AN INVESTIGATION OF THE COMPLEXITY OF DOWNTOWN PUBLIC SPACE

by

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Abstract

The public space of the contemporary downtown is a complex and controversial phenomenon. In the past the territory of the public and that of the private were sharply defined by the property lines dividing the landscape into the city blocks and the network of the streets. Such clear-cut divisions between the public and private spaces of downtown are not valid anymore; neither are the political, financial and legal issues related to their ownership, development, maintenance and use. By typology and physical spread the public space of downtown has developed far beyond the street, into the office plazas and atria, and indoor spaces of the shopping malls and mixed-use downtown centers. These new types are dubious creations as they are developed by the private funds but are intended to be used by the public. Therefore the public space of the contemporary downtown is a controversial conception whereas its use is conditioned by the interests of the private developers and proprietors, which tend to prefer the wealthy and privileged consumers. The increasing diversity and complexity, as well as the contested state of the contemporary downtown public space demands renewing our conceptions of it. This thesis is an attempt in that direction.

The present work is a combination of two separate pieces of research on the theme of downtown public space. The first research, as covered in chapters one and two, is a broad investigation. It is a study of the main types of public space that constitute the public realm of the North American downtown, and a study of the downtown realm in its entirety. Therefore, it is a correlated study of the parts and the whole. The objective of this broad investigation is to understand the complexity of downtown public space. This knowledge will inform planning and urban design to make decisions and conduct the course of change and development in the downtown environment in a more insightful manner. The second research, as covered in chapter three, is a focused analysis of the parameters that need to be considered in the evaluation and/or design of urban open space as a particular type of public space. The proposed criteria is used for the evaluation of two cases of public space in downtown Vancouver.
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Introduction

The public space of the contemporary downtown is a complex and controversial phenomenon. In the past, until a decade or two after WWII, the public realm of the North American downtown was confined to the properties of the City and those of the provincial/state and federal governments. The territory of the public and that of the private were sharply defined by the property lines dividing the landscape into the city blocks and the network of the streets. The city blocks, other than a few that could have been designated to the "common open," the City Park, or the site of the government buildings, were subdivided into the private properties, leaving the streets as the predominant type of the public space. The responsibility for the development and maintenance of the public space was as clear as its territorial spread: it was simply the City's duty to finance and carry out those tasks. Such clear-cut divisions between the public and private spaces of downtown are not valid anymore; neither are the political, financial and legal issues related to their ownership, development, maintenance and use. By typology and physical spread the public space of downtown has developed far beyond the street as its traditional territory, into the office plazas.
and atria, indoor spaces of the shopping malls and mixed-use downtown centers, and the underground walkways as well as the terraces and rooftop gardens. These new types are dubious creations as they are developed from the private funds but are intended to be used by the public. Therefore the public space of the contemporary downtown is a controversial conception whereas its use is conditioned by the interests of the private developers and proprietors, which tend to prefer the wealthy and privileged consumers while excluding some other groups of the public. The increasing diversity and complexity as well as the contested state of the contemporary downtown public space demands renewing our conceptions of it. The present thesis is an attempt in that direction.

The Structure and the Theoretical Bases of this Study

The present work is a combination of two separate pieces of research on the theme of downtown public space. The first research, as covered in chapters one and two, is a broad investigation. It is a study of the main types of public space that constitute the public realm of the North American Downtown, and a study of the downtown realm in its entirety. Therefore, it is a correlated study of the parts and the whole. The objective of this broad investigation is to understand the complexity of downtown public space. This knowledge will inform planning and urban design to make decisions and conduct the course of change and development in the downtown environment in a more insightful manner. The second research, as covered in chapter three, is a focused analysis of the parameters that need to be considered in the evaluation and/or design of urban open space as a particular type of public space. The subject matter, the theoretical grounding, and the methodology of analysis in each of the three chapters will be explained in the following paragraphs, in more detail.

Chapter One—Evolution of the North American Downtown Public Space—is aimed for identifying different types of public space as they have emerged in the course of the evolution of downtown. The public realm of downtown is an extremely complex and more or less interconnected network made up of a number of elemental types of public space. These elemental types originated in different periods in response to certain social,
In adopting this approach to the analysis of the downtown public space, this study has been particularly influenced by "urban morphology," which is a newly emerging interdisciplinary methodology for studying the city and its form. Urban morphologists suggest analyzing "a city's evolution from its formative years to its subsequent transformations, identifying and dissecting its various components" (Moudon 1997, 3). According to urban morphologists, the city as a complex phenomenon is made of a number of main elements. These elements should be considered as "organisms which are constantly used and hence transformed through time. They also exist in a state of tight and dynamic interrelationship" (Moudon 1997, 3). In explaining the theoretical bases of the urban morphology school, Moudon asserts that "urban form can only be understood historically since the elements of which it is comprised undergo continuous transformation and replacement" (Moudon 1997, 7).

Chapter Two—the fundamental qualities of the visual downtown—is an attempt to frame the most permeating qualities of the physical downtown as a synthetical phenomenon, as it can...
be perceived when experiencing the form by moving around through the public spaces. The approach to this analysis is rendered through three key concepts: diversity, longevity, and contradiction. These, and some other complementary qualities, are discussed as the sources of the appeal of the form and vitality of the contemporary downtown environment. These qualities have been increasingly evident since the critiques of the modernist planning and design paradigm and the positivist-rationalist mindset have been made. Ever since these qualities have been increasingly acknowledged and appreciated as the origins of the appeal and vitality of the physical downtown, the basic values of planning and design have changed, and respectively, the norms and standards at all levels of goal setting and decision making have been modified.

This chapter is phenomenological in its approach as it analyzes our basic understandings of the physical downtown as a phenomenon of form and space animated by use and activity. Being aware of these qualities is crucial because they give direction to the visions of planning and design in reconstructing the urban environment.

In regard to the sequential order of the research, this chapter plays a transitional role: it takes the course of examination from the descriptive mode of analysis in chapter one, to the normative mode of evaluation in chapter three.

Chapter Three—analysis and evaluation of two public spaces in downtown Vancouver—is following two objectives: 1) developing a set of criteria for the evaluation of design of urban open spaces; 2) applying the proposed criteria for the evaluation of the Art Gallery Plaza and the Robson Square as two of the most prominent public spaces in the core of downtown Vancouver. The theoretical framework of this study has been particularly based upon the work of Clare Cooper Macus and Carolyn Francis—People Places: Design Guidelines for Urban Open Space (1998)—as well as the viewpoints of William H. Whyte in two of his books: The Social Life of Small Urban Spaces (1980), and City Rediscovering the Center (1988). The case studies are substantiated by the field surveys consisting of sketching landscape plans, photographing, and recording the modes of use and behaviour in those spaces in various occasions (times of the day, days of the week, seasons, etc).
Considerations about the Form and Format of Presentation of this Study

I have attempted to write the first chapter as a story—a biography of downtown as public space and the life stories of its constituting units. Therefore in structuring this chapter as a text I had the loose and free form of a novel in mind that unfolds in a chronological order but is free to move back and forth through the time and from one character to the other to show the relations and interactions between elements that make them to coexist and evolve as a whole. This method, I believe, is more engaging when reading a text to acquire some insight into a social product as complex as the downtown public space, and also more appropriate in terms of revealing its multiple dimensions as forged under the influence of social, economic, technological, cultural and ideological parameters. Following this experimental format, I have included two retrospective discussions in the middle of the chapter instead of putting them in the beginning, prior to the emergence of downtown. These two discussions are: 1) City Square as the Prominent Type of Public Space before the Advent of Downtown, and 2) Grid Pattern as the Geometric Basis of the Form of the North American City.

In another experimental attempt to deliver the knowledge of the complex phenomena in a more engaging and effective way I have used the graphic material—i.e. photographs, maps, bird’s eye view illustrations, diagrammatic illustrations, etc—rather extensively, as an alternative and complementary line of “storytelling” parallel to the main text. In most cases, the illustrations are captioned with short or long notes, or quotes, which work as cross-references between the graphics and the main text.
Chapter One

Evolution of the North American Downtown Public Space

A Historical Analysis
“Whereas states tend toward revolution and radical transformation, cities tend toward tenacious endurance and evolution. The most notable absence in the study of city forms has been the notion of evolution, a grievous omission when we are dealing with entities that are, under most circumstances, nearly the most long-lived of all human physical creations” (Vance 26, 1977).

This chapter will briefly review the evolution of downtown public space in the context of North American cities from its emergence in the early nineteenth century to the present.

What we see today in our cities is the outcome of a historical evolution. Spatial and architectural elements of the city have been formed in different periods. We see them coexisting all at once, as a large and complex scene all projected on the flat canvas of the present time—NOW. We are part of this scene, as citizens, as participants in city life, with certain emotions towards it. But when trying to understand the way this scene is put together, to recognize its faults, and eventually, to intervene to make it better, we take a different role: we become observers. In this role not only do we try to detach ourselves from the scene, to look at it from “afar,” to understand the interaction and the relationship between its elements and the proportions of it as a whole, but we also need to examine this picture through time, to learn about the ideas and the forces which shaped it, the social and functional roles and meanings it has, and the reasons those roles were changed. A historical review will also give us the insight into the social and political processes of the production of public space.

