportunity to create an attractive water feature.

The next three schemes that Mawson produced have several features in common: they each have converted the tidal flats at Coal Harbor into a freshwater lake, at the same time establishing a causeway linking the entry to Coal Harbor with Stanley Park. Each of these schemes features a continuous waterfront promenade flanked by strategically placed street trees. In each scheme the central waterfront promenade is then surrounded by an outer loop intended to accommodate an electric street car line linking Stanley Park to Georgia Street.\(^\text{18}\)

The second of Mawson’s schemes proposed leaving relatively unchanged the natural contours of the Coal Harbor tidal flats. Additional embellishments present in this scheme also include two artificial Islands that would have been developed to provide visual focal points (see figure 2.19).

\[\text{Figure 2.19: Alternative scheme for Coal Harbor (Mawson, 1912, City of Vancouver Archives).}\]

\(^{18}\) Vancouver had established an extensive electric streetcar system before the beginning of the 20th century. These street car lines served as an important armature around which the city grew and developed and were powered by locally generated hydro-electric power.
For his third scheme, Mawson pursued a strategy in which the man-made lake is notably asymmetrical. Monumental new buildings play a more direct role and Mawson appears to be exploring the possibility of using the lake not as the center of attention, but as the foreground to the grand Museum intended for the far shore. A pair of artificial islands are still present in this scheme, but instead of locating one of these islands as the visual terminus of the long axis down Georgia Street, as had been done in the prior scheme, this time the islands are split by the axis terminating at the forecourt plaza to the museum (see figure 2.20).

![Third alternative plan for Coal Harbor (Mawson, 1913).](image)

In his fourth plan, the unsolicited design, Mawson combined elements from his three prior schemes, while converting the tidal flats into a large circular lake with a tall column and a statue to be placed at the center. This elaborate park design also incorporates a large stadium, a restaurant and a museum, and several playgrounds, organized around the artificial lake. To encourage walking, the design includes an extensive system of paths, including several circular paths surrounding the central lake. Several playgrounds have also been included, while

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19 Today Stanley Park boasts an elaborate system of separate pathways which in places features separated paved paths each serving only one of four types of traffic: motorized vehicles, bicycles, roller blades, and pedestrians.
additional accommodations are provided for recreational sports facilities and a zoo with outdoor exhibits placing animals in more naturalistic settings. Despite these diverse uses, in an apparent bid to also satisfy Vancouver’s wealthy elites, the majority of Stanley Park is designated as undeveloped area that is to remain forested (Mawson, 1913) (see figures 2.21 and 2.22).

Figure 2.21: Fourth scheme for Coal Harbor and Stanley Park (Mawson, 1913).

Thomas Mawson’s fourth scheme was accepted by the Parks Board as the design it intended to pursue. From a tactical standpoint, producing this additional unsolicited scheme gave Mawson more of a free hand while at the same time provided the Parks Board with a viable alternative solution without having to choose sides between competing factions. By presenting this fourth scheme as an inspiration combining elements drawn from the other three proposals, Mawson is in a position to sell the design as having something for everyone. Whether this was his plan all along remains open to conjecture. This final scheme, more than the other three, seems to most closely reflect other Mawson designs, including the use of a central circular element divided into eight pie shaped segments, his reliance on symmetry and the use of long axial arrangements.
Figure 2.22: Site plan for Coal Harbor and Stanley Park. (Mawson, 1928).
2.5 The First Master Plan for Vancouver

As shown in his book *Civic Art*, (1911) Thomas Mawson possessed an outstanding capacity to think and design at multiple levels of scale. While he demonstrated interest in improving the proportions of street light fixtures at one scale, he also was aware of the impact that park spaces and developed public places have on the entire urban fabric at a larger urban scale. Consequently, it is perhaps only natural that Mawson would proceed from his design for Coal Harbor, towards a larger and more ambitious urban design proposal attempting to give the developing City of Vancouver a new unifying order. As might be expected, his design for Coal Harbor would feature prominently in this larger scheme.
Anticipating a bright future for Vancouver, Mawson developed a master plan reflecting his optimistic appraisal of the future prospects of the city (see figure 2.23). He foresaw his design for Stanley Park becoming a grand civic event that would be the final terminus of a monumental boulevard cross Vancouver from East Two West, linking two other dramatic urban spaces. The central axis in the plan proposed by Mawson was Georgia Street, an already existing street that he suggested be widened into a grand boulevard. The sequence of civic spaces begins at the eastern edge of downtown with a proposal for a new major train station which Mawson called "Station Place" (Mawson, 1913). The station is sited at the edge of the existing city grid and is intended to connect to the existing network of train lines. Its location is also near to Chinatown, where several streetcar lines serving the eastern side of Vancouver all converged and terminated (see figure 2.24).

20 In several places Mawson refers to this street as George Street (Mawson 1913).
21 This street is currently named Georgia Street and has been developed as a major traffic artery connecting Vancouver to the Lions Gate Bridge which crosses the Burrard inlet. Although well landscaped and planted with street trees, and flanked by a procession of impressive new residential towers on both sides, Georgia Street does not function as the grand pedestrian boulevard Mawson had envisioned, primarily because the public now has a far more attractive choice in the form of a chain of nearby waterfront parks, from which vehicular traffic has been largely excluded. During Mawson’s time in Vancouver this would have been inconceivable because at that time the northern waterfront was an active industrial port dominated by shipping, railroad yards and the Hastings Mill.
Progressing westward along the new grand axis from Station Place, the next major civic event in the plan is a proposed Central Square, a large urban space covering four city blocks flanked by municipal government buildings and important commercial buildings. Central Square was to be located at the heart of the business district. The Central Square location also featured the new courthouse under construction as Mawson prepared his proposal (see figure 2.25).

The final civic event in the plan proposed by Mawson is the Coal Harbor complex of his fourth scheme for the Parks Board. Mawson had envisioned his round lake and its surrounding boulevard as a great gathering space where people from all walks of life in Vancouver would mix and mingle.

2.6 The problem of implementation

Although Thomas Mawson’s fourth plan for Coal Harbor, featuring the central circular lake, was officially accepted by the Parks Board, public reception of this proposal was mixed. Mawson characterized his scheme as a "great composition in which ordered balance and symmetry predominate, the great museum which closes the axial line down George Street being supported on the cross axis by the restaurant on the east and the stadium on the west, the forest providing a unique background to whole, and a highly effective setting for the architectural features." (Mawson, 1913, p 10). Others however saw things differently. One local newspaper report
indicated that the local City Beautiful Association\textsuperscript{22} had come out against Mawson's scheme, calling it a "vulgarization" and a "desecration" of Stanley Park. While the chairman of the association, FC Wade compared the circular lake unflatteringly to "an immense manhole cover," it was the introduction of the stadium that seemed to offend the most, resulting in claims that the group would go so far as to pursue a lawsuit, if this were needed, in order to stop it (The Daily Province, 20, December, 1912; in Waymark, 2008, 145). Although other aspects of the plan were pursued, including the construction of a modern zoo in the park with the animals put on display in outdoor settings, instead of in caged rooms, the stadium idea was abandoned.

The first step towards implementing Mawson’s scheme was establishing an accurate cost estimate and here the project ran into problems. The cost of the stadium was estimated at $800,000, a monumental sum at a time, just as the economy entered a precipitous downturn (see figure 2.26). Faced with financial constraints the city decided to instead pursue a more modest approach at Coal Harbor. A simplified version of an earlier Mawson scheme was implemented which created an artificial lake in the same general configuration as the existing ocean inlet, instead of the more dramatic but costly circular lake Mawson had proposed. A causeway was

\textsuperscript{22} This was a group connected with the wealthy elite interests in Vancouver.
constructed where the wooden bridge crossing Coal Harbor had been; the resulting body of water is now known as the Lost Lagoon (Steele, 1993). Pedestrian pathways were constructed surrounding the Lost Lagoon but no electric street car line or other significant embellishments were added and as a result, the new lake has not developed into the dramatic focal point that Mawson had envisioned.

Figure 2.27: Lost Lagoon (Google Earth Satellite image 2011).

Today the Lost Lagoon is a pleasant if quiet place, a retreat from the more active areas of the park and the nearby city, and not the center of civic activity that Thomas Mawson had imagined (see figure 2.27).

Despite the economic downturn, Thomas Mawson was still hired in 1914 by the City of Vancouver to design several modest projects at Stanley Park, most notably: a lighthouse, caretaker’s cottage and the surrounding landscape at Brockton Point, located at the eastern end of the park. Mawson evidently expected high standards for the stone workmanship for this project, based upon British standards instead of local standards, and as a result the stone mason for this

\[23\] Although this name Lost Lagoon now seems rather ironic, in that this is what remains of Mawson’s lost scheme, this inference appears to be purely accidental.
work apparently went broke. Although the caretaker’s cottage has since been demolished, the lighthouse is now protected heritage landmark, providing an attractive and popular vantage point from which to view the mountains, surrounding scenery, and the city skyline (Justice 2009) (see figures 2.28, 2.29 and 2.30).

Figure 2.28: Stanley Park and Brockton Point Lighthouse (Google Earth image 2011).

Figure 2.29: Historical Postcard: Brockton Point Lighthouse (City of Vancouver Archives).
Another distinctive feature of the parks system throughout Vancouver today is the seawall, pedestrian pathway continuously lining the water’s edge throughout much of the downtown. It is unclear how much of a connection, if any, Thomas Mawson had in its creation. His plans for the redevelopment of Coal Harbor included public promenades at the water’s edge and he also included a section of walkway quite near the water in his Brockton Point Lighthouse scheme. It is interesting that although the portion of the seawall surrounding Stanley Park was not completed until 1979, that actually the construction work this 5.5 mile long trail began in 1917 (Steele, 1993), suggesting that Mawson’s earlier design may have sparked interest in this.

Many of the civic functions - proposed by Thomas Mawson for the Coal Harbor scheme would eventually be constructed elsewhere in Vancouver, including the Stadium and the Museum. Meanwhile, Stanley Park continues to be a popular and well used public destination containing sports fields, the Vancouver Aquarium, restaurants and other public amenities. Forest has grown back to cover most of the park. The ambitious master plan that Mawson proposed was not implemented, even though the design had been accepted, raising the question as to why not?
Certainly the high costs projected for the new stadium in Stanley Park were a concern, and this is consistent with the view that the scheme was unrealistically extravagant and hence out of step with where Vancouver was at this point in its history (Berelowitz, 2005). In retrospect this would now appear to be the case, yet additional factors may have also been contributing factors. When Thomas Mawson first undertook the design of Coal Harbor and Stanley Park, Vancouver was experiencing rapid growth and the prevailing attitude was one of optimism based upon the expectation of future economic prosperity due to the positive impact that was expected to come from the Panama Canal opening and the impact that this would have on the Vancouver economy. Another project for which Mawson was hired was the planning of the campus of the newly established University of British Columbia, reflecting the bright future people in the region anticipated. While this increase in economic activity and the corresponding growth in population both eventually occurred, their arrival was delayed by larger unanticipated events. The onset of World War I and the disruption of shipping lanes by German submarines rendered the advantages to be gained through the Panama Canal largely irrelevant, for a time. Following the conclusion of the war, an economic slump further diminished the sense of optimism that Mawson had observed as characteristic of the city.

Figure 2.31: Construction on the Seawall, at Siwash Rock, 1963 (Steele, 1993).
Meanwhile, in addition to this changing economic climate, a pronounced shift in Vancouver's planning priorities had also begun to set in. The highly influential planning advocate Thomas Adams was at least partially responsible for this change in direction. Adams had originally begun his planning career serving as the secretary of the First Garden City Company, the company that had begun the development of Letchworth, and had then gone on to play a significant role in the establishment of town planning principles and government policies in England. Eventually moving to Canada in 1914, as a highly regarded planning authority, Adams was recruited to help Canada establish an effective new regime of planning policies and legal mechanisms (Hodge, 1985).

In 1916 Thomas Adams made his first journey to Vancouver, where he was expected to judge the final results of a civic center design competition. The designs submitted clearly indicate that this competition was intended to continue to the basic design direction that had been established by Thomas Mawson in his master plan for the city; the proposal was for a new civic center in the same location proposed by Mawson for his City Square and designs reflect a city Beautiful sensibility consistent with the values advocated by Mawson.

The choice of Thomas Adams as a judge, however, seems unusual and perhaps unfortunate. It had been through Mawson that the people of Vancouver had been introduced to the potential value of city planning and the City Beautiful was characterized as an essential part of this; perhaps they expected Adams to subscribe to a similar position since he too was a highly regarded planning authority from England. While Mawson had developed a dual allegiance to both the City Beautiful Movement and to the Garden City Movement; Adams approach to planning was more limited, although still highly influential. Adams is known for his humanistic and landscape oriented approach to planning practice and policy and was an early proponent of more moderate suburban density development. While Mawson and Adams shared an interest in the wellbeing of people, and also the more pragmatic aspects of city planning, such as transportation and sanitation, Mawson alone had also developed a strong visual appreciation for urban forms and urban places. The ideals of civic grandeur and visual impact that remained at the core of the City Beautiful Movement central to the work of Thomas Mawson were unfortunately of little interest to Adams (Hodge, 1985; Ward, 1999).

24 Adams relocated from Canada to New York in 1923 to lead an effort developing a major regional plan.
At a time when City Beautiful proposals were first coming under attack throughout Canada, due to their perceived inefficient use of space and high projected costs (Ward 1999), Vancouver had nevertheless continued to pursue this aesthetic ideal in the development of its civic center proposals. As an important planning authority, Thomas Adams was invited to evaluate the results of the Civic Center competition. Adams dutifully reviewed the competition results before rejecting them all, informing the citizens of Vancouver that what their city needed instead was a comprehensive city plan oriented towards improving efficiency. The plans for the new civic center were dropped. This recommendation by Adams, after several more years of delay, eventually resulted in the establishment of a planning commission charged with addressing this need for a Master Plan. This commission in turn went on to eventually hire the American firm of Harland Bartholomew and Associates, who began preparing studies of the city in 1926, completing his first master plan for the city in 1929 (Ward 1999).

2.7 Mawson’s Civic Art and the active urban landscape element: core principles

Of the five essential elements that together combine to result in Vancouverism, the first element to be introduced, active urban landscape, concerns the development of particular strategies for achieving recreation focused public oriented urban landscaping. While Thomas Mawson presented numerous urban landscape principles in his lectures and writing there are five core principles that have particular significance in the context of Vancouverism: Park Systems, Street Trees, Waterfront Promenades, Public Space Furnishings, and the Lovable City. Of these five principles, the first four could be considered elements in their own right, while the concept of the lovable city is more of a philosophical position or attitude that has nevertheless in various forms gone on to play a significant role in the development of Vancouverism.

Park systems

As has already been noted, the concept of developing parks for a municipality as a connected “parks system” was an idea that Thomas Mawson adopted from elsewhere, probably from the written work of Charles Mulford Robinson, and also his discussions with Frederick Law Olmsted Jr. Nevertheless, Mawson fully embraces the concept and argues passionately for the value of approaching the development of parks and recreational opportunities as a citywide system:

Technically, what is meant by a “Park System” is a chain of parks, gardens and open spaces connected by boulevards or parkways, or a grouping of common lands and tree-
planted, parks or gardens arranged according to a comprehensive plan, and extending from the city into the open country, the object being to secure a continuous through route under leafy canopies, or across beautiful green lawns or naturally wild common reservations.

... 

I often wish that some philanthropist would get his heart warmed to the sight I once saw in Victoria Park, London, which skirts the congested East End. It was a few minutes to five- the evening bathing hour- and ranged round the large pond were hundreds of boys and men waiting, or rather, straining the moments, until the bell should ring for the plunge. Almost before the first stroke of the bell could vibrate, the youngsters, who had every garment ready for slipping off, were tumbling head over heels into the cool water, and in less than a minute it became a seething mass of buoyant life and hilarity, a delightful interlude of brightness in the dull, sordid conditions under which young life labors in these hives of activity and toil. Now that we possess the power, it is to be hoped that the people collectively, and wealthy citizens individually, will combine to endow posterity with ample breathing and recreation areas.

- Thomas Mawson (1911), 79.

Figure 2.32: Vancouver Parks System (The Greater Vancouver Visitors and Convention Bureau, 2011). Areas in green are public parks, dark blue line depicts the seawall path.
The parks system that Mawson describes could be a fitting introduction to the lush and well used public landscape that exists today throughout Vancouver. Meanwhile, his description really springs to life when describing a particular public place as a setting for joyful human activity.

Vancouver today is a different city than it was when Thomas Mawson worked there; one outstanding characteristic of the city today is the extent to which the park system of Vancouver has been developed, providing spaces for public recreation and also vantage points from which to enjoy scenic views and make sense of the city. Particularly noteworthy is the continuous pedestrian walkway called the seawall that now surrounds much of the downtown peninsula, and then continues along the southern shore of False Creek. This extended path down links a wide range of public park and recreation spaces connecting them as a single extended system. If parkways, boulevards and tree lined streets are added to the picture, then the parks system of Vancouver becomes pervasive across and throughout the city (see figures 2.32, 2.33).
**Street Trees**
The importance of trees, in the general view of any city, cannot be over-estimated. Their infinite suggestiveness, as seen in their variety of forms, combined with the element of mystery and witchery which foliage in mass always suggests to the mind, at once secures for them a distinct place of their own, and endears them alike to the country-born and the townsman. Moreover, their presence strikes a human note; they breathe with us in sun and air, and in the town, to a great extent, they share the same formal and artificial conditions as ourselves; they have accordingly to adapt themselves to their environment. When one remembers the fragrant memories of green trees in the most unlooked-for and unlovely places, notably in London, and of passing peeps in some alley garden in driving along in other congested towns, it must be admitted that, considering the abuses and the hardships to which they are subjected, trees render to us the sweetest return in good for evil. They certainly occupy a high place among the factors which go to make our cities habitable and pleasant.

Thomas Mawson, *Civic Art*, 1911 p. 147.

Thomas Mawson devotes twelve pages of his *Civic Art* (1911) to the topic of street trees. While the overriding concern that guides his approach to design is oriented towards the attainment of particular visual effects, he also explains how the selection, cultivation, and transplantation of street trees plays an essential role in attaining the desired results. An ideal street planting of street trees in Mawson’s view should involve the planting of the entire street with a single carefully selected species of trees, that these trees should evenly spaced and all be of the same age so that the overall effect will be a single continuous larger and harmonious canopy of foliage. However to attain this desired effect it is essential that these trees first of all be cultivated in a nursery with the specific intention at the very outset of using these trees as street trees. Mawson describes the reasons for this in detail: street trees require the cultivation of a root structure different from that which would naturally develop it trees left untended. To accomplish this, Mawson recommends a process of planting and re-planting each tree numerous times as it develops, before it is finally ready to be planted as a street tree. The result of this is a tree with a compact root structure able to function in an urban street side setting. Mawson also offers detailed recommendations concerning climate and setting and the selection of particular species for particular conditions, noting for instance which trees can still thrive in the presence of pollution. Mawson argues on the basis of this information that the only way that a town can be sure of obtaining adequate results, is to operate its own nursery specifically dedicated to the cultivation of street trees (Mawson 1911).
Today the Vancouver Parks Board is responsible for maintaining and improving the city’s system of 138,000 street trees, employing a staff of 50 fulltime arbor culture specialists. Discussions with Parks Board personnel indicated that the current methodology being used to cultivate and guide the planting of street trees throughout Vancouver is consistent with the recommendations offered by Thomas Mawson in his 1911 book *Civic Art*, including the establishment of a City owned and operated tree nursery dedicated explicitly to the cultivation of trees intended for transplantation as street trees.

![Figure 2.34: Street trees in Vancouver’s West End (Robert Walsh, 2012).](image)

Unfortunately I have been unable to conclusively establish or refute the existence of a definitive link between Mawson and these methods, as they are presently applied in Vancouver, although the timing of known events is suggestive of a possible connection. Thomas H. Mawson and Sons opened their Vancouver office in 1912, becoming the base of operations for numerous projects throughout Canada. In 1912 the City of Vancouver enacted Bylaw 940 which controlled the
planting and care of street trees, a bylaw that remained in effect unchanged until 1986 when it was replaced by an updated regulation. It was the Vancouver Parks Board who had originally hired Mawson to come to Vancouver and advise them regarding Coal Harbor; in 1917 the Parks Board took over management of the street tree program.

To fully appreciate the contribution that street trees make to the vitality of Vancouver, even in areas with the highest concentrations of high rise towers, it may be necessary to spend long hours as I have walking though out the city. In many places, the high rises of Vancouver seem to define a backdrop, which of course is dramatic, but the experience at the street level is generally comfortable and pedestrian scaled. The leaf canopy of street trees plays an essential if perhaps underappreciated part in this by both softening the hard angled landscape and defining a volume of space at ground level from which the towers are excluded. Furthermore, the variety of species used is surprising varied, even though on any particular street a single species will be used. The result is that the trees provide a human scaled network of spaces that links the different parts of the city, yet this network is locally varied giving each street its own unique feel (see figure 2.34).

**Waterfront Promenades**

![Waterfront Promenades](image-url)

Figure 2.35: The Victoria embankment, with St. Paul's Cathedral London (Mawson, 1911, 5).
Thomas Mawson's *Civic Art* (1911) begins with a discussion of "the Place of the Ideal in Civic Art," discussing the importance of both practical and ideal consideration in shaping our cities. First he warns against ignoring the ideal by only striving towards the practical; this is followed with a caution against pursuing completely unattainable results. In contrast to these one sided approaches, Mawson advocates making cities places for commerce and production as well as making them places for living in; the key to this, he claims, is to pursue the development of the city in ways that are both attainable and yet aspire towards a shared ideal.

Mawson argues that the ideal is a necessary pursuit in the design and making of everything, because without this ideal the tendency will be to produce work that is based on expediency alone and consequently subject to degenerating over time. But to describe this ideal clearly is apparently beyond Mawson's ability, at least in words. Mawson describes the ideal he is seeking “as an elusive and hard to define moving spirit, a haunting presence which baffles description but which enters into all beautiful truthful and coordinated design” (Mawson, 1911, 6).

The photograph shown above (figure 2.35) is one of two that Mawson has included in his opening chapter depicting great public places, where the practical and the ideal are both full realized. When Mawson came to Vancouver both of the waterfronts were commercially oriented and a waterfront promenade like those shown here had not been attempted, while today the waterfront promenades encircle most of the downtown peninsula and are a critically important urban feature that helps to define the city.

The design to convert the Coal Harbor inlet into an artificial circular lake appears to have been motivated by his desire to create a place that would be enjoyed by all residents of the city. Although this was not attained directly, years later when the process of rehabilitating the industrial waterfront began, one of the important principles established was to give the water’s edge to the pedestrians and today that goal has been largely achieved (see figure 2.36, 2.37).

As the recent images show, the newly created waterfront promenade at Coal Harbor and the older one overlooking English Bay share important common features with the image shown in *Civic Art*, and also the seawall walkway that now surrounds Stanley Park. In each case, the privileged place next to the water is dedicated to pedestrian use, not vehicular traffic. Each of
these promenades also features a screen of trees which seem to both shade and in some way tame the wide open space next to the water's edge and bring this down to pedestrian scale.

Figure 2.36 Waterfront promenade at Coal Harbor (Robert Walsh).

Figure 2.37 Waterfront promenade leading to False Creek from Stanley Park (Robert Walsh).
Public Space Furnishings: Fountains, benches, sculpture

The issue of furnishing public space with fountains, benches, sculpture, and other items that intensify human experience of the built environment is not simply a matter of selecting items from a catalog, but instead concerns understanding in detail how these elements behave, their correct proportions and relations to one another and what their potential impact on human experience could be. This is a topic which may seem obvious yet which can actually prove to be more difficult than it first seems to be, as shown by ongoing efforts by a variety of authors to make sense of this level of scale of urban design, including for example some of the research of Jan Gehl in *Life Between Buildings*, (1971) which examines the impact of bench placement on the actual usage in public spaces, or the studies of William Whyte, which linked the vitality of small urban spaces to the availability of seating.

![Wall fountain at Hannaford Devonshire (Mawson, 1911, figure 249).](image)

Figure 2.38: Wall fountain at Hannaford Devonshire (Mawson, 1911, figure 249).

As a designer of public parks and urban settings oriented towards shaping and improving the experience of those who made use of his work, Thomas Mawson was intensely interested in issues of design that played out at this finer scale of direct human experience; he approached design as if it was intended to be both visually appealing and designed for ease of use. One aspect of this general issue that is intriguing in the context of Vancouver concerns the profusion of fountains throughout the downtown, in both parks and in hardscape settings. Although Mawson was acutely aware of the dramatic potential for fountains and water elements to serve as major civic focal points, he also understood that at a more personal scale they could also add to the overall atmosphere as embellishments that were part of the larger order. In particular, he
argued that in some settings, such as parts of England where fountains were only rarely, if ever needed as a means to cool an otherwise hot and dusty environment, that the sound and movement fountains provide could nevertheless make them desirable elements in a larger design. As an example of a fountain used in this way, he included a photograph of an attractive yet reasonably modest wall fountain set into a longer stretch of retaining wall (see figure 2.38). The point was to demonstrate how the use of the fountain could add to the experience of the built environment even at a modest scale (Mawson 1911).

