walking city: the transformative role of pedestrians in public space

by

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AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

ABSTRACT

Vancouver's downtown peninsula symbolically describes the sense of place unique to the city as a whole. It is a livable city with a strong connection to its natural surroundings, witnessed in its very active population. This sense of place, however, has far more to do with its relationships to its natural setting, the mountains and ocean, than its urban spaces or architecture. Most of the central public spaces are quite ordinary. Although the temperate climate is ideal for inhabiting streets and squares, the majority of the city's prominent public spaces exist along the water's edge. Ultimately locals and visitors gravitate to the periphery and the nearby wilderness, conditioning them to look outward on the natural setting as opposed to reflecting inward on the city. Vancouver's iconic identity exists primarily on the panoramic level. Great cities throughout the world exist without the splendour of mountains and ocean and Vancouver must stop relying on these to constitute its important public spaces.

This thesis makes a proposal for a series of large scale urban interventions on the downtown peninsula that serve to augment Vancouver's sense of place. The first intervention will replace unnecessary car space with public space, in order to incrementally create, over a number of years, an extensive pedestrian network that links its public spaces. This will incorporate characteristics of successful urban systems found in Barcelona, Bogota, Copenhagen, Curitiba and Portland, treating the street not just as a transportation corridor but also as a public space, and a democratic forum. The second intervention will remove many low to mid-density 'underperforming' residential buildings, creating a diagonal pedestrian and transit boulevard that bisects the downtown peninsula, linking major public spaces such as English Bay Beach, Robson Square, and Waterfront Station. Along this diagonal, new high density mixed-use development will offer an increased number of residential, commercial and cultural facilities. The new public spaces and developments created by the proposed diagonal boulevard will provide Vancouver with a civic realm better connected than it has ever been. Vancouver will become a city of great pedestrian public spaces, strongly linked to natural surroundings that serve an active and environmentally conscious population.

ACKNOWLEDGEMENTS

To Kathy I express my appreciation for all of your guidance and insight; to Ryszard, for both your confidence in me and your honesty; and to Jeff, for your direction and enthusiasm. Your ability to work together with me, both in person and away, was invaluable, and for that I am grateful.

I would also like to acknowledge the continuous support and love from my family, friends, and the 90 Kings, without which I could not have accomplished this.

DEDICATION

For my family, Susan, Peter, Brianne and Jeff.

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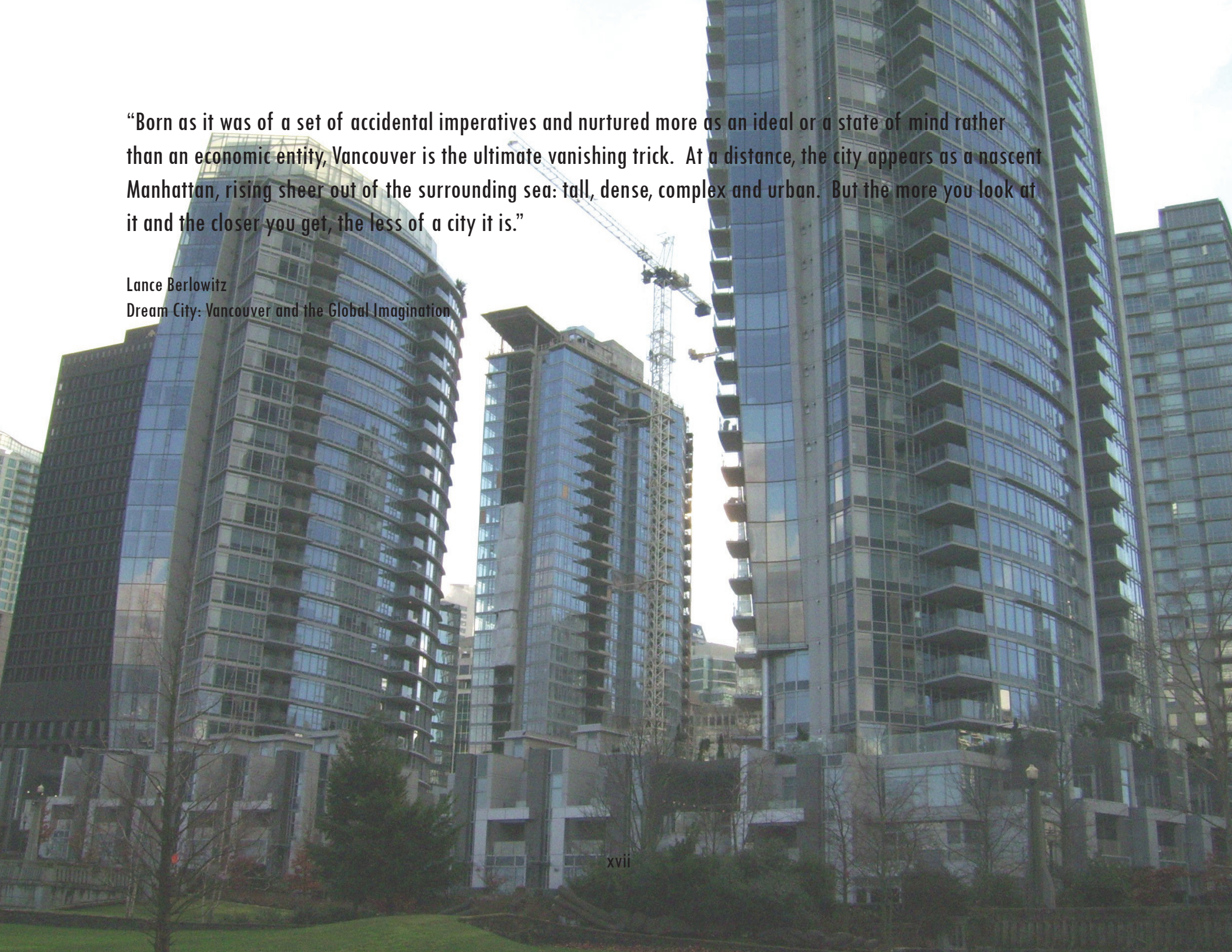
"Nestled amongst the ocean, rivers, forest and mountains, Vancouver is situated in an exceptional natural environment. It is often cited as one of the best cities in the world to live, work, visit or invest in. We have one of the smallest carbon footprints of any city in North America and we're a leader in green building, planning and technology."

City of Vancouver Greenest City Initiative
http://vancouver.ca/greenestcity



"Born as it was of a set of accidental imperatives and nurtured more as an ideal or a state of mind rather than an economic entity, Vancouver is the ultimate vanishing trick. At a distance, the city appears as a nascent Manhattan, rising sheer out of the surrounding sea: tall, dense, complex and urban. But the more you look at it and the closer you get, the less of a city it is."

Lance Berlowitz
Dream City: Vancouver and the Global Imagination

introduction

Environmental sustainability and a need for quality public spaces, which foster social sustainability, are two of the foremost issues that North American cities are faced with. Both are contributing factors to a vibrant and fluent sense of place in a city, an element lacking in many cities. The city of Vancouver has a notable sense of place that emanates from the sublime, untamed wilderness that surrounds it. The citizens of Vancouver are generally known as active outdoor enthusiasts who are attracted to their natural surroundings. But this sense of place has much more to do with situation of the city than the urban place of the city itself.

This thesis looks at the effect of the automobile and the space devoted to it in relation to quality of public urban spaces and environmental sustainability. In his book, The Urban Revolution, Henri Lefebvre prophesizes:

> "The invasion of the automobile and the pressure of the automobile lobby have turned the car into a key object, parking into an obsession, traffic into a priority, harmful to urban and social life. The day is approaching when we will be forced to limit the rights and powers of the automobile."[1]

This reality is beginning to show in Vancouver's centre, where a walkable scale, high residential density and a variety of alternative transit modes are contributing to a decrease in car traffic on the downtown peninsula. The municipal government has taken small steps to influence a rise in pedestrian culture with initiatives such as a temporary pedestrian plan during the 2010 Winter Olympics and Summer Spaces, a program that closes stretches of major commercial streets on select Sundays in the summer. This thesis aims to remove excessive automobile space and devote more of the street to the pedestrian and, in doing so, investigate whether using pedestrian streets as a connective agent between public spaces can contribute to an augmented sense of place.

Methodology

This thesis is presented in three parts: Part 01, "Vancouver: Setting in Search of a City," Part 02, "Walking Cities: Pedestrian Places and Spaces," and Part 03, "The New Walking City: Vancouver's Sense of Place."

Part 01 describes Vancouver's situation in two chapters. Chapter One, entitled "Outside-In" pairs Vancouver's many strengths, including a beautiful natural setting, world-renowned livability, model regional planning and an innovative environmental industry, with its weaknesses, such as its ordinary downtown, lack of central public spaces and tendency of its citizens to gravitate to its natural surroundings. The chapter identifies that Vancouver can no longer rely solely on its fortunate setting to make it a spectacular place.

Chapter Two, entitled "The Problem With Downtown Vancouver," uses ecosystem theory to identify cultural, ecological and transportation trends within the city's systems. This exploration defines Vancouver as a sustainable, transit-friendly city with a walkable downtown that struggles with its urban condition because of an outward focus. It suggests that its sense of place must be not only be based on its connection to natural surroundings, but also a new connection to a vibrant network of attractive public spaces.

Three chapters in Part 02 look at public space theory and its application in existing precedents. Chapter Three, entitled "What about the street" explores ideas of the evolution of the street over time, the presence and effect of politics and democracy in public space, the connection between the urban realm and sense of place, the place of the automobile in the city, and how all these things coexist in Vancouver.

Chapter Four, entitled "Five Walking Cities," examines how Barcelona, Curitiba, Bogota, Portland and Copenhagen all have successfully created meaningful public spaces that accommodate pedestrians and transit users with priority over the personal automobile. Lessons are taken from each city to determine how urban design, planning policy and government programs and grassroots movements can transform Vancouver's urban realm and create a street network that effectively links its public spaces.

Five successful public spaces are reviewed in Chapter Five, entitled "Where the City Meets." These urban meeting places range in use from recreational park to market square and have been built over many decades. They represent urban spaces in Australia, North America and Europe. Each public space will contribute to a design framework that will be employed in creating Vancouver's public spaces and the network between them.

Part 03 employs the framework developed in earlier chapters to create a vision for downtown Vancouver's urban realm in the future. Chapter Six establishes an incrementally grown street network that engenders and fortifies a walking culture within the downtown peninsula and beyond. It projects the transformation of important public spaces and the connective network that links them as a system.

Chapter Seven proposes a major addition to the downtown street and public space networks. Identifying a cluster of degraded low-rise and mid-rise buildings in the centre of the peninsula that may be selectively removed, creation of a new diagonal boulevard links the city's major waterfront spaces to its major central space. In doing so, it creates a series of new parks and squares to serve the higher density development that results along this corridor. The boulevard aims to create an urban realm that has been lacking in Vancouver's centre. It facilitates current densification trends and houses new cultural facilities and public spaces for a growing population.

This thesis shares Lefebvre's position, that for the sake of urban and social life the rights and powers of the automobile must be limited. While cars are a necessary part of a city, they should not temper and control our urban realm. By returning important space in Vancouver's streets from the automobile to the pedestrian a vision for a more sustainable future centres itself on creating a livable city based on sound transportation and quality public spaces. A connection to Vancouver's natural surroundings is nourished and showcased within spaces positioned in the heart of the city, creating a focus on the built environment that works in unison with the natural environment.

Endnotes

1 Levebvre, Henri. *The Urban Revolution*. Minneapolis; London: University of Minnesota Press, 2003, p. 18.

part 01 setting in search of a city

chapter one

vancouver

outside-in

Opposite:
fig. 1.01 *Stanley Park seawall overlooking English Bay*

Vancouver finds itself perched in an incredibly fortunate position: at the intersection of ocean, mountains and river; with a wealth to offer to tourists, investors and citizens alike, be it views, resources, or a healthy lifestyle.

fig. 1.02 *Downtown Vancouver and the North Shore mountains*

Vancouver is a truly unique Canadian city. Situated on the Pacific, this city is a day's drive from its nearest major national neighbour. With its temperate climate, connection to the ocean and environmental attitudes, Vancouver is in some ways more akin to the cities of the American Pacific Northwest than its Canadian brethren. Citizens can rarely identify with the thoughts of either blinding snowstorms or scorching heat that are often subject of smalltalk across the country. Physically isolated from the rest of Canada by the formidable Rocky Mountains, Vancouver finds itself perched in an incredibly fortunate position. It is bounded by ocean, mountains, and river, all offering a wealth of opportunities to tourists, investors, and citizens whether it be views, resources, or a healthy lifestyle. The film industry flocks here, enchanted by the nearness to nature and the variety of ideal city settings that can be used for backdrops. Vancouver is seen from the "outside-in" as some kind of wonderland - a glistening modern city surrounded by rugged wilderness.

fig. 1.03 *Agriculture in the Fraser River Delta*

In his book, *The New City* John Lorinc remarks on Vancouver's quick transformation from outpost to metropolis: "Vancouver, founded by loggers and miners, and tied precariously to the rest of the country by a ribbon of steel, is today a gleaming city-state that has learned to take maximum advantage of its natural beauty and westward orientation."[1] Vancouver's siting can be attributed to the convergence of geographical, political and economic conditions. "Sited dramatically between English Bay, Burrard Inlet, and the Fraser River delta, the region ... has two distinct geographical districts: the Coast Mountains on the North Shore and the Fraser Lowland, with gently rolling uplands and wide, flat valleys."[2] Within the city, you can find a number of industries driven by their situation in the natural landscape that contribute to the local economy. Forestry is the first industry that took advantage of first and second growth forested areas with some of the largest trees in North America. Resource extraction helped shape Vancouver into an ideal departure point for mining industries based in the mineral and metal rich Coast Mountains. Many industries grew from the city's siting on the Pacific. As Donna Erickson describes in *Metro Green*, these industries are a crucial part of Vancouver's culture: "Vancouver possesses one of the few deep-sea ports on the Pacific coast of North America and is Canada's major west coast port. Facilities for container ships, cruise ships, and other maritime businesses (fishing, boat-building) are important parts of the city's historic and contemporary life."[3] Finally, agriculture is an important industry that benefits from the rich soils of the Fraser Valley.

"Beyond its commercial assets, the city is consistently rated one of the most livable cities in the world by international surveys."

fig. 1.04 *Port of Vancouver*

Economic opportunities are not the only attractive feature of Vancouver. Erickson notes, "beyond its commercial assets, the city is consistently rated one of the most livable cities in the world by international surveys."[4] Forward-thinking regional planning methods have been employed by the Greater Vancouver Regional District (GVRD), now called Metro Vancouver. This planning authority helped create a very deliberate and favourable urban situation. Comprised of representatives from all twenty-one member municipalities. Metro Vancouver confronts all issues with a regional frame of mind, with a keen eye on both the past and future, as well as present-day planning practices used world-wide.

With citizens concerned about runaway sprawl, this plan has resulted in a host of interconnected elements, such as compact mixed-use development linked to transit, redevelopment of brownfields, and urban design policies designed to create lively, pedestrian-scale public environments.

fig. 1.05
Burnaby's Regional Town Centre, Metrotown

"Vancouver's unwillingness to improve automobile access to the core has prompted thousands of Vancouverites to eliminate their commuting problems altogether by purchasing condo apartments or townhouses near their workplace."

fig. 1.06
Burrard and Granville Street Bridges crossing False Creek into downtown

A large number of components have contributed to Vancouver's livability. It started, most notably, with strong regional planning. In 1990, Metro Vancouver adopted an ambitious strategic plan that encompassed protection of farmland, housing provisions and transit that focused on high density development around "Regional Town Centres" rather than peripheral developments. Citizens' concern about runaway sprawl prompted a plan embodied with a host of interconnected elements, such as compact mixed-use development linked to transit, redevelopment of brownfields, and urban design policies.[5] These policies became a framework for creating lively, pedestrian-scale public environments. Regional planning initiatives aimed to control sprawl focusing on the growth of downtown and Regional Town Centres (RTCs). Specifically, Metro Vancouver has enacted land policies to encourage high-density mixed-use development downtown.

Convincing citizens to live downtown has never been an issue. Since its inception, city development has always focused on centrality due to the restrictions of its physical landscape. The opposing grids of the downtown peninsula's two neighbourhoods – Downtown and the West End – are derived from two major land grants developed by separate entities. The residential east-west orientation of the Westend was controlled by the Crown whereas the commercial north-south Downtown was set out by the Canadian Pacific Railway. The Westend is a popular place to live since the early days of the city. Lorinc describes the measures taken to make downtown living attractive:

> The City of Vancouver, for its part, recognized the importance of promoting downtown living in the mid-1990s when it altered the zoning bylaws to allow for the high-density residential development in areas that had long been set aside for office towers that failed to materialize. Vancouver's unwillingness to improve automobile access to the core has prompted thousands of Vancouverites to eliminate their commuting problems altogether by purchasing downtown condo apartments or townhouses near their workplaces.[6]

"Vancouver's West End supports 133 units per hectare - a figure that puts this part of the city's downtown in league with parts of San Francisco and New York."

fig. 1.07
The walkable scale of the West End

"A major first principle was to limit any increase in vehicle access to downtown by a policy of not building any more bridges or traffic lanes, so as to let congestion become an ally in creating conditions more amenable to urban living."

fig. 1.08
Traffic entering downtown on the Lion's Gate Bridge

With these zoning changes and efforts to curtail automobile use, undeveloped land and former industrial sections of the Downtown started to align with residential density of the West End. While Toronto's and Montreal's pre-World War II neighbourhoods had modest densities, of 36 units per hectare and 75 units per hectare respectively, Vancouver's downtown contrasts greatly. Lorinc notes that "Vancouver's West End – with its high concentration of apartment buildings – supports 133 units per hectare – a figure that puts this part of the city's downtown in league with parts of San Francisco and New York."[7] With such favourable conditions, Vancouver has an advantage over most other North American cities in the renaissance of downtown living. Along with cities like San Francisco and New York, Vancouver is an example that cities having high densities can be quite livable and sustainable within a North American context.

More than just an example of livability and residential density, Vancouver is poised to become an ecological and environmental icon. Not only are residents aware of their own needs, but limitations as well, compelling them to seek innovative solutions to address local issues. Moreover, they recognize the need to be stewards of the environment and lead by example. Having a dense population confined to such a small area, Vancouver's downtown peninsula has an approximate area of 4 square kilometres. This condensed area could either lend to severe traffic problems or present some very interesting opportunities in design. Because of its very walkable scale, Metro Vancouver and the City of Vancouver have recognized the benefit of monitoring and restricting the level of automobile use in the downtown Vancouver. Lance Berelowitz, a contemporary Vancouver critic, has examined the city's attempts to control the downtown urban environment:

> A major first principle was to limit any increase in vehicle access to downtown by a policy of not building any more bridges or traffic lanes, so as to let congestion become an ally in creating conditions more amenable to urban living. This revolutionary (for North America at least) policy has reaped dividends, bringing intensified life to the streets of downtown Vancouver.[8]

fig. 1.09 *High density housing in the West End*

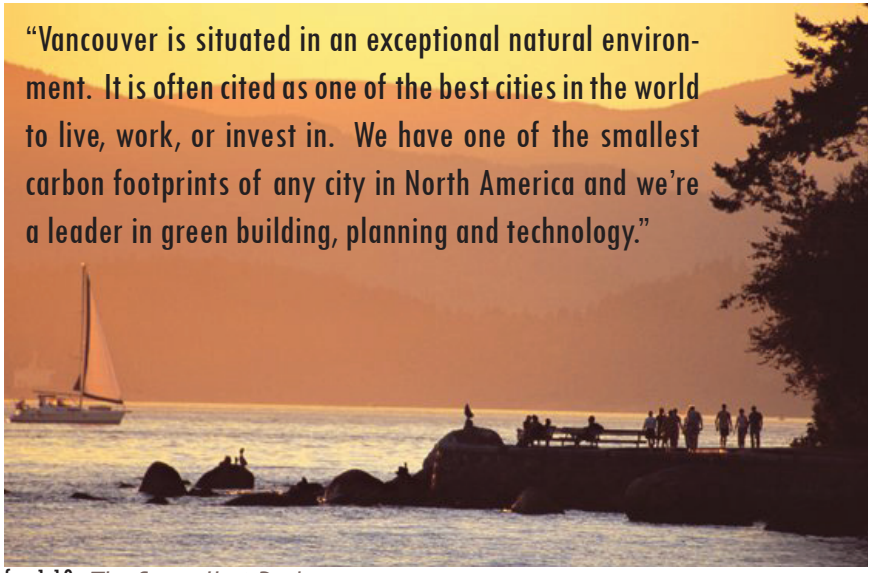


fig. 1.10 *The Seawall at Dusk*

Though automobile use has risen city-wide with population growth, the number of cars entering downtown have dropped steadily over the last two decades. This trend is unique in North America to Vancouver, and has played a large part in the city vaulting to the forefront of the sustainable city conversation. Vancouver has become known as an environmental leader in many fields.

Along with transportation trends, industry has moved towards stronger sustainability. Vancouver's economy has shifted from a dependence on resources to a focus on environmental entrepreneurialism over recent decades. People who are cognizant of environmental issues have long been attracted to the West Coast that is home to organizations like Green Peace, the David Suzuki Foundation, and the International Centre for Sustainable Cities. Peter Busby, a leading Vancouver architect predicts that "Vancouver will become 'the premier North American city for businesses focused on environmental and sustainability issues.'"[9] Likewise, the new City of Vancouver government, the Vision Vancouver Party who was elected in November 2008, embraces this sentiment. The party made a strong push for environmental accountability during its campaign. Stated prominently on the City's website is the following statement:

> Nestled amongst the ocean, rivers, forest and mountains, Vancouver is situated in an exceptional natural environment. It is often cited as one of the best cities in the world to live, work, visit or invest in. We have one of the smallest carbon footprints of any city in North America and we're a leader in green building, planning and technology.[10]

Central to the Vision Vancouver party's platform is the Greenest City Initiative. The city is on a mission to lead the world in the new green economy, as a home of green jobs and green economic development.

Vancouver is, and has long been, faced with immense opportunities challenges. Even in the city's early days leaders recognized the overwhelming potential of its fortunate situation. Harland Bartholomew, author of Vancouver's first urban plan in 1928, suggested that:

"Nurtured more as an ideal or a state of mind rather than an economic entity, Vancouver is the ultimate vanishing trick."

fig. 1.11
Weekend traffic to Whistler on the Sea-to-Sky highway

"The more you look at it and the closer you get, the less of a city it is."

fig. 1.12
The seawall overlooking downtown

> Scanning the world over, it would be hard to find a city which, in addition to being practically the sole ocean port of half a continent, inhabited by a progressive and increasing population, has on its outskirts a river valley of great agricultural possibilities, with a hinterland rich in minerals, lumber and raw materials for manufacture and adjoining at the moderate distance of five hundred miles the greatest granary in the world. Can any city claim an equal situation?[11]

Yet things are not always as they seem. With so much working in its favour, Vancouver has developed many traits of a city that are either envied or emulated world-wide. However, for all the acclaim the city has received, there are just as many issues whereby critics turn a blind eye. Many centuries after the early North American cities were established, explorers and traders came across this resource-rich region. The richness of the area allowed Vancouver to grow very quickly, accommodating a rapid influx of people. Due to this rapid growth, the city could not appropriately evolve, creating an urban condition with characteristics of poor land-use and design. In his book, *Dream City: Vancouver and the Global Imagination,* Berelowitz is particularly critical of Vancouver's understated urban condition:

> Born as is it was of a set of accidental imperatives and nurtured more as an ideal or a state of mind rather than an economic entity, Vancouver is the ultimate vanishing trick. At a distance, the city appears as a nascent Manhattan, rising sheer out of the surrounding sea: tall, dense, complex and urban. But the more you look at it and the closer you get, the less of a city it is.[12]

Every point within the downtown is a short walk from the waterfront and much development of public space has tended toward the edges. Careful protection and improvement of oceanside spaces that has only improved over the last two decades has given citizens every reason to gravitate outward. It is at the edge that one is most aware

"This is a young city, and for many of its residents, it is actually an excuse for the place, a necessary inconvenience on the natural landscape; it is a means to an end that has little to do with urban living but a great deal to do with the private pursuit of nature and leisure."

fig. 1.13
The seawall in Yaletown along False Creek

fig. 1.14 *The North Shore view from Harbour Green, a platform park*

of the magnificence of the city's surroundings. It is at the edge that you feel at once in a city and a step away from the sublime wilderness of the Pacific Northwest. While the closeness to nature instills much sense of place, the city seems to exist as an afterthought. Berelowitz supports this contention: "It is easy to describe Vancouver as anti-urban, but it may be more opposite to define it as a particular type of urbanism in which the city acts as a sort of mirror or a display case for the aesthetic consumption of nature."[13] He makes note of the fact that many people attracted to Vancouver are recreation or nature enthusiasts. As our population tends more and more away from rural areas and towards cities, many of Vancouver's residents rely on the city for their livelihood, but in reality are only interested in being near the wild. Berelowitz observes, "this is a young city, and for many of its residents, it is actually an excuse for the place, a necessary inconvenience on the natural landscape; it is a means to an end that has little to do with urban living but a great deal to do with the private pursuit of nature and leisure."[14] Very much so, the form of the city's spaces are predicated upon a need to constantly remind Vancouver of its adjacency to the wild. In their article "Mirage Metropolis" Roehr, Soules and Burger provide commentary on Vancouverism, the locally spawned theory of urban development based on density and livability, centred on point/podium condominium towers. They take care to note the unique criteria that make Vancouverism's density livable: views to nature, a public waterfront, ample greenspace and access to public amenities.[15] Most of these criteria work together in fostering a relationship to Vancouver's natural surrounding landscape.

Berelowitz discusses the importance of views of the landscape for its urban form and public spaces, describing this dependence as the view imperative:

> In Vancouver, this view is typically distant, panoramic and outward rather than inward-looking or overlooking the built environment, such as, for example, Manhattan's Central Park. In Vancouver it is not the view of the city that is prized, but rather the view of a distant Natural Tableau.[16]

The centre of the city is quite ordinary. Considering the daytime and residential density, there are not enough public spaces.