Another objective of a historical review is to inform us of the main types of public space as they have emerged and evolved in the course of time. These main typologies coexist, completely transformed or partially intact, in the spread of the contemporary downtown. The types that emerged earlier do not have the same role or meaning that they had in the past, but they still exist, with new meanings and functions, even new forms, as dictated by the social, cultural and economic implications of our time.
DOWNTOWN EMERGING: MID-NINETEENTH CENTURY

The development of a concentrated business area in the heart of the North American city began in the first half of the nineteenth century. This was part of the evolution that converted the mercantile colonial town into the industrial capitalist center (Soja 1989 quoted in Loukaitou-Sideris and Banerjee 1998, 4). The CBD appeared first in New York around Wall Street, which developed into the financial center of the region, and because of its location in the southern end of Manhattan was named “Downtown.” Soon similar districts developed in Boston, Philadelphia, Baltimore and Chicago. San Francisco had built its downtown by 1850 (Loukaitou-Sideris and Banerjee 1998, 5).

Parallel to these changes a new type of urban space—the commercial street—came into existence. It became the center for shopping, as this was becoming an increasingly important feature of urban life. Retailers preferred to occupy the street-level spaces along the roads with the greatest number of commuters, where they could display their merchandise and attract customers. So certain streets at the heart of the large cities—mostly just one in the beginning—became commercial showcases. In most of the towns and cities this special route was named Main Street. Technological advancements boosted
the commercial and financial centrality of the Main Street and downtown location. “Main Streets were usually the first to be lit with gas and later with electricity, and the first to be paved.” (Liebs 1985, 8).

On the other hand, as the functions of trade and commerce grew by magnitude and became more complex and systematized by management, financing, marketing, retailing, etc, their spatial organization in the city also transformed towards division and elaboration. By the 1820s new financial institutions—banks, insurance companies, trust companies—had developed, requiring their own distinctive space. (Loukaitou-Sideris and Banerjee 1998, 5)

In coastal cities part of the commercial activities—their administrative functions—moved from the messy area of the waterfront to the clean and prestigious location of the newly developing commercial street. By the 1830s, public, open-air markets, which had been a vibrant feature of colonial towns, were giving way to private business establishments and merchants’ showrooms (Goldfield and Brownwell 1990 quoted in Loukaitou-Sideris and Banerjee 1998, 5).

Other than financial and commercial centrality, downtown streets housed buildings of churches, theatres, hotels, courthouses, city halls, libraries and other civic institutions, which were jammed tight along

A principal street functioning as the center for shopping, business and entertainment, and a place of civic life, was a pattern of public space which first appeared in the cities with stronger economic basis. For example, Lowell, Massachusetts, known as the first American manufacturing city, had a well-established “main street” as early as 1834, with shops for the sale of clothing, shoes, dry goods, silks, shawls, linens and laces, china and hardware, West India goods, groceries, confectionery, drugs, books, and ‘fancy goods. ‘As Lowell’s business community came quickly into existence, several hotels were also built. (Vance 1977, 337)
both sides of the sidewalk and formed the downtown street as a corridor setting ideal for all sorts of manifestations and performances of the city's public life—window shopping, street walking, bar going, as well as parades, speeches, and celebrations (Liebs 1985, 8).

The largest Canadian cities were going through the same transformation process as did cities such as New York and Chicago in the United States. According to Stelter (1982), in the large Canadian cities of the mercantile epoch the commercial and industrial domination of the core was notable. The railroads pierced through the heart of the city, and along their lines formed the most suitable location for industries and warehouses. In the case of coastal cities, where land transportation was linked to waterways, railroads extended to the waterfront and central core shaped on and around that location. In Toronto, city council actually aided the railway takeover of the waterfront area at public expense. In both Montreal and Toronto the commercial cores migrated slightly north by the 1870s, away from the concentration of industry and railroads along the waterfront.

As business and retailing was concentrating in downtown, new building types—the office block and department store—were invented to especially serve their needs. The first office building in the world was Robert Abraham’s County Fire Office, erected in
London's Regent Street in 1819. The first office building in New York, the Trinity Corporation Building, was constructed as early as the 1840s (Broadbent 1990, 63).

In the photographs of the time, downtown office buildings are seen usually as multi-storey structures with retail spaces at the street level. This is probably the reason why lots in the downtown area were valued by their linear footage fronting the street, resulting in a higher importance for retail business in a downtown's economy compared to later periods.

The invention of the department store in the second half of the nineteenth century was another contribution to the downtown's colorful spectacle. With the growth of city populations at the time, the establishment of large-scale manufacturing, and increases in personal income, there were more goods to sell and more people to buy them. The department store, with its wide selection and low prices became the means for mass merchandising. This appeared as the "palace of merchandise" which allowed downtown visitors to share in the luxury of shopping, or at least in a sense of it, "as an endless delight." (Barth 1980, 130 quoted in Loukaitou-Sideries and Banerjee 1998, 6) Their buildings were often palatial in design, with interior grand courts, rotundas, columned galleries, and chandeliers. Displays were lavish, and the huge number of products in one place
was like a world exposition where everything was for sale. In Zola’s phrase of the time, the department store “democratized luxury” (quoted in Frieden and Sagalyn 1989, 8). Department stores prospered also by recognizing the changing place of women in society, as they were taking greater responsibility for managing family budgets and deciding on major purchases. By drawing women, both as shoppers and as sales personnel, department store changed the social scene of the downtown street, which before that was mainly a male dominated zone (Frieden and Sagalyn 1989, 8-9).

Yet for a good period of the nineteenth century the American downtown and its core of business remained a relatively small area, rarely exceeding the extent of a few blocks along one or two major streets. The size of this area was proportionate to the city’s population, and until 1860 there were only eight cities in the United States with more than 100,000 inhabitants. (Vance 1977, 348) Moreover, the downtown area was a messy, crowded and fairly unorganized place in terms of uses and activities, so that it was not unexpected to find department stores abutting train depots and warehouses standing next to offices. Streets were unpaved, refuse and garbage clogged the roadways (Kostof 1987, 157), and there were hardly any rules to put some order to the crowd of horses, carriages, and pedestrians.

This splendid bird eye view, depicts the lower Manhattan right before the beginning of its vertical expansion in the late nineteenth century. The main urban axis, dominating the scene is Broadway street, which connects the trade facilities at the waterfront (lower right) to the civic center of the city (upper left). Detailed images show the street scenes, building facades and their height, and the distinguished architectural style of the public buildings.
City Square as the Prominent Type of Public Space before the Advent of Downtown

While on the one hand, the downtown was forming in or near to the traditional area of trade and commerce—port and railway terminal for the long-distance trades, and market place for the local exchanges—on the other hand they were usually in some connection to the city's initial civic center. This was a nucleus with ecclesiastical and/or secular importance, which traditionally had a meaning as the symbol of the civic identity of the settlement and spatial assertion of its existence as a community.

The civic node was usually formed around an open space: the Town Square, in some cases also known as the "Green," which was the most common of the civic amenities contrived in new towns, so that all across North America it is hard to find in settlements originated before the twentieth century instances that did not incorporate a public open space or square. The first settlers brought the idea of a common public space from European cities. "They well remembered the medieval market squares, the parvis before the cathedral, the plaza mayor, the place, or the parade before the palace or the town hall." (Feiss 1959, 238).
Public squares could serve one or more of several functions: 1) a site on which faced a church, court, city hall or other public buildings; 2) a place for drilling of militia and for public gatherings and parades; 3) a fenced open area for grazing and for storing cattle at night; 4) a landscaped open space as a social amenity or for creating or improving a view; 5) an open air local market. Other than such utilitarian purposes, public squares could be the place of monuments and landmarks, which connected the community to its local and/or national history. They were the place in which the community's identity could be realized and demonstrated (Feiss 1959, 238).

By exploring the plans of the old towns we would find interesting examples of public squares and their location and size. Those can be found in both regular and irregular town forms. In the grid pattern formations, as these became the basis for most of the downtown areas, the Public Square could be the size of a single block, or it could occupy two or more blocks. In larger layouts such as the plan of Philadelphia or the plan of Savannah, Georgia (1733), several squares in equal distances were plotted as integral parts of the grid street pattern which created a series of rhythmically placed openings in the monotonous division of land. The same sort of enclosed urban square was incorporated in the plan of New York, among which Washington Square, Madison Square and Union Square are best known (Feiss 1959).

In many cases public squares and public buildings associated with them were located in a distance from the business area and the port and/or rail
transportation facilities. Instead, these two nodes—one mainly private and the other emphatically public—were connected by a principal route, as can be seen in town maps of the time. In the early period of the development of the business district this peculiar connection, which was usually called a peculiar name such as Main Street, Market Street, Broadway and the like, took a pivotal role in the spatial structure of the city.

At present, many North American squares such as Jackson Square in New Orleans, Pershing Square in Los Angeles, and Mount Vernon Square in Baltimore continue to function as vital downtown open spaces. “These squares at the center of a city or town are often closely linked to local history and identity… In Boston, the Common has remained the city’s most significant public space, almost sacred to Bostonians” (Carr et al, 1992, 58).

Chicago was an example of the North American metropolis with a dominant center particularly specialized in shopping and functions of large scale business. The central area is highlighted by the author.