Figure 2.39: Three of the many fountains in downtown Vancouver (Robert Walsh).
Today in downtown Vancouver, a wide range of fountains of varying scale, actively enliven the environment. Some of these fountains are dramatic focal points, but more often they are just added embellishments that improve the larger setting, replacing traffic noise with the sound of moving water. In some instances a water element may serve as a boundary, controlling public movement, without needing to resort to a view obstructing fence. In other instances, the use of a fountain at a building entryway heightens the experience of transition when moving from the public domain of the street, to the adjacent yet more private zone of the building interior. In the larger park spaces where larger fountains may be found, the fountains provide a focal point that concentrates human activity in a manner that seems to make people comfortable with sitting in closer proximity to another. Vancouver is a very wet city where it is frequently overcast, rainy or foggy, yet nevertheless, as in Mawson’s England the widespread use of fountains in Vancouver is one of the ways that the public space is made more comfortable (see figure 2.39).

The Lovable City

Figure 2.40: Two slides from the lectures of Thomas Mawson (1912). The first slide bears the caption: “Disfigurements in Churchgate,” while the second reads “Bye-Law street in Bolton.” Both images are meant to illustrate undesirable urban conditions. In the first case the view of the cathedral is obstructed while in the second case the lack of windows facing the street is noted for the resulting sense of hostility this provokes.

Eventually Thomas Mawson came to express his concept of successful urbanism that combines the practical and the ideal, through something he would call the "lovable city" (Mawson 1913, 1916). At first consideration, the concept of a lovable city seems perhaps too cute or sentimental
to be taken seriously. Yet today, the concepts of a livable city or livability, or sustainability are each taken seriously, despite being rather dry expressions roughly approximating Mawson's terminology. A livable city or a sustainable city is a city which provides for its residents their necessary physical requirements, and if this is done adequately then the city is successful at least under these mechanistic terms. However livability is an inherently one way relationship indicating no actual vested connection or affinity by the residents of the city towards the place in which they live. The concept of the lovable city is similar yet also suggests something potentially more complex: a city that people are able to care about, develop a relationship with, a city that people give back to as well as receive shelter and sustenance from.

The two images shown above are reproductions of slides Thomas Mawson used in his lectures to explaining the Civic Art (see figure 2.40). The first slide shows the detrimental impact on pedestrian experience resulting from a building protruding into the streetscape and obstructing the view of the cathedral in the background, anticipating arguments made several decades later by the Townscape authors, in an effort to encourage designers to appreciate the impact on the larger urban structure of localized acts of design. The second image shows the negative results that occur when a housing development turns its back to the street by choosing not to include doors or windows directly looking out onto the street, anticipating one of the more popular arguments made by Jane Jacobs that buildings facing onto the street provide “eyes on the street” which help to ensure public safety is maintained on urban streets.

While it may be difficult or perhaps undesirable to try and explicitly define what a lovable city should look like, since this would tend to encourage copying instead of finding new locally relevant solutions, it is nevertheless instructive to consider negative examples such as those shown by Mawson, where this elusive quality seems to be largely absent. In essence these two examples display a lack of caring about the impact that an act of building had on the larger city and its occupants and the result is that for that corner of the city, at least, the urban setting has moved further away from this ideal of the lovable city.

25 I am fully aware that under the heading of sustainability there are currently multiple competing streams of thought, some of which attempt to correct this mechanistic view though the addition of other frameworks, such as the concept of social sustainability. Even still, if taken at face value sustainability is, I contend, ultimately a rather timid objective that speaks to neither human enjoyment nor meaningful belonging to a place or a community.

26 A similar argument and the evidence to back this up has been one of the valuable themes underpinning many of the findings of Bill Hillier and the research in Space Syntax focused on understanding urban configurations.
Obviously there is a potential problem with the concept of the lovable city that is likely for some people to provoke skepticism or even offense: love is a subjective and highly personal concept and therefore not approachable as a serious quantifiable measure of anything. On the other hand this need not be a problem if a distinction is drawn between a city being able to be loved, versus a city that is loved. In essence whether one loves a city is still a subjective evaluation, but the concept of a lovable city is more of an attitude, a goal towards which an entire community might work together to the benefit of all, even if this actually means different things to each person. It speaks of personal and shared aspirations, of cities that matter in how they are experienced.

The concept of the lovable city has never been explicitly revived in Vancouver, yet periodically new expressions of this same basic idea have gained traction in the city. In 1968 a regional planner named Harry Lash introduced a concept that he called “livability” during his tenure as director of the Greater Vancouver Regional District, and this term helped to bridge a gap that had grown between planners and a public that had come to distrust them (Harcourt and Cameron, 2009). In 1974 Vancouver Planning director Ray Spaxman introduced “Neighborliness,” as his fundamental planning value, and this term helped refocus the culture of planning in the city, aligning it more closely with local community values. Later, in 1994 Vancouver Planning Director Larry Beasley championed the idea of “Living First” as the basis of his planning agenda and this is seen as contributing to the transformation of False Creek and the downtown peninsula. While Spaxman’s formulation of Neighborliness might be the closest approximation to Mawson’s lovable city, each term attempts to reconnect the culture of planning to the enjoyment of the city by the actual residents. In 1912 when Mawson arrived in Vancouver, what he found was a polluted industrial city, a former frontier town that would hardly yet be called lovable at least in terms of its appearance. Thomas Mawson therefore deserves to be recognized for helping to set in motion the first steps towards adopting a new attitude towards the city in which the relationship of people to their city ultimately is the measure of urban quality, a step crucial to the development of a new form of urbanism tailored to the conditions and aspirations of people living in Vancouver.

2.8 Conclusion: Thomas Mawson and the importance of hybrid urbanism
Although Thomas Mawson first became involved in planning the City of Vancouver 100 years ago, his contribution to the development and physical character of the urban fabric of Vancouver
remains significant, if under appreciated. Rather than simply looking at the polluted industrial city that was Vancouver in 1912 and coping with conditions as they existed, Mawson actively encouraged the residents of Vancouver to aspire towards a brighter future in which well planted trees would line their streets and easily accessible public parks would provide abundant recreational opportunities for all. Intervening factors have overtaken the most ambitious of the grand urban design proposals of Thomas Mawson for Vancouver; the economic impact of the First World War and the subsequent shift in city planning priorities emphasizing efficiency as the primary civic virtue created conditions in which his plans for a lovable city came to be seen as unrealistically grandiose. Yet Thomas Mawson still deserves credit for helping to cultivate the idea that Vancouver could one day become a place that was more than a chaotic industrial center, where public urban space brought enjoyment to individuals and families of all means and interests, while helping to cultivate civic pride as participants in a larger urban community.

The history of city planning in Canada typically suggests a general story arc in which Canadians first became interested in city planning as the result of the City Beautiful Movement and the impact of the 1893 Chicago World’s Fair. Then, the development of the Garden City Movement, the construction of Letchworth and the emergence of town planning initiatives in Britain exerted their influence throughout Canada as the result of continuing cultural links to Britain. This then was followed by a shift towards an American bias which first emphasized the City Efficient as an urban ideal (Hodge 1985, Ward 1999).

Vancouver appears, however, not to have followed this typical trajectory. Instead, in Thomas Mawson the City of Vancouver found a designer and planner who had already combined in his own understanding, yielding a multifaceted approach combing elements drawn from the City Beautiful, the Garden City and to a lesser extent, the City Efficient.

One of the key attributes of Vancouver is that this city is a fusion of multiple approaches, multiple traditions and multiple forms of artistic expression. In essence it is a form of hybrid urbanism in which European urbanism and American high rise urbanism came together with continuing contributions from Asian culture. Certainly the influx of people from each of these regions and the cultural influences that have followed from this migration of people and ideals have played a contributing role. However, the proposal that multiple varieties of urbanism could work together to yield something new and different is not necessarily an automatic outcome of
such a process. It is just as possible that the British focus in Vancouver could have been rigidly maintained to the exclusion of outside influences, had the planners and other powerful interests in Vancouver chosen to opt for this approach, and the population had remained ignorant of other attitudes or options. Instead, the City of Vancouver was introduced to the concept of city planning through Thomas Mawson and his willingness to find value in combining multiple traditions, adopting positive characteristics from each, would prove crucial to the future development of Vancouver.

**Epilogue: evidence of the lasting relevance of Thomas Mawson in Vancouver today**

Periodically members of Vancouver’s diverse and talented design community initiate design competitions with the intention of generating new ideas while drawing attention to a chosen design issue considered important to the city. These idea competitions feature hypothetical architectural or urban design topics, sometimes without even identifying a predetermined site or program, often stimulating an impressive range of design explorations. The intent usually is not to build an actual building but to stimulate new thinking about design, to propose new groundbreaking solutions that could lead to better design outcomes on future projects. This is one of the many ways that Vancouver cultivates a dynamic and innovative building culture.

One Vancouver based ideas competition that received considerable attention was the 2007 Potype competition, a competition that was dedicated to exploring and expanding design alternatives to the so called Podium-Tower Typology. Setting aside the distinction between what was actually happening in Vancouver, which has not been towers and podiums, but towers and townhouses, valid concern had been growing that over-application in Vancouver of a uniform typology was resulting in monotony. Accordingly, the competition was held and a wide range of unusual proposals were proposed for towers that featured new geometries and new approaches to building massing, facilitating a range of design exploration that is not feasible under the pragmatic constraints of an actual commercial project. If recent projects now are any indication, are any indication, this competition appears to have stimulated fresh design thinking resulting in creative new strategies and forms that defy prior precedents. It appears as if design evolution that had once been stalled was somehow jumpstarted by this competition.

More recently in 2009 a competition titled “Where’s the Square” was organized and held by The Vancouver Public Space Network (VPSN). The challenge this time was to design a new public
space for the city, a new heart for the city which could become a place for the public of
Vancouver to come together and enjoy life, a grand focal point, a place that could unite the city.
As the competition organizers explained, Vancouver is a city that is surrounded by beautiful
parks and public spaces which look out onto magnificent views of water and mountains but the
city seems to still be lacking something. The competition organizers recounted with interest how
many years prior Thomas Mawson had given a public lecture during which he presented his City
Beautiful vision for the city, his master plan which he described as giving the City the new heart
that the city needed, and it was this vision, this concept of giving the city a heart that became the
central inspiration behind the competition. (http://vancouverpublicspace.ca/index.php?page=wts)

While it is too early to tell if the Where’s the Square Competition will have any lasting impact on
the urban form of Vancouver, the topic itself and its source of inspiration is nevertheless
revealing. Even though Vancouver today has an abundance of beautiful parks, paths and
boulevards that now sustain a community of people who actively enjoy recreation outdoors, to a
degree that did not exist when Thomas Mawson was facing the challenges of providing a more
basic level of recreational opportunity in the midst of a polluted industrial city, still there is
something in Mawson’s vision for Vancouver that continues to resonate today.

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Chapter 3: Harland Bartholomew in Vancouver (1926-1929) and (1944-1949)

... my interest in city planning, beginning with the Newark work, was to produce for every city a true comprehensive plan. This feeling has so dominated my thinking that my family have jokingly remarked on numerous occasions that I should have a middle name, i.e., "C" for Comprehensive. This has seemed to me to be the basic essential in this field and my work was always oriented in this direction. I still feel very strongly on this point. I feel that cities are woefully lacking in comprehensive city plans.


Introduction: From the City Beautiful to the City Efficient in Vancouver

Although first steps towards the development of Vancouverism had begun with the work of Thomas Mawson, at least in spirit, further progress towards a new form of urbanism in Vancouver was neither steady nor continuous. Following the First World War, the City of Vancouver would drift away from the humanistic, design oriented ideal of planning that Mawson had promoted, pursuing instead for the next fifty-five years an urban planning and design agenda focused on serving the pragmatic needs of business and industry. The City Beautiful and Garden City hybrid that Mawson had brought to Vancouver was effectively overwhelmed, at least for a time, by a new urban planning ideal: the City Efficient.

From 1916 to 1968, the City of Vancouver pursued development priorities focused on serving the interests of local business and industry. However, even as the government of Vancouver pursued a narrowly focused city planning agenda, a broader set of values was nevertheless sustained by other means. The gap between the City of Optimists of Thomas Mawson and the much later reemergence of humanistic, design-oriented urban planning policies in Vancouver in 1968, was dominated by the Vancouver master planning efforts of the American City Planner Harland Bartholomew. Bartholomew was active in Vancouver during two periods of time: from 1926 to 1929, and then returning to Vancouver from 1944 to 1949.
Traditionally, Harland Bartholomew has been characterized as a City Efficient planner and indeed he himself consistently described his own work in these terms (Bartholomew, 1958), yet Bartholomew also had a generously broad view of efficiency that included the health and well-being of the residents, and the aesthetic appearance of their cities. He understood that he was practicing in an era when efficiency and its implication of enhanced industrial profitability were the operative motives that sold municipalities on the need for his services, yet his vision of the city went beyond mere functionalism and this is reflected in his work. In addition to quantifiable, functional concerns such as traffic planning, sewer systems, mass transit use patterns, zoning and residential density Bartholomew’s comprehensive master plans also covered aspects of planning that are more concerned with enhancing the quality of life, including the embellishment of the city through Civic Art, and the development of recreational opportunities, schools, parks and new civic centers (Bartholomew, 1929: Lovelace, 1992).

Harland Bartholomew had a fundamentally different mission in Vancouver from that of Thomas Mawson: Mawson was hired by the Parks Board, an organization devoted primarily to the care and improvement of public space, while Bartholomew was hired by the City Council of Vancouver, in the interests of improving the functional organization and efficiency of the city. While both Mawson and Bartholomew came to Vancouver at times of initial economic growth and prosperity, Bartholomew also was working to address long term concerns including: a growing population, an evolving transportation system, and a shifting local economy.

The reception of the work of Mawson and Bartholomew was also notably different. While Mawson’s scheme for Coal Harbor was officially accepted, it was only minimally implemented. In contrast to this, Bartholomew’s 1929 Vancouver Plan was never formally approved or adopted by the Vancouver City Council, but nevertheless became the essential foundation for planning and development in Vancouver (MacDonald, 2008; Pendakur, 1972).

When Bartholomew returned to Vancouver in 1944, the city appeared poised to begin another phase of rapid change. Accordingly, he once again produced a large volume of relevant updated and completely new material. Once again his work was not formally adopted by the city, although many of his recommendations were subsequently pursued by the city. In 1949, this second period of work ended abruptly before the 16 extensive reports Bartholomew had prepared
could be consolidated into a new updated Master Plan similar to that which had been produced in 1929. Consequently, the 1929 Plan remained in use until it was finally superseded in 1956 by a new comprehensive zoning ordinance. The 1956 zoning ordinance introduce by Vancouver’s first planning director, Gerald Sutton Brown, nevertheless bears the clear imprint of Bartholomew’s final recommendations.

Assessing the impact of the work of Harland Bartholomew on the development of Vancouver is a complex task for several reasons. First of all, the extent to which some aspects of his work developed out of the prior efforts of Thomas Mawson has been overlooked in his own reports and in the research that has examined this body of work (MacDonald, 2008; Pendakur, 1972; Punter, 2004,) Secondly, the results of Bartholomew’s recommendations that were enacted have been in some cases highly successful, while in other cases severely deleterious in their impact. And finally, Harland Bartholomew’s services for Vancouver were abruptly terminated in 1949 before his final and potentially most controversial recommendations for the City could take the form of an official Plan for Vancouver, making his position harder to interpret.

### 3.1 Background

American city planner Harland Bartholomew (1889-1989) is known for his prolific output of comprehensive city plans commissioned by municipalities throughout the United States and for his early advocacy of city planning. During a lengthy and productive city planning career that spanned from 1915 to 1984, Harland Bartholomew and Associates eventually produced a total of 563 comprehensive city plans, the overwhelming majority of which were for American cities. His first city planning commission outside of the United States was his work for the Canadian city of Vancouver BC (Lovelace, 1993).

In 1925 British Columbia passed a Town Planning Act\(^1\) which empowered the City of Vancouver and other municipalities to establish planning commissions and develop comprehensive master plans. In 1926 the City of Vancouver established a planning commission of nine appointed members consisting of local business leaders, the mayor and the chairmen of the Harbor Board, the School board, the Parks Board and the Sewerage and Drainage Board.

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\(^1\) In British usage the term “town” has frequently been used not to indicate settlements of modest size, but to reflect the pattern of settled development typical of urban developments of all sizes. Today the term “urban” would be a closer approximation to the intended meaning.
This commission then hired the firm of Harland Bartholomew and Associates to prepare the comprehensive master plan for the City, initiating work on a project that would last until 1929 (MacDonald, 2008).

In addition to running a private planning firm, Bartholomew also worked as an educator and as a municipal planner for the City of St. Louis. Bartholomew established his private city planning practice in 1919, and he had an active interest in developing and improving effective planning methods. In addition to being the central location of his business operations, St. Louis also became an urban test case that Bartholomew continued to study, gaining additional insight into urban planning principles and the impact of their application (Lovelace, 1993).

The systematic and comprehensive approach to city planning that Bartholomew employed typically began with a rigorous assessment of current conditions, followed by projections of anticipated problems, goals, and future needs. This information was then used to develop reports combining detailed proposals for improving the city, as well as more general advice regarding principles of planning administration and urban design. Typically Bartholomew had his personnel set up operations at the city in question, where they gathered necessary data and produced reports over an extended period of time, often three or four years. These reports would then be combined into a single overall master plan addressing a range of topics and including a comprehensive zoning ordinance dividing the city into three primary categories: commercial, industrial and residential. While there was some variation in any given master plan, typically the work included: improved street configurations, improvement of public transportation, provision of parks, schools and recreation, the design of a new civic center, the zoning ordinance and documents for the establishment of a city planning commission. Although Bartholomew had considered housing to be a critical element worth careful planning attention as well, he eventually dropped this from his basic planning model because he found that municipalities were seldom willing to pay him to study housing needs. The improvement of housing conditions through city planning nevertheless continued to matter to Bartholomew (Bartholomew, 1928; Lovelace, 1993).

3.2 Bartholomew Planning methods and the 1929 Vancouver Plan

In 1926 Harland Bartholomew and Associates set up an office in Vancouver and began work collecting data and developing reports and recommendations that would eventually be combined
into the 1929 Vancouver Plan. At this time the Downtown Peninsula was the site of active industrial waterfronts to the north and south. Lining the northern shore of the city were a deepwater harbor, train yards, a large timber mill and other industrial facilities. To the immediate south of the downtown peninsula, along both shores of the False Creek inlet were a variety of industrial operations, which in 1921 had included 22 timber mills. The eastern end of False Creek had originally extended inland into an extensive, shallow tidal basin, but by 1926 this area known as the False Creek Flats was being filled in for use as vast railroad yards. In the Downtown Central Business District commercial activity had tended to be centered along the harbor waterfront. Residential districts were located east and west of the Central Business District, housing employees of the nearby commercial and industrial operations (Robinson and Hardwick, 1973) At this time the West End was a working class neighborhood that had previously been more affluent; beginning in 1907, the elite families that had lived in West End mansions began to relocate further south towards the newer and more exclusive Shaugnessy neighborhood. These affluent families continued to own their West End Properties, and many mansions were subdivided and converted into multiple unit rental apartments, while surrounding land became a dense district of middle class wood frame houses and walk up apartment buildings (see figure 3.1).

To the east of the downtown is a large working class district known as the East End, consisting of several neighborhoods: Strathcona, Gas town, Grandview, Hastings-Sunrise, and Chinatown. The Chinatown neighborhood occupies a western portion of the East End where the Downtown Peninsula adjoins the mainland; immediately east is the larger and more ethnically diverse working class neighborhood of Strathcona. In 1929 much of the East End, and in particular Strathcona and Chinatown was an active residential area of small houses, with schools and parks sandwiched between large tracts of industrial activities to the north and south.

Lack of separation between industrial and residential uses had been adversely impacting the Strathcona area, resulting in pollution, low property values and a correspondingly low tax base. The Chinatown neighborhood was an active commercial area in the East End in part because this served as the cultural and commercial focus of Vancouver’s Chinese community, and also because this area was a major terminus for streetcar lines carrying workers headed to the downtown wharves, train yards and timber mills. The East End also included an Italian
neighborhood known as Little Italy, and a predominately black neighborhood known as Hogan’s Alley. Although no mention is made by Harland Bartholomew of the racial segregation that existed in Vancouver at this time\(^2\), residents of the East End described the city in starkly polarized terms: those who were White Anglo-Saxon Protestants of British ancestry typically lived outside of the East End, while those who were not resided in the East End, further polarizing the East End community was the tendency of the Chinese and Japanese in Vancouver to form their own internally focused communities. In actuality the situation was not quite as polarized; approximately 30 percent of the residents of the East End were poor whites of British ancestry (Marlatt and Itter, 1979).

Challenges facing Vancouver at this time included: increasing international commerce, and an expected need for additional wharf space, a growing population, encroachment of industrial uses

\(^2\) Bartholomew notes the racial diversity that existed in Vancouver, and compares this with other less diverse Canadian cities. He does not however examine the pattern of racial distribution in Vancouver (Bartholomew, 1929).
into some residential areas, widespread irregularities to the street grid and street alignments, the need for additional bridges across False Creek, and the need to provide new schools, parks and recreational facilities. Although the city had a variety of zoning bylaws in place and an active Parks Board that gave some order to the city, there was no overall plan and no separate city planning department, resulting in a city that was thriving yet disorderly. The city street pattern was a haphazard collection of shifting street grids that were laid out as the City expanded, resulting in awkward intersections and shifts in grid orientation that impeded the movement of traffic. In his reports and the eventual 1929 Vancouver Plan, Bartholomew set about systematically addressing these myriad concerns.

Figure 3.2: False Creek, looking Southeast from Granville Street Bridge in 1928 (Hull, 1974).

Bartholomew proposed improving traffic flow in Vancouver by adjusting street layouts, eliminating irregularities, and widening intended traffic arteries. After compiling comprehensive measurements of traffic flow and he proposed specific street widths for the entire city. While he understood that this was not something that could be entirely changed right away, the establishment of a detailed set of standards and a comprehensive program of recommended changes was intended to gradually bring order to the city (see figure 3.3).
In 1926 the electric street car network played an essential role in the daily lives of the residents of Vancouver and Bartholomew set about improving its efficiency. Studying the existing conditions, and analyzing the traffic flow along various routes, Bartholomew compared street car service areas to population distribution (see Figures 3.4 and 3.5). This information was then used to develop a series of targeted recommendations ranging from large scale issues, such as the extension of existing street car lines, to smaller, yet potentially significant recommendations such a proposal to revise the ticketing process in a manner calculated to speed up the entire transportation process (Bartholomew, 1929).

Harland Bartholomew understood planning as an ongoing activity and realized that sooner or later city officials would be faced with addressing new situations for which specific advice could not be provided, such as the construction of new housing subdivisions and the resulting expansion of the urban fabric. Accordingly, Bartholomew included in his planning documents a profusion of information intended to educate city officials and the public regarding basic planning principles that he recommended they continue to apply in the future.
Figure 3.4 Detail: Population Density and Ground Slopes Map (Bartholomew, 1929, 92). Each dot represents 50 individuals.

Figure 3.5: Map of Vancouver showing Population distribution, existing street car lines and areas served (Bartholomew, 1929, 96).
Bartholomew has been criticized for his repeated use of boilerplate illustrations in plans for different municipalities (Ward 1999). However, this misplaced concern overlooks the purpose and context of these reused and adapted images. As illustrations of basic planning concepts underlying Bartholomew’s planning approach, these images clearly were meant to support his larger planning aims, not as a substitute for the many detailed studies, plans and recommendations that constituted the majority of his work.

For example, Bartholomew considered the provision of adequate opportunities for public recreation an essential component of city planning. Instead of trying to argue at length about the potential public health benefits of public recreation, Bartholomew instead included an illustration showing a variety of the activities and descriptions of basic planning principles used in his approach to the planning of recreation facilities. He also included a master plan based upon his analysis of where current facilities existed and where they were needed. While the basic principle would not be expected to change from one city to the next, the conceptual image he included helps to explain the purpose of the more detailed analysis and recommendation (see figure 3.6).

Similarly, although Bartholomew was not an architect, he was committed to the concept of incorporating in the development of new neighborhoods, new schools and adequate recreational opportunities. He carefully predicted where new schools would be needed even if their precise location and layout could not yet be determined. While his comprehensive plan recommended approximate locations for new schools in the existing fabric, the design of these was beyond the scope of his work. In order to demonstrate how a new school could comfortably co-exist in the midst of a residential housing development, while at the same time providing adequate space for recreation, Bartholomew included a vivid illustration of one idealized solution (see figures 3.7 and 3.8).
Figure 3.6: Types of Recreation Facilities (Vancouver Plan, Bartholomew, 1929).
Figure 3.7: Typical Modern School Playground (Vancouver Plan, Bartholomew, 1929).