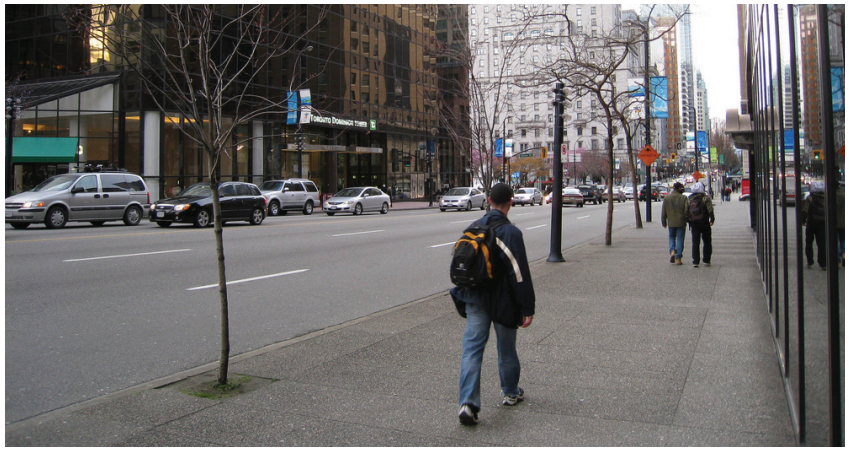


fig. 1.15 *A bland streetscape along Georgia Street*

"It has been suggested that Vancouver gets away with mediocre public architecture precisely because it has an overcompensating natural setting."

fig. 1.16 *Car dominated Burrard Street*

The Natural Tableau is a major focal point for all types of the city's peripheral spaces. Vancouver's many urban beaches engage the landscape, providing many recreational options such as swimming, boating and beach volleyball. The seawall, a 28-kilometre waterfront walkway, is a recreational facility focused on circumnavigating the city and witnessing all the prized views.

> The waterfront walkway has become the sacred cow in this city, and its citizens ardent worshipers. Everything happens at the edges of Centrifugal City.[17]

The seawall is a major selling feature for new condominium developments in the downtown. Speaking about the construction of Coal Harbour, Berelowitz makes note of this relationship: "The usual Vancouver waterfront walkway/bikeway is well integrated here, entrenching the ever-present impulse to look out at the setting rather than in towards the city."[18] The last major type of peripheral public space found in the downtown and many residential neighbourhoods is the platform park. Rarely providing any real program, these spaces provide terrific views to the British Columbian Beyond.

> These static platforms reflect the centrifugal nature of public space in a city in which activity constantly tends toward the edges. Nothing happens in these spaces; they simply exist. Public life requires collective activity, but these are platforms for private consumption.[19]

Regardless of the nature of use of the city's public spaces, the fact remains that most of them exist on the edges, leaving a major deficit of meaningful public space in the city centre.

There is little connection between the quality of the city's public spaces and the majesty of its surroundings.

fig. 1.17 *Robson Square*

fig. 1.18 *Large gathering at Courthouse Square*

The centre of the city is quite ordinary. Considering the daytime and residential density, there is not enough public space. Vancouver is a good walking city with high pedestrian counts but it caters to the automobile as much as any other Canadian city. It needs to build on its strength of pedestrian culture with more quality public space. Citizens downtown often choose to walk to get from place to place, but this is not evident in the design of the public realm. Berelowitz continues with his critique on public spaces. "The city's streets are still far too wide, or at least far too much of the space is designed for vehicles over pedestrians."[20] The streets are vibrant, but most must be attributed to the people who fill it. There is little rational connection between the important public spaces, and these spaces, while well used, are not successful because of their designs. Berelowitz criticizes that :

> The city's constructed public realm...does not always improve upon the natural setting. Take away its setting, and Vancouver might qualify as one of the more banal architectural constructs of any Canadian city. Until very recently, many of its buildings and particularly its public spaces often have not seemed equal to its setting.[21]

There is little connection between the quality of the city's public spaces and the majesty of its surroundings. "Perhaps its natural blessings have made Vancouverites lazy, smug about their environment, even as they ignore it in their city-making. It has been suggested that Vancouver gets away with mediocre public architecture precisely because it has such an overcompensating natural setting."[22] The most popular public spaces exist towards the edge, including Gastown, Yaletown and English Bay and Sunset beaches. The space considered to be the city's major gathering place, Robson Square, falls short in matching the magnificence of the natural environs. Despite being overhauled in a major competition (won by notable local architect Arthur Erickson), Robson Square has been repeatedly renovated but never fully realized its potential and intent as

Vancouver can no longer rely on its natural surroundings to make it a great city. It must capitalize on the strength of its connection to these surroundings in making an urban realm that contributes to it being such a spectacular place.

a major public space. Some feel it is outperformed by the courthouse square on the opposite side of Vancouver Art Gallery:

> And despite its orphaned state, the old courthouse square to the north is still sometimes preferred for major public gatherings. When Vancouver still officially celebrated New Years Eve downtown the space attracted thousands...with crowds spilling out onto the surrounding closed roadways. It was exciting, even metropolitan. This not-quite-square almost seemed to work as a focus for public life, in a way that Robson Square never will.[23]

Vancouver is seen from many different perspectives. What is an intrusion on nature to some is an ideal setting into it for others. Being surrounded by an overwhelming collection of natural resources can be seen as either a benefit economically or a hindrance environmentally. The focus on ecological sustainability can present what is seen as either a wealth of opportunities or a series of restrictions on urban development. But regardless of how one views the city, its relationship to its setting is an undeniable force and the heart of its sense of place, witnessed in the life of its peripheral public spaces. This force can not be overlooked, nor should it. It needs to focus on a sense of place to integrate into its public realm - a meaningful part of the city's identity. Vancouver can no longer rely on its natural surroundings to make it a great city. It must capitalize on the strength of its connection to these surroundings in making an urban realm that contributes to it being such a spectacular place.

Endnotes

1 Lorinc, John. 2006. New city : *How the crisis in canada's urban centres is reshaping the nation*. Toronto: Penguin Canada, p. 4
2 Erickson, Donna L. 2006. *MetroGreen : Connecting open space in North American cities*. Washington, D.C.: Island Press, p. 185
3 Erickson, p. 182
4 Erickson, p. 182
5 Lorinc, p. 232
6 Lorinc, p. 229
7 Lorinc, p. 97
8 Berelowitz, Lance. 2005. *Dream city : Vancouver and the global imagination*. Vancouver ; Berkeley: Douglas & McIntyre, p. 219
9 Lorinc, p. 267
10 City of Vancouver official website. <<www.vancouver.ca/greenestcity/index.htm>>
11 Erickson, p. 186
12 Berelowitz, p. 161
13 Berelowitz, p. 162
14 Berelowitz, p. 161
15 Roehr, Daniel. "*Mirage Metropolis: Vancouver's Suburban Urbanism.*" Topos 58 (2007): p. 72
16 Berelowitz, p. 173
17 Berelowitz, p. 166
18 Berelowitz, p. 102
19 Berelowitz, p. 164
20 Berelowitz, p. 157
21 Berelowitz, p. 127
22 Berelowitz, p. 127
23 Berelowitz, p. 133

chapter two

the problem with downtown vancouver

ecosystem theory for urban landscapes

This chapter focuses on understanding the complex relationship between Vancouver's social and ecological systerms that contribute to its sense of place. Specifically, there is a complexity of factors that figure into the downtown transportation and public space networks. This chapter employs ecosystem theory for urban landscapes, developed by James Kay, who states, "You don't design ecosystems. You design your relationships to them." Ecosystem theory focuses on understanding how to live within systems rather than control them. The theory outlines the complex natural and cultural ecosystems of the urban and natural landscapes, and suggests avenues of research and design to move forward.

scales of analysis

fig. 2.01

Canada XL

The vast majority of Canada's population and development resides within a linear strip from the Atlantic to the Pacific stretching from the American border 200km north. Canadians and their goods travel along this corridor by highway and train. Vancouver is found at the western-most end of the developed area; the terminus of the railway and the last mainland city that the Trans-Canada highway passes through. Vancouver sits prominently on the Pacific shores as one of North America's largest ports, and Canada's prominent western city center.

fig. 2.02

British Columbia L

Vancouver is found in a rare temperate and fertile district in the southwest corner of the province. It's location at the Fraser River Delta has brought much of the province's logging industry through it's waters and provided the best growing conditions for farming. The city has developed as British Columbia's center for industry, agriculture, population, and thus culture and society.

fig. 2.03

Metro Vancouver M

With most of British Columbia's industry located here, the Metro Vancouver has grown from adjacency of small towns to a large metropolis. Vancouverites live in both high densities and low; in river flats, by ocean and by mountain. Each municipality in the region has unique distinction, offers different environments to its citizens and contributes a complex set of benefits and issues to the greater region as a whole.

fig. 2.04

Downtown S

The small downtown peninsula is bounded by park and ocean on three sides. It is the center for business and commerce and increasingly a popular place to live. There is a high population of workers and residents and, because of its physical constraints, there are very few ways to access the downtown. These conditions make the downtown peninsula a major focal point of the city and an ideal site for urban design exploration.

historical planning narrative

This section outlines 10 significant planning events that have shaped Vancouver's urban condition and describe how it, among other North American cities, has a unique opportunity to change the way we think about life in the city.

i Granville Townsite

fig. 2.05

1870

This early logging village brings a community to the wilderness of today's Gastown site. One of many small settlements in the area, Granville is the community that evolves into present day Vancouver.

fig. 2.06

ii CPR Expansion

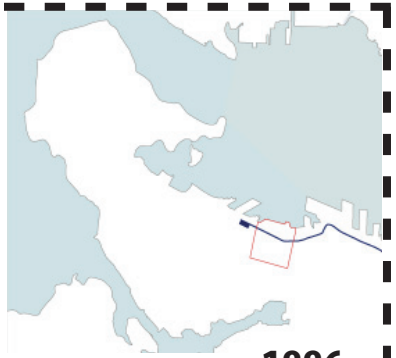


fig. 2.07

1886

The Canadian Pacific Railway chooses to bring its westernmost terminus to Granville, onto the present day downtown peninsula rather than to settlements located further inland. Promised land grants near the water aid in this decision.

fig. 2.08

iii Park Space

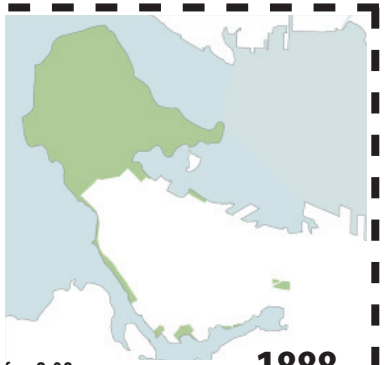


fig. 2.09 **1888**

Vancouver's prominent public spaces are established on the periphery of the downtown peninsula when the newly formed Parks Board inaugurates Stanley Park as what will become one of North America's largest urban parks. Scenic drives, beaches and the 22km long seawall follow in years to come. The parkspaces bring people to the water and establish a health-conscious culture.

fig. 2.10

iv CPR Development

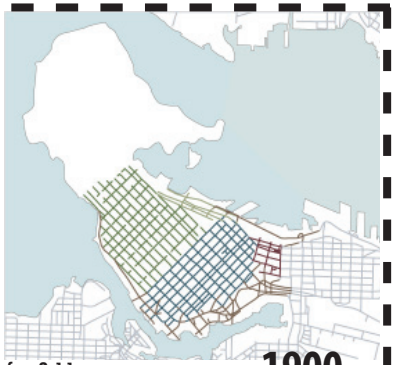


fig. 2.11 **1900**

Half of the downtown peninsula is owned by the CPR and the development of this land gives birth to the duality as Downtown as commercial and the Westend as residential. This establishes a culture of both living and working downtown.

fig. 2.12

v Granville Neon

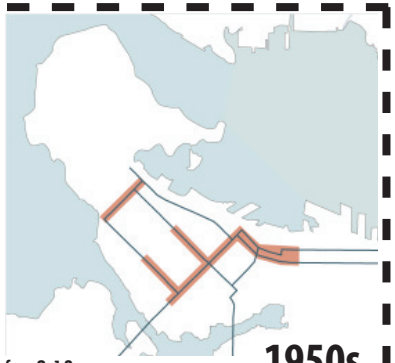


fig. 2.13 **1950s**

The spectacle of Granville Street's neon strip and Theatre Row and the emergence of the Urban Electric Streetcar routes establish main strips and neighbourhood nodes. Downtown becomes both a place to live and a destination.

fig. 2.14

vi Strathcona Freeway

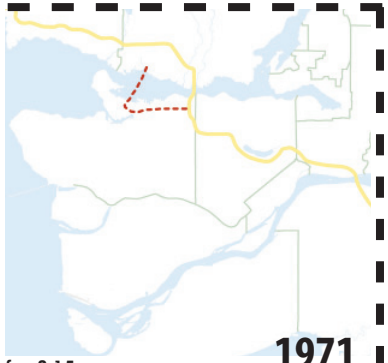


fig. 2.15 **1971**

The city backs out on plans to bring a freeway through the eastside and downtown neighbourhoods. This allows less cars downtown and avoids dividing adjacent neighbourhoods, a condition found in many North American city centers. Burrard Inlet is spared from another bridge breaking up the view of the North Shore.

fig. 2.16

vii ALR

fig. 2.17 **1973**

To protect farmland new regulations require that 5% of provincial land must be arable. Vancouver is able to allow for only 30% of the regions land area to be developed. With no place to grow but upwards density rises downtown.

fig. 2.18

viii Expo '86

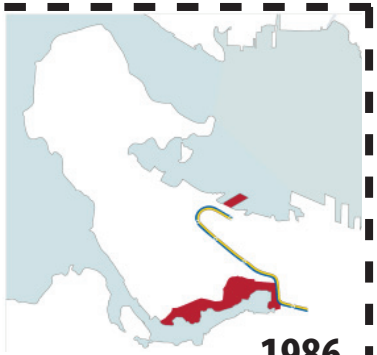


fig. 2.19 **1986**

The World's Fair brings focus to the derelict shores of False Creek. The Expo's theme of transportation gives Vancouver the beginnings of a world-class transit system, helping to combat thin car infrastructure.

fig. 2.20

ix Expo Development

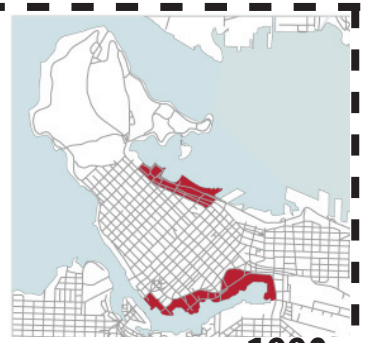


fig. 2.21 **1990s**

Newneigbourhoodsontheformer Expo land and in Coal Harbour set the tone for this decade's downtown development. The birth of Vancouverism brings the enhancement of the seawall and an outward focus as condos fly skywards.

fig. 2.22

x Regional Planning

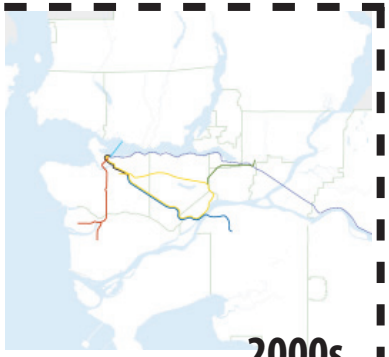


fig. 2.23 **2000s**

Translink and GVRD work together to link communities with regional planning based on public transit. Expo, Millenium, Canada and Evergreen rapid transit lines, along with the Seabus and the West Coast Express regional train shorten relative distances between municipalities.

fig. 2.24

Abiotic and Biotic Analysis

The lack of rain in the summer months make for an outdoor enthusiast's paradise with sports on land, mountain and sea.

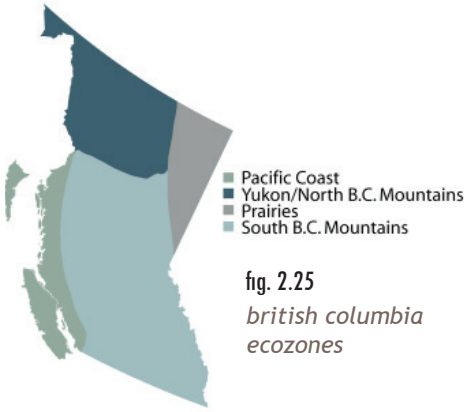


fig. 2.25 *british columbia ecozones*

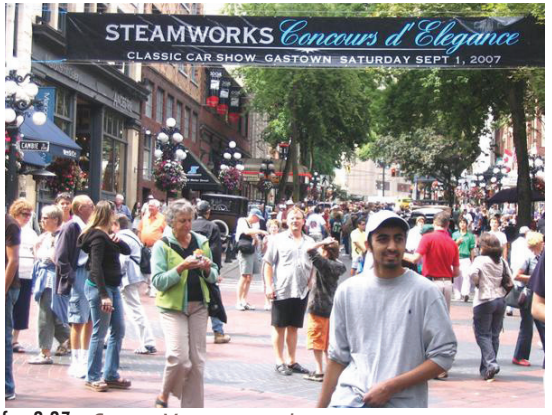


fig. 2.27 *Sunny Vancouver day*

fig. 2.28 *Rainy Vancouver day*

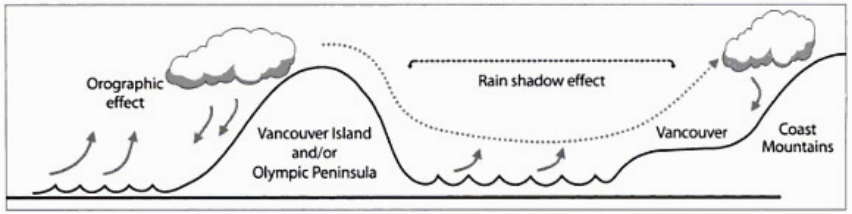


fig. 2.26 *The rain shadow effect*

The Pacific Maritime Ecozone is located along the southwest coast of British Columbia and is characterized by mountainous coast and marine islands. Here you'll find the wettest weather, the tallest trees and the deepest fjords in all of Canada. Vancouver is situated at the extreme south end of the Pacific Maritime Ecozone. A rain shadow occurs on the east side of the Vancouver Island range and weather patterns then pick up precipitation over the Straight of Georgia, shedding high volumes on Vancouver, situated south and west of major mountains. Because of this the city itself averages over 1100mm of precipitation annually. Most precipitation falls during the rainy winters, while the summers experience much sunlight.

Vancouver has a very atypical climate for a Canadian city. The winters are rainy, but mild in temperature. The summers are moderately warm, complimented with pleasant and consistent weather. Thanks to a small temperature range, the city's patios are able to remain open for much of the year. The lack of rain in summer months make for and outdoor enthusiast's paradise with sports on land, mountain and water alike. Meanwhile, precipitation in the winter makes for top-rate ski conditions on the surrounding mountains.

fig. 2.29 *western hemlock*

fig. 2.30 *western red cedar*

fig. 2.31 *arbutus*

fig. 2.32 *Douglas-fir*

fig. 2.33 *red alder*

fig. 2.34 *big leaf maple*

fig. 2.35 *Japanese cherry*

Vancouver's native vegetation is that common to the wet coastal forests found in Southwestern British Columbia. The evergreen coniferous forests are dominated by western red cedar, western hemlock and Douglas-fir species. These species are known to grow to great proportions. Western red cedars reach as high as 45m and as wide as 7m, the western hemlock as high as 70m and wide as 3m, and the Douglas-fir reaching heights of 120m and widths of 6m. The arbutus species, a red-barked broad leaf evergreen is often found amongst Douglas-fir stands near the Strait of Georgia.

There are are pioneer deciduous species that are commonly found in the region, becoming widespread after the first-growth conifers were forested. The red alder is a fast growing species commonly found on disturbed land and the big leaf maple can be found amongst second growth stands. Japanese cherry trees are not native to the region but grow prolifically throughout, with its pink flowers dominating Vancouver streetscapes each spring.

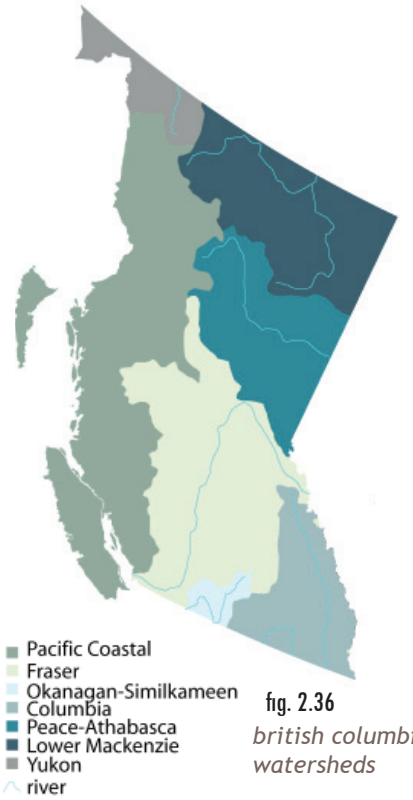


fig. 2.36 *british columbia watersheds*

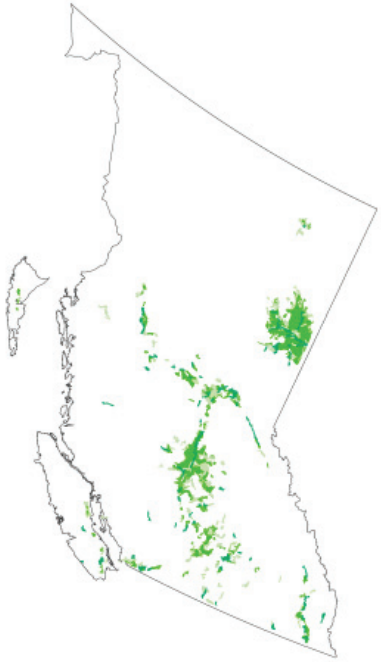


fig. 2.37 *british columbia arable land*

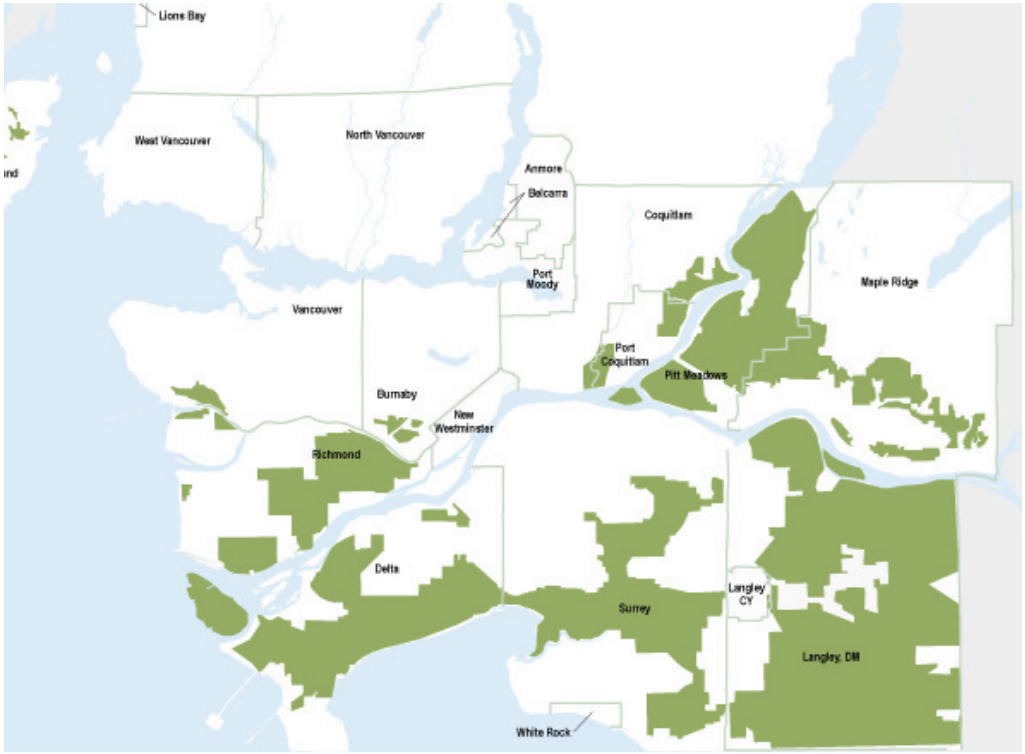


fig. 2.38 *metro vancouver agricultural land reserve*

Metro Vancouver occupies the delta of the Fraser River, one of Canada's longest rivers. The watershed covers most of British Columbia's central and southern interior, an area the size of California. The Fraser winds through a mineral-laden landscape, which then deposits in the Fraser Valley, near the river delta, where the rich soil makes for the province's best growing conditions. This is particularly important to British Columbia, where approximately 5% of provincial land is arable. With most of mountainous British Columbia covered in forest the province goes great lengths to protect this. Much of the agricultural land, and by far the most fertile portions are found in the Fraser Valley Lowlands. It is protected by the Agricultural Land Reserve which makes up 30% of the GVRD. Provincial legislation protects the ALR and this greatly affects development in the Lower Mainland. Urban Sprawl has ultimate limits and Metro Vancouver is forced to employ higher densities to accommodate all its citizens.