**DOWNTOWN BECOMING THE CENTER OF METROPOLIS: THE LATE NINETEENTH CENTURY TO THE 1920S**

During the last decades of the nineteenth century and early period of the twentieth century the North American downtown grew to its full functional and physical maturity. Large cities such as New York, Chicago, Philadelphia, Detroit, and Montreal became the continental centers of commerce and industry, developed full-scale downtown districts. In the larger context of the city and the region, the emergence of downtown and its CBD as a distinctive urban area for business, shopping and entertainment in the regional and even national scale can be seen in a dialectical relationship with the rise of the industrial metropolis. As Blumenfeld (1971, 61) has remarked, the metropolis is not merely an enlargement of the traditional city but an outcome of a qualitative change in the economic and social structure of the industrial society, and therefore an entirely new form of settlement.
The qualitative transformation was associated with quantitative changes, most dramatically appearing in unprecedented concentration of population in major urban regions of the East Coast United States. The population of the New York metropolitan area, 1.2 million by 1870, quadrupled to 5.3 million by 1920, and Philadelphia nearly tripled to 1.8 million. There was also substantial growth in the cities of the Middle West and lower Great Lakes, with Chicago housing 2.7 million inhabitants by 1920 becoming the second largest city in North America. By that time Montreal, the largest Canadian city by population, held the tenth position in North America (Yeates and Brunn 1983, 49-50).

In Canada, the emergence of metropolitan areas was similar to the process of urbanization in the United States, though in a more modest scale. According to Stelter (1982) in the period between 1870 and 1920 the new industrialism permeated every aspect of urban life and became the basis for concentration of metropolitan hegemony in the major Canadian cities. In this era the urban population rose considerably from the 18.3% of 1871 to 49.5% by 1921. The largest cities had the most dramatic growths (Toronto 521,893 and Montreal 618,506 by 1921). Winnipeg and Vancouver appeared, almost suddenly, as the new metropolises (by 1921 those were the third and fourth largest cities in Canada). Also in this period cities of central Canada took the lead over those of the Maritimes and turned into
dominant financial and industrial centers of the country. In the biggest cities emergence of larger companies and corporations was remarkable. During the 1870s, the leading industrial firms were small, highly personal, family or partnership concerns with assets of $100,000 to $200,000. By 1910 the dominant form was the joint stock company, owned by seemingly anonymous stockholders and impersonal directors and managed by career executives. While the proprietors of the family firm often were located in towns and small cities, the corporate industrialist gravitated to the biggest four or five cities, and particularly Montreal and Toronto (Stelter 1982).

Across the continent cities with the strongest base of economy and largest number of population became the birthplaces of the modern North American downtown: the headquarter of the industrial capitalist metropolis. At the core of this area a dense nucleus of high and massive office buildings of corporate businesses was formed in proximity to banks, stock exchanges and insurance services. As these main ingredients of downtown expanded rapidly so did department stores, retail facilities and many other services such as restaurants, hotels, theatres, opera houses (Relph 1987, 44).

The transformation of downtown in this period can also be interpreted as a process of separation of administrative and financial functions from the congested area of industry and trade which was


As can be seen in these images, by the end of the nineteenth century it was becoming increasingly feasible and also fashionable for the manufacturers and merchants to separate their headquarter office or shop from the factory and the warehouse and move it to the prospering and prestigious area which was shaping the center of the city.
formed throughout the nineteenth century around the ports and railyards. Vance (1990, 467) comments that this separation resulted in a more pronounced division of land use, which was reflected in the emergence of a core specialized in shopping and in administrative functions of the large scale business and financial services, in a short distance from the hustle and bustle of docks, rail yards, warehouses and factories. “The fact that the supervisory and service occupations now fill the majority of buildings in the city’s heart results from the negative force of relocation of other activities or other areas at the core, and the positive force of the rapid expansion of these service activities as a proportion of the total productive labor” (Vance 1977, 365).

Since the CBD emerged as the place of concentrated wealth—the highest land values, sophisticated buildings and the work place of company owners, bankers, major stock-holders and white collar workers—it became an attractive area for public and private money to be invested in services and infrastructures. For example, streetcar systems were laid out in a radial pattern, so that they converged on downtown. This emphasized the significance of the downtown core “as the all-too-powerful focus of the expanding industrial metropolis.” (Loukaito-Sideris and Banerjee 1998, 10) High concentration of activities and infrastructures in a relatively small area (in comparison to the broad expanse of the city) transformed the North American metropolis of the late nineteenth and early twentieth century into a radial formation with a dense multi-functional core (as opposed to a multi-centered metropolis that appeared after WWII with the growth of private automotion (Vance 1990, 485)).
Impact of the Technological Advancements on the Evolution of Downtown

Development of the downtown as a spectacular urban area came about under the auspices of several technological advancements in transportation, energy supply, communication and building technology. Relph (1987, 15) has listed a number of technological achievements in the 1880s and 1890s as attesting to or being influential in the formation of modern urban living: the development of public sanitation and filtered water supply systems, food preservation by canning, structural steel, asphalt paving for roads, greatly improved elevators, electric street cars, revolving doors, central heating systems, and methods for large-scale production of plate glass for store windows. The first telephone had been introduced in 1876 at the Philadelphia Centennial Exposition and by 1900 there were almost a million of them in the United States.

Brooklyn Bridge, New York – detail from a map of the late 1800s (Library of Congress map collection).

Many technological improvements were decisive in the development of the downtown. One of them was the invention of the steel structure, first used in bridge construction and then in tall buildings. In cities such as New York and San Francisco which were located by the jagged coastal areas, still bridges could span over wide bodies of water to connect the central business district with the other urban quarters. Brooklyn Bridge, connecting Manhattan to the Brooklyn area, is an early example of these new technological achievements. Construction of the Brooklyn bridge started on 1870 and the bridge was opened on 1883.

Yonge Street, Toronto – 1910 (The Canadian Encyclopedia).

As early as the 1910s the large North American cities were mostly equipped with electric streetcars.
TRANSPORTATION - New transportation systems were first used in the most prosperous cities where for their rapid growth distances were constantly increasing from where people lived to where they worked. In New York, for instance, by 1860 the horse-drawn streetcars had been hauling some 600,000,000 passengers a year and the streets were becoming so choked that alternatives had to be found. By 1863, London had the first purpose-built steam-driven underground railway in the world, the Metropolitan. New York, however, found it more affordable and less disruptive to have horse-drawn trams and an overhead railway system. New York's first steam-driven, Elevated Railway was opened along Third Avenue in 1878, and soon expanded to other areas. This system was electrified at the turn of the century and at the meantime the first contract for building a subway system was awarded. The first subway was opened in 1904, from Brooklyn Bridge northwards to 145th street (Broadbent 1990, 65).

In the cities which could not afford the heavy cost of a subway or elevated railway systems the trolley proved to be a quite feasible solution to public transit. “Trolley lines could be built cheaply, on fairly narrow streets, and run economically with only moderate patronage. Light rail transit of current planning vogue is merely the trolley line somewhat brought up to date” (Vance 1977, 366).
ELECTRIC POWER - As the downtown district was forming as a colossal structure to house the finance and management functions of the thriving capitalist metropolis and as an area worth being served by the latest technological innovations, electricity proved to be a versatile and clean form of energy to put this machinery into operation. “It is a new century,” the historian Henry Adams wrote in a letter in 1900, “and electricity is its God” (quoted in Relph 1987, 18).

In 1866, Wheatstone and Siemens independently constructed generators with electromagnets in the field. With a few improvements, availability of a “self-excited” dynamo made it practical to think of large-scale uses of electric power. By the mid-seventies electric arcs—which had been available for special applications—were lighting the streets of Paris, London, Cleveland and a host of other cities (Hirsh, 2001). Arc lamps were difficult to maintain. In 1879, Edison perfected a commercially feasible incandescent light bulb. These improvements established the commercial and municipal value of electric power. Indeed one of the terms of reference Edison had given himself for his electrical inventions was that they should be cheaper than gaslight. He subsequently developed and marketed all the bits and pieces for a complete distribution system: underground cables, electric meters, wiring, fuses, switches, and sockets. By 1882, Edison had installed three 125-horsepower “Jumbo” generators at the Pearl Street Station in New York, which fed power to 5,000 lamps in 225 houses. By 1895, electricity was widely available in commercial sections of large cities. But the distance that the low voltage DC power could be transmitted was fairly short and in large cities too many power plants were needed to cover the entire area of the city. Developed in the 1880s, AC transformers overcame the technical restraint of...
transmission beyond one mile. Since the AC power could do everything direct current could do—with the important plus that it could be transmitted long distances—it quickly replaced the DC supply (McEachern, no date).

The era of large-scale electric power distribution arguably began on August 26, 1895, when water flowing over Niagara Falls was diverted through a pair of high-speed turbines that were coupled to two 5,000-horsepower generators to produce 2200 volts electricity. But the following year a portion was raised to 11,000 volts and transmitted twenty miles by wire to the city of Buffalo, where it was used for lighting and streetcars. Soon the use of electricity expanded enormously, so that the electrical output from utility companies exploded from 5.9 million kWh in 1907 to 75.4 million kWh in 1927 (Hirsh, 2001).

SKYSCRAPER – The steel-frame structure and elevator were other two key inventions that allowed the business core of the downtown to grow vertically. Throughout the nineteenth century, particularly towards the end of it the technology of iron in structure significantly improved. “It appeared first as cast iron, then as wrought iron, and later as steel. Towards the end of the century reinforced concrete was introduced as another alternative.” (Pevsner 1975, 118)
Cast iron was used in New York office buildings as early as the 1830s. Broadbent (1990, 63) comments that the fire of 1835 inspired architects and engineers such as James Bogardus to search for a fireproof construction. Bogardus, then, designed a prefabricated system of columns, beams, and other construction elements which he used in the five-storey Milhau Pharmacy at 183 Broadway (1848). This building and Borgardus's own foundry were the first all-iron buildings in New York and they were to be followed by many others.