Figure 3.8: Existing and Proposed Playgrounds (Vancouver Plan, Bartholomew, 1929). Red tint shading added by Robert Walsh to clarify positions of recommended new playgrounds.
3.3 Beyond efficiency: the City Beautiful and the Civic Center designs of Harland Bartholomew

It is not enough merely to build a clean, healthful, orderly, smooth-functioning urban organism, although every agency of government should strive toward this end. In every possible way it must erase from the mind of the city dweller the monotony of daily tasks, the ugliness of factories, shops and tenements and the fatigue of urban noises. It can do this by showing a decent regard for its appearance, and by various devices it must occasionally touch the emotions. The city becomes a remembered city, a beloved city, not by its ability to manufacture or to sell, but by its ability to create and hold bits of sheer beauty and loveliness. A Stanley Park, a glorious display of public buildings, an inspiring shaft or breath-taking vista, a bridge of noble proportions, such features as these are priceless treasures. They redeem the city and make it really great.³


Harland Bartholomew had considerable interest in the appearance of cities and the health and well-being of the city occupants. His concern for the creation of public parks, the elimination of large advertising billboards, and the reduction of industrial smoke in residential areas were all motivated by a desire to make the city function efficiently, and also to be more enjoyable. Additionally, a common feature in many of his master planning efforts was detailed design proposal for an extensive new civic center complex, typically of grandiose scale and usually designed by a local architect. These similarities have tended to support the view that Bartholomew’s work also has at least some features in common with the City Beautiful tradition (Lovelace, 1993; Van Nus, 1975).

As was typical of his Master Plans for other cities, in his work for Vancouver, Harland Bartholomew incorporated designs for a vast new civic center complex in his 1929 Plan. This complex was not built. This first Civic Center has visible similarities in building orientation and massing to the design of a new Museum proposed by Thomas Mawson and featured prominently as frontispiece in Mawson’s 1911 Civic Art (see Figure 3.10). Bartholomew also proposed in 1929 a second Civic Center option, at an alternative location that appears to have been based upon Thomas Mawson’s earlier master plan.⁴

³ This quote reveals a very similar attitude to that which had been articulated previously by Thomas Mawson, including the notion of public amenities offering relief from the ugliness of industrial toil, and the aspiration of a great city being a beloved city as a result of its physical beauty. For additional discussion, see Chapter 1.
⁴ Bartholomew makes no mention of Mawson in his 1929 Plan, but he refers to the prior civic center proposals that had followed from Mawson’s work.
Unconvinced of the merits of either site proposed by Bartholomew, the City eventually chose a city owned parcel of land to the south of False Creek as the site for its new City Hall, which was completed in 1936. This setting located the City Hall at a distance from the downtown but in a position more central to the recently expanded city, which in 1928 had doubled in population and expanded in area to its present boundaries through the annexation of the neighboring towns of Point Grey and South Vancouver.

Despite the recent construction of the new City Hall, nine years later in 1945 Bartholomew was undaunted, once again proposing a new Civic Center for Vancouver. Still using the Georgia Street axis previously defined by Thomas Mawson, this time Bartholomew located his proposal roughly halfway between Mawson’s Central Square and his proposed Station Square.

Figure 3.9: The 1928 Civic Center proposed by Harland Bartholomew and Associates for Vancouver, a project that would have consumed more than six city blocks (Bartholomew, 1929).

Because the new Civic Center proposed by Bartholomew could not be reasonably supported on the basis of the functions already addressed in the 1936 City Hall, he proposed a variety of other additional civic and public functions for the complex, including a new Opera House, an Art Museum and Federal offices. As with his other Civic Center proposals for Vancouver, the development of this proposal was not pursued by the city.

These unbuilt projects still reveal something of Bartholomew’s sense of the planning of cities in terms of their ideal physical order. As in the City Beautiful approach, these civic center designs
feature classically organized buildings symmetrically grouped around grand axes. The buildings are light colored monumental objects set in an elaborate and expansive ornamental landscape. The relationship of the Bartholomew proposals to the existing street grid is however surprisingly awkward; in light of the attention he otherwise devoted to improved traffic circulation by removing irregularities in the street grid throughout the city, the decision to introduce new and seemingly pointless offsets results in designs where it feels like a design borrowed from elsewhere has been crudely adapted to a new setting in which it does not belong. These Civic Center designs are not examples of a city made more efficient. Instead of being designed for compactness, economy or ease of effective use, the building complexes are sited to increase their monumentality and visible impact. Even after the 1928 annexation of Point Grey and South Vancouver, in 1931 the population of Vancouver was still only 246,593 making the extravagant scale of the first proposal particularly questionable.

Figure 3.10: Possible design precedent: Proposed Improvement Scheme for Borough of Bolton: View across Boulevard of New Museum. Design by Thomas Mawson (Mawson, 1911).
Figure 3.11: 1945 Vancouver Civic Centre proposal (Bartholomew, June 29, 1945). This new proposal included an Opera House, an Art Museum, Federal Offices, without duplicating the City Hall complex that was built in 1936 on city-owned property south of False Creek.

Given the weak reception that the new civic center proposals had been given by Thomas Adams in 1916, it is not surprising that nothing came of Bartholomew’s later civic center proposals. What is less clear is why they were proposed at all. Perhaps Bartholomew had misjudged his clients. The Vancouver City Council throughout Bartholomew’s time in Vancouver was made up of experienced pragmatic men who had first achieved success in business before entering into local politics. Instead of seeing in these grandiose proposals an expression of their own prestige and importance, these men would have first asked how any of this was expected to generate additional revenue for the city?  

Former long term Bartholomew employee Eldridge Lovelace describes the inclusion of a new Civic Center as one of the standard features of the typical planning package prepared by Bartholomew and associates, suggesting that this might have been included as a package deal even in cases where it was not fully warranted (Lovelace 1993).

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5 The failure to build a grand Civic Center concentrating all civic and cultural functions into one central place may in the end have actually been a positive outcome for Vancouver, even if it occurred purely by accident. As Jane Jacobs would later observe in *The Death and Life of Great American Cities* (Jacobs 1961) when important civic functions are aggregated into a single urban complex this tends to result in a derelict, disused public space; a better result is generally observed to occur in cases where civic functions are more widely distributed throughout the urban fabric of a city, Vancouver today has a more distributed pattern of civic and cultural functions and the positive outcome observed from this strategy is consistent with the observations made by Jacobs.
3.4 False Creek in 1929

Figure 3.12: Detail from Zoning Map, Plate 50, p 210, 1928 Vancouver Plan, Harland Bartholomew and Associates, 1927 (City of Vancouver Archives, 2011). Red and green tint added for clarity by Robert Walsh. Red indicates light and heavy industry; green indicates six story multi-family residential. Note: these zoning designations did not reflect the current uses, but rather were projections based upon anticipated future needs.

THE FALSE CREEK INDUSTRIAL DISTRICT HAS BEEN PERMITTED TO BECOME AN EYESORE AND A MENACE TO HEALTH. ITS REGENERATION IS ESSENTIAL TO NORMAL CIVIC DEVELOPMENT.

Emphasis is made of the importance of not only retaining the present industries along the channel, but of encouraging others to locate there. It should not be overlooked that should all of the mills be moved now to the Fraser River, as has been suggested, the effect would be far reaching and fairly detrimental to Vancouver. For it would not only remove capital itself, but the buying power of many families. Not only the mills would be affected, but many subsidiary enterprises whose business depends upon the proximity of the mills. There are no substitute industries in the Sawmills on False Creek offering to take their place.

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Looking forward, however, it is entirely conceivable that the mills and some other industries of False Creek will be forced to move by reason of increasing land values. This is a normal process and usually insures the replace merit of the migrating concerns by others of higher class. In the light of the foregoing conclusions, the obvious next step is to so direct the use of False Creek channel that it may reach its maximum efficiency with the least inconvenience to other elements of community growth.

- Harland Bartholomew, Vancouver Plan (1929, 147 - 149).
By 1929, prior to the onset of the Great Depression, signs were emerging that the industry around False Creek was already beginning to decline. As Bartholomew notes, rising land values were a factor in this. At this time the Canadian Pacific Railway (CPR) still owned substantial tracts of land along False Creek, which they then leased to industrial operations at low rates, a discount which was offset by the money made through providing railroad based shipping for the industrial products these operations produced. However, as land values continued to rise, other options would eventually become more profitable, and hence attractive to the CPR, such as converting the land to residential use. The efficiencies to be gained by relocating timber mills closer to remaining timber sources, where land was cheaper and railroad service remained available also had an impact. Nevertheless, Bartholomew continued to adhere to the belief that maintaining False Creek as a center of industrial production was essential to the continued economic wellbeing of the city and he therefore proposed redeveloping the area in a manner that would attract new industries (see figures 3.12 and 3.13).

Figure 3.13: False Creek development scheme (Bartholomew, 1929). Had this plan proceeded, False Creek would have been reduced to a channel 600 feet wide and 20 feet deep.
Bartholomew’s proposed industrial refurbishment of False Creek did not proceed. Of three new bridges he proposed across False Creek, only one was eventually constructed and his proposed reduction in the width of False Creek did not proceed. Nevertheless the views expressed by Bartholomew in 1929 indicate that even at this early date the future of Vancouver as an industrial city was already in doubt, despite his efforts to reverse this trend.

3.5 The unofficial adoption of the 1929 Vancouver Plan:
When his Plan for Vancouver was completed in 1929, Bartholomew had produced a comprehensive document 388 pages in length incorporating reports on: street configuration, transportation, public transit, public recreation, zoning, civic art and a proposal for the effective execution of the plan. The plan included a proposed zoning ordinance a zoning map and additional reports relating to South Vancouver and Point Grey which had both been annexed to Vancouver in 1928, expanding the city to its present geographic limits.

Professor and City Council Alderman Setty Pendakur would later characterize the 1929 Vancouver Plan as the “Magna Carta” of Vancouver planning documents, due to the subsequent influence that the Vancouver Plan exerted on the City as its original planning document, and also due the ambiguous legal status of the plan, which was never formally adopted by the Vancouver City Council (Pendakur, 1972). Technically, the Vancouver plan of 1929 was not the first planning document in Vancouver, even though it might accurately still be considered one of the most important and comprehensive; numerous planning bylaws had already been enacted before Harland Bartholomew began his work for Vancouver. The 1929 plan was nevertheless important, providing Vancouver with a comprehensive set of reports oriented towards improving the appearance and functionality of the city and providing detailed zoning standards and maps. These elements when considered together presented a total package that was intended to guide the improvement of the city for the next several decades.

Only one part of the 1929 Vancouver Plan was legally adopted: the comprehensive zoning ordinance; the rest of the plan was never given any official standing by the City of Vancouver. This unofficial status is a reflection of an ongoing political power struggle between the City of

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6 Transportation in this case encompassed a railroad report and a harbor report.
7 Canada completes a census every ten years. In the 1931 census Vancouver was first recognized as Canada’s third largest city, behind Montreal and Toronto, a position that it has held ever since (Source: Statistics Canada).
Vancouver and the Provincial Government of British Columbia. In Canada, the Provinces exert a great deal more influence over the local affairs of municipalities than is seen, for example in the relationship that exists between city governments and State Governments in the United States. Technically, Harland Bartholomew was originally hired by a special Planning Commission, under the authority of a Town Planning Act approved by the Provincial Government of British Columbia. When this planning work was subsequently completed, the City Council possessed the authority to formally accept the plan and make it the legal basis for subsequent development activity in Vancouver, but to do so presented a serious downside. Had the plan been formally adopted, the City of Vancouver would have then been required to obtain special permission from the Provincial Government every time the City wanted to approve a project which deviated from the approved plan. Having no interest in ceding to the Province more control over planning and development decisions if this could be avoided, the City Council chose not to officially adopt the 1929 Plan (Liscombe, 2011; MacDonald, 2008).

Despite its lack of official status, the 1929 Vancouver Plan nevertheless became the operational foundation for planning and development activity in Vancouver. For the next thirty years and perhaps even longer, allegedly every planning official working for the City of Vancouver had a well-worn copy of the 1929 Vancouver Plan in their desk, serving as the essential reference for planning policies and priorities (Pendakur, 1972).

**Immediate results of the 1929 Vancouver Plan**

The immediate impact of the 1929 Vancouver Plan was overshadowed by larger events. As in the case of Thomas Mawson’s prior work, Bartholomew had been hired to develop plans when the prospects of future economic growth looked bright indeed, only to see this situation change by the time the planning work was completed. This time the economic downturn began with the onset of the Great Depression. Because the Vancouver economy was substantially based upon the production, processing and transportation of raw materials, for which there suddenly was very little demand, the local and regional economy of Vancouver was particularly hard hit. The

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8 In 1953 the Vancouver Charter was enacted, granting the City of Vancouver greater autonomy, expanded and different rights from those which it had possessed under the Vancouver Incorporation Act and the British Columbia Municipalities Act. Vancouver nevertheless continues to have a close working relationship with the Province of British Columbia.
lack of any national policies in Canada equivalent to the New Deal probably also contributed to the severity of the depression (Ward, 1999).

Although Bartholomew would try to later portray the impact of the 1929 plan in favorable terms, the full extent of his original recommendations did not come close to being implemented (Bartholomew, 1944). Meanwhile, despite the advantages that he had claimed would result from the establishment of a clearer separation of uses through zoning, his decision to classify the residential East End as an industrial zone would eventually prove extremely detrimental to the residents, making it hard to obtain loans to repair or upgrade their homes, while giving the city the excuse it need to adopt a lax attitude towards the maintenance of streets sidewalks, thereby further contributing to a progressive deterioration of the district (Marlatt and Itter, 1972).

The slowdown of economic activity that overtook Vancouver during the 1930’s finally began to turn around in 1939 with Canada’s entry into World War II,9 sparked by the resulting rise in industrial production required by the war effort. Significantly, however this increase in economic activity did not mean that the industries that had previously closed would then reopen and resume industrial production; instead this was a temporary boost in the industrial production of war materials, such as the construction of new ships (see figure 3.12).

![Figure 3.14: False Creek in 1941: Some of the timber mills have been replaced with shipbuilding for the War effort (City of Vancouver Archives). This view faces south across False Creek; the prominent structure located near the far ridge line is the Town Hall, completed in 1936.](image)

9 Canada entered World War II at this earlier date, due to its close ties to England.
3.6 Vancouver at the End of World War II and the return of Harland Bartholomew:
In 1944 Vancouver, British Columbia was a city once again anticipating major economic growth, arising from the combined impact of multiple economic, demographic, and cultural changes. The transportation armature around which the city had grown had been the extensive network of electric streetcar lines, but the increasing popularity of the automobile was making this system obsolete. With the rise of the automobile came increased mobility, which translated into a wider dispersal of the local population and the rapid growth of suburban developments in outlying areas. This dislocation of consumers was then translating into declining revenue for retail businesses located in the downtown core, a problem which appeared to have been made worse by inadequate traffic planning for a downtown area suddenly congested with automobile traffic. This decline in business revenue was a particular concern to these local businesses and by extension, the Vancouver City Council which at the time was controlled by local businessmen, additionally, the loss of sales taxes and potentially declining property tax values also meant that the city government was facing the prospect of declining tax revenue.

The economy of Vancouver was undergoing other changes, meanwhile, including the emergence of new sectors in the local economy. Even as many of the lumber mills that had been central to the growth of Vancouver were relocating to points elsewhere in British Columbia, demand for downtown office space for a growing business and financial services sector began to emerge. In addition to this anticipated rise in white collar work, tourism and international trade and shipping came to be increasingly important elements in the local economy as well. Advances that were taking place in commercial airplane travel resulted in the need for a major new airport to serve the City and the surrounding region. This then raised the question of where to best locate this new facility.

Faced with these daunting changes and an optimistic if uncertain future, the City of Vancouver in 1944 once again turned to the American city planning firm of Harland Bartholomew and Associates, initiating what would become a second extended planning effort in Vancouver.

3.7 Diverging Values: Harland Bartholomew and the Non-Partisan Alliance:
In addition to other economic and technological changes that had taken place during Bartholomew’s absence from Vancouver, a noteworthy change to the political climate had also taken place. In 1937 a new local political party, the Non Partisan Alliance (NPA) became
established in Vancouver, rapidly gaining control of the City Government and instilling a particular philosophy of municipal management that was to be far reaching in its impact. The NPA would maintain control over planning and development in Vancouver until 1972, briefly falling out of power only to once again regain control, in 1980.\footnote{The control of Vancouver by the NPA has continued to fluctuate and has not regained the total dominance it held from 1937 to 1972.}

The Non Partisan Alliance was part of a larger nationwide trend in Canadian municipal governance. Instead of framing local government as an inherently political process, the NPA stressed a belief in effective management, to be administered by apolitical professionally trained decision makers whose work would based upon objective scientific principles. This at least was the theory; actual practice was another matter. The government of Vancouver continued to be dominated by local business interests and the approach pursued by the NPA was consistent with a technocratic, business-friendly perspective that appealed to Vancouver's powerful business community. Accordingly, the political leadership of the NPA has been and continues to be drawn from the local business community, and policies pursued during the times that the NPA has been in control have consistently reflected this orientation. Meanwhile, the conceit that those running the government were now making decisions on the basis of so-called objective scientific principles meant that the need for community participation in the decision making process became far less important (Hardwick, 1974; Pendakur, 1972; Ward, 1999).

The decision by the NPA to invite Harland Bartholomew to return to Vancouver in 1944 was probably influenced by the importance he placed upon efficiency and his earlier attention to detailed changes needed to improve roadways and other city functions. Also in his original 1929 Zoning Plan for Vancouver, Bartholomew had dedicated an excessively large area to industrial purposes, well beyond what was needed at the time, and while this may have caused problems for those already living in the residential neighborhoods carelessly designated as industrial zones, the business community would have looked favorably on this pro-business orientation.

Harland Bartholomew however happened to be undergoing a a change in his fundamental attitude on several critical issues and it is unclear if the NPA government was cognizant of this shift. Bartholomew had come to see community participation as essential to the success of any sustained city planning campaign, putting him at odds with the disengaged approach adopted by
the NPA. Therefore he recommended that an improved effort be made to involve the public more fully in the planning process. Instead of heeding this recommendation, however, the NPA government of Vancouver moved in the opposite direction, closing city council deliberations to the public and making the process of civic governance even more secretive (Bartholomew, 1929; Tenant, 1980).

When Bartholomew made recommendations that adhere to the city efficient model, these were generally accepted and pursued. However those aspects of his work that did not adhere to these values were generally ignored by the city, especially those proposals using planning as a means to improving quality of life for ordinary citizens. The result of this divide is that while Bartholomew attempted a comprehensive approach, the outcome of his effort has been a double legacy in which some of his suggestions were adopted, while others were ignored not because the ideas were good or bad, but because the culture of government and planning in Vancouver was shifting towards a technocratic method that left little space for community values.

3.8 Revised Plans and New Reports for Vancouver: 1944-1949

Vancouver's magnificent setting, with its wonderful mountain scenery, forested foothills and marine vistas is virtually unequalled. These are Nature's handiworks. However, the man-made city appears sordid and ugly because of the contrast with this magnificent scenic background. In general appearance much of Vancouver is an affront to its setting. Many buildings are drab and undistinguished. Some of the early structures were built of timber and a considerable number of these still survive in the downtown section and are in a very dilapidated condition. The demolition of most of them is long overdue as they detract greatly from the fine modern structures in close proximity. This condition in much of the older portions presents a barren, awkward, frontier-like appearance.


During this second period of work from 1944 -1948 Harland Bartholomew and Associates prepared a total of 16 planning reports for the City of Vancouver. Some of these reports made updated recommendations for previously addressed topics such as street layout and recreational facilities, while others addressed emerging issues, such as the need for a metropolitan airport, and the emerging trend of urban decentralization through the increasing use of the automobile (Bartholomew, 1944-1949) (see figure 3.15).

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11 There is some redundancy in these reports, with several being reissued versions of the same report. In total there were 10 unique reports dating from this period of Bartholomew’s work for Vancouver.
Although the problem of declining industry was not adequately addressed, the solutions devised by Bartholomew for addressing the housing issue and the emerging impacts of the automobile had significant impacts on the form and development of Vancouver contributing to a shift towards a new identity as a Post-Industrial City.

The solution that Bartholomew proposed to solve the problem of decentralization due to the rise of the automobile had three essential components: 1) a radical increase of the residential density of the West End residential district, 2) the repair and improvement of existing housing stock in
the East End, and 3) the introduction into Vancouver of a system of freeways. The idea behind these three strategies was to increase the quality and density of the two residential neighborhoods flanking the downtown core, east and west, while at the same time using the freeway system to make businesses in the downtown core more readily accessible to outsiders. By intensifying residential densities near the downtown and also making it easier for outsiders to visit by automobile, it was hoped that the vitality of the downtown core could be improved and that businesses located here would begin again to prosper. All three of these strategies would be attempted by Bartholomew’s successor, Gerald Sutton Brown, but only one would be fully and successfully implemented: the densification of the West End.

3.9 Density in the West End

Figure 3.16: Detail: Proposed density of population. The only area shown with a density in excess of 40 persons per Acre is The West End, which already had a density of 47 in 1944. Bartholomew as of 1944 was proposing to raise it to 80 (Bartholomew, 1944).

Harland Bartholomew recommended a dramatic increase in the residential density of the West End, although he was not particularly explicit on just how such a density should be attained. In his prior Vancouver plan of 1929 he had established a building height for the West End district of six stories, resulting in an increase in density from 30 persons an acre in 1921 to 47 persons per acre by 1941. In his 1946 report Bartholomew was recommending that the density of the
West End be further increased to 80 persons per acre. As the following statement shows, by 1946 Bartholomew seems to be moving away from the six story height limit for the West End, but he chooses not to define a new height limit (see figure 3.16).

Multiple Unit Dwelling Districts

In the present By-law this district is called a "Six-storey Multiple Dwelling District." It is recommended that in future it be known as a "Multiple Unit Dwelling District."

1. It is recommended that hotels be added to the uses that are permitted in this district rather than for them to be permitted in the Restricted Multiple Unit Dwelling District.

2. The different site area requirements for various heights of buildings are questionable. The normal practice is to require a minimum site area per family of approximately four hundred (400) square feet, irrespective of the height of the structure. However, there may be local peculiarities that made the present requirements more logical and this must be determined by the Town Planning Commission. It is recommended that consideration be given to requiring a site area of three thousand six hundred (3,600) square feet for single-family dwellings; one thousand nine hundred (1,900) square feet per family for two family dwellings erected in this district. One of the major reasons for this recommendation is that apartment buildings should be encouraged in this area and thus are permitted to enjoy a more intensive use of the land. If single-family dwellings are permitted they should conform to a reasonably satisfactory standard for such uses.


Bartholomew proposes to eliminate the height limit by eliminating the number of stories as a basic defining constraint. The implication is that substantially taller buildings will need to be constructed to attain the desired density. The question of how tall the buildings in the West End should be permitted to go is addressed somewhat indirectly, in a later section of the same comprehensive zoning report concerning office high rises. The methods and issues cited by Bartholomew in reference to the planning of office high rise districts appear to have had a substantial influence on the subsequent rezoning of the West End later undertaken by his successor, Gerald Sutton Brown (see figure 3.12, the West End is shaded in green).

Buildings Exceeding Height Regulations of the District

Certain problems have confronted the Commission in the past regarding the construction of tall commercial buildings in the outlying shopping centres. While there may be some

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12 The next chapter (3) addresses the complex story of how this basic objective of increasing the residential density of the West End was achieved, resulting in the transformation of a fully developed residential district of wood-framed houses and three story apartment buildings into district noted for its residential high rise towers.
advantages in such construction, particularly to the property owners, and, admittedly, a tall office building is the most economical from the standpoint of operation and maintenance, there are very few advantages that will accrue to the city from such improvements. It definitely provides for an over-intensive use of land, detracts from the higher values in the central business district, and even involves problems from the standpoint of fire protection. It, further, is a definite detraction from the surrounding residential districts because a tall building overpowers the residential development. It is recommended that such projects should be discouraged as not being in the best interests of the city from the standpoint of comprehensive zoning.

If, however, the Commission feels that any potential advantage from such tall buildings would more than offset the above disadvantages, then the tall structures should be permitted only by special exceptions and under very strict standards. For example, only a small portion of the site area should be permitted to be covered by the building, there should be adequate off-street parking space provided in connection with the building, and the structure should be set far enough back from all boundaries of the tract that there would be no tendency to interfere with the light and air upon the adjoining residential district.


The recommendation that the density of the West End should be substantially increased, along with the recognition that this would most easily be attained by eliminating the six story height limit would eventually take ten more years to be implemented, by planners who came after Bartholomew. The challenge of managing the transformation of the West End from an already built out residential district of wood frame buildings of modest height into a much higher density neighborhood partially occupied by residential high rises would prove to be a complex and challenging undertaking, and is the topic examined in the next Chapter of this dissertation.