Cultural Analysis

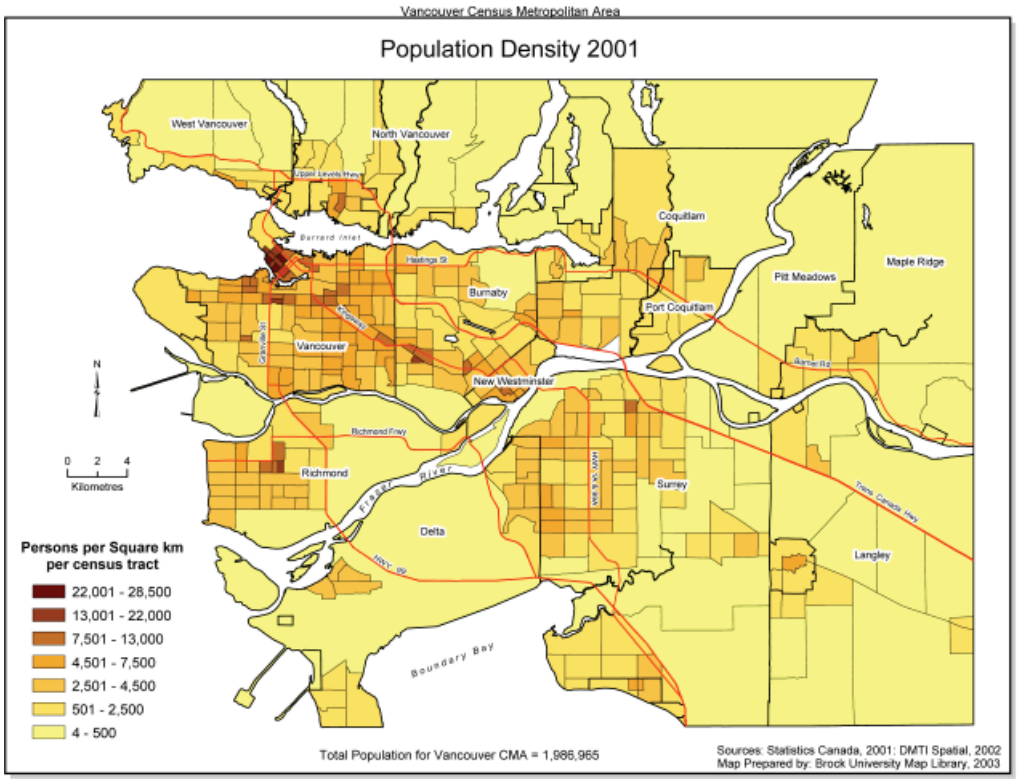


fig. 2.39 *metro vancouver population density*

Population Density

Metro Vancouver's regional planning decisions focus on containing and focusing growth. They favour downtown Vancouver, recognizing the importance of promoting downtown living. High density residential development has taken the place of unrealized office tower projects in the downtown. Zoning bylaws have been altered in exchange for the provisions of amenities that benefit the city.

While Metro Vancouver as a whole contains relatively standard residential densities, the City of Vancouver is another story. The downtown is among the densest of North American neighbourhoods and the rest of the city focuses mid to high-level densities on most major streets. Vancouver's West End supports 133 units per hectare, making its density comparable to San Francisco and Manhattan.

In the Metrocore and regional town centres residents are able to live close to amenities and can often walk to them.

There are typically fewer parking options as land values tend to be higher. This strengthens the culture of walkable communities.

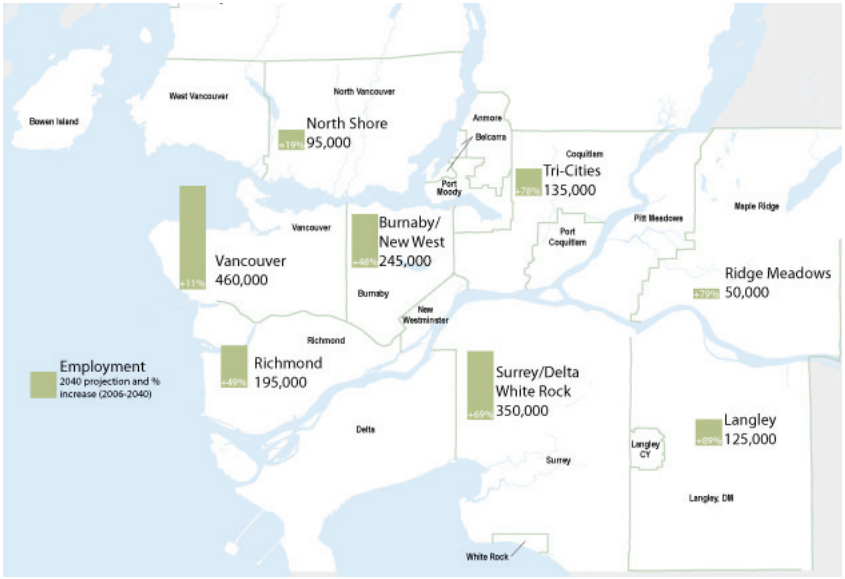


fig. 2.40 *employment growth by 2040*

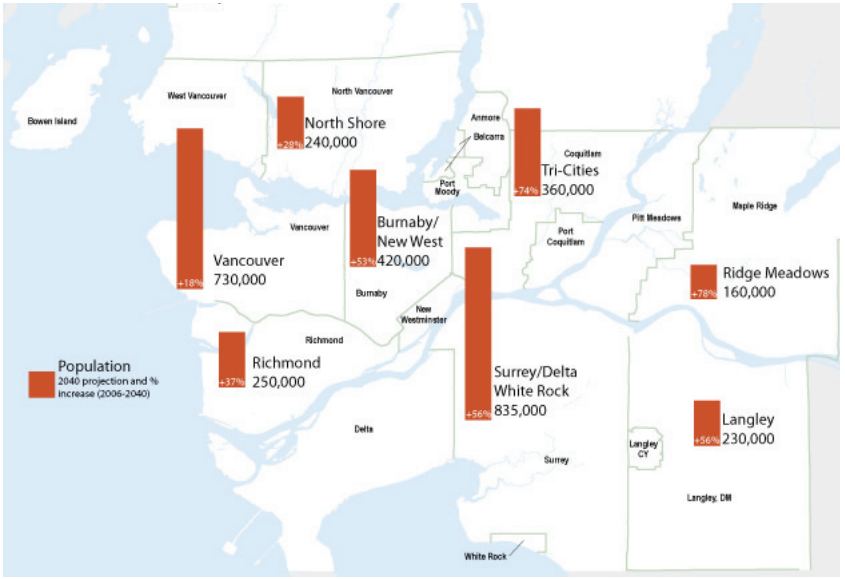


fig. 2.41 *population growth by 2040*

Population and Employment Growth

Vancouver is growing incredibly quickly. Between 2001 and 2031 employment will increase from 1 million to 1.5 million. Over that same period population will increase from 2 million to 3 million. Much of this growth will occur in the Metrocore and in Regional Town Centres, both areas of high density.

In these areas residents are able to live close to amenities and can often walk to them. There are typically fewer parking options in these areas as land values tend to be higher. This strengthens the culture of walkable communities.

There is both high residential population density and employment population density in Vancouver's downtown. This allows the workforce the opportunity to live near to where they work, aiding in keeping cars off the road in favour of more sustainable modes of transit.

RTCs are designed with a focus on pedestrian activity and positive streetlife. Also, being close to rapid transit makes working away from home, specifically downtown, possible without driving personal automobiles.

fig. 2.42 *metro vancouver regional town centres*

Metro Core & RTCs	Area (hectares)	1991 Population	1991 Density	2001 Population	2001 Density
Metrotown	307	16,530	54	24,555	80
Coquitlam Centre	734	16,940	23	23,990	33
Surrey City Centre	581	13,975	24	18,495	32
New Westminster	112	5,240	47	6,490	58
Richmond Centre	863	20,060	23	32,210	37
Maple Ridge	294	6,130	21	8,305	28
Langley	624	8,435	14	12,520	20
Lonsdale	283	18,125	64	22,815	81
Metropolitan Core	919	60,240	66	87,265	95
RTCs & Metro Core	4717	105,435	22	149,380	32
GVRD Total	282,066	1,647,000	6	2,073,681	7

Source: Statistics Canada, Census
Note: land area includes all land uses.

fig. 2.43 *Population density of regional town centres*

Regional planning: town centres

The growth expected for Metro Vancouver must be well managed if the city hopes to achieve a high level of sustainability. Metro Vancouver and Translink have identified major nodes as Regional Town Centres (RTCs). These are focused on high density development and nearness to rapid transit. RTCs allow residents of outlying municipalities access to similar amenities and luxuries found in downtown living. They are designed with a focus on pedestrian activity and positive streetlife. Also, being close to rapid transit makes working away from home, specifically downtown, possible without driving personal automobiles. The relative distance between communities becomes drastically shorter. Life in these centres allows for much less reliance on the car. In efforts to accommodate rising populations, most outlying municipalities are trending away from low density suburban housing and focusing on providing downtown-like conditions within their town centres.

Citizens are growing much more receptive to living in high density, making use of existing sustainable transit more attainable and new modes of transit viable.

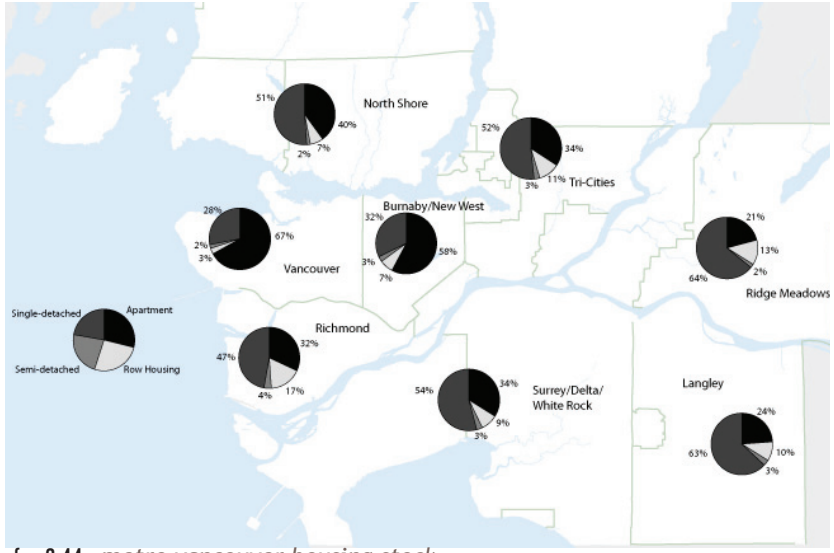


fig. 2.44 *metro vancouver housing stock*

Housing types: rising density

Making up roughly one third of the population of the region, Vancouver and Burnaby are the two major municipalities in closest proximity to the downtown peninsula. They both have large percentages of higher density dwellings and very few single family dwellings. Looking a dwellings completed between 2001 and 2006, with the exception of Ridge Meadows and Surrey/Delta/White Rock, there are less new single family dwellings across the GVRD and increasingly more mid to high density dwellings. Citizens are growing much more receptive to living in high density, making use of existing sustainable transit more attainable and new modes of transit viable.

Views, walkability, nearness to transit, sustainable-life consciousness; these are ideals central to a growing lifestyle in Vancouver.

fig. 2.45 *metro vancouver housing starts 2001-2005*

Housing types: condo boom

Views, walkability, nearness to transit, sustainable-life consciousness; these are ideals central to a growing lifestyle in Vancouver. Condo culture is an exploding phenomenon that began decades ago with high density apartment buildings in the Westend, erupted amongst the remediation of False Creek and development of condo communities there and in Coal Harbour. It was then fortified by high density centres within the Region, such as Metrotown, Lonsdale and New Westminster. Many Vancouverites are leaving their low density houses for a downtown living experience found in condo communities.

Many Vancouverites are leaving their low density houses for a downtown living experience found in condo communities.

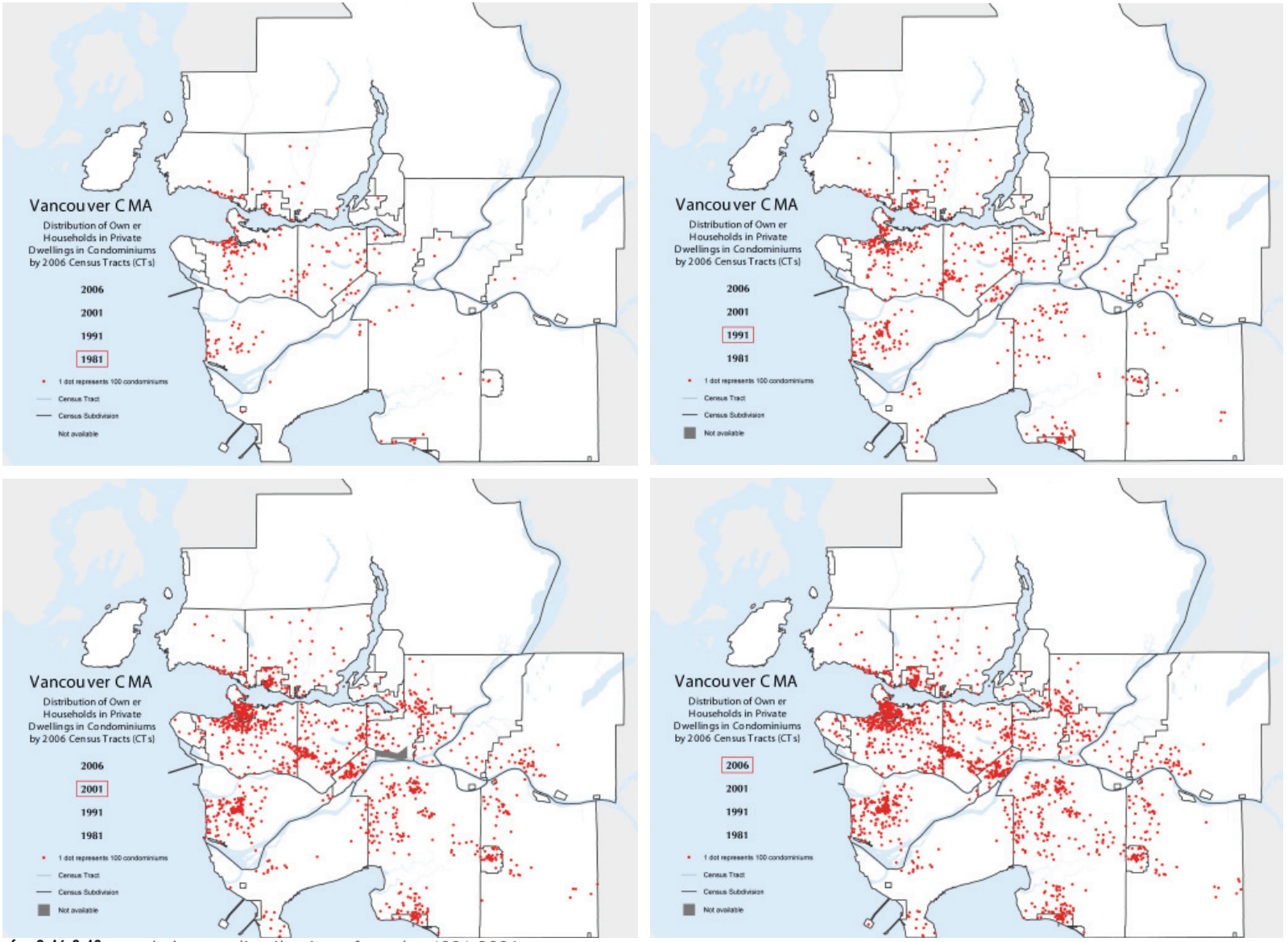


fig. 2.46-2.49 *condo boom: distribution of condos 1981-2006*

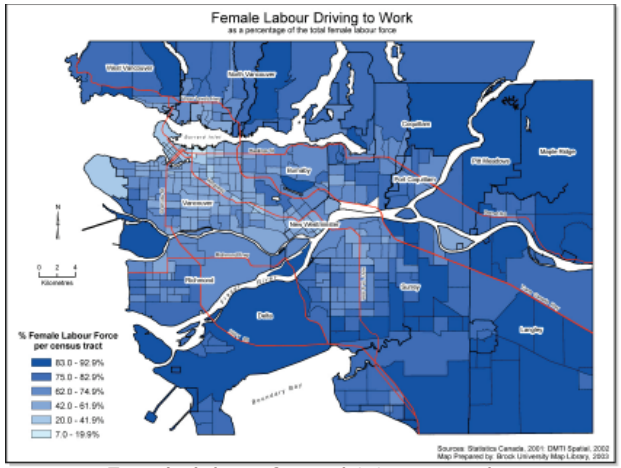


fig. 2.50 *Female labour force driving to work*

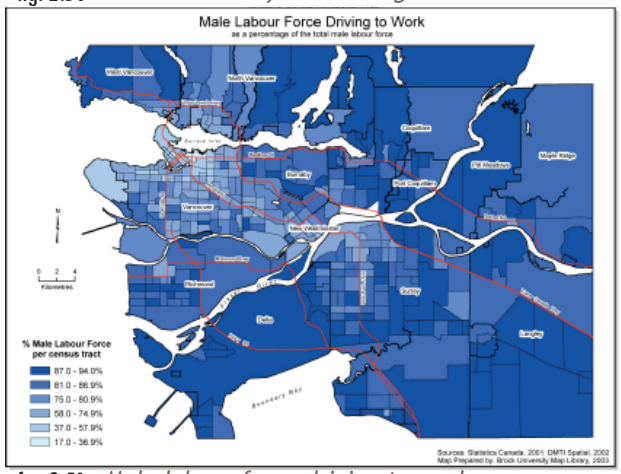
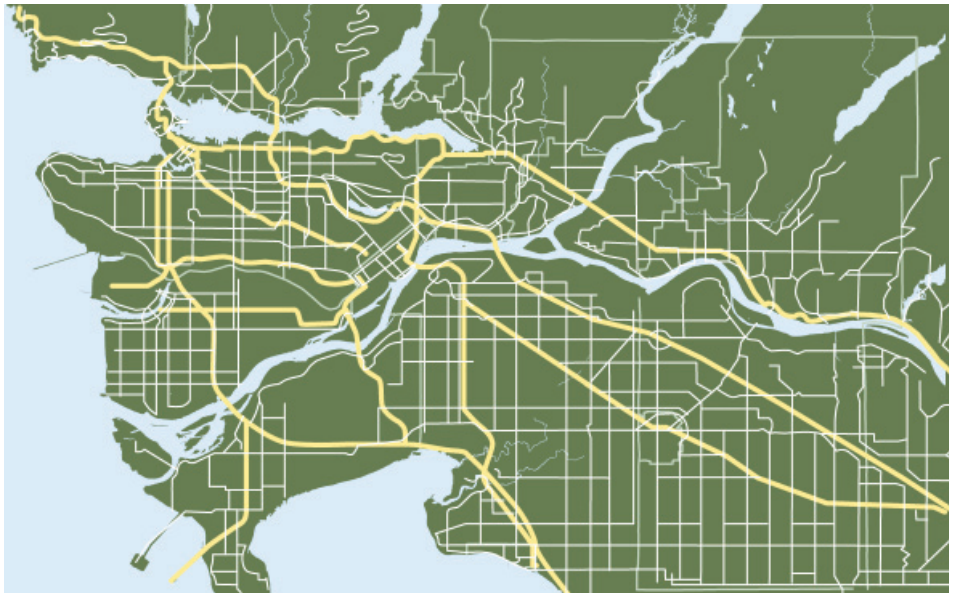


fig. 2.51 *Male labour force driving to work*

Along mass transit routes many residents live in high density and few use personal automobiles to get to work.

fig. 2.52 *metro vancouver highway network*



Transportation: personal automobiles vs public transit

With a growing population and workforce, and with much of it focused around RTCs, transportation becomes and increasingly important issue as Vancouver aims to become a "greener" city. The GVRD has a small collection of expressways, notably the Trans-Canada highway and Highway 99 south of the city of Vancouver, that move cars quickly through the region. There is a network of regional highways that pass through centres and link municipalities. Only the Trans-Canada passes briefly through the City of Vancouver, and no expressways go into the city centre or through any RTCs. Along mass transit routes many residents live in high density and few use personal automobiles to get to work.

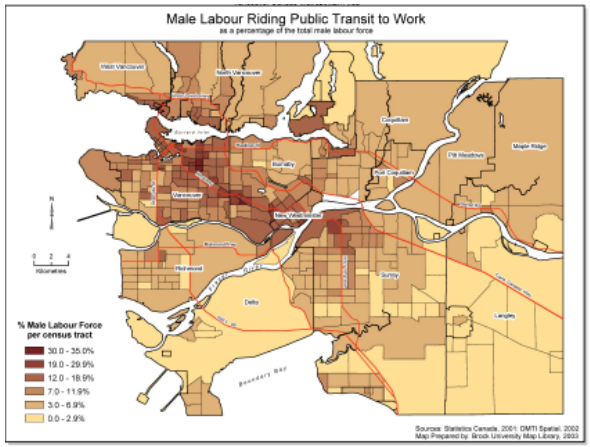


fig. 2.53 *Male labour force driving to work*

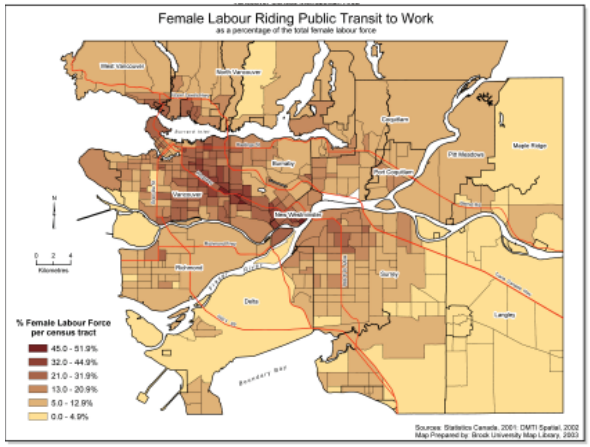
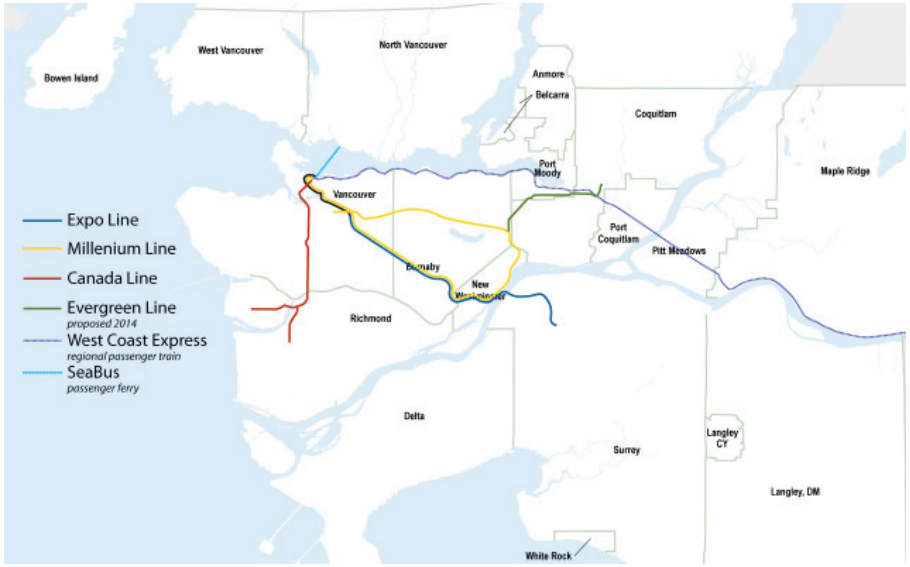


fig. 2.54 *Female labour force driving to work*

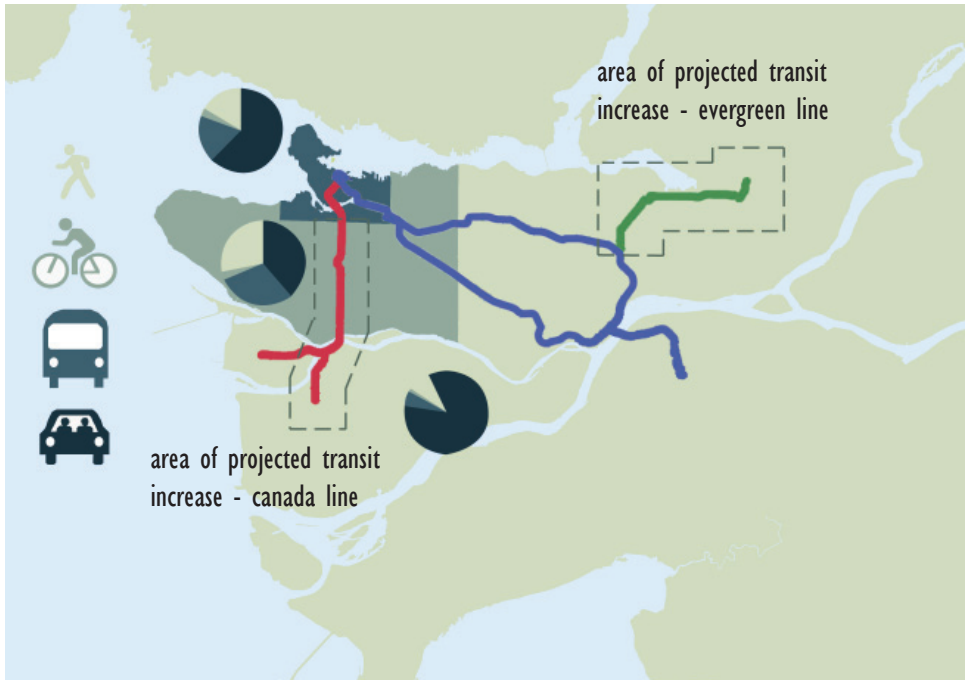
Densities have increased drastically along mass transit lines as ridership has flourished in response to the growing transportation network.

fig. 2.55 *metro vancouver public transit*



Over the past three decades Vancouver has developed a highly successful transit system that has focused on linking communities in the region. Expo '86 brought the Expo Line which links Surrey, New Westminster and Burnaby, all along the Kingsway corridor, to downtown Vancouver. Seabus connects the North Shore to Downtown. The West Coast Express links Ridge Meadows and the Tri-Cities to Downtown. In 2000 the Millennium Line added a link to Simon Fraser University, serving more of New Westminster, Burnaby and Vancouver. Along these transit lines ridership has flourished as densities have increased drastically in response to the growing transportation network.

fig. 2.56 *metro vancouver transportation modal use*

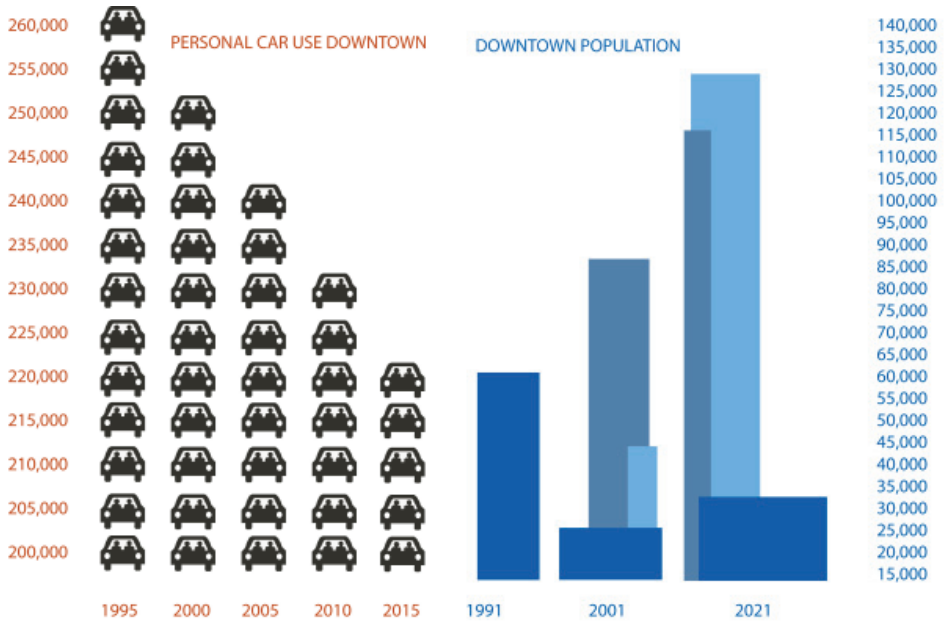


Fall 2009 will see the opening of the Canada Line, connecting Downtown with the institutions along the Cambie Corridor, Vancouver International Airport and a growing Richmond City Centre. Targeted to open in 2014, The Evergreen Line will connect Coquitlam, Port Coquitlam and Port Moody to the existing Millennium Line. These new lines should dramatically increase density and ridership and enable residents of the affected communities very viable alternatives to driving to work.