In spite of the fact that the use of iron was becoming common in various types of buildings and in manufacturing of construction elements, load-bearing walls remained, for a long time, the main structural system in office buildings. This was, however, hardly a hindrance to the New York and Chicago builders as they were pushing the masonry construction to its limits to achieve ever taller office buildings. In 1868, for instance, the old Equitable on Broadway was as tall as 130 feet, soon to be exceeded by Post's Western Union Building (1872-75) which reached 230 feet, surpassed even while it was being built by Tribune Building at 260 feet. By 1893 the Metropolitan Life Insurance was planned at 348 feet and it finished up considerably taller, whilst by 1890 the Pulitzer building had reached 360 feet and nine years later, Park Row Building was up to 382 feet (Broadbent 1990, 65).
Tall as these buildings may have been there were not true skyscrapers, according to several architectural historians, for the very simple reason that they were not steel-framed buildings. But they attest to the penchant of the East Coast developers for tall structures well ahead of the development of steel-cage buildings. Truly tall office buildings were not possible before the advent of the lift in 1852 by Otis and more particularly the electric lift in 1880. There are several records of the earliest use of the elevator in New York’s tall structures from the late 1850’s onward. Otis demonstrated his invention in the Crystal Palace of the New York World Exhibition of 1853. Opposite to Crystal Palace there was Latting’s Ice Cream Parlour with its Observatory on top—a metal-braced timber structure supporting the viewing platforms some 360 feet high—to which visitors could be hoisted by an often balky steam engine to inspect, for the first time, the domain of Manhattan from air (Koolhaus quoted in Broadbent 1990, 64). During the same decade the old Fifth Avenue Hotel had one of the first Otis’ vertical screw elevators. However, it was in the Equitable Building on Broadway,
that an elevator was installed for the first time in a New York office building (1868).

The steel-framed office building came into existence in the 1880's and marked the beginning of the age of skyscrapers. At that time New York architects were forbidden by Building Laws to use metal framing in external walls for cast-iron structures had proved quite vulnerable in the case of fire. It was Chicago which became the birthplace of steel-framed office building. The Home Insurance Building by William Le Baron Jenny (1884-5) is known as the first with a genuine skeleton construction, while other Chicago office blocks such as the Tacoma Building of 1887-8 improved Jenny's innovation (Broadbent 1990, 65). In regard to style, however, the first skyscrapers were following the same architectural rules of the Italianate which was derived from the essentially horizontal figure of the Renaissance Palace. So it is hardly surprising that the first true skyscraper in New York, the Saint Paul's building of 1899, should look like a piling of storeys of a horizontal classic façade. (Broadbent 1990,66) It was Louis Sullivan, a Chicago architect, who came up with an architectural solution authentically contrived for this modern building type that considered the façade of the tall office building as a three-part composition comprised of base, shaft and capital. With this treatment the two or three storey base which contained entrances, entrance hall and shops, provided a street-level façade distinguished from the tall shaft of the building and at a height apt to the pedestrian street view. His designs of the Wainwright building in St. Louis, Missouri and Guaranty...
Building in Buffalo, New York were based on this innovative situation. Architectural historians such as Pevsner (1975, 141) have credited his office building designs as being mile-stones in the evolution of the Modern Movement.

Aside from the exceedingly high price of land in the core of downtown, which was the economic rationale for acquiring a greater area of office space per land, the height of the office building turned out to be a symbol of wealth and prestige. Downtown office builders, entered a race for the tallest high-rise in the town. In 1909 New York, for instance: “Napoleon Le Brun designed the Metropolitan Life Tower on Madison Avenue. It would have been the tallest in the world, even at the original 500 feet. The Tower rises out of a nine-storey block which covers the whole of the site and with its tapering, pyramidal top, the tower derives clearly from the (Romanesque) Campanile of St. Mark’s in Venice, an ingenious alternative to Sullivan’s three-part classical arrangement” (quoted from Tauranc 1979; Stern et al 1983, in Broadbent 1990). Then Frank Woolworth built his high-rise (1913), some 90 feet taller than the Metropolitan Life’s Tower, to symbolize the success of his Five-and-dime stores. This building, designed by Cass Gilbert as a reflection of London’s Big Ben, is admired by architectural critics for its subtle use of Gothic touches in a twentieth century high-rise.

“A great race for height broke out in New York City around 1930, when an effort was made to exceed the Wool-worth Building as the world’s tallest. In 1929 the Bank of Manhattan was completed at 927, outdistancing the Wool-worth’s 792 feet. Bu 1930 the Chrysler Building, originally announced at 925 feet, was raised through a stainless steel spire to 1,047 feet, making it the tallest for nine months. But then a columnar was added to the Empire State Building then under construction, heightening it to 1,250 feet. The Empire State Building held the record between 1931 and 1973, when the World Trade Center towers reached to 1,350 feet, all of it real office space.” (Vance 1990, 477).
STREET AS THE MAIN TYPE OF DOWNTOWN PUBLIC SPACE

The invention of the skyscraper had a profound impact on the form of the downtown public space. This, by no means, was limited to its effect on downtown’s remote view, changing it into a dramatically vertical landscape with a signature skyline. It created a new sense of space that could be experienced by people walking on the street: a fairly enclosed corridor, almost like a canyon, lying deep down between the high walls of the massive buildings.

As buildings were becoming taller and more massive they got footprints that were larger than what could be accommodated on the existing subdivisions of the colonial and nineteenth century periods. Therefore, at the turn of the century, whilst corporations were increasingly replacing small businesses, so were the downtown parcels consolidated to provide larger sites. This process, which is continuing to this date, transformed the graining of the downtown space, the proportion between mass and void, and the sense of place in relation to human scale.

As downtown buildings became taller by height and inevitably larger by footprint, they occupied a considerable portion of the entire area of a city block and rose high up to several hundred feet, with no setbacks at the street level or at the upper floors. And as they were built dense in the downtown area, the streets between them became

increasingly dominated by their mass. In New York, which even as early as the first decades of the twentieth century office buildings could be built hundreds of feet high, the streets were threatened to become quite inhabitable for the lack of light and air. Therefore special zoning laws were passed in 1916 to determine the setbacks and prescribe the maximum allowable building height and volume. Setbacks were determined by an imaginary pyramidal envelope with its base delineated by the centerline of the streets surrounding the site and its side planes determined by designated angles. Building volume had to be designed within this envelope which practically could result in several set-backs on the façade. This treatment was to allow more light and air to reach the street level. Towers could rise out of the pyramid provided that they covered no more than 25% of the site (Loukaitou-Sideris and Banerjee 1998, 48-49; Broadbent 1990, 68).

Despite the use of ornament in the earlier office buildings, the geometry of façade and building volume and the way it could be placed on the parcel and in relation to the adjacent buildings was based on a few simple schemes. Continuing from the earlier types of the multi-storey building on commercial streets, the façade was treated as a plane flush with the sidewalk with the rhythm of shop openings at the ground level and a corresponding rhythm of windows at the upper floors. This all was arranged in a more or less symmetrical order with the emphasis on verticality of the architectural

Above left: New York City, building setbacks as prescribed by the zoning ordinance of 1916 (Loukaitou-Sideris and Banerjee 1998, 49).

Above right: Zoning regulations as interpreted by Hugh Ferriss (Broadbent 1990, 69).

Below: View down Park Avenue, showing the result of the New York setback laws as implemented in actual cases (Jenks 1976, 42).
elements—window openings, arched lintels, curved gables, elaborated entrances, etc. While this pattern was commonly used, the size and the ornamental detailing gave each building a special look—an unique identity—distinct from the others. The simplicity and commonness of the building façades, which were lined tight to form street walls on both sides, gave the entire street a sense of unity—an integrated piece made up of variations on a few architectural themes.

In the earlier generation of downtown office buildings and other types of privately owned developments such as hotels and theatres, the ground level was usually allocated to retail space with shop entrances and display windows facing the street. Therefore the realm of public, although being limited to the street itself, was a fairly active and lively space. On the other hand, speed of vehicular transportation was relatively low and there were hardly regulations to separate the space of the vehicles from that of the pedestrians. The street was mostly a realm for people on foot who used it for shopping, walking, watching or lingering. In the busier quarters this liveliness could easily turn into a chaotic situation that clogged the street.

The sense of space changed as downtowns became increasingly dominated by tall and massive buildings. The street of the nineteenth century, which was basically a doubly-faced corridor with rows of small buildings with street-facing shops, lost its eminence and the
mass of block dominated the space. Also at the street level, as large spaces such as department stores, bank branches, and hotel lobbies were replacing the smaller shops of the former period the number of entrances and display windows per block frontage decreased and the street increasingly lost its points of connection with the indoor space.

AUTOMOBILE - Transformation in the form was concomitant with changes in the modes and patterns of commuting and people's behaviour on the street. In terms of commuting, mechanically driven vehicles replaced the horse-drawn wheelers. The first systems of public transit, which were operated by horse power, were replaced by those drawn by cable, and later powered by electricity. But it was the automobiles that brought the greatest changes. As the number of automobiles increased, more rules and regulations were introduced to regulate different modes of commuting, decrease the risk of accidents, and furnish the street for the use of cars.