Of the three strategies suggested by Bartholomew for reversing the decline of downtown businesses, only the revitalization of the West End by increasing the residential density and would prove to be successful. Today the West End continues to thrive as a residential neighborhood; the increased density has meant that a wide range of local businesses oriented towards serving the public now thrive. Furthermore the experiences gain by planners and local architects in the process of redeveloping the West End would eventually be a source of valuable insights that would later be applied during a second wave of residential high rise construction in the late 1980’s.

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13 These claims are over stated. One significant reason for the development of high rises has been due to their capacity to generate increased revenue. In the context of white collar office work the resulting intensification of urban density and the proximity of businesses to one another adds value to a location by facilitating contact.
The remaining two strategies suggested by Bartholomew for revitalizing the downtown are also important for the history of Vancouver and the subsequent development of Vancouverism but in very different ways. The city attempted to pursue the construction of a new freeway system, with disastrous results, and at the same time the effort to revitalize the East End through urban renewal proved only marginally successful. To understand how these two developments went badly awry and also how the resulting undesirable outcomes departed from recommendations made by Harland Bartholomew, closer consideration of each strategy and the changes taking place in Vancouver need to be considered. This chapter, however, is only concerned with the recommendations made by Bartholomew. The resulting adverse consequences arising from their later misapplication by other planners are examined in Chapter 5.

3.10 Strathcona and the question of urban renewal
The single biggest mistake that Harland Bartholomew made in Vancouver was a zoning decision originating in his 1929 plan. In establishing zoning districts for the city of Vancouver, Bartholomew attempted to impose a uniformity of land use that would reduce the problems arising from proximity of incompatible uses. His population studies and growth projections confirm that Bartholomew took the time to understand in detail where the greatest residential concentrations were taking place in Vancouver. However, even though he had the means to designate the working class residential East End district as a residential zone, in 1929 he instead chose to use a simpler approach to zoning that incorporated this area into the nearby industrial zones flanking it on either side (see figure 3.12). Once this area became zoned as industrial land, the residents of this neighborhood found it difficult, if not impossible, to obtain funding from banks to make necessary repairs or improvements to their homes. This contributed to a pattern of deterioration which thirty years later was then used by the City of Vancouver as a justification for subjecting an area encompassing 130 residential blocks to an ambitious urban development scheme (Pendakur, 1972).

The negative impact of industry on the residents of the East End reflects a failure by Bartholomew to grasp the problem. While his studies include detailed maps of local geology and description of seasonal weather patterns, and he was aware of the problem of industrial smoke, apparently the impact of wind on the distribution of industrial air pollution was overlooked. Although the issue of access by water and by train factored into recommendations regarding the
location of major industry, the possibility that such industries might be better located downwind from major residential areas does not seem to have been considered, even though such land was readily available.

SMOKE

The most disagreeable feature of Vancouver, especially along the areas contiguous to the waterfronts, is that of smoke. In pre-war days, the civic authorities made a sincere and sustained effort, if not to stamp it out entirely, at least to reduce it to a practical minimum. However, during the depression years, rigid enforcement was not possible, and there was a great amount of leniency in dealing with the mill and factory operators. During the war years practically all attempts at enforcement were abandoned. Not only was the use of oil fuel very severely restricted but only inferior grades of soft coal were obtainable. In recent years the smoke nuisance has been at its worst.

The prevalence of smoke in Vancouver is not only a menace to health and a very disagreeable nuisance in both home and office owing to the deposit of carbon particles, but due to fog and the suspension of smoke therein, visibility very frequently becomes "zero", and the operation of automobiles, trucks, motor busses and trolley coaches becomes quite hazardous.

Mill burners, factories, locomotives, and heating units of hotel and office buildings all create smoke. The only manner in which this particular blight upon the city's appearance and welfare can be eliminated is by a bold and determined effort in the enforcement of the Smoke By-law. If it is ascertained that the by-law is not sufficiently adequate to attain the results that are desired by the city, it should be amended.


As the above passage shows, Harland Bartholomew considered industrial smoke a real liability, but instead of exercising any authority as a planner and defining appropriate locations for industrial facilities so that this menace would be reduced, he only makes vague suggestions intended to reduce smoke levels. There were however indications that he had begun to revise his approach to industrial zoning and also that he was moving away from urban renewal as a recommended planning strategy, in favor of a more selective approach to urban blight based upon repairing and rehabilitating existing neighborhoods.

Urban renewal versus piecemeal repair

A possible contributing factor in the industrial zoning of the East End would be the local bias against this part of the City. The East End was widely known as Vancouver’s “Sin City,” where prostitution, opium dens, strip clubs and gambling could all be found. For many of the residents
who lived there, the East End had a different experience from the rest of Vancouver because the rest of Vancouver was the domain of White Anglo Saxon Protestants of British ancestry, while the West End was home to Japan Town, Chinatown, Little Italy, and enclaves of a diverse range of other groups that included Jews, Eastern Europeans, Blacks and many others. While interviews of longtime residents of the East End conducted in the 1970’s tell a story of feeling like an outsider when visiting other sections of Vancouver, they also acknowledge that there was a common perception that outsiders walking through the East End ran the risk of falling prey to territorial gangs of various groups of East End youths. Some of these residents also describe the East End as a neighborhood to move into upon arrival in Vancouver and then a neighborhood to move out of as quickly as possible. Grinding poverty drugs, alcoholism and HIV continue to be serious problems that plague the East End even today, with the East End having the highest rate of HIV infection of any postal code in Canada (Marlatt and Itter 1979; Rotberg 2008).

When Harland Bartholomew and Associates returned to Vancouver to revise their work, this was undertaken not just on the basis of the changed conditions existing in Vancouver, but also with the advantage of knowledge that had been gained during this interim. In particular Bartholomew had been reconsidering his approach to the relationship of zoning to residential development. As was his normal planning practice prior to the Great Depression, in his 1929 Vancouver Plan Bartholomew had zoned a very large area of the city for industrial activity, including areas which were overwhelmingly residential in character. His positions would change, however, in response to studies he undertook in the 1930's for the City of Saint Louis. Working for the City Plan Commission for St. Louis, Bartholomew examined the shifting pattern of land use and population in St. Louis from 1910-1935, arriving at new insights into the impact of slums on cities, the cost and also at least some sense of issues related to their cause. He concluded that slums were costing the city more than the tax revenues these areas were generating, which in itself was a motive for addressing the problem. One of the causes for the problem he attributed to zoning, indicating that by zoning too much land for commercial and industrial purposes, appropriate residential development was inhibited, resulting in disused and undervalued land that also was not developed fully for industrial or commercial purposes. The result of this zoning policy was that it resulted in a pattern of "speculative exploitation," followed by "gradual neglect and eventual abandonment" (Johnston, 1973).
To address the problem of slums that this produced, Bartholomew recommended:

- Alignment of zoning constraints with local market forces of supply and demand
- Improvement of local sanitation
- Elimination of industrial smoke
- Rehabilitation of existing structures
- Removal of unsafe structures and the enforcement of building codes
- Construction of low cost housing in older sections of the city

Bartholomew also explicitly recommended rehabilitation and conservation in those areas where more drastic measures were not needed, rezoning as necessary and focusing effort on maintenance, the care of park space, playground space and establishment of local neighborhood organizations intended to protect and improve the neighborhoods. While Bartholomew clearly still recognized the need for large-scale urban renewal projects in some instances, his view had also become more focused on using zoning and planning activities in ways that best served communities on a case by case basis (Bartholomew, 1936).

Johnston (1973) interprets the result of this research by Bartholomew as contributing to a shift in public opinion in support of large scale urban renewal schemes throughout much of the United
states during the 1950's and 1960's. While this certainly seems possible, this work nevertheless reveals a more complex side to the issue, in that Bartholomew was not simply advocating urban renewal as a necessary blanket policy, but rather as part of a range of options that also included conservation and rehabilitation.

Upon returning to Vancouver in 1944, Harland Bartholomew seems to have been of two minds regarding the large scale urban redevelopment of the poorer sections of the city. In his report on population and economic growth from October 31, 1944, he openly discusses the desirability of redeveloping blighted areas of Vancouver through the development of large modern projects pursued as "post-war reconstruction," (Bartholomew, 1944, 33). 14

At the same time, however, on page 31 of this same 1944 report on population growth, Bartholomew includes a map indicating that the revised zoning of the East End should be changed to a mixture of commercial and residential zones, more characteristic of the actual uses.

14 This seems an odd choice of words given that Canadian cities were not damaged in the war.
In Chinatown, where shop owners reside in dwellings located over their ground level shops this commercial designation makes sense, while for most of the remainder of the East End, the area has been left undefined in terms of use, which is how residential areas are typically designated throughout this drawing (see figures 3.17, 3.18).

There are further indications that Bartholomew was backing away from his original position supporting a massive program of urban renewal for the East End:

Fortunately, Vancouver does not now possess extensive slums and blighted areas. There are a few areas (slums) that should be rebuilt, and some larger areas that need rehabilitation to which the city should give early attention. The Dominion Government is developing programmes that will be of great assistance in connection with these undertakings.

In a newer city, such as Vancouver, which does not have the amount of slum and blighted districts found in many of the older large cities, a careful adherence to sound zoning principles can afford maximum results. The existing residential areas can and must be protected so that they will not experience even the first influences of blight. If a residential district is soundly located there is no reason why it cannot continue to be used for residential purposes throughout the life of the city. Even though some of the homes may be old and obsolete it is much sounder to remove them and replace them with modern structures than it is to permit scattered objectionable uses that would adversely affect the entire residential section.


The general attractiveness of the older and poorer residential areas in both the downtown district and those surrounding it can be gradually improved. Dilapidated houses and buildings should be removed or repairs made to bring houses up to a reasonable standard.


After submitting an initial report (1944) that had seemed to be headed towards recommending wholesale urban renewal for the East End, Bartholomew can be seen to be reversing his position in subsequent documents, offering the opinion that Vancouver does not suffer from blight on the scale seen in American cities, arguing instead for a program of selective repairs. In the 1946 *Preliminary Zoning Report* (1946), Bartholomew writes at some length about the problems of blight as they exist in American Cities, before finally arriving at his conclusion that this wholesale intervention is not warranted in Vancouver.

The City Council of Vancouver, meanwhile, remained strongly in favor of pursuing urban renewal to completely remake Strathcona; by arguing against such an undertaking, Bartholomew
was fighting an uphill battle, a battle which he ultimately lost. In 1947, while Bartholomew was arguing for gradual repairs to bring houses in the East End up to “a reasonable standard” the City of Vancouver independently hired Dr. Leonard Marsh of the University of British Columbia, a newly arrived but well respected specialist in Urban Renewal. Marsh was hired to conduct a detailed study of the housing conditions in the East End, with the obvious intention of supporting an urban renewal scheme to replace the entire Strathcona neighborhood.15

This may also help explain why Bartholomew was abruptly terminated before he was able to compile his complete set of revised recommendations into a finalized comprehensive plan. Officially, the grounds for terminating the contract with Bartholomew and Associates was a dispute over travel expenses which Bartholomew submitted to the City and which the City refused to reimburse (Ward, 1999). Realistically, however, there are other ways to address such an issue that can allow a project to continue, if there was a desire by the City of Vancouver to complete the work.16 What did the City of Vancouver gain by terminating Bartholomew before his work became a new Vancouver Plan? At the time of his termination, each of his reports was a stand-alone document that the city was free to implement or ignore at their discretion. For example, they would be free to cite his earlier 1944 report as evidence for the need for Urban Renewal. Had these reports been pulled together and updated, however, the City would have been facing a massive new master plan with greater authority; his new the position rejecting urban renewal in favor of urban rehabilitation who have strengthened the position of the opposition that an urban renewal project would be expected to provoke.

There is some indirect indication that Bartholomew was aware of what he was up against. Even as he was arguing against urban renewal, he had concern that some members of the Vancouver’s poorest communities could be treated poorly if the process of urban renewal was allowed to proceed without first clarifying particular critical regulations. The Provincial laws related to redevelopment require the provision of housing for families displaced by government sponsored development projects and improvements. However, the question of whether “a family” consisted of one person or two, was ambiguous. Bartholomew recognized that this distinction was absolutely critical to the wellbeing of thousands of single individuals, including many of the

15 Marsh was hired five years before Gerald Sutton Brown was brought in by the City of Vancouver to be its first planning director. Sutton Brown would later be the target of intense criticism over the urban renewal program.
16 For example one common practice would be to set the issue aside to be resolved at the conclusion of the project.
elderly; therefore he argued that the term “family” must be defined as one or more persons residing in a household (Bartholomew, June 1946,21). Planners who came after Bartholomew attempted to gain support for a looser definition that would only obligate the city to provide housing for families of two or more, on grounds that this would cut costs.

This story is picked up again in Chapter 5 when the study of Dr. Leonard Marsh and the East End are considered in greater detail.

3.11 Harland Bartholomew and the highway problem

Citizen Interest and Support.

The success of a planning programme, or part thereof, ultimately depends upon citizen understanding and support. It is thus particularly essential that a large number of citizens in Vancouver area understand the problems that now confront the city. They must also be generally conversant with measures necessary to solve these problems and give support to the public officials initiating the necessary steps.


Highways.

The major through highways in the regional area must also be planned on a regional basis. The location of the proposed superhighway through New Westminster for example, may well affect the location of this route in Vancouver or in Surrey. A regional agency with intimate knowledge of local conditions would be of great assistance to the Provincial and Dominion Governments in the planning of these highways.


The proposed Vancouver-New Westminster Express Highway, when developed as now contemplated with a wide and well landscaped right-of-way, will he an unusually attractive major street. This type of street treatment will result in creating a fervent pride in the citizens and an extremely favourable impression upon tourists.


In his 1929 Vancouver Plan, Harland Bartholomew began recommending the development of “arterial highways,” a selective approach to create a network of widening major streets.17 (see figure 3.19 and 3.20). When Bartholomew returned to Vancouver in 1944, his thinking on freeways had substantially evolved, influenced by his involvement in freeway planning

17 Confusion appears to have arisen over the years because this network of arterial highways is superficially similar to later proposals for an extensive system of elevated freeways; Bartholomew was proposing in 1929 a systematic approach to street widening, not an independent freeway system.
Bartholomew recommended that highways be well landscaped yet he also understood that they had the potential to exert a negative impact on residential areas. Therefore in his proposal for a freeway link to downtown he proposed running the freeway along existing train routes and then across an industrial area, approaching the city across the eastern portion of False Creek (see figure 3.21). Where his approach differs from that later used by the city is that the subsequent planners attempted to carve an elevated freeway through several residential neighborhoods in the East End, most notably Strathcona and Chinatown, with little regard to the adverse impact this would have on people living there.
Figure 3.20: Detail of Bartholomew’s Major Street Plan of 1947. The dotted-outline red line shows Bartholomew’s proposed highway route for a link to downtown.

Figure 3.21: Detail: Map of traffic loads at the bridges crossing False Creek: Major Street Plan of 1947. (Green shading added by Robert Walsh, to indicate the proposed express highway). One purpose of this drawing may be to justify the cost of constructing a new crossing of False Creek. The brown lines added by Bartholomew define areas of Vancouver to be served by particular bridges over False Creek, including the new one needed by the new highway.
Bartholomew’s concept of comprehensive planning, however included not just issues of mechanistic efficiency, but also attempt to contribute to the well-being of residents, resulting in a different conception of who a freeway ought to be developed. Today freeways of any variety are viewed with disdain in Vancouver and this distinction appears not to be understood. Instead of portraying Bartholomew as a planner who proposed a potentially effective and less damaging freeway system for Vancouver than the one which was eventually attempted, he has been portrayed as merely the first among several planners who attempted to impose on the city a freeway system (MacDonald, 2008; Pendakur, 1972).

3.12 The lasting impact of Harland Bartholomew in Vancouver: The challenge of evaluation

Evaluating Harland Bartholomew's more explicit and tangible recommendations in terms of their ultimate impact on the development of Vancouver is challenging, for several reasons. Bartholomew made some recommendations which were quite sensible and would have been helpful, had they not been rejected by the planners who followed in his wake, such as his suggestion that the planning process used in Vancouver be revised to improve community involvement in planning decisions. The failure to adopt a more inclusive approach would eventually exacerbate emerging conflicts between the citizens of Vancouver and their government, with far reaching consequences. After choosing to ignore this suggestion, the government of Vancouver did eventually adopt just such an approach and this contributed to the eventual success of the city, somewhat vindicating Bartholomew in the process.

Harland Bartholomew’s plan for a new freeway leading to the heart of downtown Vancouver was never attempted, at least not in the form he had proposed, but later efforts to implement a substantially different alternative freeway configuration were soundly rejected and today the city proudly celebrates its lack of crosstown freeways as a unique and positive achievement (Harcourt and Cameron, 2007; MacDonald 2008).

Bartholomew is sometimes given credit for positive attributes that he talks about in his plans, but which actually predate his involvement in the planning of Vancouver. For example, while Vancouver is admired for the excellent street trees found throughout the city, credit for this probably ought not to be given to the 1929 plan of Bartholomew, despite the skillful argument offered by Elizabeth MacDonald to this effect (MacDonald, 2008). Credit ought to go to the City
Officials responsible for enacting the street tree ordinance bylaw 940 and the Parks Board which has taken responsibility for the street trees since 1917. Bylaw 940 dates from 1912, and remained in force until finally being updated in 1986, suggesting that Bartholomew had little impact on this particular issue. This bylaw confirmed that the care and planting of street trees in Vancouver is a responsibility of the Parks Board. While it is true that Bartholomew commented on Street trees in his report on the Appearance of the City, in another document, the Major Street Plan, he actually advocated cutting down street trees to improve visibility for automobile drivers.

And finally there are positive developments that have taken place in Vancouver for which Bartholomew deserves, but has not been given, recognition. For example the significant changes to regulations that he recommended be made regarding the West End were clearly a direct inspiration to zoning changes made in 1956 that would help to jumpstart Vancouver's first wave of residential high rise construction.

One particularly significant and yet underappreciated facet of his work concerns his reversal on the issue of urban renewal for the East End. Although Harland Bartholomew was unable to persuade the City of Vancouver to abandon its plans to redevelop the East End residential district, he nevertheless deserves credit for having studied the problem in detail and then proposing a viable alternative solution in the form of rehabilitation and selective replacement. In proposing this he was going against the prevailing trend of the time, more than a decade before Jane Jacobs leveled her powerful critique of contemporary planning and urban renewal: The Death and Life of Great American Cities (Jacobs, 1961).

In the ensuing battle which erupted over the redevelopment of the East End, after Bartholomew left, participants on both sides understood that the East End district was in bad shape and that something needed to be done. The resulting battle lines which developed arose from a divide between those who favored urban renewal, including the government of Vancouver and the powerful development interests, versus those who favored the careful rehabilitation of the existing community, including the residents of the East End and also a growing number of concern citizens living in other districts of Vancouver.

Perhaps it is because Harland Bartholomew also had been arguing for the construction of a freeway system in Vancouver that he has not received recognition for the position he came to
advocate concerning the urban renewal question in the East End. The freeways efforts and the urban renewal projects have since come to be seen as parts of a single struggle pitting citizens of Vancouver against their local government (Pendakur, 1972); by this measure, Harland Bartholomew appears to have come down as supporting both sides of the conflict, even though his own freeway proposal was to have minimized the impact on residential areas in ways that subsequent proposals did not.

The suggestion that the troubled sections of the East End could be best helped through a process of incremental rehabilitation that need not displace the community, gave the opponents of the urban renewal projects a viable alternative solution to rally around, a fundamental goal that remained the central objective in a fight that lasted until 1968. Although the political tactics and strategies employed evolved throughout this period, the essential goal of pursuing a program of urban rehabilitation remained constant, and ultimately prevailed.

The net result of the involvement of Harland Bartholomew, while challenging to define succinctly, was and remains significant to the development of Vancouver. Beyond the visual planning focus of Thomas Mawson and his visions of civic grandeur, Harland Bartholomew brought to Vancouver a more comprehensive vision of planning as an ongoing activity that had to balance sometimes competing economic and community interests. By first conducting detailed studies and then comprehensive plans meant to be implemented over time, he lead the City of Vancouver towards an approach to planning as an ongoing yet forward thinking activity that would soon become an important official function of the government of Vancouver. In his advocacy of better public involvement in the planning process he was perhaps ahead of his time, yet in the end this too has proven to be an important aspect of planning in Vancouver.

While none of the five essential elements of Vancouverism can be directly attributed to the work of Harland Bartholomew, he nevertheless deserves credit for recognizing the positive characteristics of the active urban landscape element that characterizes the work of Thomas Mawson, and through his efforts helped keep this element relevant to the life of the City. Bartholomew also opened the door for the introduction of residential high rises in the West End and proposed an approach to high rise regulation that kept these towers from becoming too closely packed together, directly contributing to the development of a unique form of high rise urbanism. Finally, his systematic and community centered approach to planning regulation and
control would eventually contribute to essential changes in planning approach that allowed the remaining essential elements to develop. The contribution of Harland Bartholomew to the development of Vancouverism was significant in identifying emerging trends that would impact the future viability of the city and for taking steps towards finding new solutions that made the most of available opportunities in addressing these concerns, work that would prove crucial to the eventual development of Vancouverism.

References:


Chapter 4: High Rise West End (1956-1972)

4.1 Gerald Sutton Brown and the Principles of Planning

"The planner's job is so to guide development that it will progressively remedy the faults and deficiencies in the physical fabric of our social life at the least cost to the community."


Acting on the advice of Harland Bartholomew, in 1951 the City of Vancouver BC initiated the establishment of a Department of City Planning and began a search for the man who would be their first Director of City Planning. Due to the combined impacts of the Great Depression and then World War II, professionally qualified planners in Canada were in short supply. The Town Planning Institute of Canada, at its peak enrollment in 1930 had 367 members, yet by 1949 this number had plummeted to only 45 planners (Ward, 1999). Given this scarcity, the City of Vancouver expanded its search to England, where they found what they were looking for in Gerald Sutton Brown, then the Planning Director for the County of Lancashire.

Shortly before accepting the job as Vancouver's first Director of City Planning, Gerald Sutton Brown had completed a comprehensive plan for Lancashire County, an area roughly 75 miles long and 45 wide, and in 1951, home to 5,064,720 people divided amongst 105 planning council districts (Sutton Brown, 1951). As a comprehensive planning document this work is surprisingly helpful in understanding the approach Sutton Brown would subsequently take in Vancouver because in the Lancashire Plan Sutton Brown expounds at length on the nature of planning and his view of how planning ought to be pursued.¹

Sutton Brown was sufficiently well grounded in planning and committed to its effective pursuit that in addition to working as the Director of Planning for Vancouver, he also is credited with

¹ Although I have studied documents prepared by Sutton Brown while he worked in Vancouver that address a number of topics such as detailed considerations related to urban renewal for the Strathcona neighborhood, and the design of freeways for use as part of a mass transit bus system I have been unable to find anything equivalent in the documents he prepared while Planning Director for Vancouver that expresses his position on planning as lucidly.
founding the Planning Institute of British Columbia in 1954, which today continues to be the leading professional city planning organization for this region of Canada.

In the Plan for Lancashire it is apparent that Gerald Sutton Brown is both proposing a comprehensive plan, and promoting the concept of planning itself to his target audience. In this document he presents city planning via a four stage general model, as part of his "principles of planning" (Sutton Brown, 1951, 5-6). The first stage, "a static stage," consists of making a detailed appraisal of current conditions and assessing the ability to meet current needs using "accepted planning principles and density standards."

The second stage, or "dynamic stage" consists of assessing changing conditions and their probable impact on the concerns to be addressed by the plan over the duration of time it is designed to address; these changing conditions include demographic and economic factors, and also the influence of government policies.

The third stage, "the creative stage," becomes necessary if and when it becomes apparent that the conditions assessed in stage two cannot be expected to be addressed by the means available previously identified in stage 1. In this more difficult yet inventive work the planner is faced with diverting trends from their expected trajectory and also with developing new tools and methods beyond those which have been already established. Accordingly, Sutton Brown describes the creative stage as an imperfect process in which the planner attempts to strike a balance as best as possible.

While the third stage is perhaps more experimental and hence provisional in character, the fourth and final stage for the planner involves the development and further review and adjustment of a set of concrete proposals, based upon information gained during the prior three stages (Sutton Brown, 1951).

In presenting these four stages, Sutton Brown is quick to point out that in actual practice the different stages merge and overlap, that the description of these processes as stages is a tool for explaining activities that are not necessarily discrete. The four stages also help explain several aspects of his subsequent work in Vancouver BC. Although some aspects of his work are best classified as being "stage one" or "stage two" work, upon his arrival in Vancouver, he seems to be content with the diagnosis proved by Harland Bartholomew, choosing instead to focus his
energy on interpreting these findings through the creative pursuits typical of "stage three." Later, when Sutton Brown had acquired more power in the city government, after being appointed City Manager in 1963, he maintained control of planning but focused increasingly on "stage four" projects where he attempted to develop and implement concrete proposals. This chapter focuses on the planning mechanisms he developed for the West End, fundamentally a stage three, or creative stage undertaking that was an imperfect solution subject to monitoring and subsequent repeated revision.