Transportation: modal use by area

Sustainable modes of transit are used most frequently in the Metrocore and with decreasing frequency the further you go from downtown. However, and increase in mass transit options, with the introduction of the Canada Line and the Evergreen Line as well as the addition of several new express bus (B-Line) routes, targeting existing high density areas for ridership should improve these modal ratios significantly over the next decade.

fig. 2.57 *rising downtown population vs declining car use*



Transportation: declining car use

Over a 30 year period the downtown population is projected to more than double. As downtown residential densities increase the number of vehicles entering and leaving downtown is steadily decreasing. This decrease in automobiles downtown, by a steady 7% annually, is a trend unique to Vancouver. No other North American city experiencing overall increases in car use city-wide are witnessing a decline within their centre.

More and more, people's lives are centered downtown and in the Metrocore.

As downtown residential densities increase the number of vehicles entering and leaving downtown is actually steadliy decreasing.

No other North American city experiencing overall increases in car use city-wide are witnessing a decline within their centre.

fig. 2.59
access to downtown and volume of pedestrian activity

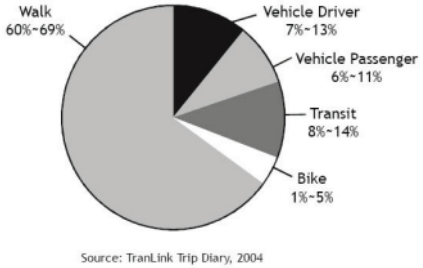
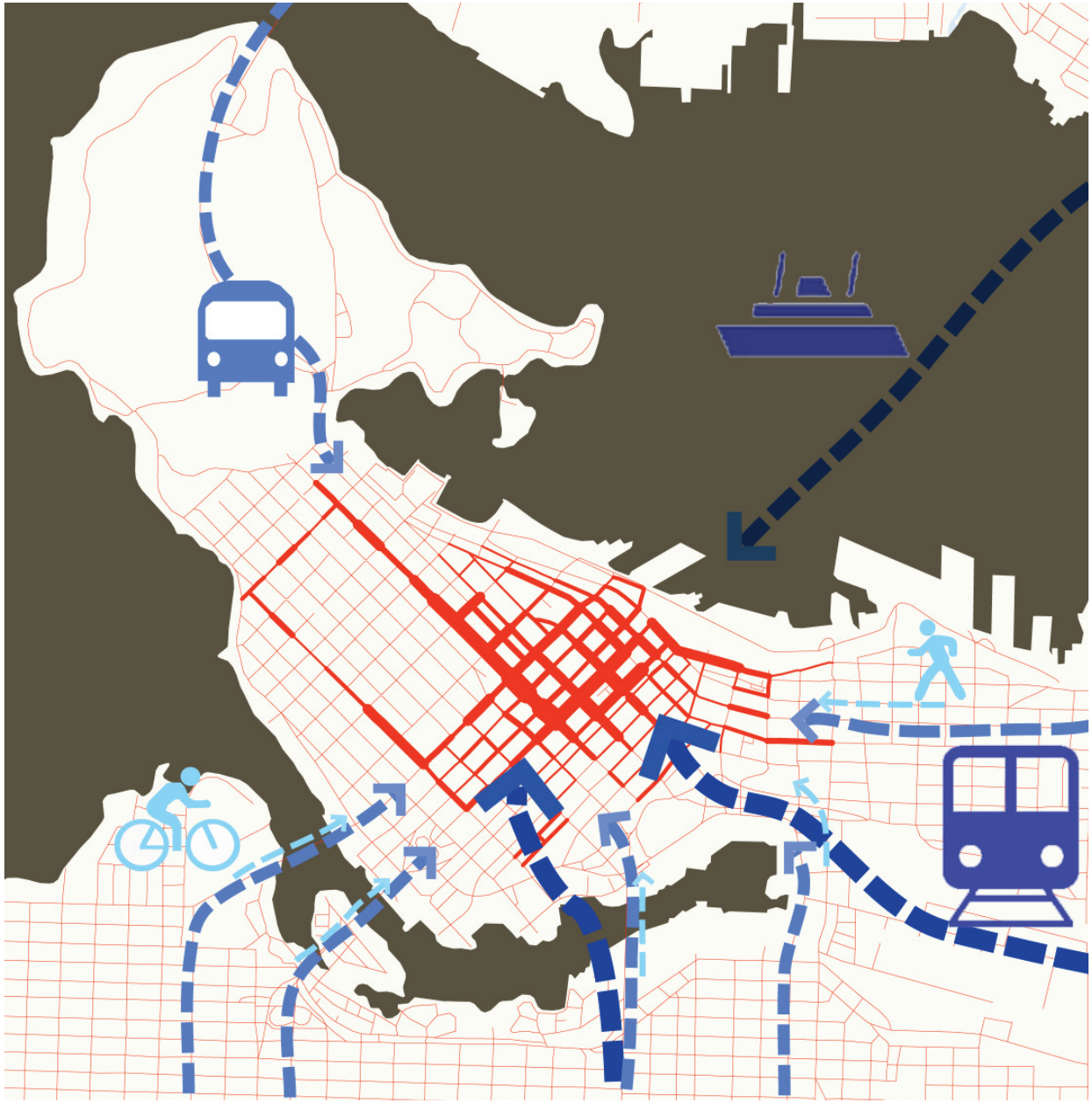


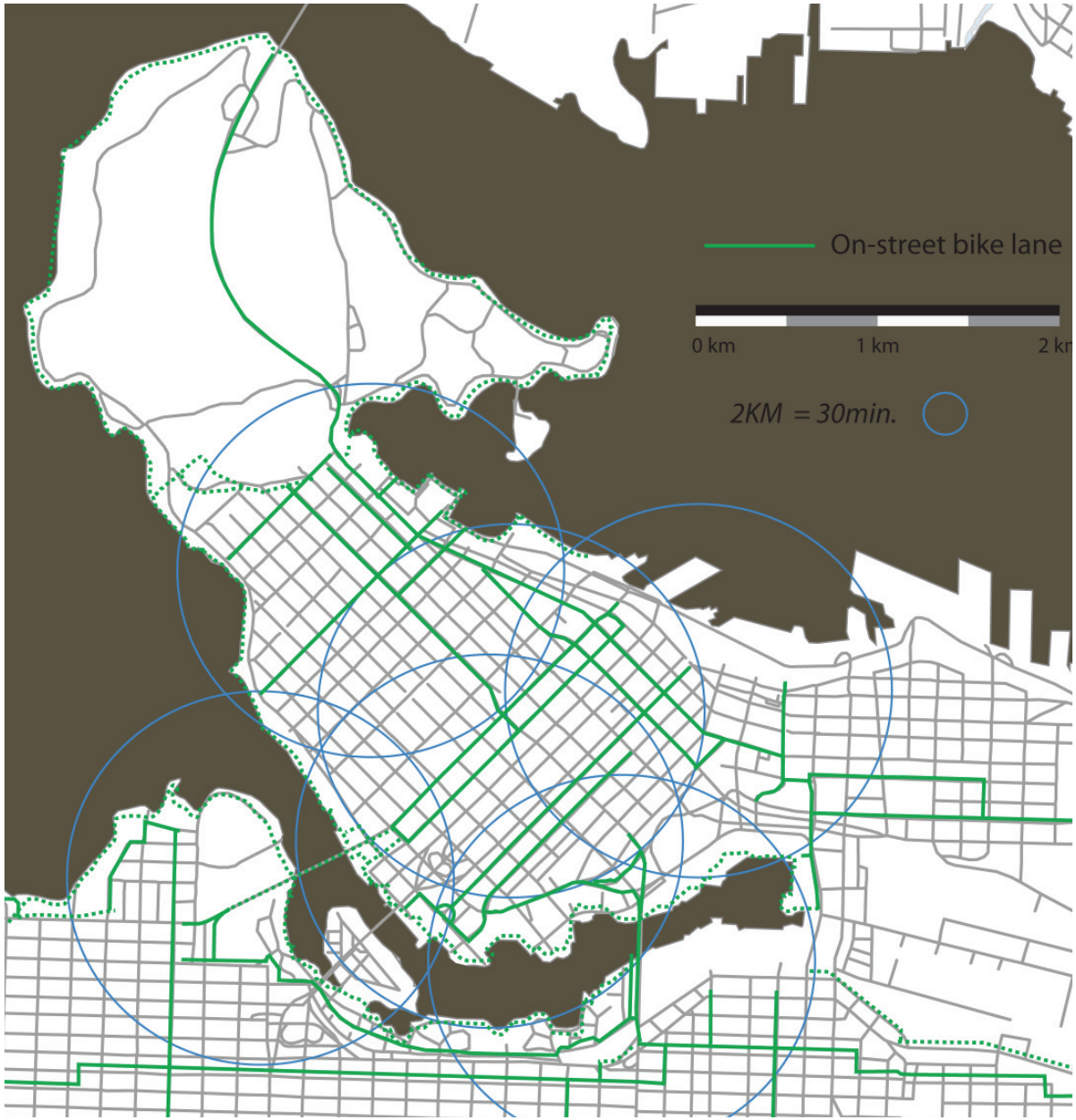
fig. 2.58
Trips only within downtown in a 24-hour period (2004)



Transportation: pedestrian counts

Already, some downtown streets host up to 40,000 pedestrians daily. Even the quietest Westend streets have hundreds of strollers every day. With so many options for entering the downtown other than the personal automobile, the large majority of trips downtown are my on foot and by bike.

fig. 2.60
downtown walking distances and bike lanes



Transportation: downtown

Downtown Vancouver occupies a very small peninsula and its built fabric makes up one of North America's densest urban areas. Most walking trips within the peninsula can be completed in 30 minutes. There is a thorough network of on-street bike lanes, as well as the peripheral seawall. These elements, coupled with the moderate climate make travel without a vehicle very reliable downtown.

fig. 2.61 *major commercial streets*

fig. 2.62 *insular westend neighbourhood*

fig. 2.63 *opposing grids: westend and downtown*

Neighbourhood and Street Typology

The downtown peninsula has a network of major commercial streets, most of which are in the downtown neighbourhood. The Westend has three major streets that act as neighbourhood centres. They form a rectangle that has created a quite insular, quiet Westend neighbourhood.

The area where the Westend and Downtown grids meet, two blocks to either side of Burrard Street, is a connective zone where the two neigbourhoods slightly overlap. Here you'll find traces of both downtown commercial and Westend residential uses.

fig. 2.64 *Downtown public space*

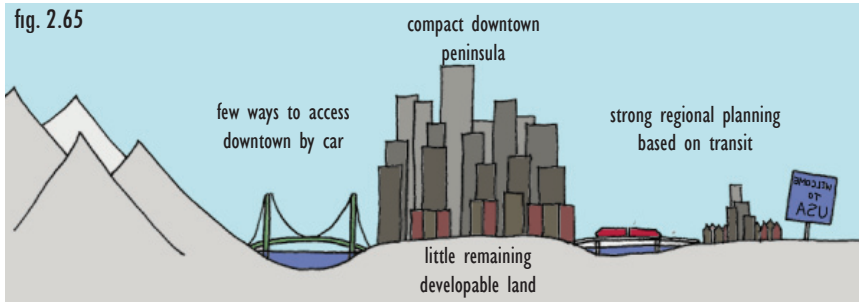
Downtown Public Space

Public space is a vital part of a livable city. It is a powerful democratic forum. Public space is where city dwellers meet, share ideas, exchange goods, exercise, and get access to fresh air and sunlight.

Great public spaces contribute to a city's sense of place. They are attractions for tourists and recreation spaces for residents. They serve as connective points between neighbourhoods. They are what make cities great. Beyond Stanley Park and the Seawall, Vancouver has very little in the way of great public space. It has a few small green spaces and a number of decent, if unspectacular public squares. As the downtown population continues to grow at great speed Vancouver needs to produce more and greater public spaces.

Summary and Underlying Conditions of Vancouver's Urban Characteristics

fig. 2.65



Sustainable transit-friendly and walkable downtown

Underlying Conditions:

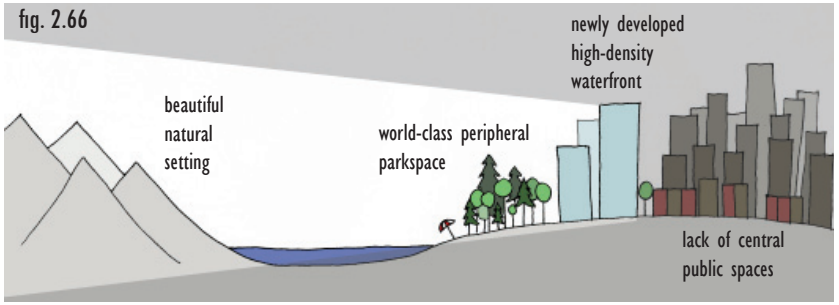
Compact Downtown Peninsula
Bound by ocean and park on 3 sides, the downtown is confined to a very small, walkable geographic area. These physical confines have contributed to a very high density of both residents and workers.

Few ways to access downtown by car
Only 4 bridges and a small number of streets to the east provide access to the downtown peninsula by personal automobile. This makes transit alternatives very attractive.

Little remaining developable land
With little remaining space to develop the GVRD outwards because of the mountains to the north, the American border to the south, and the restrictions of the Agricultural Land Reserve, the downtown core has benefited through one of the highest densities in North America.

Strong regional planning based on transit
The region's strong planning philosophy is based on connection of municipalities by public transit, with the aim of moving people sustainably and shortening relative distances between communities. This allows more people to work downtown and live downtown without relying much on cars.

fig. 2.66



Outward Focus

Underlying Conditions:

Beautiful Natural Setting
Vancouver is completely surrounded by the physical splendor of the Pacific Northwest. One of the city's major draws for both residents and tourists is its location on the ocean and nearness to nature.

World-class peripheral parkspace
Stanley Park, English Bay's beaches and the seawall provide terrific spaces for congregation, relaxation and recreation along the edges of downtown Vancouver.

Newly developed high-density waterfront
The last major developable tracts of downtown realty were Coal Harbour and the Expo Lands. Both were built up with sustainable ideals of Vancouverism, providing its residents with views and close access to the water that older, lower density downtown neighbourhoods couldn't provide as adequately to the masses.

Lack of central public spaces
With no major public spaces drawing residents and tourists to the center as in many other major cities, people often flock to the public spaces on the edge of the downtown in droves.

Goal - A renewed sense of place

these characteristics will contribute to a new focus for Vancouver's central public spaces

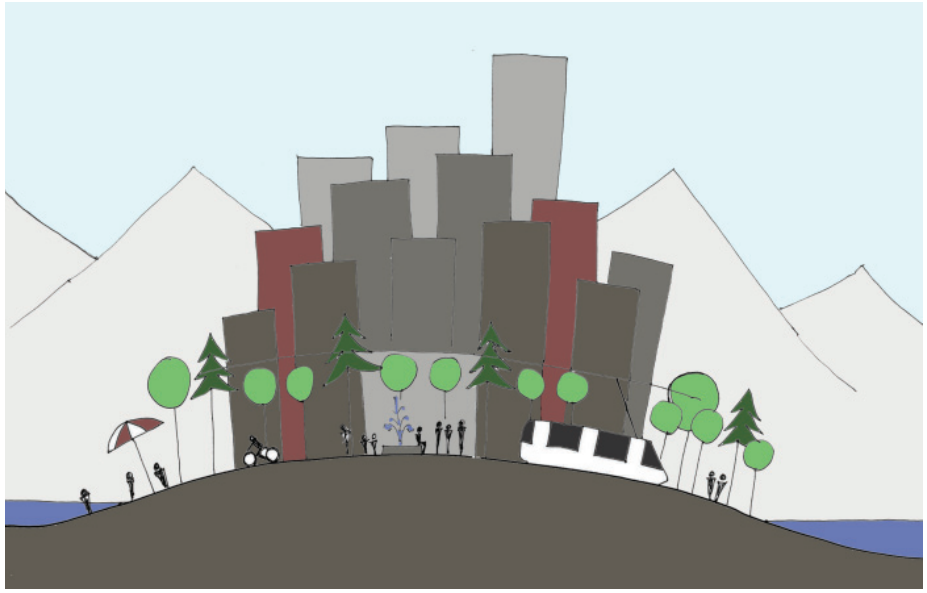


fig. 2.67

Actors:

New/improved public spaces in the city centre

Pedestrian network complemented by a tram network

Incremental growth of the pedestrian network

Gradual decrease of parking options

Connection from interior to exterior public spaces

Focus on plantlife native to the bioregion

part 02

walking cities

pedestrian places and spaces

chapter three

what about the street?

public space and the public forum

Opposite:
fig. 3.01

The street is the single most common type of public space and the foremost stage upon which our urban lives carry out.

fig. 3.02
Public exptression

The urban street, as old as civilization, has been used for transportation, commerce, as a political stage, public space and workplace among a host of other things. The urban street symbolizes public life. It serves as place for connection, conflict and communication. In *Splintering Urbanism* Stephen Graham and Simon Marvin cite Grady Clay in saying "that the street is nothing less than 'the great carrier of information for a democratic society.'"[1] The street is the point where the citizen emerges from their private domain into the public arena. It is where lives intersect, deliberately or by chance. In *Between the Edges* Milos Bobic describes open space as "the only continuous and uniformly distributed element throughout the city." Though open space has causes on multiple scales, its reliability as a common and unified communication system is dependent on the "clarity of its corridors and the architecture of the buildings involved."[2] Thus the street is the single most common type of public space and the foremost stage upon which our urban lives carry out.

"Public spaces spring from the need for room for people to gather in true democratic tradition."

fig. 3.03 *Public protest rally*

Interaction and quality urban spaces induce happiness, while commuting is a major cause of unhappiness.

fig. 3.04 *Daily commute*

As such, communication is a major beneficiary of good public space. We communicate through speech, advertising, or simply what we wear when in public. Jan Gehl describes the deliberate link between public space and communication in Barcelona's urban policy; "Public spaces spring from the need for room for people to gather in true democratic tradition."[3] Henri Lefebvre also discusses democracy's place in the street in *The Urban Revolution,* suggesting that the occurrence of revolutionary events within the street shows that this type of action, while at once seen as disorder, engenders another kind of order. He argues that within the street the exhange of words and signs are as important as the exchange of things.[4]

Amin and Thrift further support the discussion on the connections between public space and politics and the importance of mingling and interaction in the use of shared spaces. They argue that the use of public space for the growth of a civic public relies on this interaction and that these ties of civic association provide an alternative to ties of family and kinship in a quickening world.[5] Cities are theoretically ideal for a participatory democracy, with the presence of institutions, associations, public spaces and social vitality within them. However, this type of active citizenship is not always encouraged in North American centres.[6] With all this institutional activity situated within cities (in firms, business and public sector organizations, lobbying groups and protest campaigns), concern with urban policy can not disregard the practices and policies of these institutions because it would ignore the prime sites for social participation in doing so.[7] Urban policy must recognize this activity as within the rights of a democratic and urban society and create public spaces that are not meant to deter such actions. This type of democratic action has historically gotten major use out of public space and the contemporary urban arena shouldn't discourage what has been a fundamental right in democratic society.

In addition to providing a stage for participatory democracy, good public space allows us access to human interaction within the public arena. Enrique Peñalosa, former mayor of Bogota and current visiting scholar at NYU, believes that public space is vital for happiness. He states that interaction and quality urban spaces induce happiness, while commuting is a major cause of unhappiness.[8] Jens Jensen further articulates that happiness is of central importance in cities; "Cities built for a wholesome life...not for profit or speculation, with

Today cars dominate the street and city with endless lanes, parking spots, parking lots, gas stations, garages, drive thrus and car washes.

fig. 3.05
Car-dominated street

the living green as an important part of their complex (that) will be the first interest of the future town planner."[9] The city that is simply planned to carry out the functions of the traditional city in the most efficient manner must consider how happiness can be accommodated. Happy cities are healthy and active. They rely greatly on quality public spaces , but moreover, this healthy and active mindset must be deeply ingrained in the city's psyche.

In their book, *Cities as Sustainable Ecosystems,* Peter Newman and Isabella Jennings define sense of place as something that "encompasses a feeling of connection to a place, a lived engagement with people and land, and an understanding and appreciation of the patterns and processes in time and space."[10] Healthy and active cities can greatly benefit from a strong sense of place that develops a connection between the social sphere and the bioregion. This connection allows people to enjoy a deeper belonging to their environs, including a deeper affection that encourages sustainable practices. This sense of place is recognizable in the city's character and urbanity. Bobic states that it is in the street network that the individual is able to experience and recognize this character and urbanity.[11]

A healthy city needs cars. But it also needs the effectiveness of pedestrian and public space to not be hindered by the presence of automobiles.

fig. 3.06
Pedestrian and Public Space

The personal automobile has a very central role in the issue of urban sustainability. As automobiles became part of everyday life they transformed the city fabric. Young North American centres developed greatly during this period, designed to accommodate the car and society came to rely on the car accordingly. Today, cars dominate the street and city with endless lanes, parking spots, parking lots, gas stations, garages, drive thrus and car washes. While this private form of mobility is certainly an important part of daily life, there is a balance that must be reached so the car does not oppress public space or prohibit the city from being a healthy place.

A healthy city needs cars. But it also needs the effectiveness of pedestrian and public space to not be hindered by the presence of automobiles. A balance between modes of transit, as well as between transportation space and public space, must be reached. Architecture theorist Andrew Ballantyne stresses that more and more, urban space is being defined by event and less reliant on physical building. As our perception of time quickens the spaces that construct our streets and cities are changing and today architecture can simply be an event within a space.[12] Gehl echoes this with his analysis of different types of public space, characterized

While the car is certainly an important part of daily life, there is a balance that must be reached so that the car does not oppress public space or prohibit the city from being a healthy place.

fig. 3.07
Fleeting Space

by fixed, flexible and fleeting uses. All are necessary types of public space and all interact with transportation networks differently. Fleeting spaces rely on proximity to transit corridors because of their lack of permanence, while fixed spaces can operate as a regular destination. Flexible spaces often work adaptively with a transportation network. In all cases, a balanced relationship is necessary between public space and the varying types of transportation.[13]

Lending to the discussion of this balance is a joint study between the Korea Advanced Institute of Science and Technology and the Santa Fe Institute. Within the paper, titled "The Price of Anarchy in Transportation Networks: Efficiency and Optimality Control," Hyejin Youn, Hawoong Jeong and Michael Gastner suggest that extensive street networks can have slower travel times than more limited networks. This argument is based on the unpredictability of reactions that result from drivers having greater choice in finding the quickest route. While extensive networks allow for the odd shortened trip, their average travel times are often slower than the more predictable and consistent travel times allowed in a limited network, according to the study.[14] Environmental blogger Eoin O'Carroll muses about the urban benefits of a more limited

"Fewer roads with slower but smoother traffic. Spaces that can easily be converted to car-free zones to suit the needs of the network...Sounds like a nice place to take a walk."

fig. 3.08
Flexible Space

network for car traffic:

> It's not too difficult to imagine a city designed with these principles in mind. Fewer roads with slower but smoother traffic. Spaces that can easily be converted to car-free zones to suit the needs of the network. And fewer opportunities for people to drive like jerks. Sounds like a nice place to take a walk, actually.[15]

A balance among public space, pedestrian traffic and vehicular traffic would undoubtedly be aided by more predictable traffic and would regulate travel times, not only in cars but also on foot or by public transit. Urban designers should be aware of the necessity to protect the natural behaviour of pedestrians, and the type of spatial patterns and uses that can have a negative impact on this.[16] Along these lines, there are other factors that influence the viability of a pedestrian network. There is a critical density needed to support a successful transit network. This density can also support a street network that promotes walking as a major mode of transportation. But when a city has the residential density required to sustain such networks

The anonymity and surprise provided by the chance encounter in the city are at the heart of the drama that urban living really is.

fig. 3.09
Summer Spaces on Car-Free Day Vancouver

it is crucial to provide high quantities of worthwhile public spaces. The experience of walking in the city is influenced by factors such as texture and scale, as well as the event of the place of encounter which is a major source of drama in urban living. These events require both a reason to go to a place and a reason to pause there. The street is a form of spontaneous theater where the city dweller becomes both spectator and spectacle, and sometimes serves as the actor. The anonymity and surprise provided by the chance encounter in the city are at the heart of the drama that urban living really is.

There is a movement in Vancouver to turn away from the dominance of cars in the city streets. Focus on transit-oriented-development and the conversion of car lanes to bicycle lanes on the Burrard Bridge are serving to convince citizens to abandon car travel for other modes of transit.[17] A grassroots critical mass bicycling initiative organized by the Vancouver Public Space Network sees cyclists and rollerbladers take over streets within the city once a month.[18] The Summer Spaces initiative closes major commercial streets to cars on Sundays and focuses the space on program and commerce.[19] The Olympic

The urban space network should serve as access to the buildings downtown as destinations, but should also be destinations in themselves.