Although by 1900 only 8000 automobiles were registered in the entire U.S., within two decades they had become so abundant that downtown streets were choked by their congestion. According to a
survey of 1921 the average speed of vehicles in Manhattan was no more than 11 mph, which was lower than it had been in the horse-drawn chaos of 1900 (Relph 1987, 79).

As the automobile became the popular means of urban transportation it increasingly influenced the design and functioning of the street. In the first decades of the twentieth century municipalities everywhere began to pave and widen streets into the machines spaces of the present day. By 1916 asphalt surfaces were commonplace, and with asphalt came the possibility of lane markings to separate opposing streams of traffic. Markings were probably introduced in Michigan in 1911, and stop signs were first used in Chicago in 1915 or 1916. The first system of ‘Stop’/‘Go’ signals for controlling the flow of traffic at intersections were used in Philadelphia in 1910, and the following decade the system of the three color traffic light was widely adopted. In 1924 General Electric perfected automatically timed lights (Relph 1987, 81).
Rockefeller Center, NY, 1939-40 (left), with its sunken plaza in winter (middle), and public promenade between the buildings (right).

The years between the great depression (1929) and the end of the WWII (1946) was a period of halt in the large-scale downtown developments with one important exception: the Rockefeller Center. This was a vast Center in the heart of Manhattan, which for the first time in downtown development was planned as an urban scale complex including several skyscrapers carefully composed with a plaza at the core and other open spaces between them. According to Broadbent (1990, 71), “the Plaza itself with its fountain, sunken skating rink and shopping mall is one of the most loved, and most used urban spaces, not just in New York, but anywhere in the world.” One strong point of design of the Rockefeller Center was that it did not interrupt the flow of the streets that were passing through the complex.

This bird's eye view perspective can be seen as a profile through the time, depicting the phases of development of a typical North American downtown. The blocks on the foreground (lower left corner) are occupied by taller and larger structures of a recent time, while some other blocks are still occupied by the smaller buildings of the earlier periods on the originally divided parcels of land. Streets are the dominant type of public space, with their sidewalks bustling with pedestrians. The building at the lower right corner seems to be a public building in traditional style standing on the public square.
Philadelphia was laid out in 1681, by William Penn, on a plan that was probably the original speculator's design for an American city, a plot that measured one by two miles and was easily divided into lots that might be sold at a distance (Vance 1977). The layout was marked by two wide streets crossing on a square at the center. Penn's conception of Philadelphia may be characterized as one of the earliest attempts at utopian city planning, and the most extensively pre-planned American city of its time (Forrest, no date).

The grid pattern, which in the history of urbanism has often been utilized in initiating new settlements in a relatively short time, is the characteristic layout of the North American city. It was a pattern that well suited the rapid growth by subdivision as was the typical case of new settlements in the New World.

According to Loukaitou-Sideris (1996), the common use of the grid pattern in North American cities was based on the conviction that the grid could be extended infinitely in the landscape. She also quoted from Sennett that grid cities have been conceived as maps of limitless rectangles of land.

Not only was the grid a pattern of choice for most of the new towns and cities, it was used to divide up the entire country. The Land Ordinance Act, passed by the Continental Congress in 1785, called for the platting of all unsettled and unexplored portions of America into a gigantic gridiron (Whitaker 1996).

The grid pattern was so favoured that difficult topography was hardly a hindrance to its use. Some of the streets ascending the hills of San Francisco are so steep that horse-drawn carts could not traverse them, and sidewalks had to be accommodated with steps or deep grooves in the pavement to assist pedestrians. The wide adoption of the grid pattern in North American settlements must have been due to
In the subdivision plan of New York, prepared in 1807 by a group of Commissioners, the model was the gridiron Plan prepared by L'Enfant for Washington, DC.

"But whilst Washington had its great vistas along the grand, monumental Mall and great diagonals of Pennsylvania and Maryland Avenues, the whole point of planning New York... was to divide Manhattan into saleable lots, 'to make the control and acquisition of real estate easier.'

"It was intended to prevent the process which, in Europe, had enabled the rich and powerful to buy more urban land at the expense of the public in general and the poor in particular. So no public squares, no diagonals—apart from Broadway—and no Mall was included in the Plan. Then, New York, has no vistas, and [quoted from Stephen Games] ‘... when you stand on a sidewalk and look into the distance, what you see is Nothing, just empty sky; the prospect, as it were, open-ended’" (Broadbent 1990, 60-61).

This peculiar aspect of “practicality” became especially evident when it conflicted with artistic considerations, as was the case, for example, in deciding about the layout of Washington D.C. as the capital city of the nation in the late eighteenth century. In that instance acute debates arose between, on the one side, the Secretary of State (Thomas Jefferson) and the local proprietors who wanted a straightforward grid layout to quickly sell out the land and launch the development, and on the other side, the city designer, Charles Pierre l’Enfant, who dreamed of a grand scheme in the manner of the French baroque, with broad diagonal thoroughfares and boulevards, sophisticatedly landscaped public squares, and ostentatious public buildings along a Mall (Reps 1991). The fact that the actual plan turned out to be a superimposition of L’Enfant’s vision on a grid pattern might have been the resolution of those conflicts.

At another level, looking into the meaning of grid, we may find it somehow related to the very essence of the modernist world view, and this way we may better understand why even early American intellectuals such as Thomas Jefferson and Andrew Jackson wrote about its virtues, connecting it to the golden age of the dominance of reason in the Greco-Roman civilizations of antiquity. For example, Jackson in comparing America to the Republican Rome found the propensity for “squareness” in the division of the agricultural land layout of the settlements, in
both cultures, as an indication of reason and wisdom in the conduct of life. Elsewhere, in defining the American landscape, he wrote: “Classical is the word for it, I think; and rhythmic repetition (not to say occasional monotony) is a classical trait, the consequence of devotion to clarity and order” (quoted in Whitaker 1996). Or, they saw it as the rational map or blueprint of space—what Deleuze and Guattari have aptly called the striated space (quoted in Milovanovic 1995)—with an affinity to the clarity of the Enlightenment ideology on which a new society was to be constructed.

The pattern of grid so fitting the world view of the modern human, later appeared on the other manifestations of art, city form, and daily used objects, from building glass facades to the pixels on the computer screen. Heaton (1994) describes a computer generated art image and a high Renaissance painting as both being influenced by Cartesian “gridded” space. Cubitt (1998) traces the history of the grid through Descartes to the foundations of Christianity itself. “The grid,” he says, “derives its… presentation from modernist design practice, which itself can be traced back to Descartes’ invention of neutral space defined only by coordinates rather than contents, and to Mercator’s redefinition of the map as a blank field of longitude and latitude into which the marks of coordinate space can be drawn.”

The grid pattern had certain implications on the cities’ morphology. Lang (1994) mentions two distinct procedures of development that would result in different outlining geometry of urban form: (1) from the inside out, i.e. from the parts to the whole with the land parcels and building cells setting the ordering agenda for the higher level units, and (2) from the outside in, i.e. following some space-filling algorithm given the whole and given the relationship—a geometric ideology, the movement patterns, etc.—between the parts. By this differentiation the medieval or Islamic city fabrics with organic configuration would conform to the first procedure, while cities with grid plan (or any other preconceived, large-scale geometric outline) would accord with the second category of development.
DOWNTOWN DECLINING: FROM THE 1930s TO THE 1960s

The great Depression, beginning in 1929, followed by WWII, halted private-sector development in North American downtowns. After the building boom of the 1920s, an over-supply of office space was evident in the high vacancy rates for downtown office buildings. After the collapse of the economy during the Depression, the rental value of office space dropped and remained stagnant for many years. In most cities the tallest building in 1929 was still the tallest three decades later (Ford 1994, quoted in Loukaitou-Sideris and Banerjee 1998, 18).

In the United States, through the slow economy of the 1930s, funding of the federal government, supplied through the New Deal program, became the main source of downtown development. These funds were spent for various types of civic buildings, such as city halls, libraries, civic auditoriums, concert halls, and museums. The low and often careless design of these buildings was in sharp contrast with the monumental structures of the earlier period (Loukaitou-Sideris and Banerjee 1998, 18).

In this period the retail structure of cities began to change. Before the automobile became the dominant means of transportation, the


*During the decade of the great economic depression in the United States poverty raged over the continent and business areas looked derelict and depressed.*
shopping function was concentrated in the inner city in the form of strips of stores and shops along the main urban arterials and near to the major public transit stations. Department stores and banks were usually located at major intersections.

"Most cities of a hundred thousand or more population had two or even three downtown department stores and considerable choice of specialty shops ranged between and around them. It proved possible to establish normative relationships for the district surrounding the '100 percent location,' the point within the district where land values were highest because it was there that pedestrian flow was greatest. The stores precisely at the 100 percent location were commonly small in size and most highly dependent on impulse shopping drawn from persons within the peak flow of shoppers. Cigar stores, men's shirt stores, candy shops, newsstands, and other small but intensely patronized stores were placed as close to the pedestrian peak as possible, substituting extremely high rents for newspaper advertising costs. It was the department stores that brought shoppers into the center, both by their size and diversity and by their very heavy advertising budgets aimed at bringing in shoppers for a particular good and garnering their attention for many other goods. It was this magnet quality of the department store that tended to give a modular physical form to the central business district.... Within the office quarter there was a secondary peak, commonly at a major intersection and rapidly becoming the site for the larger and more prestigious banks of the city" (Vance 1990, 466-67).