In the Plan for Lancashire, Gerald Sutton Brown characterized the work completed to that point for the county of Lancashire as having taken the Planning Commission up to the third stage and that the next stage would involve the far more detailed proposals that each of the planning council districts would be expected to develop and implement. The Lancashire Plan identifies areas to protect from further development, areas to target for new development and areas to be subjected to clearance and redevelopment.2

Like the plans and reports developed by Harland Bartholomew for City of Vancouver, Sutton Brown's Plan for Lancashire is comprehensive in character, demonstrating a command of relevant wide ranging general issues and detailed regulations. Sutton Brown's plan likewise responds to issues concerning the needs of local industries and the projected need for new housing at higher densities. Similarly, the general character of local building methods and materials are addressed, as are available mineral resources and the issue of travel times to places of work. In some instances in the Lancashire Plan, this local knowledge becomes quite detailed, such as in cases where Sutton Brown discusses which local areas produce more eggs and which produce more dairy products and how these issues relate to the larger questions of planning. In addition, Sutton Brown understands the existing legal restrictions impacting the implementation of effective planning. For example, Sutton Brown notes that existing legally defined open space requirements for playing fields for schools may need to be approached with a certain degree of flexibility if other important needs are to be met. Similarly, protection of existing agricultural space presents another set of complex and interrelated challenges.

2 At present I have been unable to identify any concrete plans of this "stage four" variety made by Gerald Sutton Brown prior to his move to Vancouver. It is unclear if he actually had much prior experience in this stage of planning, as he has described it. Perhaps this might explain, at least in part, why he eventually would encounter substantial difficulties when his work in Vancouver would eventually turn towards this direction? These questions are examined in more detail in the next chapter.
Just as Harland Bartholomew also offered general recommendations regarding the planning and disposition of building types, such as basic housing types, Gerald Sutton Brown expresses clear opinions regarding similar issues in his Plan for Lancashire. Sutton Brown is concerned with providing adequate housing for a growing and changing population. While he acknowledges that two story single family homes are the typical form in much of Lancashire County, he nevertheless expresses the view that increasing density is important, simply as a means to provide sufficient housing in areas close enough to work. Significantly, Sutton Brown suggests that it is through the introduction of apartment flats that this increased density might best be achieved. At the same time, however, it is important to note that nowhere in the report does he recommend the use of high rise apartment buildings in pursuing this objective.\(^3\) Instead the flats that Sutton Brown is advocating are to be three story buildings. He also insists that it is quite important that these buildings be sufficiently spaced apart so as to permit sufficient daylight to reach the ground so that grass and trees might grow, and to illustrate this point he describes a barren landscape where this requirement has been ignored. He estimates that a space between blocks equal to three times their height is necessary "unless special forms of layout are adopted" (Sutton Brown, 1951, 24).

In his Lancashire Plan, Sutton Brown also advocates the development of residential areas into self-contained, self-sufficient neighborhoods, with an explicit intention of fostering a sense of community, a goal which he approaches through the provision of multiple functions. He draws a clear contrast to this concept of housing and the vast housing estates that were developed in England prior to World War II. Accordingly, he considers it relevant and important for plans for new housing areas to also include land set aside for new churches, shops, schools, "public houses," community centers, health clinics, parks and recreation spaces, and various business spaces such as bakeries and laundries (Sutton Brown 1951, 25). While this does not seem especially strange or provocative, this reflects a general awareness of community needs as extending well beyond residential structures, and an awareness of the importance of local businesses and community organizations in effective planning.

\(^3\) This position is noteworthy since high rise buildings at this point in time were becoming a very common strategy used in the creation of new housing units throughout England (Glendenning, 1994).
Regarding the actual means for implementing proposals, Sutton Brown expresses in the Lancashire Plan a strong conviction that the best method for achieving desired planning outcomes is for the work to be performed wherever feasible by private developers. While he also recognizes the need and importance of projects to be initiated by public government organizations, he clearly sees this as less desirable (Sutton Brown, 1951).

This basic policy position favoring private development was closely aligned with fundamental views held by the Government of Vancouver at this time. From 1937-1972, the City of Vancouver was dominated by the Non Partisan Alliance (NPA), a well-entrenched political party that favored a "scientific management" approach to urban governance in which expert administrators were expected to make objective rational decisions on the basis of scientific principles, derived at least in part from concepts of scientific management originally championed by Frederick Winslow Taylor. The leadership of the NPA was drawn from prominent local businessmen and has had a history of favoring the interests of local developers (Gutstein, 1975; Liscombe, 2011; Ward, 1999). Sutton Brown's clear preference to have private developers take on major redevelopment work would have been entirely consistent with the aims and interests of the government of Vancouver.

Of the 220 pages of the Lancashire plan, 186 pages are dedicated to describing in somewhat greater detail recommendations for addressing needs of each of the 105 individual planning districts encompassed by the plan, with particular emphasis placed on anticipated housing demand, open space and school needs, other available land resources, and the recommended building program. These separate recommendations incorporate projections for future growth and are also coordinated into a larger overall system where some jurisdictions are expected to be able to accommodate anticipated needs arising in neighboring areas, such as an anticipated need for new housing units (Sutton Brown, 1951).

While this comprehensive area-by-area accounting by Gerald Sutton Brown provides an abundance of information for each of the individual planning jurisdictions, the plan is also revealing for what it lacks. While Sutton Brown has made it clear in his introduction that photographs have not been included to save time, and presumably money, yet written information that could fill in this gap is likewise lacking. There are no qualitative descriptions to be found anywhere in the plan, comments that might have called attention to unique features,
historic structures, local social events, or other distinctive characteristics that would make one area distinct from another. Attention is given instead to issues that can be clearly quantified and have economic importance, whether this concerns the nature of specific local farming activities, available mineral resources or the anticipated growth of industrial activity taking place in a particular area. There is basically no information regarding why people might have an affinity for their particular community. This lack of color is not necessarily unexpected in a plan of this sort, but it does seem to suggest that, despite the talk of neighborhood and social needs, little attention has gone into detailed evaluation of how planning might meaningfully contribute to these concerns, for example through historic preservation. The few images provided consist of maps and diagrams at a regional scale and a few abstract illustrations of uniformly gridded housing arrangements to illustrate a very basic density principle (see figure 4.1).

In short, there is very little information in the document that concerns the experiential reality or the unique character of the places Sutton Brown is addressing, whether these places are located in the major urban centers of Liverpool and Manchester or in any of the more rural locations that this plan also encompasses. Here again the work of Harland Bartholomew presents a useful contrast. While the comprehensive plans of both Sutton Brown and Bartholomew confirm that each has studied and understood the detailed circumstances of their respective situations, Bartholomew alone seems to have realized the importance of expressing something along the lines of an actual appreciation for what makes a particular place special. For instance, while Bartholomew issued one entire 29 page report exclusively dedicated to addressing unique Vancouver issues connected to the "Appearance of the City" (Bartholomew, 1947), it is hard to imagine Sutton Brown doing anything similar. The plan Sutton Brown prepared for Lancashire recognizes select areas deserving protection, but explanation of why such areas deserve protection is limited to a single paragraph titled "Amenity Areas," which discusses the general need to protect areas that possess natural scenic beauty and scenic views (Sutton Brown, 1951, 32). Instead of the descriptive approach used by Bartholomew, Sutton Brown is more likely to consider issues such as landscape configuration in terms of how these might impact the layout of new streets and the implementation of sewer systems.
Figure 4.1: Density of Houses, from a Plan for Lancashire, (Sutton Brown 1951, 205). This image explains a simple concept that requires no illustration. Sutton Brown is merely demonstrating that by decreasing the size of a standardized three bedroom apartment unit, the resulting density achieved in a development increases. Curiously he did not graphically investigate any options that might have included working in three dimensions.

Of course as a freelance city planner, Bartholomew had a need to continually market his services to attract new clients, while as a government employee Gerald Sutton Brown did not. As an outsider, Bartholomew would have had more of a need to demonstrate that he understood a particular community. It would have been good salesmanship and sound business practice on the part of Bartholomew to impress upon civic leaders that he indeed understood what they liked about their own city, and how this formed the basis for local civic pride. What seems to have been less apparent to Sutton Brown, however, is that this can create leverage for the planner useful in winning public support for proposals that respect and enhance community assets. For example, while introducing a high rise into an existing neighborhood may generate local
resistance, even if this produces worthwhile benefits such as an increase in residential density capable of sustaining local businesses, tying the development of the taller building to the preservation of a nearby historic building or district has the potential to counteract some of this resistance. Such a strategy would probably never have occurred to Sutton Brown and indeed Vancouver only began its effort to preserve its own landmark buildings after his departure. By failing to engage in planning in a way that was sympathetic to community sentiments, Sutton Brown limited his approach to planning to a technocratic method that in Vancouver would eventually contribute to the lasting public perception that he and his planners were aloof and disconnected from the needs of the community.

This is not at all meant to suggest that Gerald Sutton Brown did not genuinely care for the communities and the people he was serving, but rather is meant to draw attention to a crucial distinction in working methods and planning priorities. While Harland Bartholomew can be considered to have seen the task of planning to be both an art and a science, the perspective offered by Sutton Brown is a one sided view based on scientific analysis alone. This reliance upon a scientific perspective in the absence of art would in the end continue to play a substantial role in the work Gerald Sutton Brown performed for Vancouver, work which would prove to be highly influential, but this would also be the main reason his contribution to City Planning in Vancouver would be become overshadowed by later planners and urban designers.

4.2 Three fundamental redevelopment strategies used in Vancouver from 1956 - 1972:

Gerald Sutton Brown worked for the city of Vancouver, first as the Director of Planning for Vancouver, a position he held from 1952 -1963, and then as the City Manager from 1963-1972. Although Gerald Sutton Brown now appears to be most widely known for his persistent and ultimately failed effort to force a freeway through the heart of Chinatown, in Vancouver's East End, he also had a hand in initiating three different strategies for transforming areas of the city in ways that were intended to improve the vitality of the city, and to reverse the slide into decline previously predicted by Harland Bartholomew. Each of these strategies were originally devised and implemented in separate districts adjacent to the downtown central business district. More

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4 When Gerald Sutton Brown was promoted to City Manager, Bill Graham became officially the new Director of Planning. However, Graham still had to answer to Sutton Brown, whom is consistently portrayed as maintaining a dominating interest in City Planning (Gutstein, 1975)

5 This is the subject of the next chapter.
significant than the immediate outcomes of these efforts are the lessons that were learned from each approach, and then applied in subsequent efforts over the next several decades as the city continued to wrestle with issues connected to urban flight and a changing economy.

Each of the three strategies attempted by Gerald Sutton Brown incorporated a mixture of residential high rise and low rise structures in a city where residential high rises had not been a normal part of the housing mix. In the case of the West End, the approach used was to rely upon private developers to construct new high rise buildings to transform an established residential neighborhood. The main method involved the use of zoning regulations to control building form.

In the case of the East End, a somewhat decrepit working class, ethnically diverse district that includes Strathcona and Chinatown neighborhoods, the strategy attempted was an ambitious 20-year plan of urban renewal, initiated by the city. This was a large scale project in which the city took on the responsibility of expropriating private property which it then consolidated into large tracts of land which were intended to be redeveloped by private developers. This second strategy is examined in the next chapter, chapter 5.

The third strategy initiated while Gerald Sutton Brown was still the Director of Planning concerns the efforts to rehabilitate and redevelop the badly polluted, former industrial zone surrounding False Creek. This strategy attempted to yield a desired outcome by collaborating with a large private developer to devise a new master plan of multiple new neighborhoods on land that had previously been train yards, ship yards and timber mills. Although this effort was interrupted before it could be implemented, the preliminary designs would nevertheless establish crucial precedents for the subsequent work that would follow, and is examined in chapter 6.

Each of these three different strategies were being pursued more or less concurrently, throughout the time that Gerald Sutton Brown was working for the city of Vancouver, but the role played by the city, and also by Sutton Brown was somewhat different for each. This chapter focuses on the rapid transformation of the West End, a process in which the range of architectural outcomes was tightly controlled by a complex set of zoning ordinances established only for this one area of the city. This began while Gerald Sutton Brown was Planning Director and his work clearly was focused upon controlling urban development through the normal means of creating different zones in the city and drafting sets of regulations defining that which was permitted in each.
Vancouver’s West End District: development history

Vancouver’s West End is one of the oldest residential neighborhoods in Vancouver. In 1862, the tract of 540 acres of undeveloped forest known as District Lot 185 was purchased by three white settlers, who have now entered local folklore as the “three greenhorns”: John Morton, Samuel Brighouse and William Hailstone. Originally intended to be the site for a brick making enterprise, the plans of the three greenhorns soon fell apart due to the worse than expected quality of the coal deposits found on District Lot 185, and also a lower than expected local demand for bricks. Stuck with what others had viewed as a worthless tract of land, the three men attempted to find alternative ways to make profit from their investment. In 1884 they subdivided the land into lots and began trying to sell their property, claiming that this land would one day be the site of a great city which they named New Liverpool. This strategy proved unsuccessful. When they learned of plans of the Canadian Pacific Railway (CPR) to establish at nearby Port Moody the port and western terminus of what would become Canada's transcontinental railway, the three greenhorns contrived a yet another scheme (Meade, 1968; Starkin, 1999).
Before the Port Moody selection became finalized, the three greenhorns managed to persuade the CPR to extend their railroad further westward to the area that would come to be official established as Vancouver in 1886. They achieved this favorable outcome by giving the CPR one third of their land on the West End. The goal of the three greenhorns was the development of the rest of their land as residential property serving the needs of the railway and the soon to be developed port. Meanwhile the railroad constructed a hotel on land overlooking District lot 185 and proceeded to cut roads across the entire tract (Hardwick, 1974; Starkins, 1997; Woods, 1976). The pattern of city streets established by 1887 remains the basic configuration throughout the downtown peninsula; the location of the original property lines of the land owned by the three greenhorns is readily apparent due to the changed alignment of the street grid which occurs at this boundary (see figure 4.2, and 4.3).

![Survey Map of Vancouver](image)

Figure 4.3: Survey Map of Vancouver, Rand Brothers Surveyors, 1887 (Hayes, 2005, 55).

In a separate land deal, the railroad acquired a large tract of land overlooking False Creek, where it located its western terminus and train yards, and another parcel of land allowing them access to the anticipated port facilities to be built along the northern edge of what would be the downtown peninsula. While the land in the West End donated to the railroad became the home to a number of wealthy Canadian Pacific Railroad (CPR) Executives, who constructed lavish estates for their families, sale of the other remaining property in the West End that had not been deeded to the
railroad remained slow until the onset of the Klondike Gold Rush, in 1896, which suddenly brought tens of thousands of people to the area (Hardwick, 1974, Hayes, 2005).

As Vancouver began to grow, the city early on developed an extensive network of electric streetcars, powered by electricity generated at a local hydro-electric plant, which made vacant land relatively cheap and easily available, resulting in a pattern of development that was surprisingly dispersed at first. Nevertheless, the West End itself began to become intensely developed, first as a site for the estates of railroad executives, and then as an increasingly working class neighborhood, populated by local dock workers, mill workers and railroad yard workers. In addition to crowding in the West End, increasing levels of industrial pollution could have also contributed to the decision by the more affluent families to leave the West End and head south several miles to the exclusive Shaughnessy neighborhood when it opened in 1910 (McKay 2003). The nearby land surrounding False Creek had become established as an important center of industrial activity and by 1911 a total of 22 lumber mills were in operation along its shores. In addition to the problem of air pollution, these industrial operations and the practice of dumping raw sewage into False Creek also had adverse effects on the West End beach front overlooking English bay (Hardwick, 1999, Ward 1999).

Early in the twentieth century housing pressure in the West End continued to increase and properties still owned by the affluent families were subdivided and converted into working class

Figure 4.4: The West End in 1942 (Frank Leonard Photographer, Vancouver BC Archives).
housing, or replaced with walk up apartment buildings. While redevelopment of the Rogers mansion which was divided into 57 separate living units, was perhaps an extreme example, the practice of subdividing existing mansions into workers housing was nevertheless commonplace throughout the West End. In addition to the conversion larger houses into smaller units, the construction of walk-up apartment buildings, also became prevalent throughout, resulting in a moderate density residential district of wood frame buildings housing (see figure 4.4) (McKay, 2003; Wood, 1976). The prevalence of rental buildings owned by absentee landlords throughout the West End (Hardwick, 1974) would come to have significant consequences in the 1950's when property owners and business interests both considered it desirable to dramatically increase the density of residential development in the area. Had the area instead remained occupied by the property owners, the private developers might well have encountered more significant local opposition to their plans when they proposed building looming high rises amidst the existing fabric of low rise wood frame structures. Instead, local neighborhood opposition failed to materialize because the West End had become a district of absentee landlords (Gutstein, 1974).

4.4 Conditions contributing to the West End residential high rise boom of 1956-1973

Figure 4.5: The West End in March, 1952 (Photographer: Art Jones, Vancouver BC Archives).
Historic images indicate that the urban character of the West End changed comparatively little during the first half of the twentieth century (see figure 4.5 above). By 1941 the West End had been developed to a density of 47 people per gross acre, (Bartholomew, 1944) which was a fairly high density for a neighborhood mainly consisting of free standing wooden structures limited in height to three stories. However, during the 1950's, as changing economic conditions of the city began to take hold, the industrial base of the city moved towards a more professional and white collar class of work. Concern was also growing that businesses located in the downtown were in decline as a result of suburban flight facilitated by the automobile. Anticipating this problem in 1944, Harland Bartholomew turned specifically to the West End, as a neighborhood that could be effectively zoned to accommodate increased density, in the hope of attracting white collar workers who would work in the downtown and patronize the local businesses, reversing an otherwise expected decline.

"...the West End should have a very high density containing an average of about 80 persons per gross acre. This is an outstanding location for multiple dwellings and an extensive apartment development will result in this district which will add great value to the city."


Bartholomew report, however, left unaddressed the task of devising a way to actually promote this much development activity. Nearly doubling the existing density in the West End through private development effectively required a strategy for building taller structures. Bartholomew never argued for or against the use of residential high rise buildings in the West End, yet he did note that the pattern of land ownership in the West End made large scale urban redevelopment via comprehensive urban renewal schemes impractical simply because of the very high costs that acquiring existing property would entail. To increase the density of the West End district by 70% via private development was therefore only feasible if some existing buildings were replaced with new structures containing substantially more floor area; the most realistic way of attaining these results was to build upwards. This situation still left open the question of how much taller these new buildings ought to be or how to control the overall pattern of development.
The influence of economics and local real estate
High rise construction is substantially more expensive, on a per square foot basis, than equivalent low rise construction. Therefore, privately developed high rise buildings only tend to make sense where the local real estate values, and hence sale prices or expected rental returns, are expected to be high enough to justify this additional expense (Beedle, 2007). The natural geography of the West End prevents it from expanding in any direction but upwards, and the easy access it has to the downtown central business district and the possible views of mountains and water all around further enhance its desirability. The West End also saw increasing demand for housing for white collar middle class workers employed nearby; the lack of urban freeways in Vancouver further increased the value of proximity to the Downtown. All of these factors increased the real estate value to be realized through the development of new high rise apartments in the West End.

The influence of emerging high rise technologies
Two of the conditions that must be satisfied for privately funded residential high rise developments to be economically viable are: the demand for available real estate has to be fairly significant, and the means to economically construct these technologically demanding structures needs to be available. In certain respects these two factors are linked: technology to build high rise buildings makes it possible to build to heights which under the right circumstances increase the value of what can be charged for a given unit of usable space. Advances in technology which decrease construction costs for new high rises can potentially make them financially viable in neighborhoods, or for new market segments, for whom such buildings might have previously been prohibitively expensive.

Canada is a nation which has for many years been profoundly influenced by both the United States, due to the scale and proximity of this neighbor to the south, and also by Great Britain, due to longstanding cultural ties. In the aftermath of World War II, Vancouver was subjected to substantial influences from each of these directions, with American culture contributing

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6 In The Skyscraper in the City, high rise expert Lynn Beedle cites a cost differential between low rise and high rise construction suggesting that high rise buildings cost two and three times as much for the same amount of usable space. Cost increasing factors cited by Beedle include the need for additional space to accommodate fire stairs, elevators and hallways, and the increased structural costs. In some instances this factor of 2-3 times could be low, however. High rise buildings take longer to build than smaller projects they can also be more expensive to finance, simply due to the need to borrow money for a longer period of time. Recently developers in Vancouver have overcome some of these costs by selling apartment units before construction begins.
automobile based, suburban sprawl development model that began to rapidly consume agricultural land in Vancouver; Great Britain contributed an emerging approach to urban development incorporating higher density high rise buildings made affordable through technological innovations including modular precast concrete. While the rise of the automobile plays a part in this story, this chapter is more concerned with the first wave of high rise construction which took place in Vancouver and the advances in building technology related to residential high rise construction were being rapidly developed and applied in Europe and especially in England following the end of World War II (Glendinning, 1994; Hoff, 1968; Schoenauer, 1994).  

Figure 4.6: Ocean Towers building, shown under construction in 1958 (Vancouver Archives), and as published (Western Homes and Living, June 1958).

Advances in concrete construction technology also impacted development in the West End. The advantages to building high rise buildings out of structural concrete are considerable. The depth of the floor plate is substantially reduced not only because the floor slab of one unit functions as the ceiling of the floor below, but also because the floor thickness itself is less than that required

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7 For an in depth discussion of how Canada moved (somewhat) away from its cultural linkage to Great Britain during the mid-1960's, see The Strange Demise of British Canada: The Liberals and Canadian Nationalism, 1964 - 1968, by C. P. Champion. McGill-Queen's University Press, Montreal, 2010. This account reveals for example that it was not until 1965 that the now familiar red and white maple leaf flag came to be adopted as the national Canadian flag, replacing the previous design which had consisted of a large red field with a miniature version of the British Union Jack in the corner.
in a typical steel frame high rise. These conditions translate into an ability to pack more stories into tower built of concrete than can be accommodated in steel frame tower of the same height. Steel structures have long had chronic fire resistance difficulties which typically are much less of an issue in concrete framed structures. Concrete also more readily accommodates unusual geometries. Angled, curved or other non-orthogonal geometries are more easily attained in a concrete slab structure than in one framed in steel, resulting in a larger range of options for the designer or developer. Although steel frame construction has also continued to advance, the persistent benefits derived from building in concrete mean that the majority of high rise buildings being constructed around the world today are made of concrete (Beedle, 2007).

Advances around this time in methods for fabricating structural concrete elements under controlled factory conditions proved particularly significant in the development of economically viable residential high rises. One of the drawbacks to working with concrete cast on location is that weather conditions and even the reliability of the concrete mixture itself can limit the ultimate strength of the concrete attained. While there are common safeguards, such as sample testing and slump tests, which are routinely employed to reduce construction defects such as a concrete truck driver adding too much water to a mix, thereby reducing its eventual strength, nevertheless there are still gains to be made in concrete strength through the controlled production in a factory environment. Prefabrication of concrete structural components permits greater control over the concrete mixture itself and the curing process, while the development of pre-stressing methods has been able to improve their overall structural performance. The use of precast concrete elements has advantages in accelerating the pace of construction as well since large numbers of structural elements can be produced without having to wait for concrete to attain an adequate strength on lower levels before commencing on construction of upper levels. Precast elements include: columns, beams, floor planks, multistory structural frame elements and balcony railings (Firkas, 1968; Glendenning, 1994; Hoff, 1968). Other techniques such as a lift-slab method in which multiple floor slabs are cast in place one on top of the other and then jacked upwards into place also improved the pace of construction. These and other advances in concrete construction began to make the residential high rises less expensive and hence more commercially feasible for the emerging middle class housing market in the West End.
As the technology of residential high rise construction continued to rapidly advance and evolve during the 1940's and 1950's, so too did the basic range of architectural forms used in applying these new material options. A proliferation of new building forms arose at this time, but the two basic building types that are relevant to the West End high rise boom are the *slab tower* and the *point tower*. A slab tower is organized along an extended circulation spine, a corridor or public balcony space that runs the length of the long yet narrow structure, and typically has a stairway near each end. A point tower is organized around a compact centralized circulation core. Strictly speaking, however these distinctions sometimes do not hold up to scrutiny, as in the case of the Ocean Towers high rise which properly should be regarded as a slab tower, despite having a compact circulation core typical of a point tower (see figure 4.6). While such exceptions are perhaps rare, a central argument being made by this research is that the form of buildings being seen in the buildings in the West End is not at all a simple result of an internal circulation system, but instead is also substantially influenced by zoning regulations which favor particular building morphologies over others.

Today Vancouver is commonly portrayed as being a city of point towers, and while this is understandable given the prominent locations occupied by recently built point towers, the form that high rises took during the West End high rise boom featured a balanced mix of slabs and point towers. From an aesthetic perspective, the main advantage of a point tower is the greater opportunity for corner units, which have better access to daylight and cross ventilation. The slab tower typically has a lower per square foot cost, primarily because the surface area of the exterior skin is smaller in relation to the square footage of the interior. Developers had reasons to request architects design buildings of either type depending upon whether the increased cost of the point tower might generate justifiable improved revenue, or if the cost savings to be obtained from resorting to a slab tower might be more profitable in the end.