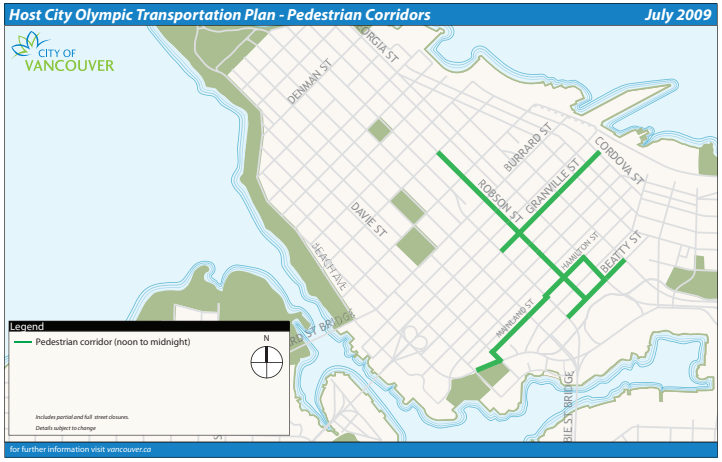


fig. 3.09
The Olympic Pedestrian Plan

Pedestrian Plan closes the downtown's major shopping streets to cars and links the major public spaces during the 2010 Winter Olympics. These are positive steps in the right direction towards appropriating car space in a car network witnessing decline in use. But more needs to be done. Referring back to Newman and Jennings, Vancouver's sense of place lacks a balance in influences, with disparity between the influences of bioregion over the social sphere. It is more to do with the city's surroundings than the city itself. Public spaces need to be more attractive to draw people to them and welcome them to stay. They need to accommodate all types of use, from a casual lunch to large crowds, whether formal or informal. These spaces and the street network between them need to encourage pedestrian activity and provide a language that distinguishes them as civic and recreational space. The road network needs to accommodate cars but not cater to them and parking should be less of a priority that nearness to transit. Transit lines should function to serve public spaces and public spaces should use these interchanges as a catalyst to charge the space. The urban space network should serve as access to the buildings downtown as destinations, but should also be destinations in themselves.

Endnotes

1 Graham, Stephen. *Splintering Urbanism: networked infrastructures, technological mobilities and the urban condition*. London; New York: Routledge, 2001, p. 256

2 Bobic, Milos. *Between the edges : street-building transition as urbanity interface*. Bussum, Netherlands: Thoth Publishers, 2004, p. 48

3 Gehl, Jan, and Lars Gemze. *New city spaces*. 3rd ed. Copenhagen: Danish Architectural Press, 2003, p. 28

4 Levebvre, Henri. *The Urban Revolution*. Minneapolis; London: University of Minnesota Press, 2003. p. 19

5 Amin, Ash, and N. J. Thrift. *Cities : Reimagining the urban*. Cambridge: Polity, 2002, p. 135

6 Amin, p. 131

7 Amin, p. 153

8 NYC Streets Renaissance. <<www.nycsr.org/nyc/video-view.php?id=19 >>

9 Corner, James. "*Terra Fluxus*," Charles Waldheim, *The Landscape Urbanism Reader*. New York: Princeton Architectural Press, 2006, p.24

10 Newman, Peter. C*ities as sustainable ecosystems : principles and practices*. Washington D.C.: Island Press, 2008, p. 145

11 Bobic, p. 49

12 Ballantyne 38

13 Gehl, Jan. *New city life*. 1st ed. Copenhagen: Danish Architectural Press, 2006, p. 36

14 O'Carroll, Eoin. "*Does closing roads cut delays?" Bright Green Blog*. <<www.csmonitor.com/Environment/Bright-Green/2008/1006/does-closing-roads-cut-delays>>

15 O'Carroll, Eoin. "*Does closing roads cut delays?" Bright Green Blog*. <<www.csmonitor.com/Environment/Bright-Green/2008/1006/does-closing-roads-cut-delays>>

16 Bobic, p. 53

17 <<www.vancouver.ca/projects/burrard/statistics.htm >>

18 <<www.vancouverpublicspace.ca/>>

19 <<www.vancouver.ca/engsvcs/streets/summerspaces/index.htm>>

chapter four

five walking cities

This chapter examines how Barcelona, Curitiba, Bogota, Portland and Copenhagen all have successfully created meaningful public spaces that accommodate pedestrians and transit users with priority over the personal automobile. Lessons are taken from each city to determine how urban design, planning policy and government programs and grassroots movements can transform Vancouver's urban realm and create a street network that effectively links its public spaces.

fig. 4.01 *Barcelona's city centre*

fig. 4.02 *The Ramblas, Barcelona's pedestrian spine*

Barcelona, Spain

Barcelona, since Franco's death in 1975 and the resulting restoration of Catalan autonomy, is leading the world in experimentation and development of city spaces. A new discourse sets the stage for the city as a system, where housing, public space, pedestrian space and transportation are intrinsically linked.

In many squares the nature of their use have changed from traffic space to pedestrian square, seen in Plaça de les Basses de Sant Pere, Plaça de Navas and the train station square, Plaça dels Països Catalans.[1] In only a decade leading up to the 1992 Olympics, the demolition of dilapidated buildings made way for hundreds of new parks, squares and boulevards. The need to create more meeting places in the dense core of the was recognized in tearing down buildings in the old city centre. Architecture led the way within urban policy, with each quarter demanding its own "living room" and every district its park, thereby creating numerous new public spaces.[2]

fig. 4.03 *Barcelona's city centre, with pedestrian spaces marked in blue*

Key Points for Design Framework:

1. Squares are changed in nature from traffic to pedestrian
2. New squares are created from dilapidated buildings
3. Each quarter has a living room
4. Ramblas promenades used as connective element

Traffic has been regulated to benefit pedestrians, as evidenced in the promenades. In the midst of charged boulevards and Ramblas there are places to walk, sit, rest, play, and shop. Pedestrians are given top priority, not just for use of the street as transportation corridors, but more importantly, as public space.[3] Important city spaces are all linked by these pedestrian promenades, while a comprehensive metro system operates beneath the surface.

fig. 4.04 *A pedestrian street in the Ciutat Vella*

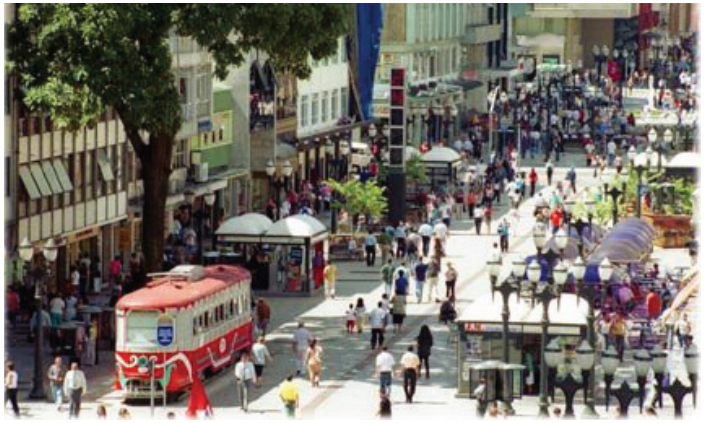


fig. 4.05 *Vibrant pedestrian activity*

fig. 4.06 *Development focused around growth corridors*

fig. 4.07 *Curitiba's Bus Rapid Transit system*

Curitiba, Brazil

Curitiba's comprehensive urban development plan focuses on growth corridors built around major boulevards that devote priority to the Bus Rapid Transit system.[4] Pedestrian friendly spaces in the city centre and well-designed recreational spaces are created out of city policies that value cohesion of cultural, economic, ecological, social, and traffic measures. Out of this policy, Curitiba has emerged as the ecological capital of Brazil. The city's effective and inexpensive bus transit system is central to planning initiatives.[5]

Bus terminals, three of them being located at major squares in the city centre, serve as interchanges feeding the pedestrian spaces and acting as catalysts for a vibrant streetlife in the core. The pedestrian and pedestrian-priority street network is quite extensive and serves a high population density; a necessity for a successful public transit system.[6] Access to good recreational space is conversely a necessity in providing good living conditions for a city centre with a high population density. This access begins in the streets, where surfaces

fig. 4.08 *Curitiba's city centre, with pedestrian spaces marked in blue*

Key Points for Design Framework:

1. Interchanges between buses and pedestrian areas; bus squares feed pedestrian streets
2. High density necessitates good access to public urban spaces
3. Themes in parks

of decorative stone and many benches and resting places make for an attractive public space.

Newer parks display many themes and a diversity of architectural treatments that refer to history, immigration, ecology, botany and culture (i.e. opera).[7]

fig. 4.09 *Curitiba's major pedestrian street*

fig. 4.10 *Bogota's pedestrian and bicycle "highway"*

fig. 4.11 *Intersection of the TransMilenio and pedestrian spaces*

Bogota, Columbia

Once a city riddled with car traffic, Bogota has emerged as a model for alternative types of transit. Following the lead of Curitiba, a bus rapid transit system called the TransMilenio has two to four devoted lanes on main arterial roads as well as feeder buses that transport passengers to these lines at no extra cost. Former Mayor Enrique Peñalosa strongly promoted biking as mode of transportation during his term in office in the late 1990s, witnessing an increase from approximately 0.2% to 5% of the transit modal share in a short period of time.[8] This increase is primarily achieved thanks to construction of a 45-kilometre greenway devoted to recreation and bike paths and the conversion of an 18-kilometre stretch of street to a one-of-a-kind bike and pedestrian highway.[9]

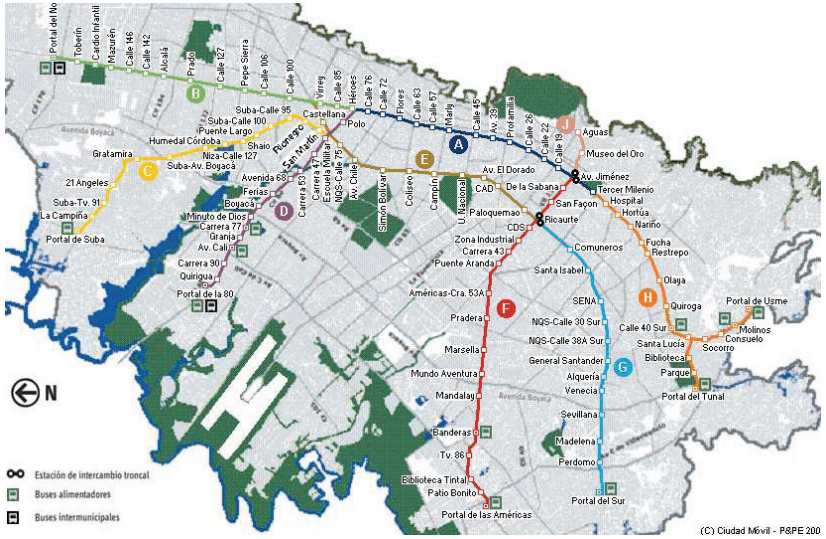


fig. 4.12 *The network of Bogota's TransMilenio*

Key Points for Design Framework:

1. Closure of roads from auto traffic during parts of the day
2. Adaptable transportation network
3. Priority to bicycle traffic

These new transit options, in combination with an annual car-free day - where all personal automobiles are forbidden from streets- is shifting culture in a city that is formerly so dependant on the automobile. Citizens voted in favour of a bill that will see automobiles completely banned during rush hour by 2015, dramatically improving air quality in the process.[10] Bogota has focused on creating equity amongst the modes of transit. This equity has taken space devoted to private cars and made it public by devoting it to pedestrians and public transit.

fig. 4.13 *Street Festival*

fig. 4.14 *Portland's friendly downtown*

fig. 4.15 *Transit node and major public space, Pioneer Courthouse Square*

fig. 4.16 *Auditorium Forecourt Fountain*

Portland, U.S.A.

The city of Portland has used very focused public policy in creating a city centre with great urban quality. Much of the result is seen in the streetscape. By reintroducing a successful tram system and offering free ridership in the downtown, many people are not relying on cars to travel to the core. The tram lines intersect at the city's central public space, Pioneer Courthouse Square, creating a vibrant civic space which acts as a feeder to the pedestrian-friendly streets of the downtown.[11]

Guidelines help to preserve Portland's street character, namely the gratuitous space catering to people, supporting cafe life and urban character derived from places to walk, pause, and sit, as well as recreation spaces. Efforts have been made to provide wider sidewalks and not allow the streets to be dominated by parking spaces.[12] Pedestrian priority is a driving tenet in the city's desired downtown environment with emphasis placed on creating friendly, safe and well

fig. 4.17
Portland's city centre, with major squares and tram lines marked in blue and linear green spaces.

Key Points for Design Framework:

1. Tram system that links major public spaces and offers free downtown ridership
2. Spacious streetscape that is not dominated by parked cars, but devotes priority to pedestrian

connected city spaces. A major connective element is the city's green spaces, both in the forms of boulevards and waterfront space. These contribute to Portland being a model for American walking cities.

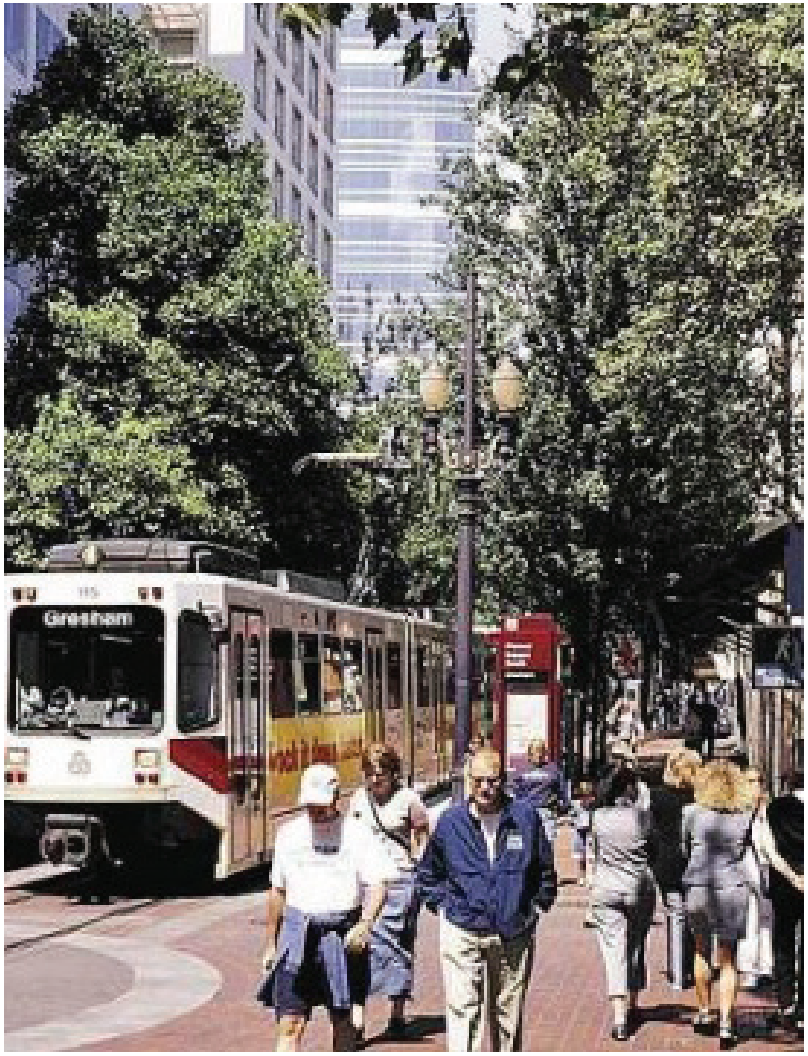


fig. 4.18
A common Portland streetscape, with trams and ample pedestrian space getting precedence

fig. 4.19 *Copenhagen's compact city centre*

fig. 4.20 *Café culture in Copenhagen*

Copenhagen, Denmark

Copenhagen's central core, once car-dominated, has become a model for pedestrian and cycling cities around the world. Despite initial public opinion that Scandinavians would never use pedestrian streets, the city's main street, the Stroget, was made car-free in the 1960s.[13] Since that time, the city has gradually increased the capacity of a network of pedestrian and pedestrian-priority streets in its compact dense centre. It took back all of its central squares from cars and handed it over to the people as public space. Gradually reducing parking options and car space has allowed citizens adapt to and become less dependent on the automobile.[14] Improved conditions for bike traffic have helped also in providing an alternative to cars, making Copenhagen a biking city.

An initiative to provide free bikes has increased ridership substantially. It is funded through advertisement and sponsorship allowing approximately 2000 bicycles to be borrowed (the same way shopping carts are used in stores).[15] By removing cars from city streets, the space becomes far more livable. Architect Jan Gehl, mentioned earlier, has been involved in Copenhagen's transformation. The city's

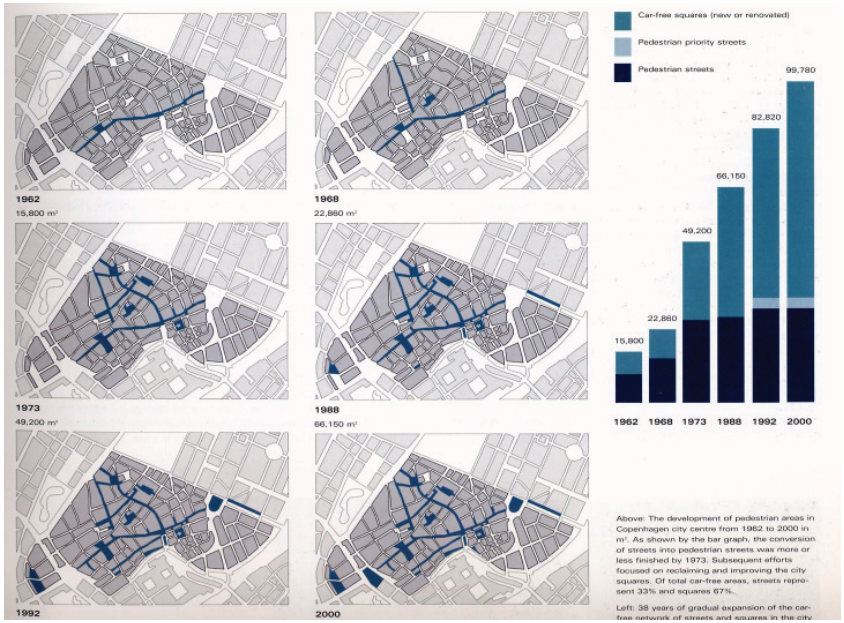


fig. 4.21 *Evolution of Copenhagen's city centre, with pedestrian streets in blue*

Key Points for Design Framework:

1. Incremental change to the street network
2. Gradual reduction of parking
3. The pedestrian network grows from the strength of trade-oriented streets
4. Bike borrowing system

pedestrianization and evolving urban culture has been central to his studies. A very lively city centre has come to be known as 'the country's largest public forum.'[16] One major result from the increase in public space is the emergence of a notable cafe culture. Thousands of patio seats are cropping up in a city that once had very few.[17] This development has transformed Copenhagen's centre from a place for business into a destination in itself.

fig. 4.22 *A lively Copenhagen pedestrian street*

Summary

Framework for Vancouver's Pedestrian Network
Developed from City Case Studies:

1. Trade-oriented pedestrian streets serve as a connective element
   (Barcelona, Copenhagen)
2. Public transit links major spaces, offering free downtown ridership and interchanges feed pedestrian streets
   Bogota, Curitiba, Portland)
3. Incremental changes to the street network and reduction of parking options happen responsively over time
   (Copenhagen)
4. Squares are changed in nature from traffic to pedestrian
   (Barcelona, Copenhagen)
5. Roads or parking lanes are closed to cars during parts of the day
   (Bogota, Portland)
6. Each neighbourhood has a "living room" and squares are created from degraded buildings and showcase themes
   (Barcelona, Curitiba)
7. City introduces a bike borrowing system to promotes cycling as a mode of transportation
   (Copenhagen)
8. High density supports an adaptable transit network but requires quality public spaces
   (Bogota, Curitiba)

Endnotes

1 Gehl, Jan, and Lars Gemze. *New city spaces*. 3rd ed. Copenhagen: Danish Architectural Press, 2003, p. 31
2 Gehl, p. 28
3 Gehl, p. 33
4 Gehl, p. 66
5 Gehl, p. 70
6 Gehl, p. 70
7 Gehl, p. 70
8 NYC Streets Renaissance. http://www.nycsr.org/nyc/video-view.php?id=19
9 Newman, Peter. C*ities as sustainable ecosystems : principles and practices*. Washington D.C.: Island Press, 2008, p. 141
10 Montgomery, Charles. "*Bogota's urban happiness movement." Globe and Mail*, June 25, 2007.
11 Gehl, p. 62
12 Gehl, p. 65
13 Gehl, p. 54
14 Gehl, p. 52
15 Gehl, p. 56
16 Gehl, p. 58
17 Gehl, p. 59

chapter six

where the city meets

This chapter looks at public spaces that will contribute to a design framework that will be employed in crafting Vancouver's public spaces and the network of streets between them. These spaces range in use from recreational park to market square to civic centre. One common trait they share is the role of urban meeting place on mutiple scales of the city.

fig. 5.01 *Major gathering*

fig. 5.02 *Café space*

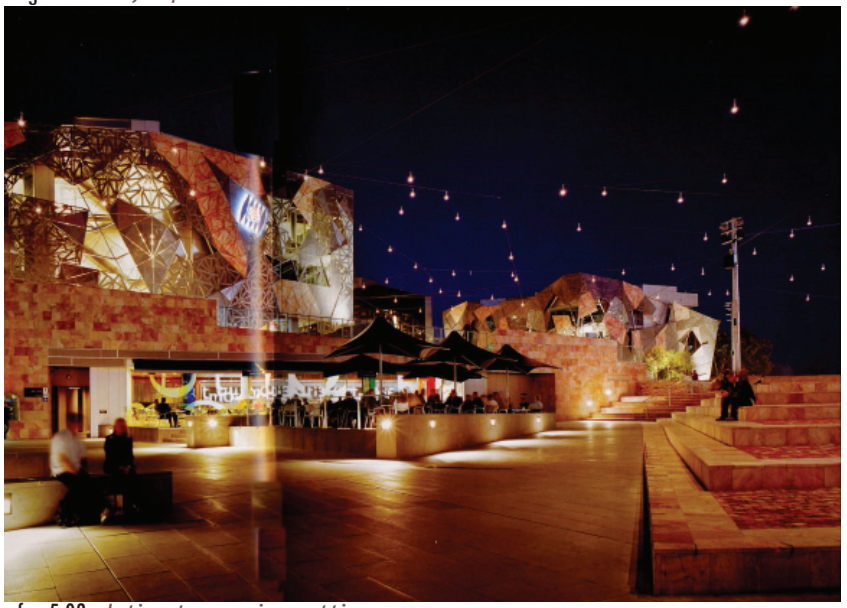


fig. 5.03 *Intimate evening setting*

Federation Square, Melbourne

LAB Architecture, 2002

Federation Square has provided a new civic focus for the city of Melbourne. With major cultural facilities adjoining the space, such as the National Gallery of Victoria (NVGA) and the Australian Centre for the Moving Image (ACMI), this new focal point becomes the authentic civic destination that the city has long been lacking.[1]

Central to the winning scheme of the international design competition for the project was dynamism through flexibility of design. There is ample space for large gatherings up to 15,000 people as well as intimate relaxation spaces such as casual seating and café patios.[2] This array of uses from informal gatherings to major civic events is a key contributor to a project that knits back urban fabric once divided by a railway.

fig. 5.04 *Democratization of access while mitigating significant grade change*

Federal Plaza, San Francisco

Della Valle + Bernheimer Design, 2000

The redesign of Federal Plaza in San Francisco was conceived with 'poetics of security' in mind. It presents a clear and safe path for all types of pedestrian traffic while mitigating significant grade change. With its focus on a single line of passage there is a democratization of access for all traffic and a simplicity in design. Its architectural features with multiple uses provide safe spaces while reducing this city block-wide public entrance to a large office building into an intimate setting.[3]

The project focuses on a single major tilted plane and smaller resulting folds that match grades. The smaller folds provide space for planters as well as opportune points to pause, meet or share a lunch.

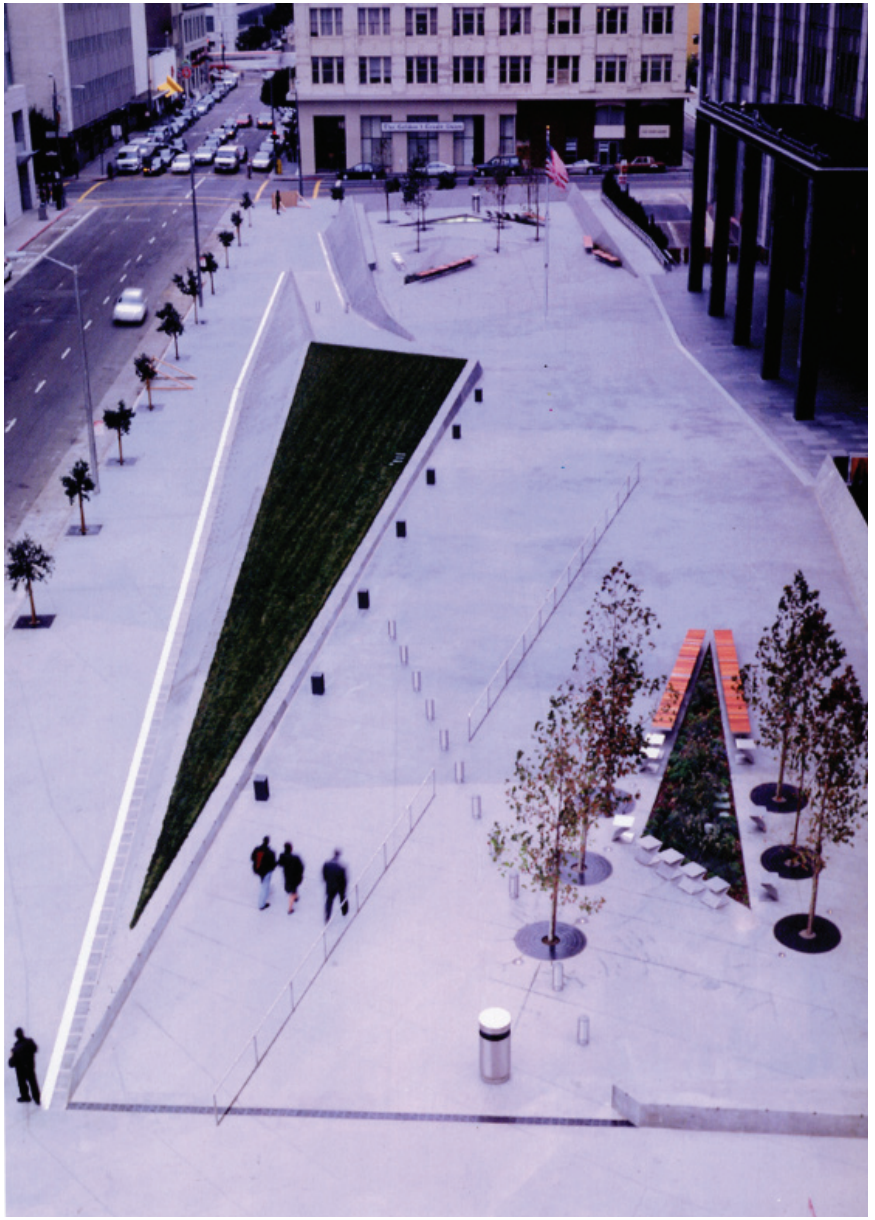


fig. 5.05 *Simplicity in design*

fig. 5.06 *Playground built into the topography*

fig. 5.07 *Recreation space*

Parc de la Solidaritat, Barcelona

Sergi Godia i Fran, Xavier Casas i Galofre, 1998

Aptly named Parc de la Solidaritat, this space is a platform spanning a highway that connects two Barcelona neighbourhoods. Once isolated from one another, this linking space provides recreational amenities for the neighbourhoods and uses architectural elements to create a symbolic connection seen from the highway.