When automobile prices was reduced enough to fit the budget of a greater number of the middle class families, public transit lost its eminence and following that the pattern of shopping in downtown areas began to change. Frieden and Sagalyn report that the number of passengers on rail transit systems dropped far below prewar levels—

The Market Street in Philadelphia still had a bustling atmosphere in the late 1950s and early 1960s (Schwartz 1968, 30).
by 1955 to one-third the ridership of the 1930s, and the loss of transit riders meant that downtown retailers were losing their customers (1991, 12). On the other hand the New Deal policy (initiated in 1933) proved successful in making the dream of home ownership come true for many working class American families. Housing starts in the United States, jumped from a level of 300,000 a year in the 1930s to 1 million in 1946 and 2 million by 1950 (Frieden and Sagalyn 1989, 11). Most of the new housings were developed outside the cities where land was cheaper and building regulations were far less complicated.

Conditions became easy for middle class families to own a house in a newly built suburban neighbourhood, and at least one car (if not more than one bread winner) to commute to work and for shopping, were the two key rationales that transformed the physical structure of North American settlements, particularly after the close of WWII (Vance 1990, 458). The impact of this trend in the downtown areas first appeared as the sharp decline in the value of retailing. According to Loukaitou-Sideris and Banerjee (1998, 20), in the period of 1948 to 1954, while overall sales were booming, the downtown share of retailing fell by one quarter in thirteen of the largest metropolitan areas in the United States, and “in contrast to the vibrant and congested streets of the 1920s, downtown streets in the 1950s appeared empty of people and activity.” Instead suburban shopping centers (or malls) with plenty of “free” parking space around them, became the preferred places for shopping and even spending leisure time.

Increased suburban living was adversely tied to downtowns. Department stores, specialty shops, movie theatres, hotels, and leisure facilities found a new and profitable market in the suburbs which were becoming populated communities of the growing America middle class. “By the early 1960s department stores across the country were closing their doors downtown” (Frieden and Sagalyn 1989, 13), since air-conditioned and enclosed suburban shopping malls were appealing to consumers’ fancy and money. Decline of downtown was evident in almost every city, as it could be seen from numerous for-rent signs on store fronts, the vacant office buildings, the neglected appearance of the establishments that were still in business, and the cultural manifestations of the poor and the minorities that was dominating over the downtown environment. Vance (1990, 466) interprets the deterioration of the zones around the downtown core as a process of “reuse of what had been central retailing and wholesaling activities.” and talks of the areas surrounding the core as a “zone of abandonment.” He mentions that “hotels there became little more than cheap rooming houses, while stores descended in style, class of goods, and general quality. Army-and-Navy stores selling work clothing replaced moderate-price but style-conscious clothiers. House wares and dry goods stores were
replaced by establishments selling on credit cheap furniture, fire-
damaged goods, and other distressed merchandise." Also in this
transition area, as it is sometimes called, the quality of residence
decreased. In downtown Cincinnati, for instance, the number of
inhabitants dropped from 11,500 in 1940 to only 6,500 in 1960
(Gruen 1964, 90). Following the decline of downtown, the tax base of
the central-city municipalities decreased considerably (Frieden and
Sagalyn 1989, 17), and this left them ill equipped to deal with the
increasing problems of poverty, crime, and inadequate public
services.

Federal policies also worked in favour of suburbanization. In the
United States the federal government legislated the Highway Act in
1956. This was a multi billion dollar program (National Highways
Trust Fund) for the construction of 34,000 miles of freeways
connecting the major cities across the country (Frieden and Sagalyn
1989, 20). This program became a major factor in exacerbating the
sprawl and deterioration of downtown districts. Urban renewal was
another major policy of the United States government in the post-war
period, which was often used to enable downtown expansion, since
after the war private developers were not showing much interest in
investing in downtown areas (except for office development). The
concept of this policy was proposed in 1941, and its legislation was
passed in 1949. By the end of the 1950s some seven hundred urban
renewal projects appeared in American CBDs, “all committed to
converting the ailing urban core to a modern and efficient business
center” (Loukaitou-Sideris and Banerjee 1998, 21). But this policy
too—similar to the National Highway program—proved to
precipitate destruction of downtown rather than being of any
assistance to its revival. About the urban renewal doctrine it has been
said “in order to save downtown it was going to be necessary to
destroy it” (Frieden and Sagalyn 1989, 16). Gratz provides a useful
summary of the overall outcome of these official policies and
programs:

In the 1960s highways were cutting through the urban fabric of the
inner-city areas – Philadelphia (Schwartz 1968, 11).
"After World War II, decay of cities began imperceptibly, camouflaged by a heady postwar prosperity and a government-encouraged migration from cities to suburbs. Few understood where those postwar forces would lead. The Federal Housing Administration and the Veterans Administration programs, for example, subsidized homes for nearly fourteen million families. New construction sped along in the suburbs and the federal highway program provided easy new access to the new development. At the same time, the federal Urban Renewal Program in two decades after World War II demolished 404,000 low- and middle-income urban units, replacing them with only 41,580 units for the same population. Millions of additional dollars from Washington poured into the suburban infrastructures necessary for residential and commercial development that would lure the middle class out of the cities. Millions also poured into the cities to rehouse the urban poor, at the same time segregating and ghettoizing our cities in new ways. Too often, physical solutions compound instead of solve social problems.... Urban-renewal projects erased a significant portion of the densely built and highly centralized heart of urban America, caused huge social and economic disruptions in whole regions and accelerated the decline of cities in the guise of noble goals. In the 1950s and 1960s, few people in government advocated reinforcing rather than replacing existing neighborhoods, and no programs fit that goal" (Gratz 1989, 16-17).

Highway projects, as they were supposed to be a solution to the problem of access to the dense and congested areas at the heart of the cities, were planned to be brought into the central district, and by this they disrupted functional and physical continuity and integrity of the existing urban fabric. They carved through neighbourhoods and created "gray zones" along their embankments and ramps. As Gratz (1989) has commented, "highway and other mammoth projects equaled a total repudiation of streets, pedestrians, social integration and human scale." By the end of the 1950s and throughout the 1960s communities were revolting against the freeway projects that were destroying neighbourhoods of the inner cities. And increasingly the highways that generated controversy were the ones planned for downtown, as those were the ones that threatened to destroy low-income and/or black neighbourhoods. There were also environmental or aesthetic reason for objections. Cities such as Baltimore and San Francisco were upset knowing their historic districts were going to be destroyed by highway engineers (Frieden and Sagalyn 1989, 45-6). Vancouver remembers a similar incident. In 1967 following the release of a transportation study public furore broke out, concerned that the proposed freeway would destroy Chinatown. And with the media very much concerned, suddenly all talk of waterfront freeways came to a halt (Collier 1974, 73-4).

As highways grew mass transit decayed. As public transportation was left out of attention and funding in favour of highway projects, the private car became more appealing. With the decline of public transit...
streets became more vacant and devoid of people on foot. In downtown streets the vibrant bustle of the pre-war period gave way to crime and insecurity. This way, ironically enough, many core areas that had survived the Depression broke down in the vicious cycle of post-war prosperity.

Urban renewal projects were another source of disaster, as they involved extensive land clearance. The process was executed by planning agencies which acquired the land, evicted the occupants and demolished the existing structures to prepare the land for large scale, comprehensively planned, developments. The city renewal directors searched for areas for implementing their plans that were bad enough to clear but good enough to attract developers. Their motto was finding “the blight that’s right” (Frieden and Sagalyn 1989, 23). In most cases these blighted areas turned out to be neighbourhoods of poor, and minority communities. Through 1967 urban renewal dispossessed more than 400,000 families and federal aid urban highways some 330,000. In the cities which were more ambitious about “renewing” their blighted districts the damage was larger (Frieden and Sagalyn 1989, 29). But even with having sweep-cleaned lands at hand, it was difficult to persuade developers to get involved in urban renewal projects that were planned for the areas which were already depressed by market value and social prestige. In many cases
cleared lands stayed vacant for years or were converted to parking lots (Loukaitou-Sideris and Banerjee 1998, 21-2).

Another regretful aspect of urban renewal projects was their failure to produce sensible and attractive urban environments. It was about these projects that Jane Jacobs wrote:

“But look what we have built...: Low-income projects that become worse centers of delinquency, vandalism and general social hopelessness than the slums they were supposed to replace. Middle-income housing projects which are truly marvels of dullness and regimentation, sealed against any buoyancy or vitality of city life. Luxury housing projects that mitigate their inanity, or try to, with a vapid vulgarity. Cultural centers that are unable to support a good bookstore. Civic centers that are avoided by everyone but bums, who have fewer choices of loitering place than others. Commercial centers that are lackluster imitations of standardized suburban chain-store shopping. Promenades that go from no place to nowhere and have no promenaders. Expressways that eviscerate great cities. This is not the rebuilding of cities. This is the sacking of cities” (Jacobs 1993, 6).