It matters that this work was taking place during the dominance of the modern movement, when a functional aesthetic was prevalent. Towers in Vancouver have recently come to indulge in extravagant details and gestures that include twisting forms, multistory angled roof forms, curving glass walls and roof top gardens. Radical formal novelty however is not found in the towers built during the first high rise boom in the West End; partially this is a matter of the aesthetics of the times, but also this is a reflection on the state of structural engineering in certain
respects as well. Vancouver is situated in an active seismic zone, and the earthquake loads that a building must be designed to resist get larger as a building gets taller and also more challenging to design as building geometry becomes more complex or irregular. Generally speaking it is far easier to design a building to resist earthquake forces by making it bilaterally symmetrical in plan. An irregular plan configuration runs the risk of inducing a rotational torsion that can be problematic, especially under the oscillating load conditions typical of an earthquake. While these concerns can be readily addressed today using advanced computer modeling and structural optimization techniques, during the West End High rise boom options were more limited and this is also reflected in the geometry. Modernism as an aesthetic, and structural design as a professional practice each informed the shape of buildings seen throughout the West End.

4.4 The West End high rise boom and the influence of zoning ordinances and City Planning

During the 1950's, the West End possessed the economic conditions, the available technology, the physical constraints and the appropriate demographic demands needed to support a residential high rise boom. Until 1956, however, a legal constraint on the height of buildings in the West End which limited buildings to six stories or less prevented high rises from being built. Once this restriction was eliminated, however, circumstances rapidly changed. In this instance, the role played by architects in the West End was restricted largely to the implementation of designs that would satisfy the new regulations while maximizing developer profits.

Once the residential high rise boom began, the social, physical, technological and economic conditions remained relatively constant until shortly before the end of the boom in 1973. However, to understand the particular form that the West End's new high rise buildings came to take, both individually and in aggregate, it is necessary to contend with the changing pattern of legal constraints that repeatedly altered what was encouraged or even possible.

In general the zoning rules which permitted this wave of high rise construction to take place also tightly constrained the form that buildings in the West End could take, but there were also select instances in which architects found ways around the existing rules, prompting the city to impose new restraints. In other cases, the city planners appear to be granting special exemptions target to large scale developers or changing rules to increase the inclusion of desirable features such as balconies. The central organizing principle amongst the multiple factors that converged in
making the high rise boom possible in the end is the body of city planning regulations that largely defined their permissible form.

After his arrival in Vancouver in 1952, Gerald Sutton Brown began work on a comprehensive city planning ordinance encompassing the entire city of Vancouver. This document, Zoning and Development Bylaw 3575, was formally submitted to the Vancouver City Council in 1954 and officially adopted by the City in 1956. This extensive document divided the city into commercial, industrial and residential zones and established detailed regulations for every part of Vancouver. For the West End a special zoning classification was created: RM-4, High Density Multi-Family residential. This redefinition of what was permissible in the West End unleashed a wave of residential high rise construction in the West End that resulted in the construction of 181 residential high rises before a combination of an economic recession and political changes in Vancouver brought this boom to a close.

Confusion tends to surround the question of the role that was played in this high rise boom by the new planning regulations specifically developed for the West End. While a number of authors have made a variety of claims, an in depth and accurate analysis of these regulations and their morphological consequences has not yet been made. In fairness to the following authors it should also be noted that the rules themselves are exceedingly complex, abstruse, and the result of repeated revisions over time. In many cases where authors have attempted to assess the impact of these rules, effort has been expended attempting to summarize succinctly a situation which cannot be accurately attributed to a single regulation. While the resulting misunderstanding that arises from such an oversimplification is understandable, this nevertheless also tends to obscure the nature of what actually transpired in the West End and why. Before commencing with the detailed analysis, it will therefore be helpful to examine the existing perspectives already offered concerning these regulations and their impact.

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8 The city plans and recommendations produced by Harland Bartholomew for Vancouver during the late 1920's and again from 1944-1948 were never formally adopted by the City of Vancouver and therefore had no legal standing. Nevertheless, these documents still served as important unofficial recommendations that informed planning activities during this time frame. Development in Vancouver however was relatively stagnant from 1929-1945 due to the Great Depression and then World War II. These issues will be examined more closely in Chapter 2.
In an essay on the West End, published in 1976, Daniel Wood claims "City Council removed the limitation on building heights in the West End, replacing it with a by law limiting the number of people per acre" (Wood, 1976).

This statement is partially true, to the extent that the prior height limit of six stories was eliminated for a time, after eventually being replaced in 1967 by a much higher standard of 300 feet. This lack of an explicit height limit however did not mean that building height was constrained. Instead this was addressed through the introduction of other regulations that very effectively restricted the allowable height a building could have from a practical perspective. The suggestion that a new law was imposed directly limiting the number of people per acre, is inaccurate. There was no law in effect that explicitly defined how many people per acre were permitted, although it is possible to calculate a unique maximum value for any particular parcel in the West End on the basis of multiple factors raised by the new regulations having to do with minimum unit sizes and maximum lot coverage and lot size.

In another essay on the West End, written in 1997, Ed Starkins wrote that in 1956 city council responded to the complaints of downtown businessmen, and agreed to rezone the West End to permit "a significantly higher population density" (Starkins, 1997).

This statement is accurate as far as it goes, but only addresses the motive and not the mechanism itself. Why this should have resulted in high rise buildings, or why these buildings have the particular set of characteristics seen typical throughout the West End is again left unexplored.

Writing in 2003 in his major study of recent Vancouver planning, the Vancouver Achievement, John Punter offers a more comprehensive yet still incomplete and somewhat fragmented assessment of the increase in building heights that took place in the West End from 1956-1973. According to Punter, these first residential high rises resulted from "discretionary zoning", "over-generous zoning," "uncontrolled building height," and "simplistic development incentives" (Punter, 2003, 18-20).

In a certain sense, Punter is correct in that the administration of the Zoning ordinances in the West End were subject to the discretion of a City Council known to grant exemptions to developers pursuing development projects in the West End. This at least partially explains some of the results seen today in the West End, including several projects that seem either
inappropriate or over crowded for their location, including the nineteen story building at 1835 Morton street, called Ocean Towers, The 26 story tower known as 2077 Nelson, and the 30 story slab structure named Imperial Towers. At the same time, however, there is more to the story which tends to support a conclusion at odds with the view supported by Punter. A careful examination of the numerous specifically targeted zoning regulations that played a role in initiating and then redirecting the morphology of buildings constructed during the West End high rise boom reveals that these rules to have been thorough, comprehensive, complex and not at all "uncontrolled." If anything, the term "over-controlled" is perhaps more apt and may better explain why the City Council chose to intervene on occasion. The position put forward in this dissertation is that what the West End lacked was not zoning regulations, which were exceptionally thorough, but instead what was missing was a comprehensive plan or other meaningful overall zoning guidelines describing the physical environment the city was actually hoping to see develop in the West End. The city over-compensated for this lack of a master plan by imposing too many regulations.

In 2005 Lance Berelowitz offered a more nuanced yet still somewhat inaccurate characterization of the rule changes that stimulated the West End high rise boom:

"City Council encouraged urban growth in the West End by permitting densities of 2.75 to 3.00 floor space Ratio (FSR is the maximum permitted floor area divided by the total site area) on narrow residential double lots. This, together with the small size of lots 10 m (33 feet) or even 7.5 m (25 feet) wide, quickly led to a multitude of narrow towers."


Again, however, the situation was both different and more complicated than this assessment would lead one to believe. While Berelowitz is correct that FSR was indeed an important aspect of the new zoning bylaws, the figures cited are slightly inaccurate and over simplified. As initially established, the West End had two initial FSR rates 3.0 for interior lots, and 3.35 for corner lots. Nine months after bylaw 3575 was adopted, however, this standard became substantially more complicated. Particular properties were raised to 4.0, while larger interior properties were allowed a variable method of increasing their FSR up to a limit of 3.35, for larger lots with small foot print towers. The standards changed yet again in 1967 to an even more complex calculation method.
There is a commonly held misperception today in Vancouver that the small footprints of the towers seen in the West End are the result of small lot sizes, even though with few exceptions this is not correct. The FSR regulations cited by Berelowitz do not encourage the construction of small foot print towers on small lots, to the contrary, they tended to prevent this from happening. Although there are occasional exceptions, the normal construction on the smaller lots in the West End consists of squat chunky apartment buildings six or eight stories tall. The substantial towers visible from a distance, for which the West End is known, have not been constructed on the double or single lots. While these taller towers do have small building footprints that could neatly fit into the limited foot print of a smaller parcel, they nevertheless consistently occupy substantially larger parcels, often covering lots 200 feet wide or wider. The reason for this will be examined more closely when the relationship between building height and FSR is examined in detail later in this chapter. Basically the FSR of 3.0 to 4.0 meant that the larger the parcel of land acquired, the taller a tower of the same small footprint could go, provided the rest of the parcel was left vacant. The confusion surrounding this issue is readily understandable; this relationship of small lots to small footprints actually is an accurate characterization of the handful of West End towers that were constructed more recently during the 1980's and 1990's, under set of zoning requirements quite different from those in place from 1956-1973.

Additional significant regulations were also put into force in the West End at this time. Although the authors cited above have not mentioned these rules, the zoning ordinances impacting high rise morphology in the West End also have included: rules that impact the proportions of building footprints, rules that result in the consistent absence of setbacks as buildings get taller, rules that indirectly yet effectively force buildings to take the form of slab towers in perpendicular alignment to the street grid - as opposed to facing the view, rules protecting the availability of daylight at ground level, and rules that both protect interior views and also define the spacing of towers from existing buildings. Additional rules unique to the West End also included evolving regulations which at first restricted the construction of balconies but then changed again to encourage balconies, and as well as other changing rules that further restricted building footprints.

In short, the system developed, imposed and repeatedly adjusted by the city to control construction activity in just this single district was comprehensive and surprisingly complex.
Rules targeted at controlling high rise morphology in the West End would eventually involve as many as eight separate kinds of simultaneous regulations, each impacting high rise building design individually and cumulatively.\(^9\) To make sense of this situation it will be useful to examine the development of these rules in some detail and then to examine their role in restricting building morphology by examining select examples.

### 4.5 Analysis: Zoning regulations and their impact on high rise morphology in the West End

The West End as it exists today is in some respects a neighborhood frozen in time; rules imposed after Gerald Sutton Brown was fired abruptly terminated further high rise construction, with only a few very notable exceptions, and these were not begun until the 1984 or later. As a result it is possible to study the existing form of the buildings built during the high rise boom and to compare these to the changes that took place in the regulations imposed by the city, as it tried to both encourage and control this development. At times these regulations lead to particularly limited outcomes which then resulted in changes in the rules allowing greater latitude. At other times, creative local architects and developers met the established requirements while producing results that were not anticipated by the City, provoking local outrage and further, more restrictive revision of the regulations.

The zoning and development regulations impacting high rise morphology in the West End accumulated over time, with rules being added to and adjusted at infrequent intervals. These rules are summarized in a table included in the Appendix. Because these rules were subject to adjustment at irregular intervals, in response to ongoing developer activities, building proposals, and public backlash, the form of buildings that resulted throughout the West End cannot simply be attributed to a single planning policy or two. This does not mean that there is a lack of order or control, however, but just that the varied results which came to pass reflect the shifting set of regulations that were guiding this emerging pattern of development.

The changes to these regulations which have a bearing on high rise morphology in the West End from 1956 -1973 are summarized in a table 4.1 below.

---

\(^9\) Additional rules impacting the West End addressing such topics as parking, landscaping and low rise construction are not included in this evaluation.
### Summary of Zoning and Development Bylaw Changes Impacting Building Morphology in the West End, RM-4 District, Vancouver BC: June 1956 - January 1973

<table>
<thead>
<tr>
<th>Bylaw</th>
<th>Date</th>
<th>Item no.</th>
<th>Page</th>
<th>Summary</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>3575</td>
<td>6/1/1956</td>
<td>1-188</td>
<td>53-56</td>
<td>RM-4 - High Density Residential District: the West End</td>
<td>Only area zoned high density residential</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.B.C. &amp; D. 53 - 15 foot front and rear setbacks, 5 foot side setbacks</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>54</td>
<td>54</td>
<td>Vertical light access protected by 60 degrees</td>
<td>Tall buildings limited in width on most sites also tends to shift buildings back from street edge.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54</td>
<td>54</td>
<td>Special exemption for walls less than 50 feet long parallel to street</td>
<td>Favors lance-shaped slabs perpendicular to street.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54</td>
<td>54</td>
<td>Daylight access: windows 10 feet from property line,</td>
<td>Encourages building separation and results in minimum tower spacing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>54</td>
<td>54</td>
<td>Unobstructed views 80 feet minimum from existing towers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>54</td>
<td>54</td>
<td>Floor Space Ratio (FSR) set at 3.6, except corner lots where FSR = 3.35</td>
<td>Use of FSR standard indirectly limits height.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>55-56</td>
<td>55</td>
<td>Apartment buildings have no height limit, all other uses: 80 foot limit</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>56</td>
<td>56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3622</td>
<td>3/12/1957</td>
<td>16</td>
<td>4</td>
<td>Allows FSR to increase for interior sites as follows: starting at FSR 3.0, for every ft of site width beyond 165 feet add 0.1 FSR to maximum 3.35</td>
<td>FSR able to match higher corner lots, encouraging mid-block towers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>4</td>
<td>Property abutting Beach St, Morten Ave, Alexandra Park, or Stanley Park</td>
<td>Seems developer motivated; allows waterfront</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>is permitted to have FSR of 4.0 for sites 25,000 sf or larger</td>
<td>Park fronting properties to go nearly 25% taller.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>However, apartments must be at least 1200 sf in area</td>
<td>To the detriment of rest of West End.</td>
</tr>
<tr>
<td>3973</td>
<td>2/20/1962</td>
<td>1, 2, &amp; 3</td>
<td>1</td>
<td>Longest side of a building, measured along property line, if over 40 ft tall,</td>
<td>Appears intended to prohibit repeat construction of Ocean Towers of 1930 type slab towers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Max. Length: 20% the sum of average width + average length of property,</td>
<td></td>
</tr>
<tr>
<td>4119</td>
<td>7/21/1964</td>
<td>10</td>
<td>10</td>
<td>Replaces FSR standard, for all West End, retaining FSR 3.35 for corner lots</td>
<td>Eliminates provisions that had raised FSR to 4.0 in bylaw 3622</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>and variable 3.0 FSR + 0.01 FSR/foot of site width over 165 feet.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7</td>
<td>Balconies are no longer included in FSR calculations; balconies and railings</td>
<td>Directly increases likelihood of balconies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td>11 are permitted to encroach on daylight setbacks if cantilevers 4 ft deep</td>
<td>However, these will tend to be only 4 ft deep.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>to the detriment of rest of West End.</td>
<td></td>
</tr>
<tr>
<td>4234</td>
<td>3/22/1966</td>
<td>67 &amp; 70</td>
<td>13</td>
<td>Planning Director may choose to relax height limit to prevent hardship</td>
<td>Presumably the height limit is still 80 feet; Planning Director has more power now.</td>
</tr>
<tr>
<td>4260</td>
<td>8/30/1968</td>
<td>1</td>
<td>1</td>
<td>Balconies excluded from FSR calc if less than 8% built floor area;</td>
<td>Permits greater range of balcony options.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>cantilever balcony and four foot wide limit requirements removed.</td>
<td></td>
</tr>
<tr>
<td>4312</td>
<td>6/1/1967</td>
<td>1, 2</td>
<td>2</td>
<td>Establishes 300 ft height limit for RM-4.</td>
<td>First explicit height limit over 80 ft in RM-4.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.c</td>
<td>2</td>
<td>Front 15 ft setback relaxed for structures less than 9 feet tall, 50 feet wide.</td>
<td>Provision seems to allow for entry structures.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.D.</td>
<td>2</td>
<td>Side yards widened: 10 feet for over 35 feet height.</td>
<td>Reduce crowding, increase building separation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.E.</td>
<td>3</td>
<td>“outer wall of building shall be contained within 35 degree horizontal</td>
<td>This may be another rule intended to prevent excessive height and bulk.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>angles subtended from all points along the rear property line, or centre of lane, as the case may be.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.G.</td>
<td>4</td>
<td>Vertical daylight obstruction angles now reduced to 38 degree angle from</td>
<td>Increases need to make buildings fit into the construction of lengthy slab buildings, also pushes buildings towards street</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>street and alley, and reduced to 48 degrees along the side property lines.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.H.</td>
<td>4-5</td>
<td>FSR reduced to 2.6 except can be increased as follows:</td>
<td>Tends to favor prism shaped towers which do not step as they get taller.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1. If site coverage is 40% or less, 0.03 FSR added for every 1.0% below 40%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. Where site is over 9000 sf, 0.07 may be added for every 1000 sf.</td>
<td>Technically, these rules could allow an FSR as high as 3.65</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>but not to exceed 25 FSR bonus from item 2.</td>
<td>For a tower covering 10% of lot on a large lot with below grade parking.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3. For every 1% of parking below ground or building, over 50%, add 0.07 FSR, but not to exceed 0.30 FSR bonus from item 3.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.H.</td>
<td>5</td>
<td>No longer counted in FSR tabulations: patios, balconies under 5% of total, elevator shafts, roof gardens, ground level parking structure.</td>
<td>Somewhat off sets reduction in FSR.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.H.</td>
<td>6</td>
<td>For sites over 1 acre, where not (buildable) area exceeds 75% gross area, (ie. land occupied by alleys etc.) 75% will be used to calculate FSR, larger sites by as much as 25%.</td>
<td>This effectively reduces FSR on some larger sites by as much as 25%.</td>
</tr>
</tbody>
</table>

December 1972 election results in end of NPA party control of City of Vancouver; City Manager Gerald Sutton Brown and his Planning Director are both fired.

| 4683  | 1/30/1973  | 1 | RM-4 is re-designated as RM-4A, indicating a major planning revision only other changes to RM-4: district boundaries and FSR. | Maintaining 300 ft height limit is pointless due to low FSR. |
|       |            | 1 | FSR reduced to 1.4, with some allowable adjustments listed under 1, 2, & 3 of bylaw 4312 dated 6/1/1967. | Louvering the FSR to 1.4 effectively ended the West End high rise boom. |
|       |            | map | This document also enlarges and adjusts the location of the RM-4A zone | West End now includes nearby high rise hotels |

Bylaw 3575

On November 15 1954, the Vancouver City Council was formally presented with Planning and Development bylaw 3575, a comprehensive planning zoning ordinance encompassing the entire city that would become the fundamental starting point for future planning and development activity in the City. Running over 200 pages in length, this document would take the City Council more than 19 months to ultimately review and approve this document, setting in place new standards for the entire city, which among other things, would encourage the construction of high rises in the West End.

During the decades which have followed, bylaw 3575 has remained the essential baseline document, the foundation for all subsequent planning regulation in Vancouver. There been literally hundreds of additional bylaws enacted, most of which concern particular adjustments to the allowable uses for particular land parcels. Other bylaws, however, are further reaching in their scope and are intended to modify the existing rules; bylaw 3575 remains the document around which these myriad changes and adjustments are organized.

In terms of rules that directly impact the morphology of residential high rises in the West End, this research is primarily concerned with the impact of bylaw 3575 and seven subsequent bylaws enacted between 1956 and 1973 that directly impact the development of high rises in the West End.\(^\text{10}\) By tracking these changes and the building activities before and after particular bylaws were enacted, not only can the impact of the regulations be evaluated, but also to a limited extent can some of the underlying motivations be inferred. These bylaws are summarized in a table at the end of this chapter.

Building Height

Bylaw 3575 established a special new zoning jurisdiction, RM-4 Multifamily high density, which applies only to development activity in the West End. Like many legal planning documents, bylaw 3575 is complex, multifaceted and at times challenging to disentangle. Rules which appear on one page can be rendered invalid by language that appears later on in the document. For instance the height limit for RM-4 is stated on page 53, forcefully and directly as:

\(^{10}\) Over this same time period, numerous additional zoning bylaw changes were also made to other aspects of the RM-4 area that do not directly concern the issues being examined here, such as changes in parking requirements, basement occupancies and rules only pertaining to low rise structures.
"The height of a building shall not exceed 80 feet."

This sounds pretty definite, and while it represents a slight increase in the prior height limit of six stories, it is easy to see how neighborhood residents upon reading might easily conclude that the height limit would allow nothing over eight stories tall. Such an interpretation, however, would be incorrect. Two pages further on in a different section, the following statement appears:

"2. Uses which may be permitted subject to special approval by the Technical Planning Board: Notwithstanding the provisions of Section I of this Schedule, development permits may be issued for development comprising the following uses subject to such uses first of all being approved by the Technical Planning Board. If a development permit is granted it shall be subject to such conditions and regulations or relaxations as the Technical Planning Board may decide:"

- Bylaw 3575, City of Vancouver, (1956, 55)

A list of special exemptions and considerations follows, including item (9) on this list which reads as follows.

(9) Apartment building of more than 80 feet in height subject to all other regulations of Section I of this schedule.

- Bylaw 3575, City of Vancouver, (1956, 56).

The actual meaning of this is that the 80 foot height limit does not apply, subject to approval not by city council, but by the Technical Planning Committee, which was run by Gerald Sutton Brown. So what is the height limit? Strictly speaking, for apartments there is none, although indirectly height was limited very effectively by other regulations. Given that this zone is specifically intended for high density multi-family residential development, the thought that apartments ought to be treated as a special exception to the rules seems questionable.

This curious and convoluted formulation of a basic zoning rule begs the question of why was this ordinance constructed this way instead of presenting the requirement in a straight forward manner? One possible reason was to give Sutton Brown control over projects above eighty feet in height. Or this might be the result of a change that was required by the City Council, after the height limit of 80 feet was established by Gerald Sutton Brown.

The desired increase in residential density is attainable without going over this height limit and it seems rather curious that a height limit should first be changed to a slightly higher new stand
replacing the prior limit of six stories, on one page and only to be eliminated altogether on another. Impetus for allowing taller buildings is likely to have originated with development interests, which were closely aligned to City Council. Because people pay more to live on higher floors of apartment buildings due to the enhanced access to distant views, developers have a strong incentive to go taller.

At this juncture I have not found documents which can effectively establish what was going on as this regulation was being framed and I have only obtained the final approved version not the earlier draft of bylaw 3575 that was originally submitted to the City Council in 1954. Therefore, while this is just a conjecture, my best guess at this point is that if Sutton Brown attempted to satisfy the City Council by raising the height limit to eight stories, but this was not acceptable, he could have then adjusted the wording of the zoning bylaw in a way that would permit him to maintain some control by requiring all such taller proposals to meet his approval instead of going before the City Council. This guess may be incorrect, but it seems a reasonable hypothesis and is consistent with the exceeding complex set of additional requirements that Sutton Brown also imposed at this time further restricting high rise development. As will become apparent, there is more than one way to effectively limit the height and impact of a high rise apartment building and Sutton Brown used several. Had his goal been an unrestrained development binge encouraging as many high rises as possible in the West End, the complex set of regulations which developed would have been completely unnecessary.

**Floor Space Ratio: FSR**

On page 54 of bylaw 3575, at the very bottom of the page, Item H briefly states:

"Floor Space Ratio" is limited to 3.0, with the exception of a corner lot, which can have a Floor Space Ratio of up to 3.35.11

Under the combined effect of the 80 foot height limit and the 3.0 FSR the West End could have still been developed to the density it has at present. The result would have been that the tallest buildings, reaching a height or eight or possibly nine stories would have covered about 1/3 of the available land on a given parcel.

11 The term “Floor Space Ratio” is equivalent to a term common in the United States: Floor Area Ratio or FAR. More recently, the term FAR has come to be widely used in Vancouver as well.
A Floor Space Ratio (FSR) technically only establishes an overall amount of built square footage of construction without defining how many stories high a building might be. However practical economic and structural considerations indirectly, but effectively, can translate a defined FSR into a practical height limit. In the West End, the urban block size is reasonably small which limits the total buildable square footage a building might have. The total developable area of a typical block in the West End in many cases is approximately 130 feet by 460 feet (source: calculations derived from Van Maps GIS application developed by the City of Vancouver, accessed April 2011).