A lawn-covered "hall" is the major organizing element for the park, running perpendicular to the roadway. The space allows residents to pass seemlessly from one neighbourhood to the other. It is defined by a two-level lighting strategy: light metal porticoes that support two lines of light seen from the highway as a linking element, enclosing the space, and a constellation of groundlights that complement a focal urban art piece and provide a local level of experience and safety within the park.

Recreational facilities fill the space that spans over the highway, perpendicular to the central hall. This organizes the park into four quadrants. The design deals nicely with changing topography, incorporating a playground into the slope.[4]

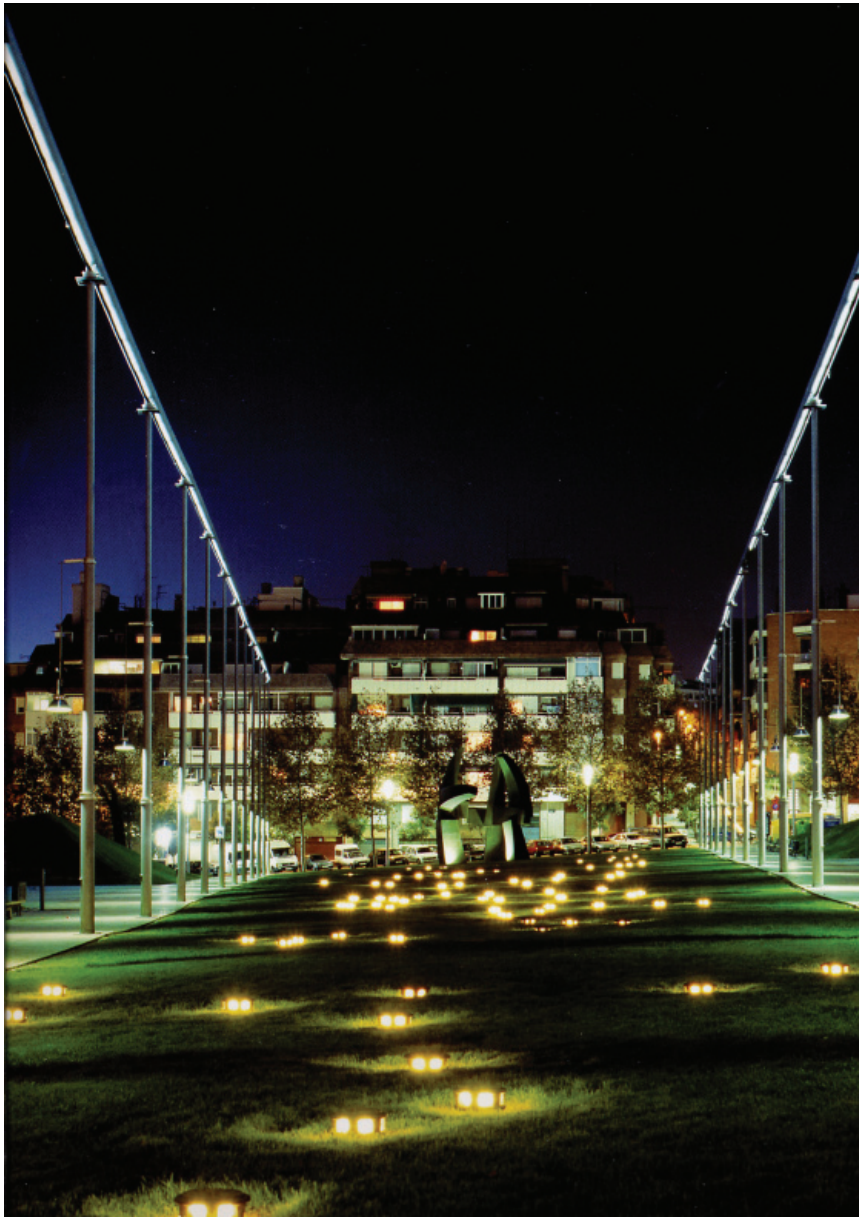


fig. 5.08 *A two-tiered lighting strategy creates a "central hall"*

fig. 5.09 *Semi-mature trees amongst tram lines*

Piccadilly Gardens, Manchester

EDAW with Tadao Ando, 2002

Piccadilly Gardens provides a rare focal public space in an emerging 24-hour city. The space is housed by a high density urban fabric, creating a central room for Manchester. This multi-functional space has turned a once derelict garden into a safe, 24-hour destination in itself. It is the combination of a programmed central public space and a major transit stop. The lighting scheme brings the gardens to life as a place to hangout, meet friends, see and be seen. Though the transportation interchange makes for a charged space there are also quiet opportunities throughout. There is an oval-shaped water feature that is very popular with children.

The large space is organized with deliberate simplicity. There is adherence to clear geometry and a restricted palette of materials and plants, including use of semi-mature trees.[5]

fig. 5.10 *Water feature*

fig. 5.11 *Multi-use space serves as a transit node*

fig. 5.12 *Busy summer activity within major meeting space*

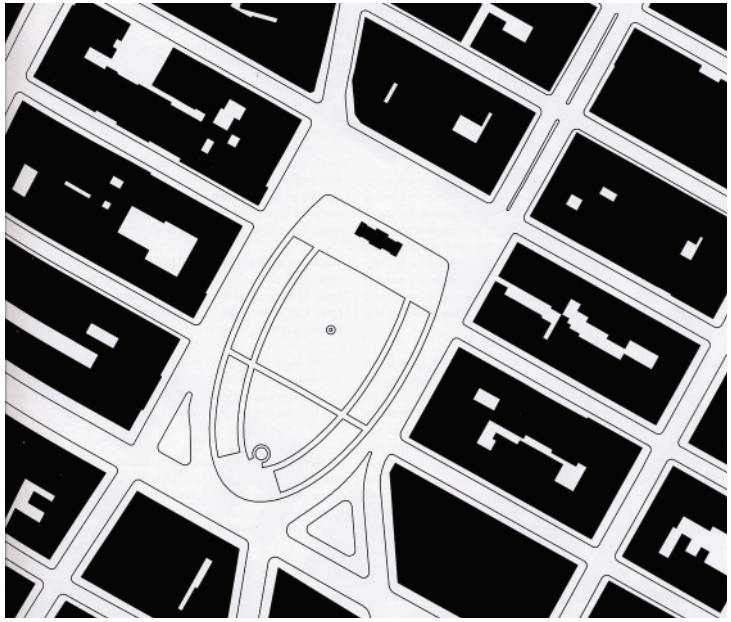


fig. 5.13 *Union Square amongst the dense Manhattan fabric*

Union Square, New York City

Frederick Law Olmstead, 1872 (and others in subsequent renovations)

Like Piccadilly Gardens, New York's Union Square Park is walled by surrounding high-density buildings that create a distinct urban room. For decades it has been used accordingly. This public space slowly but continually adapts based on the needs of the community it serves. It serves as a multifunctional space for commerce, entertainment, recreation and protest. The city's daily Greenmarket is located here, as well as a dog run, a playground, and a restaurant, while also housing several important statues of historical figures such as George Washington and Mohandes Ghandi that illustrate the importance of the park's evolution and multiplicity of use.[6]

fig. 5.14 *Manhattan's Greenmarket*

fig. 5.15 *Major urban room*

fig. 5.16 *Street sales near the CBC Broadcast studio*

Sparks Street Mall, Ottawa

Helmer Associates, 1967

Sparks Street Mall is a four-block long pedestrian space on one of Ottawa's more historic streets. It is within one block of Parliament Hill, the Rideau Canal and the National Arts Centre. It is home to many heritage buildings, restaurants, CBC's Ottawa broadcast studio, fountains, sculpture and a performance stage. It was funded by the city shortly after the electric streetcar line along it was discontinued.[7]

It is considered to be relatively successful during the week but is lightly used on weekends and is often criticized for not having enough major attractions.[8] It doesn't have enough nearby residential density to populate it meaningfully outside of business hours.

fig. 5.17 *Desolate evening on Sparks Street*

fig. 5.18 *Street sculpture*

fig. 5.19 *Pedestrians on Sparks Street*

Summary

Framework for Vancouver's Urban Interventions
Developed from Public Space Case Studies:

1. Major urban rooms/civic destinations
   (Federation Square, Piccadilly Gardens, Union Square Park)
2. Multi-functional spaces
   (Piccadilly Gardens, Union Square Park)
3. Flexibility for various types and scales of use
   (Federation Square)
4. Simplicity and clarity in design
   (Federal Plaza, Piccadilly Gardens)
5. "Poetics of Safety" - strategy for security
   (Federal Plaza, Parc de la Solidaritat, Piccadilly Gardens)
6. Major civic and cultural facilities complement space
   (Federation Square)
7. Room/enclosure created in urban design
   (Federation Square, Parc de la Solidaritat)
8. Multiple uses for architectural features
   (Federal Plaza)
9. Presence of urban art
   (Parc de la Solidaritat)

Endnotes

1 Vranckx, Bridget. *Urban landscape*. Gloucester, Mass.: Rockport, 2006, p. 73
2 Gaventa, Sarah. *New public spaces*. London: Mitchell Beazley, 2006, p. 24
3 Mostaedi, Arian. *Urban spaces*. Architectural design (barcelona, spain. Barcelona: Carles Broto & Joseph Ma Minguet, 2002, p. 66
4 Mostaedi, p. 98
5 Vranckx, p. 119
6 Jenkins, Eric J. *To scale : One hundred urban plans*. Abingdon, Oxon, England ; New York: Routledge, 2008, p. 124
7 Rubenstein, Harvey M. *Central city malls*. NYC: John Wiley & Sons, p. 167
8 <<www.tripadvisor.com/Attraction_Review-g155004-d591356-Reviews-Sparks_Street_Mall-Ottawa_Ontario.html>>

part 03

the new walking city

vancouver's sense of place

chapter six

incrementally-grown pedestrian network

bottom-up approach

Over a period of decades this plan systematically transforms the downtown street culture, adaptively building on the strength of pedestrian activity. As people become more used to pedestrian activity public space is increased and parking options and car lanes are removed accordingly.

The goal is to make the street a forum for the citizen, a livingroom for the neighbour, a playground for the child and a destination for the tourist. It will create a culture of walking, biking and taking transit by choice, and driving only out of necessity.

Opposite:
fig. 6.01

Framework for Vancouver's Pedestrian Network
Developed from City Case Studies:

1. Trade-oriented pedestrian streets serve as a connective element (Barcelona, Copenhagen)
2. Public transit links major spaces, offering free downtown ridership and interchanges feed pedestrian streets Bogota, Curitiba, Portland)
3. Incremental changes to the street network and reduction of parking options happen responsively over time (Copenhagen)
4. Squares are changed in nature from traffic to pedestrian (Barcelona, Copenhagen)
5. Roads or parking lanes are closed to cars during parts of the day (Bogota, Portland)
6. Each neighbourhood has a "living room" and squares are created from degraded buildings and showcase themes (Barcelona, Curitiba)
7. City introduces a bike borrowing system to promotes cycling as a mode of transportation (Copenhagen)
8. High density supports an adaptable transit network but requires quality public spaces (Bogota, Curitiba)

The central aim of this thesis is to investigate whether using pedestrian streets as a connective agent between public spaces can contribute to an augmented sense of place. Excessive automobile space is transformed into public space with a focus on pedestrian activity with the goal of strengthening the walking culture of the city. Beginning by identifying the downtown's prominent commercial streets and its major public spaces, the connectivity of these elements are examined.

fig. 6.02

fig. 6.03

fig. 6.04

fig. 6.05

Using the framework for design identified in Part 02, this portion of the thesis proposes the creation of a comprehensive pedestrian public space network of streets and squares. It projects the transformation of important public spaces and the connective network that links them as a system. As this network develops, it will help encourage a walking culture within the downtown. Using trade-oriented streets as a starting point, this system will use pedestrian promenades as a connective element and draw from transit lines that deposit riders into spaces within the network.

As the network develops it will adaptively change in increments – taking over lanes and parking spaces when appropriate. As residential density increases it will change traffic squares to pedestrian squares and provide each neighbourhood with a "living room" to increase public space. Priority within the streetscape will be given to pedestrians to increase public space.

New transportation options will offer alternatives to cars, such as free downtown trams and a bike borrowing system. Certain car streets will be pedestrian only during parts of the day and times of the year when necessary, making for an adaptable transportation network. Public spaces will showcase themes to diversify their character.

The pedestrian network will grow incrementally, using a scheme similar to the Olympic Pedestrian Plan as a starting point. As pedestrian use grows, parking spaces will be reduced to create pedestrian-priority streets. As car use continues to decrease this pedestrian-priority network will increase. Once prominent pedestrian routes are established new squares will be introduced along these arteries.

Once the pedestrian culture has gained prominence the Diagonal Boulevard will link major public spaces as well as new squares, showcasing a redesigned Nelson Park at its centre. As car use continues to decrease, pedestrian-priority streets will be converted to pedestrian only where possible. A new square at Robson and Granville streets, created by the demolition of the Sears building, will allow for a fluid connection between these two streets, better linking Waterfront Station to Robson Square, the Diagonal, and English Bay Beach beyond.

fig. 6.06 *Davie Street single story fabric*

fig. 6.07 *Denman Street single story fabric*

fig. 6.08 *Davie Village single story fabric*

Residential intensification

Much of downtown Vancouver's built fabric is made up of mid to high rise buildings. The West End, one of North America's highest density neighbourhoods, has three major commercial streets; Davie, Denman and Robson. Despite being surrounded by a dense residential neighbourhood, much of the streetscapes of these three arteries are made up of one and two story buildings. With the downtown population expected to rise steadily over the next two decades, residential intensification must be a central strategy.

This portion of the thesis proposes to replace older low rise buildings in the West End with much higher density. Throughout the residential streets three story walk-ups that were built in the 1960s and 1970s will be targeted for replacement. On the three commercial arteries, one and two story commercial buildings will be replaced to create a range of mixed-use buildings that provide residential, commercial, cultural and social facilities for the growing population. These buildings will be three or more stories, aiming to create a street enclosure amenable to establishing a sense of an urban room. Greatly increasing density along the West End's most walked-on streets will only serve to further populate the new pedestrian network. A major focus will be on establishing a presence of second and third story commercial spaces similar to the many successful upper-floor stores found all across the downtown peninsula.

fig. 6.09-6.11
Second story spaces

Upper-story spaces

Within many of Vancouver's central shopping areas, there is a condition of successful upper-story commercial spaces that serve to extend the space of the street as an urban room beyond the ground plane. This commercial space comes in the form of large chain stores, small specialty stores, restaurants, bars, patios, concert halls and office space. Many of these spaces can be found along Granville Street and Robson Mall.

This portion of the thesis aims to build on the success of this condition by using it as a strategy for intensification along the pedestrian network. Where possible, patio space will be created as an extension of the outdoor urban room. In other cases, second and third story exterior access to commercial spaces will be provided. These will aim to establish a multi-level experience of the street. Planting along patio and walkway spaces will be encouraged to establish the connection of these spaces as a vital part of the street and public forum.

Opposite page:
fig. 6.12
Downtown pubic spaces

Primary Public Spaces

1 English Bay Beach
2 Nelson Park
3 Robson Square
● 4 Waterfront Square

Secondary Public Spaces

5 Convention Centre Square
● 6 Davie Market Square
● 7 Granville Square
8 Library Square
9 Maple Tree Square
● 10 Robson Mall
11 Victory Square
12 Yaletown Park
● 13 West End Square

Automobile Access to downtown
Pedestrian and pedestrian-priority streets
● Proposed public space

fig. 6.13
English Bay Beach before

English Bay Beach

English Bay Beach, itself, is one of Vancouver's most popular public spaces. It is home to the annual Celebration of Light, a fireworks competition with an estimated annual attendance of 1.4 million people. English Bay Beach is also the major southern entrance to Stanley Park. The green space across Beach Ave across from the beach is a rather non-descript space with sculpture and decorative flags. There is no specific program and the entire ground plane is covered in lawn. It is triangular in shape and surrounded by streets on all sides.

fig. 6.14
English Bay Beach after

The redesign of the square at English Bay Beach focuses on catering to beach goers and spectators of the annual Celebration of Light fireworks competition. The square, within the new high density buildings on its periphery, accommodates many new patio seats that capitalize on Pacific Ocean views. A large grass space provides more area for sports and sunbathing and is planted with indigenous big leaf maple trees in addition to existing tropical palm trees. Architectural features double as seating for fireworks displays. The space is charged by the tram stop that doubles as the entrance to adjacent Stanley Park.

fig. 6.15
Robson Square before

Robson Square

Robson Square is considered by many to be Vancouver's major central public space. It is home to the Vancouver Art Gallery, the Provincial Law Courts, University of British Columbia Robson Square, and is adjacent to the Pacific Centre and nearby Robson Mall. It is a space with several levels and grade changes, with an underpass below Robson Street, the regular ground plane, and an upper level that extends from the second floor of the law courts, mostly covered in dense planting. Robson Square has been redesigned several times since being completed in 1983, and has never really realized its potential as a major public space.

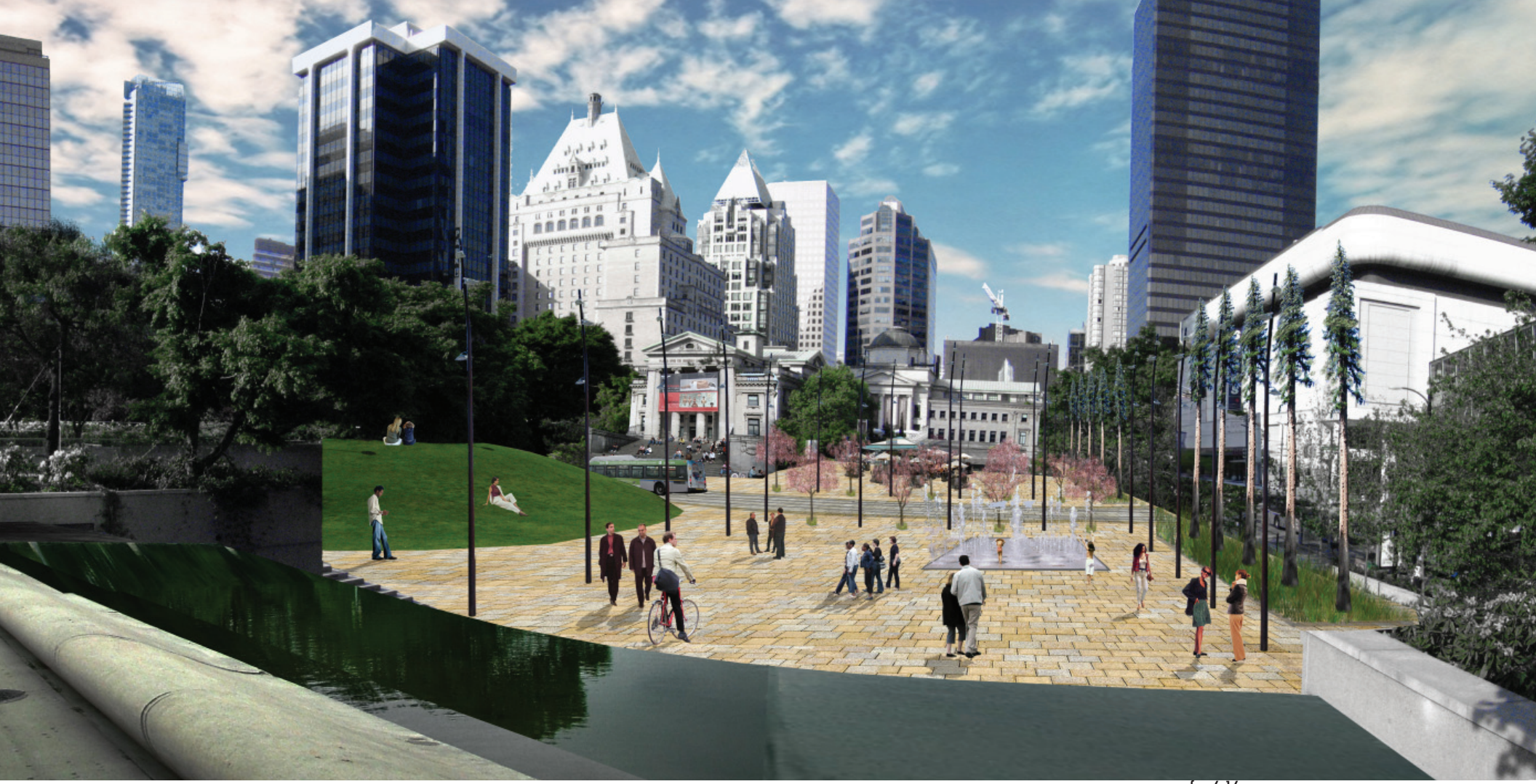


fig. 6.16
Robson Square after

The redesign of Robson Square focuses on creating more of a civic gathering space. To improve issues of security the multiple levels are eliminated, allowing for an expansive ground plane. This new plane along with the removal of overplanting make for less reclusive and dangerous spaces, and a prominent lighting scheme allows the square to better operate as a 24-hour space. The removal of planting opens up the berm on the west side of the square, leaving a grassy knoll ideal for lying in the sun and picnicking at lunch.

The removal of the planting also allows for a visual connection between the popular staircases on either side of the square. A stage space is provided for outdoor events and a new water feature doubles as a skating rink in the winter time.

fig. 6.17
Waterfront Square before

Waterfront Square

This site, situated next to Waterfront Station, serves as a grade-level pay parking lot. It is one of the last remaining undeveloped properties in downtown Vancouver with an uninterrupted view of the North Shore mountains. The train station serves as a hub where all three Skytrain lines, the West Coast Express and the Seabus intersect. It is a common way to enter the city. The east side of the site has a seven story heritage building with a popular brew pub and patio. Next to this building is Water Street and Gastown, a very popular neighbourhood and tourist district. Simon Fraser University's Harbour Centre is located across Cordova Street.

fig. 6.18
Waterfront Square after

Waterfront Square's primary function is to serve as a transit square. It is the interchange of multiple modes of transportation: The West Coast Express regional train, the SeaBus passenger ferry, the Skytrain, the new downtown tram and multiple bus routes. Waterfront Square also is a hub for non-motorized transit, as it is a location for Vancouver's new bicycle loan system. In addition to being a transit hub it offers a magnificent view to the North Shore mountains, a lawn to rest and numerous new patio seats. An information kiosk greets visitors to the downtown and Vancouver as a whole.

chapter seven

diagonal boulevard

top-down approach

Once a successful network of public spaces and pedestrian links are established the aim is to create a major diagonal boulevard that connects English Bay Beach (the city's major recreational space) to Robson Square (the city's major central space) to Waterfront Station (major transit node) along one seemless route. The route targets eliminating underperforming West End buildings, most notably 1950s and 1960s three-story walkups, replacing them with much needed public space, as well as new higher density residential buildings mixed with commercial and cultural program. The weekly Comox St market would relocate to here and expand in scope. This will also double the size of Nelson Park, the downtown's largest non-waterfront green space.

The diagonal boulevard is the essential missing piece in a dense downtown wishing to be a well connected collection of dynamic spaces with a meaningful fabric linking them. With the aid of a well-established pedestrian network the diagonal boulevard can become the spine that defines Vancouver's downtown by organizing and linking all of its most important spaces.