In contrast to that image, she admired the vitality of Boston’s North End neighbourhood—tagged by planners as one of those blight areas and a candidate for renewal—in which “the streets were alive with children playing, people shopping, people strolling, people talking.”
From an urban design point of view, renewal projects have been criticized for their state of isolation. Frieden and Sagalyn (1991, 41) assert that “typical redevelopment projects had three features that cut them off from the rest of the city: they were very large, built to serve just a single function, and laid out in ways that emphasized their separation from the surrounding area.” The pre-war skyscraper projects usually needed not more than consolidation of parcels at the scale of a block. But the post-war mega-projects were planned to cover several city blocks and necessitated closure of public streets and alleys. Such super-blocks were designed almost exclusively for automobile access. Almost everywhere, these projects had a devastating impact on the physical and functional aspects of their surrounding area. “Whole downtown blocks, once occupied by a multitude of shops and buildings, gave way to corporate megastructures. Land uses became lumpy as the ‘fine grain’ fabric of downtown was progressively replaced by internally oriented mega-development projects” (Loukaitou-Sideris and Banerjee 1998, 23). Access motorways specially designed to serve these newly born districts, were not ‘streets’ any more; they were mono-functional wide roads, with narrow sidewalks and curb-cuts to underground parking structures, and merely intended to connect large buildings which were located off the road and far from each other. These roads could not serve as downtown public spaces—as the traditional streets of the past did—because they did not present a friendly environment for pedestrian activities. Even downtown office workers did not walk in them anymore as they were pulled away into plazas and sky-walks of corporate buildings.

**DOWNTOWN PUBLIC SPACE BY THE MODERNIST MODEL**

After WWII downtown development in North America was directed by new design approaches, generally known as the Modernist doctrines of planning and design. From the early decades of the century ideas of Modernist architecture had been developing in Europe, and after the 1930s they were gradually introduced on the other side of the Atlantic, more as academic discussions and museum exhibitions rather than actual projects. After the War when construction, supported by federal funds, was booming in the United States, both public and private sectors were ready to accept new ideas that sounded specially modern and “technological.” John Friedman in his paper of 1993—*Toward a Non-Euclidian Mode of Planning*—has presented a good summary of the characteristics of such a mind-set, which he criticized as the Euclidian approach to planning. Colossal schemes, such as the rendering of the National Highway system and the concept of urban renewal emerged in that atmosphere.
The modernist approach might not have been so successful in comprehensively organizing cities—as it claimed to do so—but it was indeed comprehensive in influencing all scales of planning and design. At the macro scale, governments became involved in a kind of planning which was supposed to scientifically engineer the future of human habitats. In regard to downtown areas, as they were losing to suburbs in prosperity and prestige, large scale projects were planned to wipe out their past and redo them based on efficiency and rationality. In this image urban form was conceived devoid of its history and social content and reinvented as a meta-system of functions and networks. Several planning tools were used in this new Euclidian mode of planning. Zoning was the tool to define the center of the city as delineated areas, each functioning for commerce, tourism, shopping, cultural activities, recreation, and housing. In modernist planning, the connection between these separated functions was crucial, and therefore circulation was assumed as the fundamental function and was taken as the departure point of analysis and design. Transportation and land use had to be engineered as an integrated system to tie all activities and places in the most efficient way. No wonder “the suburban shopping center—modern, efficient, accessible, with everything in its place under a unifying theme—became the much admired prototype for downtown development” (Loukaitou-Sideris and Banerjee 1998, 56). The same
authors mention that “from the 1950s to the 1970s many downtown plans shared an interest in recapturing the importance of centrality of downtown by increasing the density of the core. In almost all these efforts, planners and designers were particularly concerned with the circulation of people and vehicles. As a way to improve downtown’s accessibility, master plans of the 1960s promoted the construction of inner-loop freeways encircling the CBD and terminal parking facilities at the periphery of the core” (Loukaitou-Sideris and Banerjee 1998, 59).

Many plans of this period, e.g. The Second Regional Plan of New York (1968), or the Urban Design Plan for the Detroit CBD (1970), conceived downtown as a multi-level system of routes and terminals. In such conception, the street could not be seen as much more than just one of the elements of this system, and probably a bothersome one with a legacy of problems inherited from the past. Therefore, negligence toward the street, as the essential realm of public life, is a common characteristic of planning visions of this period. It is not surprising that many of the urban design critics, whose writings began to appear in the 1960s and later years, have emphasized the street as the principal public space and the need for its revival.


The proposed plan depicts the characteristics of the modernist model of city planning and the concept of “city in a park.” In this plan mass of buildings are set far from the streets and therefore have no role in defining public space, while in the exiting condition streets are strongly delineated by the rows of buildings. Also in the proposed plan not only are all the existing buildings erased but a number of streets and city blocks are completely eliminated.
Reaction to the dullness of downtowns of the 1960s and 1970s, due to the lack of pedestrian activities and dominance of the automobile, can also be seen in the passionate movement of that period for creating pedestrian and transit malls in downtown cores—an idea, which ironically enough, was also borrowed from suburban shopping center design. During this period some two hundred North American cities closed a section of their downtown streets to traffic (in the case of transit malls, public transit was allowed to pass through the mall), and landscaped them in suburban style with trees, benches, fountains and other pedestrian amenities. Part of the intention was to bring
back retail activity to the downtown core as an incentive to revitalize the central district. However, with a few exceptions, most developments failed to spur retail activity (Cooper Marcus and Francis 1998, 18-20).

Alan Jacobs and Donald Appleyard (1987) have mentioned three major city form concepts that influenced the shaping of urban environments in the twentieth century: 1) the Garden City concept, which a twisted version of it with lower density was used as the model of suburban development; 2) the concept of 'towers in a park' developed from the idea of the Radiant City (initially contrived by Le Corbusier in the 1920s) and the principles of the Charter of Athens; and 3) Street as the core element of the city's public space. While the first two have not proved to be quite appropriate to perform as prototypes which could generate vibrant and robust urban environments supporting strong community life, the third one became, and still is, the focus of interest to urban designers. From among these three models the second one strongly inspired downtown planning visions of the post war period and was extensively used in rendering Urban Renewal mega-projects. The Charter of Athens, issued by CIAM (Congrès Internationaux d'Architecture Moderne) in 1933, presented a set of radical ideas—or we may call them ‘instructions’ by their affirmative tone—for building new urban environments. The following paragraphs present

The “access tree” diagram as proposed in The Second Regional Plan of New York, conceptualizing the modes of circulation in the midtown Manhattan (Loukaitou-Sideris and Banerjee 1998, 61).

From the 1950s to the 1970s most of the downtown plans were primarily concerned with access and circulation as the key issues in solving the problems of CBDs (Loukaitou-Sideris and Banerjee 1998, 60). Yet those plans overly emphasized the separation of the modes of circulation, particularly pedestrians and automobiles, and attempted for redesigning the streets to accommodate a greater volume and speed of the vehicles and increasing parking areas. In other words, while recognizing the importance of efficiency in terms of speed and time of access, the planners overlooked the vibrancy of the downtown environment due to the presence of the people on the streets. They undermined the role of the street as the public space in which the appeal of the city environment and interaction with public life could be experienced by moving around on foot.
a critical summary of the Charter's ideas—asserted in the 1957 edition of the Charter (Le Corbusier 1973)—as related to the topic of our investigation.

ON STREET — The street was rejected in its existing role as a multifunctional urban element because of congestion and its unsafe and unhealthy conditions. The sidewalk was “created to avoid traffic accidents in the days of the horse,” and it was concluded, “today they are absurdly ineffectual” in the age of mechanized transport. It was ruled instead that pedestrian circulation should be separated from the routes for mechanized transport and directed into its own paths and promenades, adding that “the alignment of dwellings along transportation routes must be prohibited” (The Athens Charter, sections 27 and 51-64).

ON DENSITY — It was advised that “high buildings, set apart from one another, must free the ground for broad verdant areas.” This was supposed to allow densities high enough to justify the installation of communal facilities while maintaining plenty of green open space to be used by inhabitants for enjoyment and recreation and to provide healthy air. To accomplish such a rational scheme development must be fully planned and controlled by government. Then, “promulgation of a ‘land ordinance’” will assure that development will progress as advised by the plan (The Athens Charter, section 29). The form of such a park-like city with free-standing towers is demonstrated in several vision sketches of Le Corbusier, e.g. contemporary city for three million inhabitants in 1922 and plan for the center of Paris modified several times in 1922, 1930 and 1936. In these schemes the buildings, even at the center of the city, would occupy only some five percent of the land (Hugo-Brunt 1972).

ON DEMOLITION OF EXISTING BLOCKS — The Charter decreed that “unsanitary blocks of houses must be demolished and replaced by green areas,” leading to the conclusion that “the adjacent housing quarters will thus become more sanitary.” The cleansed areas could also be utilized “for the construction of certain buildings indispensable to the life of the city,” as decided through the process of an “intelligent urbanism” and “envisaged in advance” by the overall regional plan and the city plan, as the most efficacious (The Athens Charter, section 36). This item of CIAM’s agenda became one of the characteristics of urban renewal projects. It was used to justify demolition of what was in place, usually vast acres. However, the lands rarely, if ever, were converted into public green space or utilized for building public amenities. Instead they stayed vacant for years, or were used as parking lots.
PRODUCTION OF DOWNTOWN PUBLIC SPACE AT MICRO SCALE

Analysis of downtown public space in this period would not be complete without examining the approach of the modernist design to architectural production, and most importantly to the design of the office building in relation to the site and to the street. Here again those were the centers of business on the East Coast of the United States—notably New York and Chicago—in which the purely modernist high structures were erected. Interestingly, many of these projects, or at least most seminal of those, were designed by architects who had come from Europe or by those who had been trained by such masters.