If a developer managed to acquire the development rights to an entire city block in the West End, with dimensions of 130 ft by 460 ft, then based upon a 3.35 FSR12, the maximum building square footage would be a total of 200,330 Square feet of building. In theory this could be used to construct a 100 story tower with 2003 square feet on each level and still satisfy the 3.35 FSR. The problem with such a proportion is that this measurement also must include space occupied by the circulation core and the structural support columns. For a thirty story tower in Vancouver these requirements often account for 900 square feet per floor level, while for the 100 story tower these can be expected to take up substantially more space.13 Wind loads and potential earthquake lateral loads also increase with building height, increasing the proportion of a building consumed by structure as a building increases in height, further adding to the cost while reducing the profitable square footage of the building. Generally speaking as buildings get taller, they cost more to build per square foot. While this added cost is somewhat offset by a willingness of potential buyers to pay more the higher off the ground an apartment happens to be, the impact of the FSR is that the percentage of a building which is actually sold to a buyer as usable space decreases as the building increases in height.14

If we establish a theoretical threshold of 15% of the floor area or less being devoted to the circulation core of a typical high rise then an upper height limit beyond which it ceases to be

---

12 A building parcel that accounted for the entire block would by definition qualify for the higher Floor Space Ratio of 3.35 specified for corner parcels.
13 As high rise buildings get taller, more elevators are required and more structural framing is required, which typically consumes space in the lower levels. When elevators service too many floors the wait time becomes unacceptable. (Beedle, 2007)
14 These metrics are not always the same for high rise office buildings because in the case of apartments that are sold or leased, multiple units commonly are constructed on each floor and sold individually, while it is common practice in office buildings to lease entire floor, which may or may not be finished, somewhat changing the calculation.
economically sensible can be suggested. Due to the FSR, a taller building would have less space on each floor level, yet the service core would not go down, resulting in rapidly diminishing returns. A developer, therefore, who acquires an entire city block in the West End could expect to develop a single building that is no more than about 35 stories tall at an FSR of 3.35. If a smaller parcel is acquired, then the building decreases in height, or if the developer wishes to increase the ratio of profitable interior space to unprofitable public circulation and fire egress space, the way to achieve this is to further reduce the height of the building. These results are summarized in the following chart (table 4.2 below):

<table>
<thead>
<tr>
<th>Maximum Development</th>
<th>lot % covered</th>
<th>net sq feet per floor</th>
<th>living space per floor</th>
<th>% living/net flr</th>
</tr>
</thead>
<tbody>
<tr>
<td>an entire West End Block</td>
<td>5 story</td>
<td>0.670</td>
<td>40066</td>
<td>37627</td>
</tr>
<tr>
<td>site width ft</td>
<td>460 ft</td>
<td>10 story</td>
<td>0.335</td>
<td>20033</td>
</tr>
<tr>
<td>site length ft</td>
<td>130 ft</td>
<td>20 story</td>
<td>0.168</td>
<td>10017</td>
</tr>
<tr>
<td>net lot area</td>
<td>59800 sq ft</td>
<td>30 story</td>
<td>0.112</td>
<td>6678</td>
</tr>
<tr>
<td>Floor Space Ratio</td>
<td>3.35</td>
<td>40 story</td>
<td>0.084</td>
<td>5008</td>
</tr>
<tr>
<td>buildable area</td>
<td>200330 sq ft</td>
<td>50 story</td>
<td>0.067</td>
<td>4007</td>
</tr>
<tr>
<td>circulation core</td>
<td>900 sq ft</td>
<td>60 story</td>
<td>0.056</td>
<td>3339</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum Development</th>
<th>lot % covered</th>
<th>net sq feet per floor</th>
<th>living space per floor</th>
<th>% living/net flr</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 ft x 130 ft lot</td>
<td>5 story</td>
<td>0.600</td>
<td>15600</td>
<td>13161</td>
</tr>
<tr>
<td>site width ft</td>
<td>200 ft</td>
<td>10 story</td>
<td>0.300</td>
<td>7800</td>
</tr>
<tr>
<td>site length ft</td>
<td>130 ft</td>
<td>20 story</td>
<td>0.150</td>
<td>3900</td>
</tr>
<tr>
<td>net lot area</td>
<td>26000 sq ft</td>
<td>30 story</td>
<td>0.100</td>
<td>2500</td>
</tr>
<tr>
<td>Floor Space Ratio</td>
<td>3.35</td>
<td>40 story</td>
<td>0.075</td>
<td>1950</td>
</tr>
<tr>
<td>buildable area</td>
<td>87100 sq ft</td>
<td>50 story</td>
<td>0.060</td>
<td>1560</td>
</tr>
<tr>
<td>circulation core</td>
<td>900 sq ft</td>
<td>60 story</td>
<td>0.050</td>
<td>1300</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum Development</th>
<th>lot % covered</th>
<th>net sq feet per floor</th>
<th>living space per floor</th>
<th>% living/net flr</th>
</tr>
</thead>
<tbody>
<tr>
<td>66 ft x 130 ft lot</td>
<td>5 story</td>
<td>0.670</td>
<td>5749</td>
<td>4849</td>
</tr>
<tr>
<td>site width ft</td>
<td>66 ft</td>
<td>10 story</td>
<td>0.335</td>
<td>2874</td>
</tr>
<tr>
<td>site length ft</td>
<td>130 ft</td>
<td>20 story</td>
<td>0.168</td>
<td>1437</td>
</tr>
<tr>
<td>net lot area</td>
<td>8580 sq ft</td>
<td>30 story</td>
<td>0.112</td>
<td>958</td>
</tr>
<tr>
<td>Floor Space Ratio</td>
<td>3.35</td>
<td>40 story</td>
<td>0.084</td>
<td>719</td>
</tr>
<tr>
<td>buildable area</td>
<td>28743 sq ft</td>
<td>50 story</td>
<td>0.067</td>
<td>575</td>
</tr>
<tr>
<td>circulation core</td>
<td>900 sq ft</td>
<td>60 story</td>
<td>0.056</td>
<td>479</td>
</tr>
</tbody>
</table>

Table 4.2: Lot size, building height and development efficiency for FSR 3.35.

While hypothetical, this 15% ballpark figure is consistent with current practices in Vancouver today where high rises often require a 900 square foot service core to serve a residential building typically with a footprint of over 6000 sf.
What seems to confuse the situation is that the tall buildings in Vancouver's West End create the misleading impression that they could have been built on smaller parcels because these buildings typically still have smaller footprints. In the case of the tallest most visible towers, these smaller footprints are not, however the result of the smaller parcels. These towers only are able to be as tall as they are because they are built on a substantially larger parcel. An illustration may help to explain this. As the image below shows, smaller parcel sizes are realistically only able to result in modest height buildings while larger parcels are able to support buildings that are much taller, simply through the impact of the FSR requirement (see figure 4.7 below). As the drawing shows, using the same small footprint on sites of increasing length and hence net buildable floor area, the tall tower can fit on any of the sites shown, but is only permissible on the larger lot.

Figure 4.7: FSR 3.0: the same footprint at maximum height, on typical West End lots of increasing size (drawing by Robert Walsh).

The impact of parcel size on allowable building height can be seen in an example taken from the West End, where in the interest of clarity, the property boundaries of several taller buildings have been roughly outlined in red. The space around these structures has been left vacant so that a taller building can be constructed (see figure 4.8 below).
A comparison of parcel sizes and building heights is also instructive. While the size of parcel does not always indicate that a tall building has been constructed in the West End, the sites upon which the taller buildings have been constructed are generally quite large indeed. In the map shown below, parcels upon which a taller high rise structure of 17 stories or more in height has been built are shaded in violet, while parcels with mid height buildings have been shaded in red, and low rise parcels are left uncolored.\(^{16}\) While this pattern is not absolute, in general there is an apparent tendency for the taller buildings to occupy substantially larger parcels (see figure 4.9 below). The image shown is based upon a base map obtained through the city of Vancouver online mapping application Van Maps. I then colored the designated parcels after identifying what had been constructed on each parcel.

\(^{16}\) Towers constructed after 1978 in the West End have not been included in this analysis.
Figure 4.9: Detailed view of western corner of West End, showing correlation between parcel size and building height. Taller structures 17 stories and up are located on purple parcels, structures 10-16 stories have been built on red parcels and uncolored sites are currently low rise or vacant (base map: City of Vancouver; color added by Robert Walsh).

| Year | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 26 | 27 | 28 | 30 | 32 | Total |
|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|     |
| 1958 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 2    |
| 1959 | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 3    |
| 1960 |    | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 1    |
| 1961 | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 4    |
| 1962 | 1  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 4    |
| 1963 | 2  | 1  | 3  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 10   |
| 1964 | 3  | 4  | 10 | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 21   |
| 1965 | 4  | 5  | 8  | 4  | 3  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 30   |
| 1966 | 1  | 5  | 3  | 3  | 1  | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |    | 21   |
| 1967 | 3  | 2  | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 10   |
| 1968 | 2  | 2  | 4  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 15   |
| 1969 | 2  | 3  | 5  | 1  | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 20   |
| 1970 | 1  | 1  | 3  | 2  |    | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 15   |
| 1971 | 1  | 1  | 1  | 1  |    |    |    |    |    |    | 2  |    |    |    |    |    |    |    |    |    | 3    |
| 1972 | 1  | 1  | 1  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 5    |
| 1973 | 1  | 1  | 1  | 1  |    |    |    |    |    |    |    | 2  |    |    |    |    |    |    |    |    | 5    |
| 1974 |    |    |    |    |    | 1  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    | 3    |
| 1975 |    |    |    | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 6    |
| 1976 |    | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 3    |
| Total| 24 | 25 | 29 | 18 | 14 | 5  | 4  | 4  | 7  | 9  | 3  | 9  | 5  | 3  | 1  | 2  | 1  | 1  | 1  | 1  | 181  |

Table 4.3: Distribution of West End high rises by building height and year.
The result of the different parcel sizes in the West End has been a distribution of different building sizes with the smaller lots favoring the shorter buildings. Given that sometimes as many as 12 separate parcels have been combined in order to construct a 20 story project, it perhaps is not too surprising that the taller projects are outnumbered by the shorter projects (see table 4.3 below). The result of the FSR regulation and the small parcel sizes in the West End has not been to produce small footprint towers, but instead has tended to suppress the height of high rises. Of the 181 high rises constructed during the West End high rise boom from 1956-1976, 120 of these buildings are 14 stories tall or less.

**Bylaw 3575 continued: Vertical Light Angle, another form defining regulation**

Building height has also been restricted in the West End through the establishment of a regulation specifically intended to limit daylight obstruction, influencing the morphology of West End buildings in other significant ways.

F. Vertical Light Angle:

No part of any building greater than three storeys or 35 feet in height shall project above lines extending toward the building at right angles from:

(1) All points along the ultimate centre line of the street (or streets) in front of the site and inclined at an angle of 60 degrees to the horizontal;

(2) All points along the rear boundary line of the site or the ultimate centre line of the lane where one has been dedicated, and inclined at an angle of 60 degrees to the horizontal;

(3) In the case of a corner site all points along the ultimate centre line of a flanking street or lane and inclined at an angle of 60 degrees to the horizontal;

Provided, however, that any part of the building shall be exempt from the appropriate vertical angle control above, if the exempt part of the building:

(a) has a horizontal dimension of 50 feet or less, measured parallel to the street, lane or boundary of the site, as the case may be, from which the said vertical angle is measured; and

(b) is not less than 70 feet from any part of the same building similarly exempt, nor less than 25 feet from any adjoining site, both measured in the same direction as the 50 feet specified in clause (a) of this proviso."

- Bylaw 3575 City of Vancouver June 18, 1956, 54.
In certain respects this regulation echoes comments made by Gerald Sutton Brown in his *Plan for Lancashire* in which he expressed an interest in maintaining adequate daylight at ground level and recommended that buildings be spaced a minimum distance apart. However beyond the simple issue of building shadows, this regulation would prove to have far-reaching consequences, which perhaps make this the most significant of the entire set of complex regulations impacting building form in the West End. Curiously, the impact of this regulation appears to have been entirely overlooked by other researchers.

Because in most cases the city blocks in the West End are 132 feet wide or less, the results of the provisions established under points (1), (2), and (3) are that the angled daylight planes converge at in the middle of the block, which if left unmodified would have effectively prevented any new building in the West End above a height of 14 stories, and even then, the top floor would have a maximum width of only twenty feet.

However these restrictions are further modified in the next clause which permits a crucial exception to be granted to a part of the building that is described as:

"(a) has a horizontal dimension of 50 feet or less, measured parallel to the street, lane or boundary of the site,"

- Bylaw 3575, City of Vancouver, June 18, 1956, p 54.

When this adjustment is combined with the first section concerning the visibility planes the surprising result is that this rule establishes a requirement that high rise apartment structures in the West End consist of narrow slab structures, fifty feet wide and facing in a particular orientation perpendicular to the street grid. Towers of this general proportion, of fifty feet wide, but spanning the entire depth of the block from street face to alley are remarkably common, in the West End.

Many of the tallest residential high rises in the West End consistently follow this pattern, including the building named Imperial Towers, which was the Tallest structure in the West End at 30 stories when it was completed in 1962 (see figures 4.10 and 4.11 below). In addition to slab structures, architect also found other ways to achieve adequate results in the form of point

17 The developer of this project was a local self made millionaire Tom Campbell, in 1962 became a City Council Alderman for the City of Vancouver, as a member of the NPA. “Tom Terrific” as he was sometimes called, would then serve as Mayor of Vancouver from 1967-1972, during a volatile period described in the next chapter.
towers, which are also common in the West End. One example of a collection of point towers which required special approval, The Beach Towers, is examined in greater depth, later in this chapter.

Figure 4.10 Imperial Towers: setbacks arising from daylight restriction, and tower massing. (Robert Walsh).

Figure 4.11: Imperial Towers (1962): the tallest tower in this image (Robert Walsh).
This pattern of building orientation presents advantages for the surrounding areas by permitting better view access across or through the West End, but it is less than ideal for the residents of the buildings themselves because this strategy can result in tall slab towers facing one another instead of the view. Although the architects working at this time did not always recognize this problem, one often repeated solution featured a modified slab geometry where an angled, lozenge shape to the plan improved access to distant views.

The zoning regulations also impacted skyline configuration of the West End. The prevalence of lozenge shaped towers and the relatively consistent orientation of the tall slabs built in the West End further exaggerates the impression, especially when viewed from afar, that the West End consists solely of skinny towers that must be point towers. This impression is partially due to the slenderizing effect of the beveled lozenge shapes, while the urban orientation of these high rises resulted in an alignment whereby the resulting skyline is delineated by slab towers viewed edge on. In addition to these slab towers, several tall point towers that have been built at prominent waterfront locations where larger irregular parcels do not result in the same constrictive daylight angle planes. The front row position of these point towers further reinforces the impression that the West End is dominated by point towers, especially when viewed from afar.

**Bylaw 3575: Interior daylight and tower spacing:**

In addition to rules reducing the impact of new towers on daylight and access to distant views, bylaw 3575 also contains special regulations intended to ensure that individual unit interiors are retain some access to available views and daylight. Only a portion of this extensive regulation needs to be reproduced below to gain an understanding of the critical issues. The remainder of the regulation addresses a host of anticipated qualifications and exceptions that pertain to evaluating structures exceeding the minimum required window area, and other issues primarily relevant to the development of low rise buildings.

G. Daylight Access:

(1) The window of every habitable room shall be not less than ten feet from the interior side boundary of the site onto which it faces.

(2) Every window shall permit of an unobstructed view for a distance of not less than 80 feet, measured horizontally from its centre at sill level. Such view shall extend through either a continuous horizontal arc of not less than 50 degrees, or through two or more horizontal arcs which in the aggregate contain not less than 70 degrees;…"
Interpretation: If it can be expected that taller high rises can only be constructed in situations where the developer has acquired a fairly large tract of land encompassing, typically at least half of a residential block, with the building itself expected to occupy perhaps only ten or twenty percent of the actual site, the developer would have a variety of options available regarding the optimal location for the new tower. This code requirement encourages the placement of new towers at least eighty feet away from towers on neighboring property. This rule also encourages the separation of towers built on the same parcel, and the arrangement of windows such that a sense of privacy is not unduly encroached upon.

Figure 4.12 The New Marquis (1967). Red lines show the impact of daylight angle restrictions while the central portion is exempt from the rule. This represents the maximum development on a double wide lot not located on a corner (bing 3-d, color added by Robert Walsh).

The one place where the slab towers seem to become unduly crowded together in the West End is along the northwestern boundary facing Stanley Park. The buildings here still maintain the required spacing and overcome the restrictions arising from view protection by orienting their windows outwards towards the park instead of at one another.
The analyses of even modest structures reveal features that turn out to have been detailed
responses to the zoning codes. The 15 story residential tower named the New Marquis, built in
1967, has a central block and two wings the step back towards the top. This odd form is a natural
response of an architect addressing the limits posed by the daylight angle codes while also taking
full advantage of the special fifty foot wide daylight plane exemption (see figure 4.12).

**Bylaw 3575 and the problem of balconies:**
Throughout the West End high rise boom, zoning regulations influencing the inclusion (or
exclusion) of private balconies were repeatedly and substantially revised several times. By Law
3575 initially discouraged the inclusion of balconies in the first high rises to be built in the West
End. The exclusion of balconies derives from the economics of residential development and the
measurement methods first used in calculating the allowable FSR. In general one basic
consideration in marketing apartments to the public is the square footage of the unit, which only
includes interior space. Although balconies can be a well-used amenity capable of making an
apartment functionally larger and hence add value to an apartment, as unheated exterior space
balconies are not included in calculating the square footage of a unit.

Balconies are relatively inexpensive to include in a project since they require no additional
exterior wall space, or finishes, beyond a basic railing. Therefore developers are inclined to
include them where feasible. However, because the method used to calculate the FSR in the
West End lumped balcony area together with interior area, the inclusion of balconies in these
first buildings would have curtailed the profit potential by reducing the amount of interior space
that a developer could sell on any given project. This proved to be a disincentive and balconies
were therefore not included in West End high rises until this issue was first revisited in Bylaw
4119, approved July 21, 1964. The balcony issue would be further redefined and adjusted in
Bylaw 4260, approved August 30, 1966.

These code adjustments redefined the configurations balconies could take; for example Bylaw
4119 encourages inclusion of balconies provided that they are cantilevers no more than 4 feet
deep. Bylaw 4260 removes these requirements and replaces them with a general standard of
allowing balconies that amount to up to 8% of the total floor area to be excluded from FSR
calculations.
The treatment of balconies in West End high rises matters for reasons that may not be entirely obvious. First of all, the changing character of these regulations and their corresponding impact on building form provides a helpful way to determine the approximate age of particular buildings, which is useful in cases where there are gaps in the record (Atkin and Coupland, 2010). Potentially of greater significance is what these rules reveal regarding the control planning exerted over architectural design in the West End. Despite suggestions that zoning was in some way lax at this time, these rules confirm that zoning exerted a substantial direct influence on the detailed design of buildings. That the city planners were willing to revise these regulations in pursuit of particular architectural outcomes is also apparent.

4.6 After bylaw 3575: Subsequent Changes to the West End development rules:
The rules established by bylaw 3575 in 1956 to regulate the private development of the West End are multifaceted and reasonably comprehensive. However, after being first established these rules underwent additional revisions and modifications that further influenced the development of high rises in the West End. It will be useful to review a few of these changes and the projects which either motivated these changes or responded to these changes; ultimately the form of the West End appears to have been the result of an ongoing struggle between competing interests, represented by developers and planners, and to a much smaller extent, the general public.

Bylaw 3622 and the Beach Ave height increase
The development pattern in the West End prior to the arrival of Gerald Sutton Brown reflected the distribution of wealth. Management from the timber mills and other businesses had occupied the land with the best views of English Bay to the South, and the northern edge of the West End facing across the Burrard Strait. Working class laborers and employees shared the West End with their bosses, but lived in the less desirable central portion of the district where they had less opportunity to enjoy scenic views (Atkin and Coupland, 2010). This prior pattern may perhaps help to explain the basis for the strangest, and possibly most detrimental alterations made to the set of rules established for the West End in Bylaw 3575. On March 12, 1957 Bylaw 3622 was enacted, a mere nine months after Bylaw 3575 had finally been approved. The most critical part of this regulation concerns the extension of a special height bonus to the prominently located properties fronting onto scenic views of English Bay and Stanley Park.

This regulation permits, with special city council approval, the construction of:
"(1) An apartment building of more than 80 feet in height on any site which abuts Beach Avenue or Morton Avenue or which is across the street from Alexandra Park or which abuts or is across the street from Stanley Park, subject to all other regulations of Section 1 of this Schedule except that the FSR may be increased to 4.00

PROVIDED ALWAYS that

(a) The minimum site area shall be not less than 25,000 square feet, and

(b) The average size of all dwelling units within such apartment building shall be not less than 1200 square feet in floor area."

-Bylaw 3622, Item 18 page 4, City of Vancouver, March 12 1957.

By increasing the FSR to 4.00 for these properties, the natural expected outcome is that buildings along this street would become roughly 20-25% taller than they otherwise would have been, had the prior standard of 3.0-3.35 been maintained. The minimum unit size for the rest of the West End at this time was 400 square feet, while the new rule specified unit sizes at least three times this minimum. Clearly the allowance for an increased FSR is intended to result in luxury apartments.

Perhaps as a consolation to developers who owned property on other sites not overlooking Beach Avenue, an additional adjustment to the rules, clause 16 in bylaw 3622 also permits the increase of the FSR to other parcels that are not corner lots to as much as 3.35, provided that the site is still large enough.

Bylaw 3622 appears to be the only zoning bylaw revision during the high rise boom that gives special treatment to a select portion of the West End; the other bylaws subject the entire district to a single uniform standard. Nevertheless, Bylaw 3622 yielded outcomes that were consequential for the entire district. The result was a wall of buildings lining the water's edge along the southwestern boundary of the West End, before turning sharply northwards where it meets Stanley Park. The net effect of raising the FSR to 4.0 for these frontline properties along the boundary of the West End was that developers a larger share of the spectacular views facing the water, while reducing view access for the rest of the West End (Gayler, 1971). A more sensible approach, if the goal were to maximize development and view enjoyment for the entire
district would have been to keep the perimeter buildings lower and establish regulations that permit greater heights to the inland areas.18

4.6 Ocean Towers: A response to bylaw 3575 and 3622 that would provoke more changes: Completed in 1959, the nineteen story slab apartment building known as Ocean Towers was allegedly the first condominium apartment building in Vancouver, and also one of the most controversial high rise buildings to be constructed during the entire West End high rise boom. This structure designed by architect Rix Reinecke is visibly different from every other building in the West End: it looks like a building imported from Miami (Atkin and Coupland, 2010), but its unusual proportions are more significant than its white concrete modernist detailing. This tall slab building is approximately 180 feet long and only 27 feet deep. Instead of being oriented in an alignment perpendicular to the street grid, as is more typical of many of the taller slab structures throughout the West End, this unusually long and slender slab tower runs parallel to the street grid, positioned to enjoy access to the spectacular views of English Bay to the southeast, while denying view access to other properties several blocks further inland. A view of the surrounding blocks suggests that this structure indeed had a negative impact on the development potential of other properties several blocks. These properties have not been redeveloped as taller structures, but instead remain modest in scale, having been denied much of their view potential by Ocean Towers (see figure 4.13).

The unusual proportions of this building raise the question as to how this anomalous structure was approved in the first place? Local Vancouver architectural history experts John Atkin and Andy Coupland have expressed the opinion that Ocean Towers violated virtually every planning ordinance in effect at the time and only was able to gain approval through the intervention of the City Council. My experience has been that Atkin and Coupland to be generally well informed and quite reliable, but my effort to confirm these conclusions seems to suggest that in this case they may be mistaken.

18 This issue would reemerge decades later when planners who had seen the results achieved in the West End were able to devise a more balanced approach to addressing the issue of building height and view access when Vancouver's second large wave of residential high rise construction would commence in the 1990's.
A search through the Vancouver City Council minutes from this time frame revealed that on five separate occasions in 1960, the Ocean Towers structure was the official subject of discussion.\(^{19}\)

By 1960 Ocean Towers was already a completed building, having been finished in 1959; and what was under discussion was the addition of the roof top penthouse, which was added in 1961. Perhaps this was the issue to which Atkin and Coupland refer, although this is not clear.

Figure 4.15 Ocean Towers: view obstruction stifled nearby development (Bing 3-d).

Did Ocean Towers require a special approval to get built, or was it just the Penthouse that crossed the line? To accurately assess this, one must assess the structure on the basis of the zoning and development code provisions that were in place at the time of its approval and construction. To answer this question I studied the relevant zoning codes, and the detailed site conditions and boundaries for the parcel in question. Next I constructed a three dimensional computer model of the required site setbacks and other zoning constraints and also a computer model of Ocean Towers, based upon information obtained by satellite imagery and city records. Because the zoning regulations involve three dimensional angled planes drawn from city street centerlines, the use of a three dimensional computer model proved crucially important. The building and the full impact of the relevant zoning constraints were then careful compared.

This analysis revealed that Ocean Towers is designed right up to the edge of what the existing requirements would allow without going over, with one single and notable exception. This also
called attention to subsequent rule changes that were later implemented by the city to prevent such a project from being repeated.

While Ocean Towers meets the requirements for setbacks, height limits, FSR, building separation, and the provision of excellent interior access to daylight and views, the one rule that it seems to violate is the protection of daylight access requirement (City of Vancouver, Bylaw 3575 RM-4 section 1, item F. 54, 1956). This rule stipulates that the new buildings are restricted from crossing a diagonal boundary that is an angled plane established from the center of the street and also the center of the rear alley. In 1958 when construction on this project began, this angle was established at 60 degrees. As discussed previously, to enable high rises to still be built in the West End, this rule had to have a qualification added to it that allowed slab towers no more than fifty feet wide to penetrate this boundary, resulting in an orientation perpendicular to the street, that also is less apt to obstruct the view access of other properties.