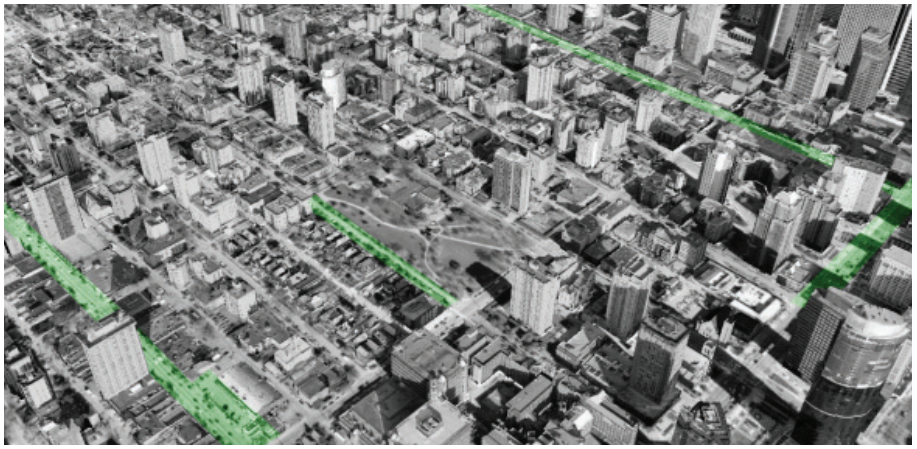


fig. 7.01 *commercial areas*

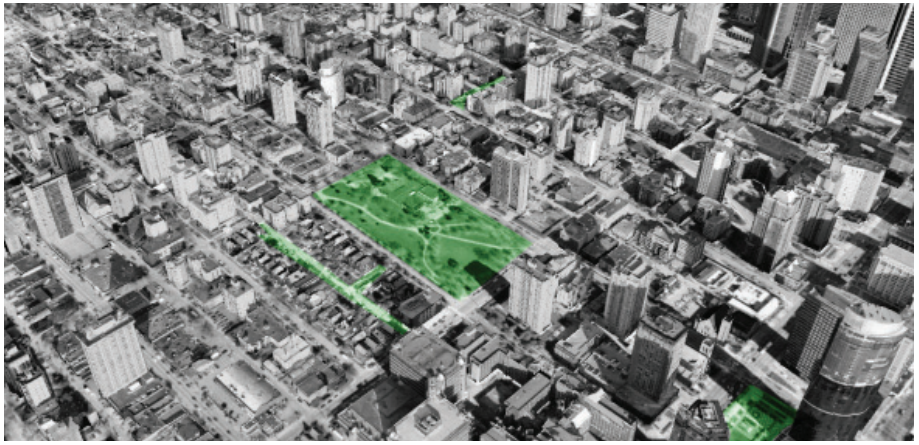


fig. 7.02 *public greenspace*

The downtown population is growing at a very fast rate. To accommodate the influx of people requires more high density building, and to do so without compromising quality of life requires more worthwhile public space. This moves proposes appropriating low density buildings to create a boulevard that will serve as a major public space that links the downtown's major public spaces. The Diagonal targets a rare downtown area that has been left behind. The blocks surrounding Nelson Park have relatively few high density buildings and few projects built in the last two decades. There are a number of heritage buildings, including Mole Hill (a full city block of heritage homes), that will be highlighted along the Diagonal, contributing to its unique character.

Two new squares will result within the commercial neighbourhoods of Robson Mall and Davie Village, linked by the boulevard, giving them a focal public space and centre. A market will anchor one side of the boulevard while a new major cultural facility will provide a civic destination within it. The diagonal cut made by the boulevard will leave irregularly shaped properties along it. This situation will allow for an innovative residential/mixed use typology to emerge which will focus on high density to populate the boulevard and accommodate the rise in population. These new residential units will give thousands of people an opportunity to live on a major boulevard that caters primarily to pedestrians and transit users. Design competitions for these commissions will instigate high quality place making and greatly contribute to the character of the neighbourhood.

fig. 7.03 *amenities*

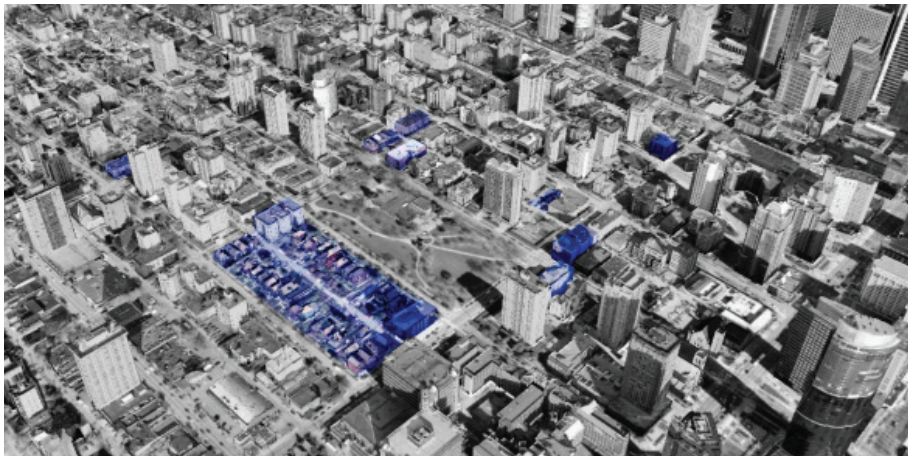


fig. 7.04 *heritage buildings*

Diagonal arteries are the hallmark of many great cities. Paris has the Champs Elysees, New York City has Broadway and Barcelona has Il Diagonal and the Ramblas. Vancouver's Diagonal boulevard must have this type of presence in the urban realm. Central to the Diagonal strategy is the tandem of pedestrianization and intensification. Public spaces found along the Diagonal will provide a way to navigate the city, serving as landmarks. This eastern edge of the West End, with its relative low density and presence of open space will be transformed by the introduction of the Diagonal. With its new density and the redesign of Nelson Park, the placemaking ability of the Diagonal will pull the civic core of the downtown peninsula towards its geographic centre.

This new space caters to Vancouverites, cutting through their neighbourhood. It is placemaking not only for the city but also for citizens. Residents benefit from an improved recreational park, more public space and a greatly enlarged market. These interventions also create a new zone and identity for Vancouver, characterized both by the presence of the market and the creation of new cultural and civic facilities.

fig. 7.05 *high rise buildings*

fig. 7.06 *low rise buildings*


broughton st
jervis st
nelson mews
jervis mews
bute st
robson st
pendrell st
comox st
1 davie market and farmer's market
2 nelson park

fig. 7.07

3 galleries and commercial

1 Davie Market Square

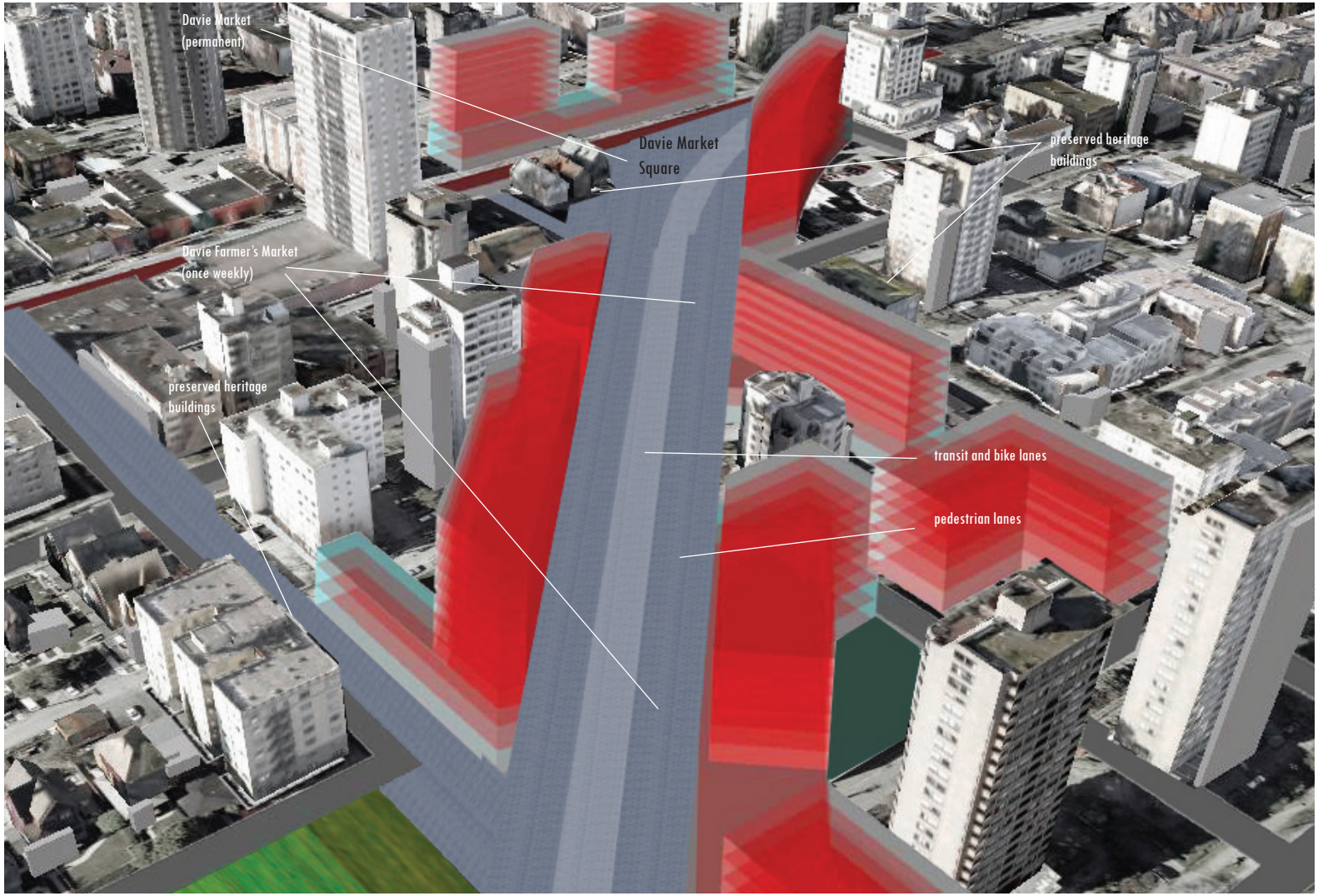


fig. 7.07

The site of Davie Market Square is the block directly west of the Davie Village commercial area. At the intersection of Davie and Broughton Streets, it houses many three and four story walk up apartment buildings and 3 heritage houses in various stages of disrepair. There are several tall apartment buildings on the blocks surrounding the site.

fig. 7.09 *Davie Market Square before*

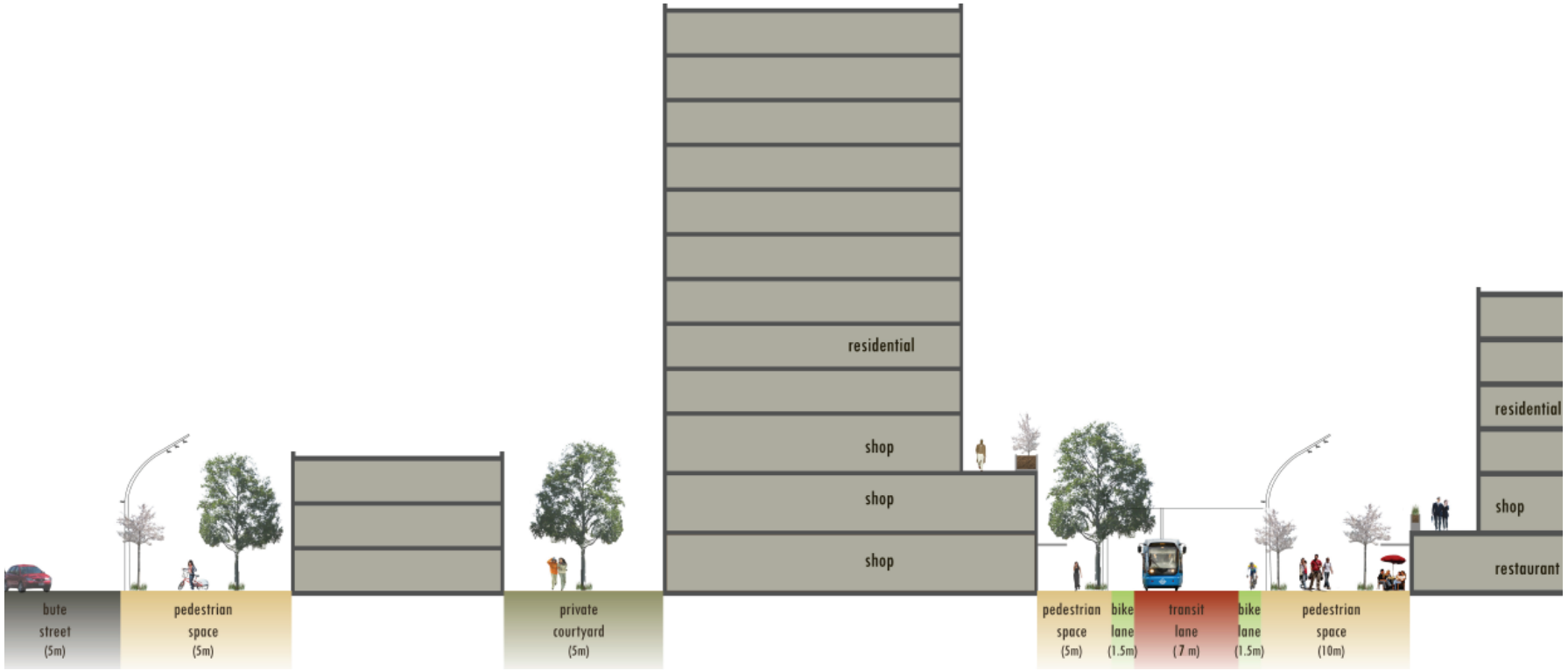


fig. 7.10 *Section - west diagonal*

The western side of the Diagonal provides a new home for the Downtown Farmer's Market. The newly created Davie Market Square facilitates permanent market stalls and the weekly temporary market expands from here towards Nelson Park. Davie Market Square serves as the neighbourhood central space that Davie Village lacks.

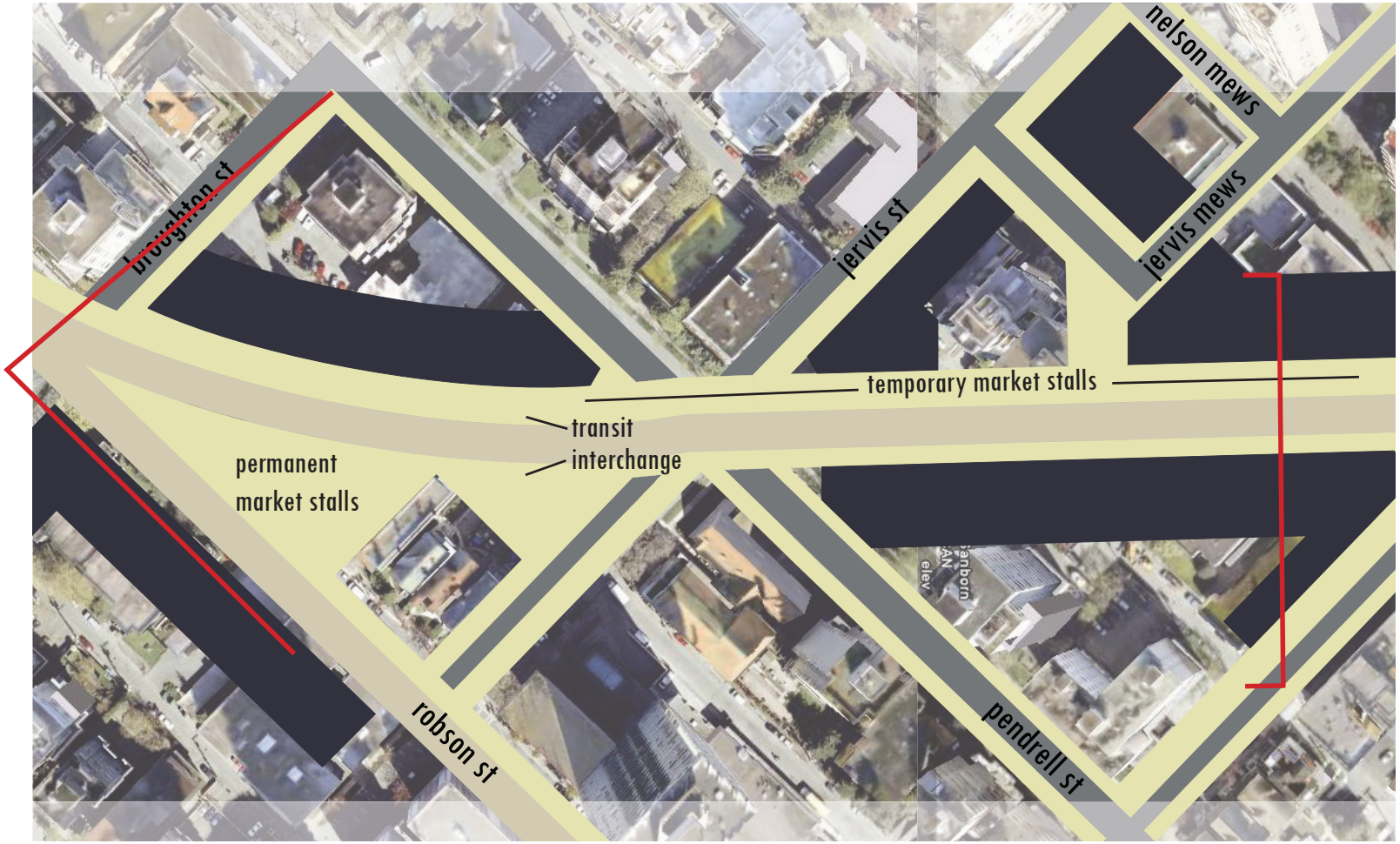


fig. 7.11 *Plan - west diagonal*

fig. 7.12 *Davie Market Square after*

2 Nelson Park

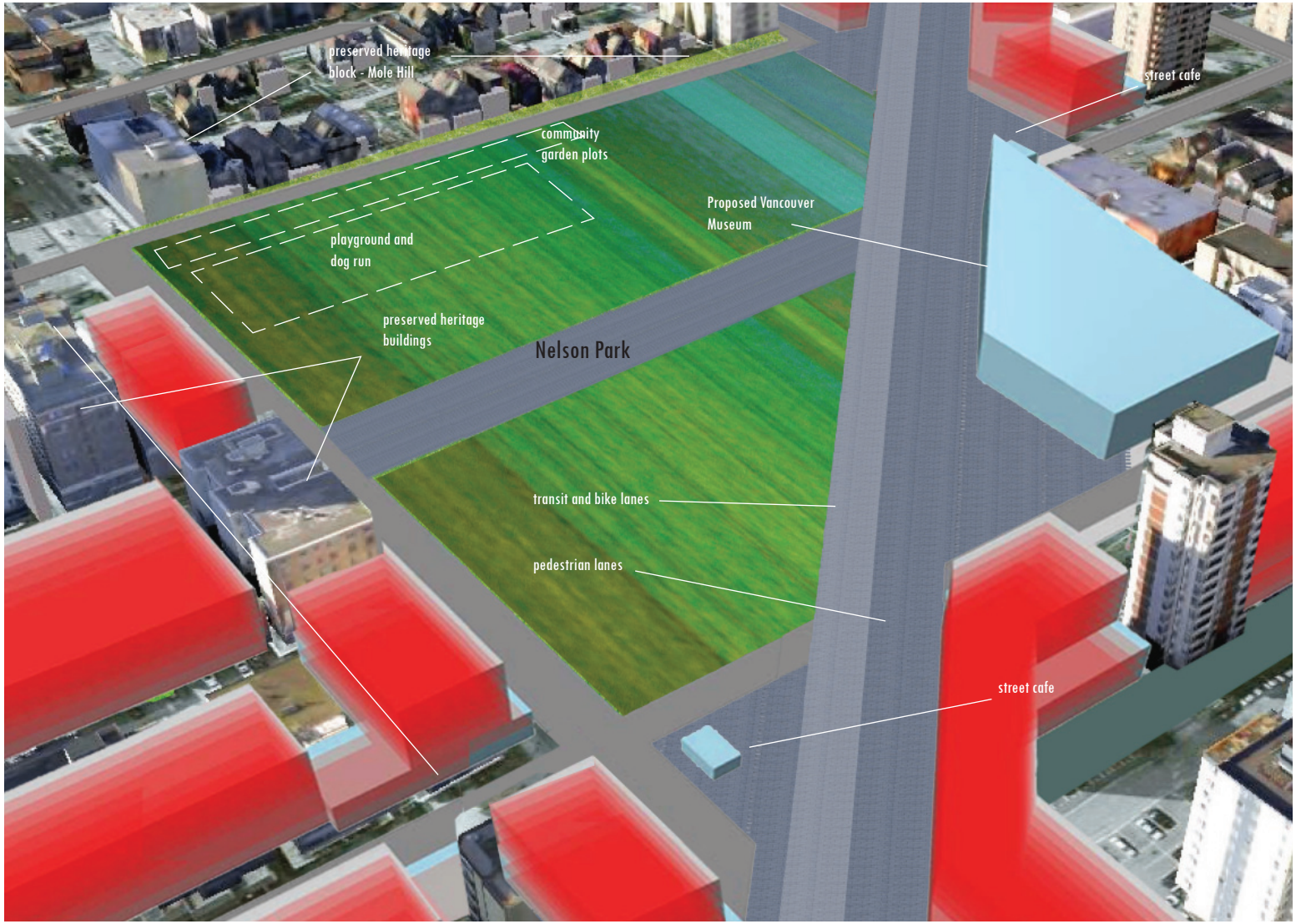


fig. 7.13

diagonal boulevard

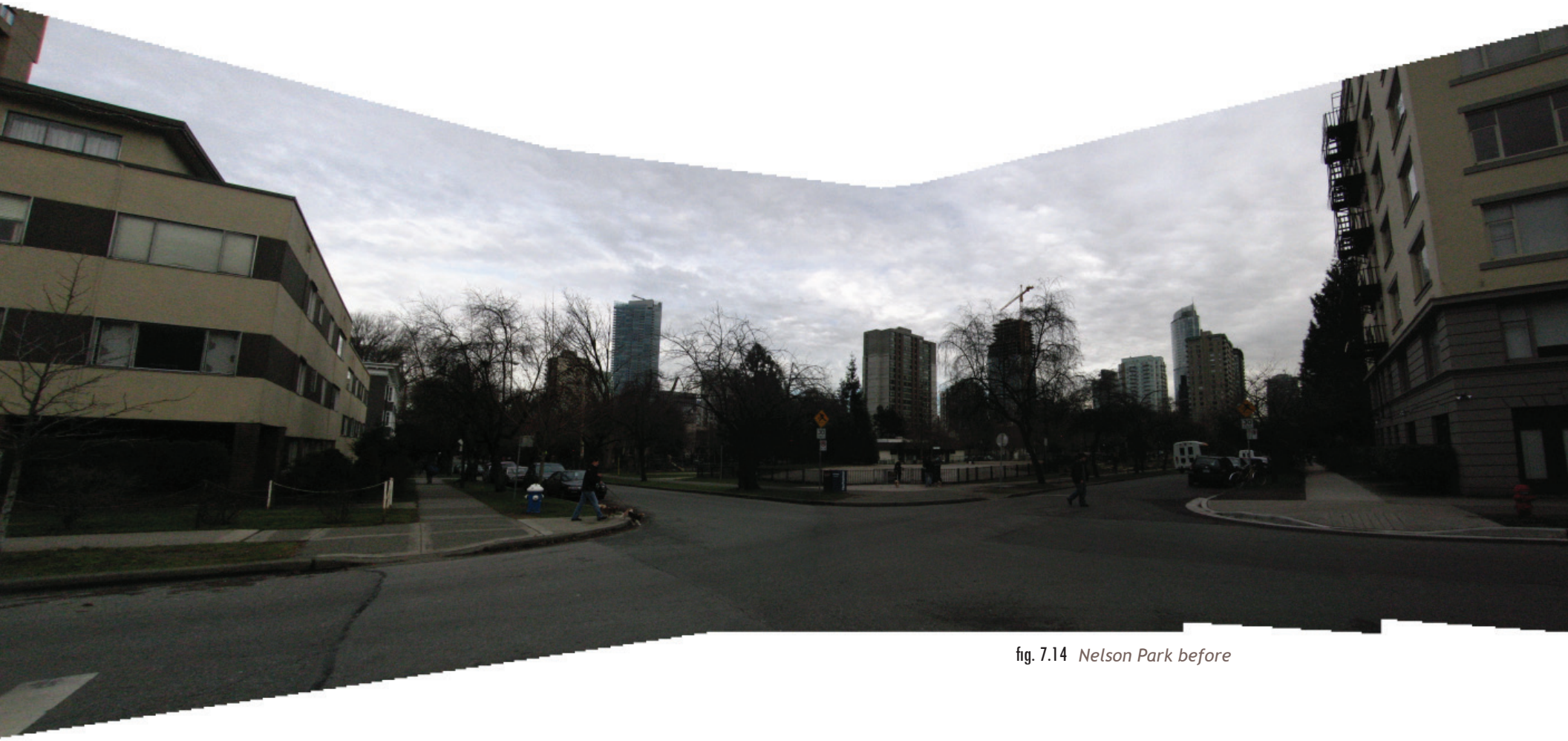


fig. 7.14 *Nelson Park before*

Nelson Park is a community green space covering one city block. It houses a dog run, a play ground, a large lawn and an annex facility for a local public school. There is a block of heritage buildings, known as Mole Hill, directly to the south of the park, and the remaining surrounding buildings are mostly high rise or three and four story walkups. The park has recently had a modest landscaping facelift. It is a popular place to sunbathe, play sports and people watch.

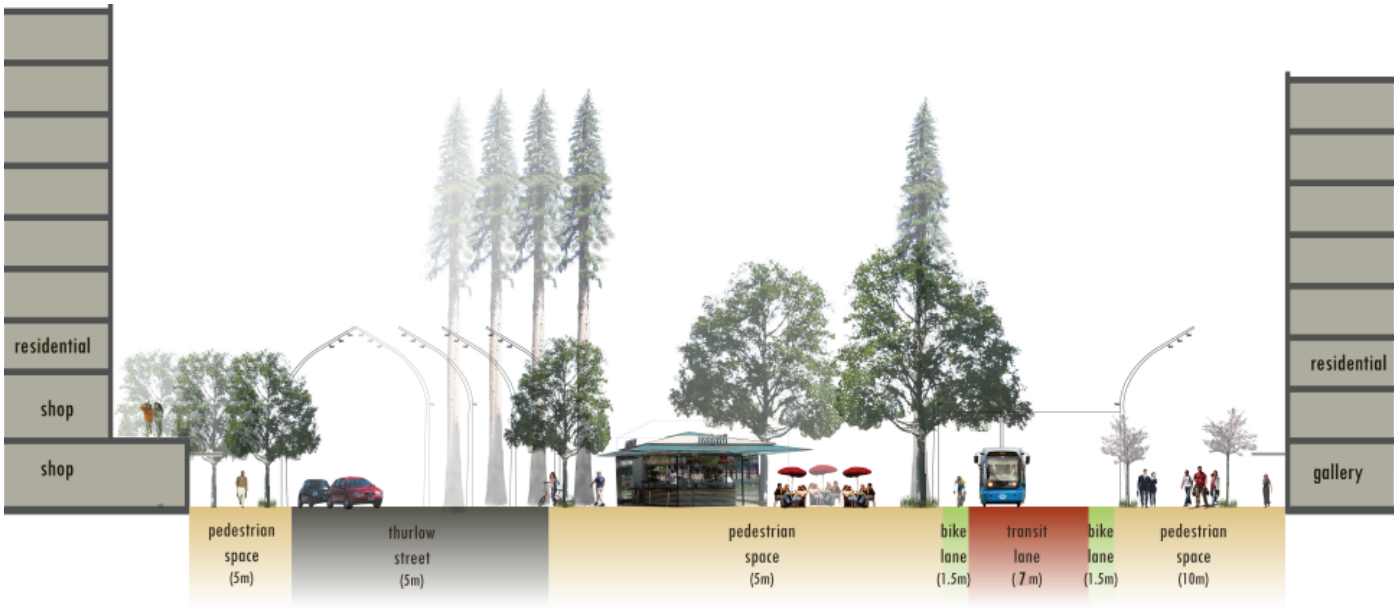


fig. 7.15 *Section - Nelson Park*

The redesign of Nelson Park, doubled in size from its former self, transforms a neighbourhood park to a multi-use civic destination. Home to the new Vancouver Museum, the park retains amenities such as its playground and dog run. However, it offers much more by showcasing magnificent native British Columbian Douglas Firs and a forest of vibrant Arbutus trees. A new water fountain and outdoor hall are highlighted architectural features. Nelson Park draws the focus of the downtown westward to the peninsula's geographic centre.

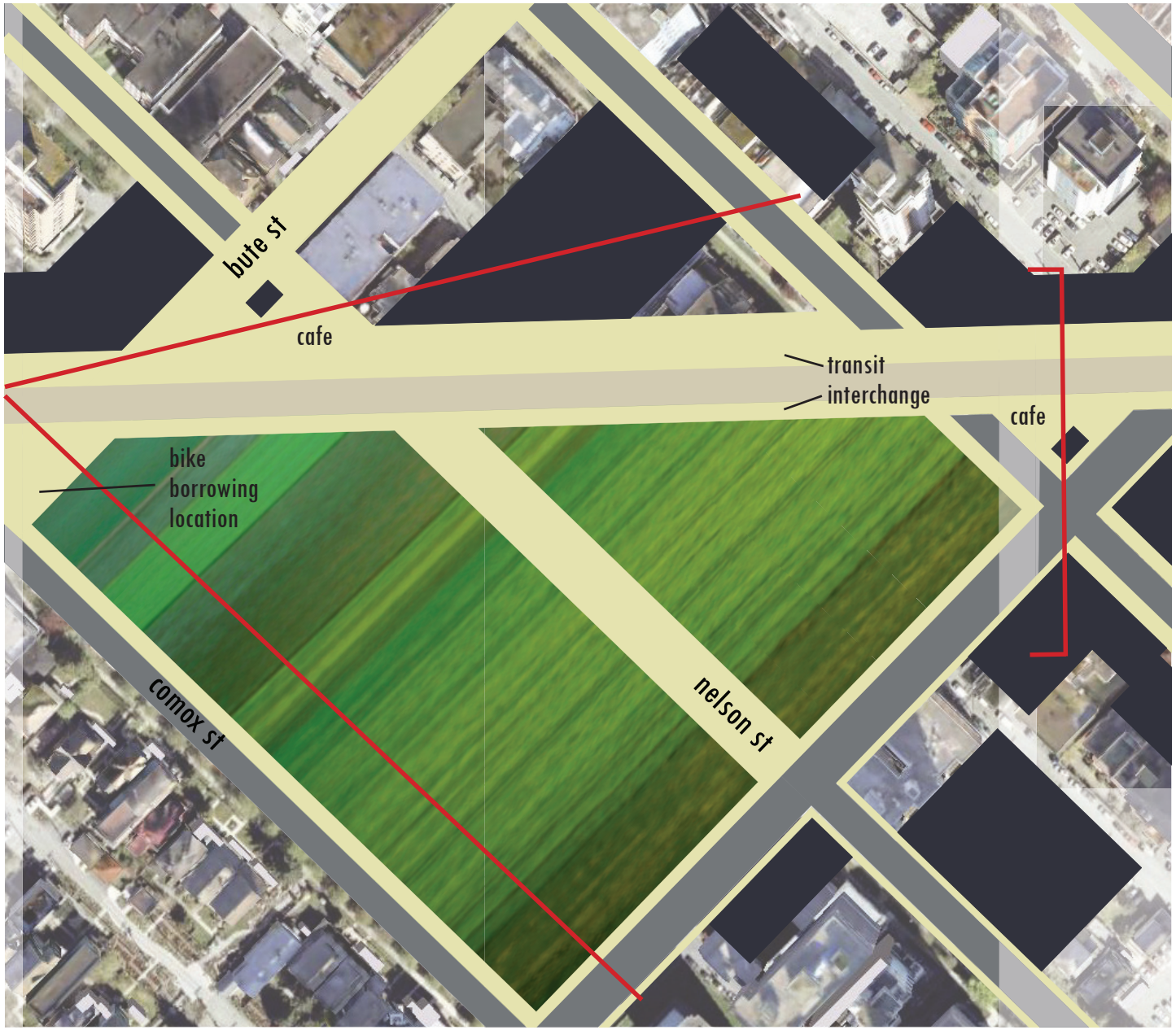


fig. 7.10
Plan - Nelson Park

fig. 7.17 *Nelson Park after*

3 Robson Mall

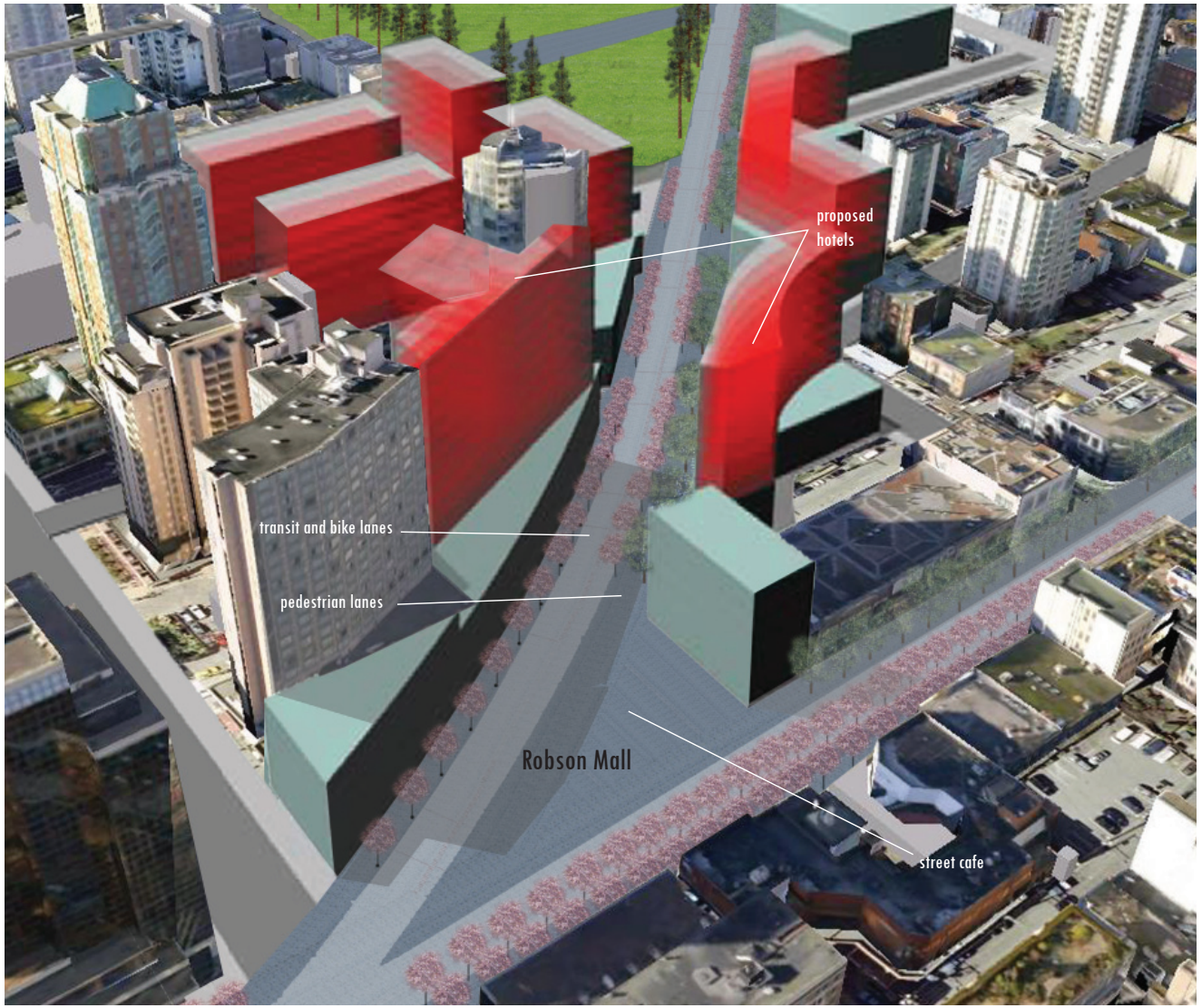


fig. 7.18

fig. 7.14 *Robson Mall before*

This site at the intersection of Burrard and Robson Streets is the beginning of the major commercial area known as Robson Mall. It is dominated by wide lanes and auto traffic. There are hotels, restaurants, shops and cafés located here, and office towers nearby. It is located one block west of Robson Square and one block south of the financial district.

The eastern portion of the Diagonal links Robson Square and Robson Mall to Nelson Park. The new square provides a central public space for shoppers on Robson Mall. Cafe patios and seating provide resting spaces. The commercial storefronts along the Diagonal house small galleries and stores similar to those found on Robson Street.

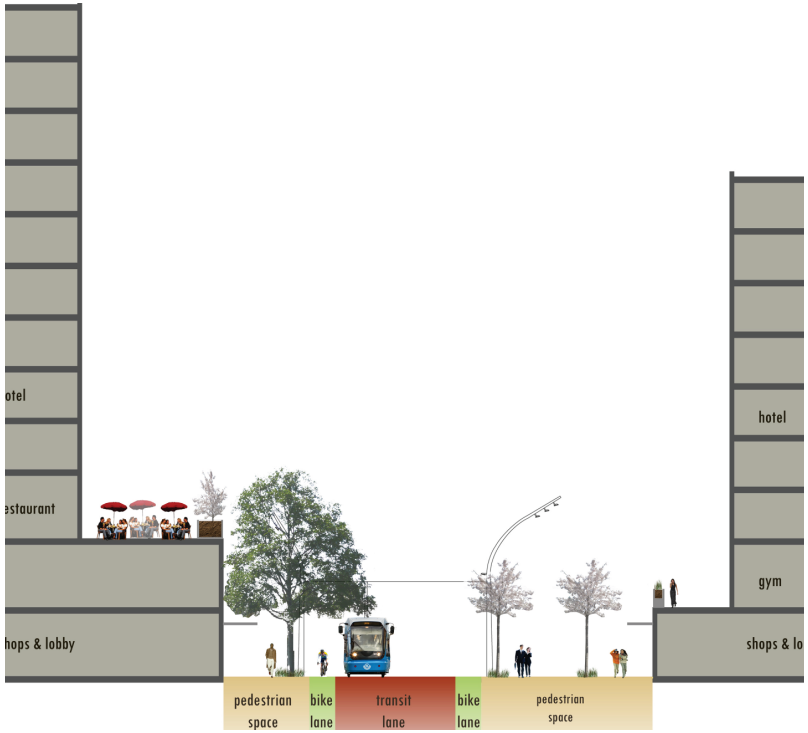


fig. 7.20 *Section - east diagonal*

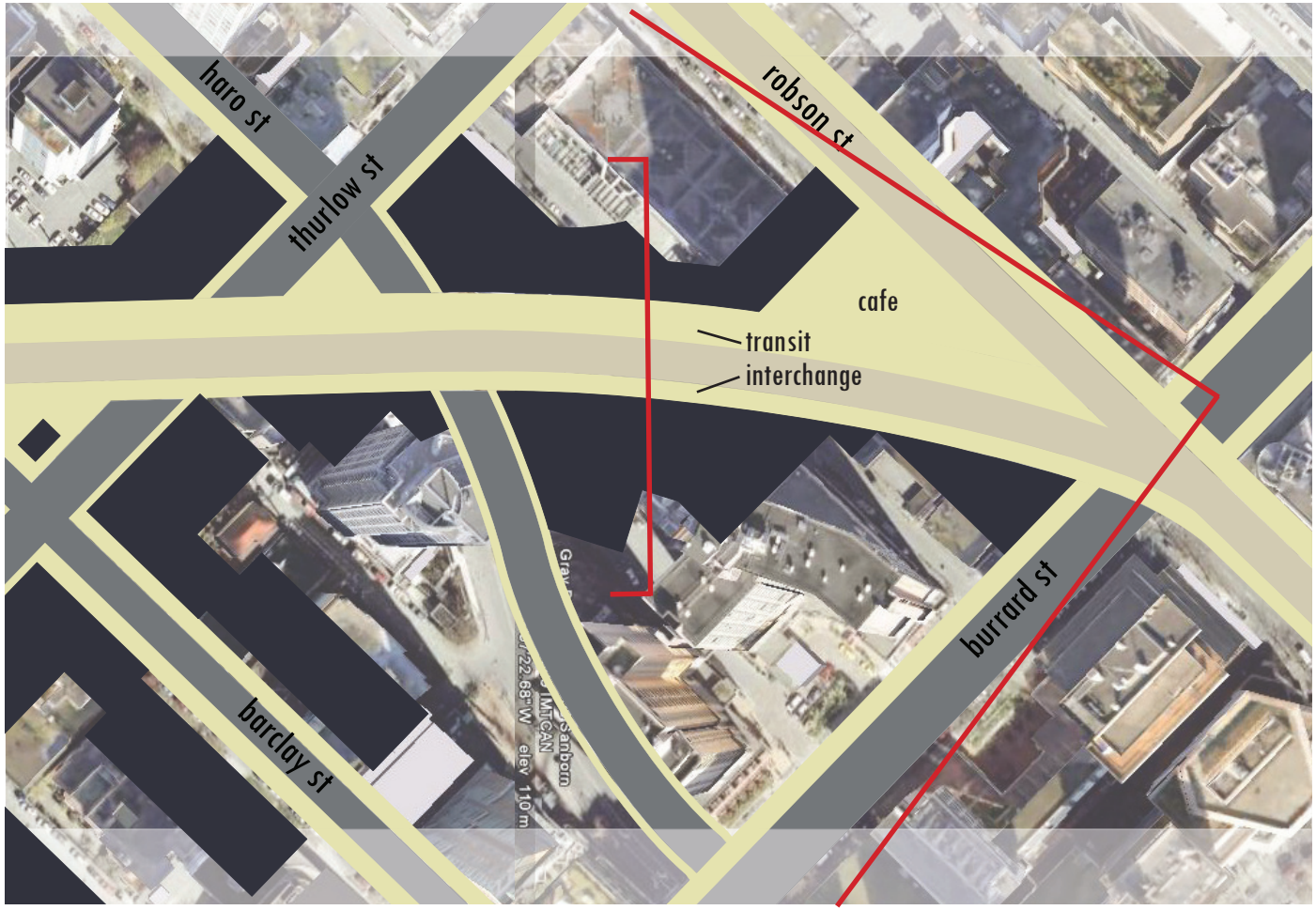


fig. 7.10
Plan - east diagonal

fig. 7.22 *Robson Mall after*

conclusions

Creating a shift in culture, from automobile dependence to pedestrian and sustainable modes of transit, is a challenging task facing North American cities. Despite many examples of international cities that embraced urban design and transformation as catalysts for moving away from a car-centric culture, North American cities are still developing low density, sprawling neighbourhoods that rely on personal automobiles.

This thesis uses pedestrianization and the suppression of car culture to alter Vancouver's sense of place. Vancouver is a city with a very distinct and celebrated sense of place that has much more to do with its surroundings than the city itself. It adds a walkable urban realm celebrating public space to a city with an intrinsic link to Vancouver's magnificent natural surroundings. These surroundings create an active, environmentally conscious populace. Pedestrianization and the improvement of public space in the downtown draws the active and environmentally conscious populace into the heart of the city – creating a dramatic and exciting social sphere.

Recognizing the reduction in automobile use downtown and the expansion of Metro Vancouver's transit network, this thesis uses intensification and pedestrianization as tools in public space making. Two interventions are implemented to augment the city's sense of place.

Framework for Vancouver's Pedestrian Network
Developed from City Case Studies:

1. Trade-oriented pedestrian streets serve as a connective element
   (Barcelona, Copenhagen)
2. Public transit links major spaces, offering free downtown ridership and interchanges feed pedestrian streets
   (Bogota, Curitiba, Portland)
3. Incremental changes to the street network and reduction of parking options happen responsively over time
   (Copenhagen)
4. Squares are changed in nature from traffic to pedestrian
   (Barcelona, Copenhagen)
5. Roads or parking lanes are closed to cars during parts of the day
   (Bogota, Portland)
6. Each neighbourhood has a "living room" and squares are created from degraded buildings and showcase themes
   (Barcelona, Curitiba)
7. City introduces a bike borrowing system to promotes cycling as a mode of transportation
   (Copenhagen)
8. High density supports an adaptable transit network but requires quality public spaces
   (Bogota, Curitiba)

fig 1

Framework for Vancouver's Urban Interventions
Developed from Public Space Case Studies:

1. Major urban rooms/civic destinations
   (Federation Square, Piccadilly Gardens, Union Square Park)
2. Multi-functional spaces
   (Piccadilly Gardens, Union Square Park)
3. Flexibility for various types and scales of use
   (Federation Square)
4. Simplicity and clarity in design
   (Federal Plaza, Piccadilly Gardens)
5. "Poetics of Safety" - strategy for security
   (Federal Plaza, Parc de la Solidaritat, Piccadilly Gardens)
6. Major civic and cultural facilities complement space
   (Federation Square)
7. Room/enclosure created in urban design
   (Federation Square, Parc de la Solidaritat)
8. Multiple uses for architectural features
   (Federal Plaza)
9. Presence of urban art
   (Parc de la Solidaritat)

fig 2

A bottom-up approach sees the gradual conversion of car-space into pedestrian public space over time. The aim of this intervention is to organically establish a culture of commuting by foot and occupying public space. A framework of design principles is derived from the study of cities with successful urban realms and priority given to pedestrians and transit users (fig 1).

A top-down approach proposes appropriating degraded three-story apartment buildings to create a Diagonal boulevard that bisects the downtown, connecting the major public spaces, while intensifying one of the last remaining lower density portions of the downtown peninsula. A second design framework is distilled from case studies of successful central public spaces in five major cities (fig 2).

Structuring the implementation of these two interventions proves to be an important part of the process. Despite the fundamental difference between these approaches, neither one would be fully effective without the other. The incremental execution of the pedestrian street network could establish a culture of walking as the dominant mode of transit. However, it would not succeed in developing a culture of inhabiting public space without the introduction of a series of dynamic urban rooms throughout the street network. Likewise, the Diagonal boulevard could create a new standard for density supported by public space. However, without the incremental execution of the pedestrian network, citizens would not adapt as well to lives less reliant on the car.

Due to the indeterminacy of the urban realm in 2038, the design of public space is treated as a process of curation that is guided by the framework distilled from the case studies. Specific spatial details of the sites are given less attention than overall coherence within the system.

Challenges

There are a number of challenges inherent in an undertaking of this scale and timeline. Forecasting urban behaviours and design trends thirty years into the future is particularly difficult. Imagining the evolution of automobile technology over that time is also a daunting task. This uncertainty is why the adaptive nature of the network is so important.

Determining allocation of investment and ownership is another difficult process in a project of this magnitude. Civic, public and private parties all have considerable vested interest in the development of the city and the downtown specifically. Understanding who spearheads the project is very important, as is determining the roles of the other parties involved.

Another major challenge is understanding the role of the architect in this process. The project sees much overlap into the fields of urban design, planning, and landscape architecture. It is necessary to recognize that this undertaking involves breaking from the conventional practices of these fields in North America and looking for a less common solution. The architect is valuable in co-ordinating between disciplines and responding to their particular expertise and needs. But moreover, the architect is instrumental in creating vision of a spatial experience that relates and responds to diverse social behaviours.

Limitations

The author would like to acknowledge topics not specifically addressed in this thesis, due to its scope. The first is residential and mixed-use building typology. While the author proposes increased density along pedestrian and pedestrian-priority corridors, he merely suggests building type with respect to its relationship to the street without examining the new building as a whole. The second is urban design elements, such as lighting, paving, benches and waste facilities. The author stresses that this thesis is not about the specific design of these elements, but their role in the overall urban scheme. The third is physical and environmental systems and future technologies. More than just public space, the street is also a conduit of layered systems. Energy, sewage, greywater collection and delivery of goods are among the issues that contribute to the design of the street. In an undertaking like this thesis, all of these systems warrant consideration.

This thesis proposes a dramatic shift in the nature of public space and how it is used in the North American city. A major lesson learned throughout this process is the importance of educating the general public. Citizens will say they cannot live without their cars. Business owners will say that they will lose business on a pedestrian street. These are not universal truths, and the public needs to know of instances of successful pedestrianization projects. They need to understand the adjustments that will benefit their lives in this transition.

As Lefebvre argues, the day is nearing when the rights and powers of the automobile must be monitored and limited. This thesis posits that the quality of public space in the social sphere is a more pressing concern with respect to the urban ground plane than the abilities of cars and their place in the transportation system. Following well-informed guidelines, the transformation of the street to benefit pedestrian use and public space can have a lasting effect on the city's sense of place.

bibliography

Amin, Ash, and N. J. Thrift. *Cities : Reimagining the urban*. Cambridge: Polity, 2002.

Anderson, Stanford. *On streets*. Cambridge, Mass.: MIT Press, 1978.

Baird, George, and Detlef Mertins. *Metropolitan mutations : The architecture of emerging public spaces*. RAIC annual. Toronto: Little, Brown (Canada), 1989.

Berelowitz, Lance. *Dream city : Vancouver and the global imagination*. Vancouver ; Berkeley: Douglas & McIntyre, 2005.

Brambilla, Roberto, and Gianni Longo. *For pedestrians only : Planning, design, and management of traffic-free zones*. New York: Whitney Library of Design, 1977.

Bobic, Milos. *Between the edges : street-building transition as urbanity interface*. Bussum, Netherlands: Thoth Publishers, 2004.

Careri, Francesco. *Walkscapes : El andar como práctica estética = walking as an aesthetic practice*. Land & scape series. Barcelona: Editorial Gustavo Gili, 2002.

Corner, James. "*Terra Fluxus*," Charles Waldheim, *The Landscape Urbanism Reader*. New York: Princeton Architectural Press, 2006.

Dobereiner, David. *End of the street : Sustainable growth within natural limits*. Montreal ; New York: Black Rose Books, 2006.

Eidse, James. *Vancouver matters*. Vancouver: Blueimprint, 2008.

Erickson, Donna L. *MetroGreen : Connecting open space in north american cities*. Washington, D.C.: Island Press, 2006.

Forsyth, Ann, Laura Musacchio, and Frank Fitzgerald. *Designing small parks : A manual addressing social and ecological concerns*. Hoboken: J. Wiley, 2005.

Gaventa, Sarah. *New public spaces*. London: Mitchell Beazley, 2006.

Gehl, Jan. *New city life*. 1st ed. Copenhagen: Danish Architectural Press, 2006.

Gehl, Jan, and Lars Gemzoe. *New city spaces*. 3rd ed. Copenhagen: Danish Architectural Press, 2003.

Gehl, Jan. *Public spaces, public life, Copenhagen 1996*. 2nd ed ed. Copenhagen: Danish Architectural Press : Royal Danish Academy of Fine Arts, School of Architecture, 1999.

Graham, Stephen. *Splintering Urbanism: networked infrastructures, technological mobilities and the urban condition*. London; New York: Routledge, 2001.

Harcourt, Michael, Sean Rossiter, and Ken (Kenneth) Duncan Cameron. *City making in paradise : Nine decisions that saved Vancouver*. Vancouver: Douglas & McIntyre, 2007.

Herzog, Fred, Grant Arnold, and Michael Turner. *Fred herzog : Vancouver photographs*. Vancouver : Vancouver ; Toronto: Vancouver Art Gallery ; Douglas & McIntyre, 2007.

Jacobs, Allan B. *Great streets*. Cambridge, Mass.: MIT Press, 1993.

Jacobs, Allan B., Elizabeth Macdonald, and Yodan Rofé. *Boulevard book : History, evolution, design of multiway boulevards*. Cambridge, Mass. ; London: MIT Press, 2002.

Jenkins, Eric J. *To scale : One hundred urban plans*. Abingdon, Oxon, England ; New York: Routledge, 2008.

Levebvre, Henri. *The Urban Revolution*. Minneapolis; London: University of Minnesota Press, 2003.

Lorinc, John. *New city : How the crisis in canada's urban centres is reshaping the nation*. Toronto: Penguin Canada, 2006.

Mossop, Elizabeth, and Paul Walton. *City spaces : Art and design*. Sydney, NSW: Craftsman House : Fine Art Publishing, 2001.

Mostaedi, Arian. *Urban spaces*. Barcelona: Carles Broto & Joseph Ma Minguet, 2002.

Moughtin, Cliff. *Urban design : Street and square*. 2nd ed. Boston: Architectural Press, 1999.

Newman, Peter. C*ities as sustainable ecosystems : principles and practices*. Washington D.C.: Island Press, 2008.

Pushkarev, Boris, and Jeffrey M. Zupan. *Urban space for pedestrians : A report of the regional plan association*. Cambridge, Mass.: MIT Press, 1975.

Read, Stephen, and Camilo Pinilla. *Visualizing the invisible : Towards an urban space*. Spacelab book series. Amsterdam: Techne Press, 2006.

Rubenstein, Harvey M. *Central city malls*. NYC: John Wiley & Sons, 1978.

Roehr, Daniel. *"Mirage Metropolis: Vancouver's Suburban Urbanism."* Topos 58 (2007): 71-77.

Shaftoe, Henry. *Convivial urban spaces : Creating effective public places*. London ; Sterling, VA: Earthscan in association with the International Institute for Environment and Development, 2008.

Stanley, George. *Vancouver : A poem*. Vancouver: New Star Books, 2008.

Vranckx, Bridget. *Urban landscape*. Gloucester, Mass.: Rockport, 2006.

Ward Thompson, Catharine, and Penny Travlou. *Open space : People space*. London ; New York: Taylor and Francis, 2007.