Ocean Towers however is not oriented perpendicular to the street but parallel to it and this aspect of the building is both the source of its perceived negative impact and also the question of how it managed to secure approval. My analysis revealed that Ocean Towers was located in precisely the one place where it could still adhere to the daylight regulation, preventing daylight obstruction impacting the rear alleyway. The daylight impact on Morton Ave has been ignored; due to the position of this site along Morton Avenue, the building faces a beach where no future building can reasonably ever be expected to be constructed. Furthermore, because Ocean Towers is to the north of Morton Ave and the beach, it is inconceivable that it would ever obstruct daylight access in this direction. The stated function of the daylight rule is reducing negative impacts on neighboring buildings; there are no grounds for enforcing this regulation on the Morton Ave side of the property; Ocean Towers breaks no relevant rules (see figure 4.14).

Whether it took an actual decision by City Council to approve this project or not, there seems to be no substantive grounds for the City Council to have rejected the construction permit for this building because Ocean Towers indeed appears to have satisfied the explicit intentions of all of the planning and development rules established at this time.

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20 This angle later was changed in 1967 by Bylaw 4312 to a more complex formula in which the daylight angle from street and alley sides was reduced to 38 degrees, while an additional requirement limiting the angle from side property lines to 48 degrees was introduced. Had either of these requirements been in effect in 1957, Ocean Towers would have been in violation of the rules.
The city planners eventually responded to the controversy generated by Ocean Towers by imposing new regulations to prevent the construction of other similar buildings in the West End. By Law 3973, approved by City Council on February 20, 1962; item 16 on page 4 introduces a new requirement that limits, for buildings over 40 feet in height, the maximum length of a building, when measured along the property lines, to be no more than 30% of the sum of the average width of the property and the average length of the property.

This complicated rule prevents the construction of buildings that stretch the full width of the site and appears to have been successful if the goal was to prohibit similar buildings from being proposed. Although Ocean Towers is one of the earliest high rises constructed during the High Rise boom, it remains to this day a one-of-a-kind structure in Vancouver. A developer hoping to repeat what had been built at Ocean Towers, on a parcel of identical size would as a result of Bylaw 3973 be permitted to build a tower just under 100 feet wide, a substantial reduction from the 180 foot wide expanse Ocean Towers was allowed to occupy. It is not surprising that in later buildings, developers chose to instead to employ configurations such as point towers and lozenge shaped slab towers.

**4.8 Beach Towers and the role of city planning in project approval**

Beach Towers is something of an anomaly in the West End of Vancouver, a tower cluster of four point towers. Groups of point towers would become common in the more recent developments for which Vancouver has come to be known, and this prominently located waterfront project in the West End therefore an important precedent for what would come to Vancouver three decades
later, even if it was unusual at the time it was built. This analysis concerns the original three
towers, completed in 1965. In the image above, these are the three towers that together overlook
the triangular plaza. The fourth tower, Columbus house was added later (see figure 4.15).

Beach Towers: four towers developed by local businessman Morris Wosk.

Columbus house 24 stories 1968
Douglas House 23 stories 1965
Laurier House 23 stories 1965
MacDonald House 23 stories 1965
Architect: CBK Van Norman & Associates

Figure 4.15: Beach Towers (bing 3d).

Beach Towers presents an interesting example of how the Vancouver Planning Department
approached the application of its complex set of zoning regulations in the process of overseeing
the approval of major new projects. Beach Towers was granted a tentative approval of its initial
design by the Technical Planning board on February 26, 1964. Minutes exist from ten meetings
which took place from February 26, until the final zoning approval was issued on June 5, 1964,
and a study of these records provides a revealing glimpse into the way that planning approvals worked during the residential high rise boom. Three of these meetings are of the Civic Design Panel, a separate body that considered development projects from the perspective of aesthetic design and its impact on the surrounding community, and this body reported to the Technical Planning Board which was run by the Director of Planning W. E. Graham. Although Gerald Sutton Brown was by this point in time the City Manager, he is listed second on the list of those present, after the planning director and has been given then title of Commissioner. It is evident from these records that Sutton Brown maintained an active role in the proceedings as can be seen by the frequent instances when his recommendations and opinions appear in the official records.

The makeup of the Technical Planning Board was a diverse group of ten individuals that include, in addition to Graham and Sutton Brown, the city Comptroller, the City Engineer, a City Attorney, a Building Inspector, a supervisor from the property and insurance group, a city health official, the Superintendent of Parks, and the Superintendent of Schools. The Civic Design Panel was chaired by the Assistant Director of Planning, Mr. B. Wiesman, and joined five other members, including three local architects, a local engineer, City Building inspector, Mr. D.A. Matheson, who was the only individual serving on both committees.

It is clear from the minutes from the City Archives that the Technical Planning Board was the seat of power and that it was this group that ultimately had to be satisfied. At the same time, however, recommendations of the Civic Design Panel were generally treated with great importance. The first meeting with the Technical planning board noted that the project as proposed violated several provisions of the zoning bylaws, including the FSR, which exceeded 3.35, and the Vertical light limit. The requirement that the building have a width no more than 30% of the sum of the average length and width of the site was a rule that the projected also violated, but this was rejected as insignificant by the Panel, on the ground that this geometry was not what the city had in mind when they established this rule, suggesting that this rule indeed was intended to prevent a repeat of Ocean Towers, and nothing else.

The city raised questions about the height of the towers at this initial meeting and suggested that the buildings might be re sited to improve the compliance with the vertical daylight protection rule. The architect was not invited to this discussion, and it was only several meetings latter that they invited him to discuss the project. Upon hearing his explanation for why the building was
cited the way it was, the city dropped its suggestion that the towers be of varying heights and they be re sited on the property.

In the interim, while these issues were still unresolved, the Architect met with the Civic Design panel and presented a model, which is shown below (see figure 4.16). A comparison of what was eventually built and the appearance of this model (see figure 4.15) reveals significant discrepancies between the two, and evidently these differences were also apparent and considered problematic to members of the Civic Design Panel when they compared the model to the drawings for the project.

![Architect's Design Model for Beach Towers (CBK Van Norman & Associates, 1964 City of Vancouver Archives).](image)

My perspective is that the model is substantially better as a design because the inclusion of additional windows and apparently wider balconies gives the building a layered appearance that is substantially more appealing, more complex and layered, than the finished version, in which blank vertical walls tend to dominate the composition. Instead of having an impressive feeling of open expansiveness that seems to both look out upon and welcome in the dramatic waterfront views over which these towers preside, the completed buildings have a cramped constrained feeling in which views that could have been enjoyed have been thwarted. The penthouse units at the top are more interesting in the model and the group of towers works together better than what
was actually built. The landscaping is also far better than what was eventually built, with a faceted edge to the parking garage permitting the inclusion of large plantings and trees along the street front at the base of the towers. These trees would have been a buffer to the parking garage to the side and also to the towers looming overhead to anyone walking down the street, but they were eliminated in the finished version. In comparison to what was eventually constructed, this design seems to have an appeal that was regrettably lacking in the eventual result.

The Civic design panel offered an assessment that in light of these observations and what would then follow in the process is rather revealing:

The Panel gave this design long consideration and noted that the excellent model submitted is not consistent with the perspective and other drawings accompanying the development permit application. It was explained to the Panel that the model represents the first design by the Architect and the drawings later revisions, and that a number of points have not yet been resolved to the satisfaction of the Director of Planning regarding the application of the Zoning By-law so that in some respects, the development is likely to be further revised. In addition, more detailed drawings have been requested. However, it was felt that in view of the size and importance of the development, the preliminary views of the Panel would be valuable and the model sufficiently accurate as to massing to indicate the nature of the concept.

The Panel felt that the drawings showed a less sensitively handled design than the model and they were concerned that the design standards were being lowered. They also felt that the placing of the blocks on the site was less satisfactory in the drawings and that in both instances that a different height of the towers would be advantageous. A further point they made, was that finishes are important and these are not adequately indicated. They wished to encourage the architect in what is potentially a good design and recognized that further work is to be done, therefore, they do not wish to make a recommendation on the design without full and up-to-date drawings. On completion of these, they wish to have the architect present at a further meeting and also to see a model of the final proposal.

- From March 12, 1964 Civic Design Panel report for Technical Planning Committee

In the end, this request for a finished revised model was abandoned, and concern over the deterioration of the design itself shifted and refocused on the issue of material finishes, which became the concern of both the Technical Planning Committee and the Civic Design Panel. The architect responded to these requests and the project went forward. Curiously when the proposal for a fourth tower was before the Technical Planning Board May 4, 1967, the Panel enthusiastically endorsed it on the basis that it repeated the material finishes seen in the first
three, even if this tower seems to further exaggerate the deficiencies seen in the previous three towers.

Evaluation: Although the Beach Towers was a large and expensive project proposed by a local businessman and designed by a prominent local architect, the numerous meetings required and the attention to detail demanded by the planners seem to have been focused on ensuring that the community was well served by the new building.

What actually went wrong? Why are the buildings that were constructed perhaps not as good as those depicted in the model? The record on what actually transpired that allowed the discrepancies to continue in the final version remains somewhat ambiguous. The recorded minutes of the planning meetings convey a sense that the planning board was both demanding and yet also somewhat accommodating. They never gave a firm rejection to the project, and demands for an updated model were subsequently dropped.

There are several possibilities that could explain why this happened. The first clue is that the building as depicted in the model would have been substantially more expensive than what was actually built. Windows are expensive, while black walls are relatively cheap. Given that this project to succeed would have to produce a profit in the middle class market it was intended to serve, cost would have been a serious consideration. Also, it is routinely a problem in architectural projects that architect propose initial designs that run over budget only to be called back when confronted with the reality of an actual construction budget.

While it would save the developer money to not have as many windows, this is not a justification that would carry weight with the planners. However, the result of eliminating these windows is likely to have meant that the buildings as constructed would be stronger and more able to resist the loads that could be expected to arise in the event of a major earthquake. Whether this was the only way that the earthquake forces could be addressed is somewhat doubtful, but the city is unlikely to have objected to this line of argument because if they had intervened and demanded an alternative configuration and then a problem had arisen in an actual earthquake, the city would in all likelihood find itself embroiled in lawsuits.

It is also possible that the planners came to understand that what was originally shown in the model was just too expensive and rather than belabor the point, chose instead to focus on
ensuring that the building finishes themselves would not be subjected to similar cost cutting measures.

The process of securing approval for the Beach Towers shows that the while the system of rules set in place to guide development in the West End was complex and cumbersome on paper, the planners charge with interpreting and enforcing these rules were reasonably flexible.

4.9 Discussion: The net impact of zoning codes on Building Morphology in the West End

Once the complex set of rules underlying the morphology of the new high rise buildings constructed in the West End is decoded, abundant examples of the influence of these rules become readily apparent in buildings large and small. The rules presented architects with a series of puzzles and while certain trends are apparent, such as the prevalence of slab buildings facing a particular orientation or the construction of cruciform towers whose wings are no more than fifty feet wide, there also on occasion appear structures which seem to defy expectations, such as slabs that still run parallel to the block, in a manner similar to that seen in Ocean Towers. Generally some other alternative explanation emerges when a structure that appears to break the rules is subjected to closer scrutiny. For example, while the angled daylight protection planes are fairly similar throughout the West End there are a few locations where the street grid is not maintained and parcels get wider or an alley way does not go through. In these rare instances the angled view planes do not limit the building height and the result is towering structures that approach the 300 foot limit.

By establishing new rules for the development of the West End, Gerald Sutton Brown created a comprehensive and multifaceted set of requirements intended to permit the construction of high rise buildings throughout the West End within narrowly defined limits that restricted the size, orientation, proportions and detailed design of buildings at an architectural scale and in terms of overall urban configuration, capable of increasing the density while at the same time forcing buildings to be situated further apart when they are taller. Curiously the imposition of the relatively low standard of a FSR of 3.0 meant that while all parcels could be developed to the same density of overall construction, on smaller parcels of land the tendency would be to construct shorter wider buildings, while taller structures were only feasible on the larger parcels.
Today throughout the West End high rises generally reflect these principles, meanwhile enough time has passed that the impact of these tower separation requirements on the surrounding vegetation can be judged. The street trees throughout the West End appear to be thriving as is the vegetation at ground level. The comparatively moderate FSR meanwhile appears to have contributed to the creation of a diverse mix of housing options that range from boxy low rise and midrise towers, to the occasional slender high rise tower.

4.10 The End of the West End high rise boom: 1973

Figure 4.18: The West End in 1971: looking west along Beach Ave. (Photographer: W Roozeboom, City of Vancouver Archives).

During the late 1960's and early 1970's the political culture of Vancouver began to undergo significant changes that saw the emergence of two new political parties, COPE and TEAM, which each began to challenge the once dominant NPA for control of the city government. While Cope has traditionally been more oriented towards supporting the needs of the working class community, TEAM, or The Electors Action Movement has traditionally appealed to academics and local professionals. Both of the new parties have pursued agendas that are towards the liberal end of the political spectrum, although COPE, or the Coalition Of Progressive Electors has tended to be further to the left.
After winning two seats in the City Council in the 1968 election, TEAM continued to rapidly gain public support and in December 1972 won eight of the ten seats on the City Council as well as the Mayor's race. Although his status as a civil service employee had kept him above the fray of electoral politics for twenty years, Gerald Sutton Brown was not immune to the political sea change which over took the government of the City of Vancouver, and early in 1973 he was fired. In fairness it should be mentioned that events in which Gerald Sutton Brown played a significant role contributed substantially to public dissatisfaction with both the NPA and with City Planning as it had been conducted under his leadership. These events however concerned not the West End but the problems of freeway construction and urban redevelopment both of which Sutton Brown attempted to implement in the large working class district known as the East End. These efforts and their ultimate consequences are the focus of the next chapter.

In the meantime, with Sutton Brown gone in 1973, the City wasted no time in actively bringing the West End High rise boom to a close. On January 30, 1973 after being in office for just a month, the City Council approved Bylaw 4683, a document which replaces the existing zoning designation of RM-4 for the West End, with a new zoning designation of RM-4A. The actual regulation appears to be a crude photocopy of Bylaw 4312 of an earlier comprehensive restating and revision of the rm-4 zoning rules outlined in Bylaw 3575. Only two changes to the 4312 document are apparent. The first is that the letter "A" has been inscribed by hand after RM-4, making it into RM-4A, and the other more substantive change is that the allowable FSR for this allegedly high density residential neighborhood has been reduced to 1.4, with a few modifiers left in place to allow for very slight increases.

Two points are noteworthy with regard to Bylaw 4683. The first is that this change was made before the City had hired its replacement for Gerald Sutton Brown as Planning Director. Ray Spaxman would eventually be hired in 1974 and serve as Planning Director until 1989. The fast pace of the adoption of 4683 and its somewhat cobbled together appearance suggest that the new TEAM government urgently wanted to bring the High Rise Boom to a close. The second point worth noting is that while the High Rise boom did indeed end at this juncture, the building height limit of 300 feet established in 1967 in Bylaw 4312 was left unaltered, and is actually restated in 4683. This suggests that the planners understood that a reduction in the FSR would be sufficient on its own to prevent the construction of additional high rise structures in the West End.
4.11 Evaluation: the West End high rise boom: a Success or a Failure?

Figure 4.18: The West End: 1930, 1969, and 2006 (City of Vancouver Archives).
The West End is perhaps the most familiar area to visitors of Vancouver and the recipients of their postcards, for its towering apartment buildings seem to rise out of the waters of English Bay and stand uncompromisingly but picturesquely against the North Shore mountains.


In 1955, the eight-storey Sylvia Hotel on the English Bay waterfront was the tallest building in the West End. Today, 20 years later, it is hidden beneath a forest of high-rise apartment buildings; the fine old mansions that once surrounded it are gone; the inexpensive rooming-houses destroyed; the human scale of the area obliterated; and all in the name of progress and profit.

- Donald Gutstein, *Vancouver Ltd.* 1975, 98.

The Point Tower apartment buildings have been of such design that air and light penetrate the whole district. Unfortunately, the freehold pattern of fragmented land ownership did not always provide as well for views of ocean, mountain, and park. The Point Towers also provide a high standard of defensible space where few people share common corridors. It is at ground level that many of the worst features of the area are seen and heard, particularly noise, auto congestion, and poor pedestrian environment. The valuable diversity made possible through the retention of older homes in between the towers has been threatened by the economies of development and cannot be maintained without some civic control of land-uses.

... Although there is a wide-spread condemnation of the West End in the city at large, it is not shared by the majority of those who live there. It is a story of those preferring other urban environments, namely single-family detached homes, trying to superimpose their attitudes toward high-density living on others. In the end, those who appreciate the West End tend to stay there. Those who find it oppressive leave.


If it can be accepted that the ultimate impetus for the West End high rise boom was changing demographics and economic conditions favoring an intensification of development in this particular neighborhood, and that the results seen were the result of planning controls and developer efforts, this still leaves open the question of whether the resulting urban environment should be considered a success?

The image of the West End suggested by critic Donald Gutstein portrays the West End as a market driven free for all, where developers built whatever they wanted, running rough-shod over the public interests, ultimately resulting in a chaotic and perhaps even hostile environment (Gutstein, 1975). A cursory overview of the West End seems to support such a perspective.
because the mixture of building forms constructed during this time period is a diverse and eclectic mix, including tall buildings and short buildings, square towers, octagonal towers, rectangular slabs and faceted or lozenge shaped slabs, in an environment in which 50% of the preexisting wood frame houses and walk up apartment buildings still remained (Wood, 1974).

Some criticisms of the West End high rises seem to be unwarranted, however. As the West End modernized and increased in density, the district was also beset by new problems with were not attributable to the building boom taking place there. Instead these problems owed their origins to a substantial increase in automobile traffic by outsiders who in increasing numbers had taken to crisscrossing the West End as they traverse the city. Traffic from the Lions Gate Bridge one of only two major traffic arteries crossing the Burrard strait in Vancouver, empties its traffic onto Vancouver's city streets at Georgia street, a block away from the northernmost limit of the West End. Increasing use of automobiles during the 1950's and 1960's corresponded with increased traffic congestion in this part of Vancouver, with traffic spilling over into the West End. In addition to the nuisance of this increase in traffic flow through a residential neighborhood, this traffic was seen as corresponding with an increase in prostitution that understandable was unwelcome by the West End residents. The City however responded to the resulting complaints by strategically altering the street grid, closing off intersections and obstructing through traffic. These street closures furthermore became redeveloped as pedestrian oriented mini parks. While these changes reported resulted in complaints from taxi drivers, they nevertheless achieved the desired result and the neighborhood came to take on a calmer, more pedestrian friendly character that continues to be enjoyed today (Ross, 1985).

On balance it is understandable that earlier critics, including Donald Gutstein could easily have been influenced by these problems, for which effective solutions had yet to be found. Traffic related problems would also impact development in other areas of the city. At the other end of the spectrum there are those who praised the wave of high rise construction that transformed the West End on the basis of an assessment that the results were dramatic and appealing, suggesting that this neighborhood is a sign of the city moving forward (Woods, 1974).

The more nuanced and balanced perspective offered By local Geography professor and influential City Alderman Walter Hardwick is revealing both for suggesting that the West End is well suited for those who chose to live there and because this comment comes from Walter
Hardwick himself. Hardwick was one of two City Aldermen first elected to the City Council from the TEAM party and he would continue to have an active role in studying and proposing ways to improve Vancouver. His endorsement of the results seen in the West End is particularly intriguing given that it was his party which had terminated Gerald Sutton Brown only a year before the above statement was published. To his credit, while Hardwick was critical of other aspects of planning that took place under Sutton Browns leadership, his relatively favorable assessment of the West End suggests that he remained reasonably objective, despite the political issues involved.

The West End today consists of a mixture of older low rise wood-frame structures, mid-rise apartment blocks and a variety of taller residential towers. While this mixture of high and low may have later played some role in the establishment of the new Vancouver style of residential development in which a single complex typically mixes row houses and point towers, the balanced variety of high and low buildings visible today in the West End perhaps ought to be regarded as a lucky accident. Even by 1971 it had become apparent that property owners of individual homes and smaller buildings in the area were not adequately maintaining their buildings under the expectation that a developer would soon be likely to purchase the land in order to construct a newer building, thereby making any money spent on maintenance a waste (Gayler, 1971). The decision that would reverse this problem and begin to help improve the overall quality of the West End would be the planning decision made in 1973 to lower the building height in the West End by reducing the FSR to a mere 1.4 (see Bylaw 4683). This change to the planning code meant that owners of existing properties that had not yet been redeveloped could no longer expect to sell their property to a large scale developer, and instead the best course of action was to repair and improve their existing structures.

There are substantial reasons to view the transformation and densification of the West End as a success: the wave of high rise construction did increase the residential density of the neighborhood, and the desired reversal of the downward slide of the downtown retail businesses was largely achieved. From 1956 to 1966 the population of the West End increased by 40% from 23,397 to 32,720 (Gayler, 1971). By 2006, the population of the West End had reached 44,560.

\[21\] These figures are attributed by Gayler to 'the Census of Canada', 1956, 1961 and 1966. Vancouver's West End district consists of Census Tracts 1-4.
(City of Vancouver), or 82.5 persons per acre, which is slightly more than the target of 80 persons per acre originally proposed by Harland Bartholomew. Upgraded housing intended to attract new middle class working professionals to the area has proven a success at a time when the nearby industrial base that had supported the neighborhood was rapidly declining. Furthermore, the scale of the high rise boom and the introduction of modernist style high rise apartments to this particular part of the city initiated a trend that began to spread to other areas of the city, which also began to construct the occasional residential tower, though not in the overall concentration found in the West End (Gayler, 1971). In a city which is currently attempting to be a leader in sustainable design, it is interesting to note that in 2006, 39.6% of the residents of the West End walked to work, while only 27.7% drove. For Vancouver as a whole, only 12.2% walked and 51.5% drove to work (Canadian Census figures from City of Vancouver).

From an aesthetic perspective the results are somewhat mixed. The West End has been criticized for its lack of a coherent master plan and for the ad hoc planning process by which the zoning rules which guided its development grew and changed over time. The result is an eclectic mix of high and low buildings of moderate density. The small original plot size and the difficulty developers had in acquiring and combining enough smaller lots to be permitted to construct a tall high rise contributed to the irregular pattern of development. Yet the open space required to construct a tall high rise has mitigated the overbearing character the new towers might have produced. The most cramped and congested portions of the district are not those around the towers, but those where the buildings have stayed only moderate in height.

The lack of a formal plan meant that planners responded to developer pressure. The questionable decision to raise the FSR property along Beach Street resulted in an unfortunate tendency to privilege those buildings closest to the waterfront while obstructing those further to the interior. If anything, it would have seemed to make more sense to use a reverse scenario where by buildings were encouraged to grow progressively taller towards the interior of the District, thereby allowing a larger number of units to enjoy available scenic views. This observation, however, comes in the aftermath of subsequent developments elsewhere in Vancouver which did not repeat this mistake, resulting in a better outcome; recent planners have benefitted from the example of the West End in formulating better approaches to these issues.
While these points would tend to largely argue against the approach used by planners in managing the rapid growth of high rises in the West End, an relevant consideration is that master planned high rise developments at the scale of the West End have not always resulted in pleasant urban environments (Goodman, 1972), but instead sometimes have resulted in oppressive, over-bearing uniformity. Within the haphazard variety of building sizes and proportions found throughout the West End, there is a sense of individuality that varies at the level of the individual building, the scale of the street and at a neighborhood level. Instead of being over powered by the scale of the bigger buildings, the persistence of many smaller buildings in their midst maintains a comfortable pedestrian scale.

If there is a serious criticism to be leveled at the results seen in the West End, in this regard, it is that the pedestrian realm adjacent to the larger structures is frequently less than pleasant, due to the empty spaces that have been created in order to permit buildings to use up their FSR ration in pursuit of height, with these vast leftover empty spaces merely used to provide parking. This too, however presents a valuable lesson that has not been ignored by Vancouver's later generations of planners and architects. In later developments in Vancouver which have gone to great lengths in pursuit of a more balanced relationship between towers that strive for views and a more continuous fabric of structures that maintain a comfortable streetscape. A complex set of new strategies and new design insights have played a role in this continuing evolution; these issues are explored further in subsequent chapters.

In the next chapter the second major strategy employed by Gerald Sutton Brown which included the construction of new residential high rises as part of very large urban renewal scheme in the East End of Vancouver will be examined. Chapter 5 then examines the largely overlooked first master plans produced by a private developer as proposals towards rehabilitating the declining industrial zone along False Creek into prime residential real estate. An understanding of these three approaches to urban redevelopment, each of which incorporated the design of residential high rises in an effort to improve a previously developed portion of the city, provide a unique vantage point from which to better understand the subsequent development of Vancouverism.
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