The ideas of Modernist Architecture, which were initially developed in the early twentieth century in Europe, were first introduced in the 1930s in the United States by veterans such as Walter Gropius and Marcel Breuer (two prominent mentors of Bauhaus) who came from Germany and began teaching at Harvard Architecture School. Mies van der Rohe was another German master, whose “arrival in Chicago in the late thirties, his later commissions in the city, and his enormous influence, insured that the images of the European avant-garde of the twenties became realities in the America of the fifties” (Curtis 1992). After the War those teachings came into fruition in a number of notable projects which were built in New York, Chicago and a few other cities of the East Coast. These projects introduced a new conception of building mass and the way it could be related to site and street. These conceptions, which were also loosely defined as International Style, soon became the model to be followed in other North American cities and around the world. Therefore, briefly analyzing those projects would be helpful in understanding the prototypical office building of this period and the character of the open space associated with that.

United Nations headquarter, New York (Internet).
The complex of the United Nations headquarter in New York, completed in 1952, was an inspiring work in the development of a new generation of multi-functional projects in downtown areas. The design was carried out by a multinational team of architects, although the overall concept was by Le Corbusier—the first realization of his 'city in a park' ideal. The administrative building of the complex is a slab tower with its two broader facades entirely in glass. This was the triumph of "pure, unadorned rectilinear geometry" over Art Deco or simply the New York Style of the earlier skyscrapers (Broadbent 1990, 73). From an urban design point of view, the scheme is particularly innovative in the way several buildings of the complex are put together as a unified sculptural composition planted on a platform, with walkways, small parks, and other public facilities weaving between (Curtis 1992, 267). Another notable difference of the United Nations complex with the former generation of downtown developments is its inward-looking gesture and its relatively feeble interaction with the surrounding streets as, for example, most of the main entrances to the buildings are provided from the inner landscaped space. One, just by imagining oneself, through the photographs, of being there, would get the impression that the design has somehow arrogantly conceived the street merely as a passive space where the building volumes and the architectural layout is to be viewed from various angles.

The concept of City in a Park perfectly matched the approach of post-war urban renewal projects, which preferred vast areas of land to be shaved clean for new developments. In those projects designers made a deliberate break with the conventional city layout and instead of siting new buildings along established streets, set them far apart from one another in open, parklike settings. In Gateway Center in
Pittsburg and dozens of projects like it, tall towers placed in a garden was the underlying concept (Frieden and Sagalyn 1989, 41).

In the early years of the 1950s downtown New York witnessed development of another architectural scheme: the free standing office tower with fully glazed facades (as different from the building designed according to setback formula). The model for this scheme was Mies van der Rohe’s design for the Apartments at 860 Lake Shore Drive in Chicago (1951). In New York the Polar office building of 1951 and the Lever House of 1952 were both designed by Mies’s pupils following that model. The Lever House building has an open courtyard at street level surrounded by a *pilotti* (stilt or pillar used in Modernist architecture to raise the building above ground-level) supporting a single-storey horizontal slab, or, rather a hollow square at first floor level. Instead of choosing the regular setback concept and fitting the volume tight into the permissible envelope, the tower is designed as a slender, 20 storey slab occupying 25% of the site fronted by a public open space—a condensed version of a Tower in a Park Scheme. This can be marked as the birth of the modern open space, as it is a portion of private property accessible to the public (Broadbent 1990, 72). Seagram Building (designed by Mies van der Rohe and Philip Johnson, completed in 1958) is another notable work of this period. This building is known as one of the finest examples of post-war modernist design and the International Style.

Similar to Lever House, it has a major setback in front of 90 feet from the building, leaving an open plaza, empty and unadorned, facing on to Park Avenue (Broadbent 1990, 72). Whyte (1988, 104) has admired the Seagram Plaza as an “austerely elegant place,” adding that it was not designed as a people’s plaza, but that it became one. Curtis (1992, 266) has remarked that the immense influence of Mies van der Rohe’s conception of an all-glass high building: a manifestation of the Modern Movement’s ideals of the pure and abstract form standing free and far [from the other objects] in a similarly abstract and indefinite space. Curtis adds that:

“Indeed his glass slab prototypes became parents of a world wide progeny…. However, his imagery also conjured up associations of efficiency, cleanliness, organization, and standardization which fitted the bill for what one might call the heraldry of big-business America. Thus it was the (often) crudely handled glass-box imitations of Mies van der Rohe which proliferated around the world as a species of corporate imagery” (Curtis 1992, 266).

It should be mentioned that the glass tower projects of the 1950s were not the first in accommodating a portion of the site as public open space. The Rockefeller Center complex, which was designed two decades earlier, had successfully incorporated a variety of indoor and outdoor public spaces. But that architectural scheme never became a prototype for the design of office complexes.
The modernist office tower with its empty plaza, despite its stunning elegance as an achievement in realization of the poetics of pure form—an expressionless cubic volume standing alone in indefinite void—proved to be a failure in making downtown space any more appealing and useable for people on the street. The modernist design of this period, out of its devotion to purism and its commitment to stay devoid of cultural indications, remained indifferent to its context and to the people in them. It created geometrical spaces but not sensible places. Sometime in the 1960s Pittsburgh historian, Roy Lubove, called the new downtown of the city “an enormous filing cabinet, which operates between the hours of 9-5,” and condemned its “expressionless stainless-steel facades” (quoted in Frieden and Sagalyn 1989, 58). Lewis Mumford spoke for many critics of the failures of the purist design when he addressed Mies van der Rohe’s approach:

“Mies van der Rohe used the facilities offered by steel and glass to create elegant monuments of nothingness. They had the dry style of machine forms without the contents. His own chaste taste gave these hollow glass shells a crystalline purity of form; but they existed alone in the Platonic world of his imagination and had no relation to site, climate, insulation, function, or internal activity; indeed, they completely turned their backs upon these realities just as the rigidly arranged chairs of his living rooms openly disregarded the necessary intimacies and informalities of conversation. This was the apotheosis of the compulsive, bureaucratic spirit. Its emptiness and hollowness were more expressive than van der Rohe’s admirers realized” (quoted in Jenks 1973, 96).

The setback space of the Seagram Building soon became a model for a new type of urban space: the public plaza, which its evolution will be reviewed in the next section of this study.
DOWNTOWN REVIVAL: 1960s TO THE PRESENT

AN INTRODUCTION TO A NEW ERA: CRISIS OF PUBLIC SPACE AND BIRTH OF THE URBAN DESIGN DISCIPLINE

Urban design as a contemporary discipline of city planning emerged in the 1960s out of a demand for quality in urban form (Moudon 1992). At that time planners and designers were beginning to lose their faith in the doctrine of post-war comprehensive planning for creating livable cities. Whyte (1968, 6), among others, critiqued the modernist planners whose designs would most often call for a sweeping rearrangement of an existing district, the city itself, or an entire region, to create totally efficient replacements to what was already in place. Planners were joined by young architects such as Team Ten and Aldo van Eyck who raised their voice against the depressing outcome of the post-war mass construction for its monotony and lack of identity, for its “emphasis on the faceless modernism as the manifestation of our time rather than what is timeless to man” (Encyclopedia of Architecture 1988, “Theory of architecture”).

Such commentaries by professional thinkers and writers were rooted in the reaction of communities against the actual outcomes of modernist planning, especially manifested in the protests against

Traffic, Georgia Street, Downtown Vancouver (City of Vancouver).

People, Gastown, Downtown Vancouver (City of Vancouver).

Two streets in the same downtown, one dominated by cars and the other by people.
highway projects and urban renewal developments across the continent. Highway building was the first aspect of downtown renewal plans to face local communities’ opposition as it happened in San Francisco in 1959, and inspired highway opponents in dozens of other cities. In the mid-1960s the press discovered these controversies as a national movement and called it ‘freeway revolt’. The source of the anguish was highways destroying poor neighbourhoods, which were mostly located in and around downtown areas. The theme of the protests was to protect one’s home, which is considered as one of the most basic values of the American society. Aside from threats to residential areas there were also environmental and aesthetic reasons involved. Plans to demolish historic houses in Baltimore, rows of sycamore trees in Cambridge, and part of a city arboretum in Seattle were a few of many instances that led to protests (Frieden and Sagalyn 1989, 45-6).

Reactions to urban renewal projects were essentially similar to those of the highway developments. The first communities that were swept by renewal plans were not organized and informed enough to resist much. But later opponents became more determined and skillful in fighting back against developments. In New York, similar to the case of revolt against highway construction in San Francisco, the protest did not come from the poor but from the politically well-informed middle-class, which resulted in Robert Moses leaving his post as head
of New York’s slum clearance operations, and the mayor seeking less authoritarian ways for rebuilding the city. Interestingly, Jane Jacobs was a leading activist in the opposition campaign against New York urban renewal plans (Frieden and Sagalyn 1989, 49).

Indignation about destructive renewal was an important factor, though not the only one, that forced the North American communities to reconsider the autocracy of the prevailing city planning practices. The crisis of public space, particularly in downtown areas was discussed in some of the pioneering academic circles and among the city officials even as early as the late 1950s, when post-war North America was exerting considerable effort to modernize the cities. At that time downtown revival had appeared as both a cause and a movement when, in 1957, “Connecticut General Life Insurance Company convened the leading thinkers and doers in city redevelopment for a national conference on the problems they faced. The fifty speakers and panelists were a Who’s Who of the field, including government officials from Washington and the cities, real estate developers, professors, architects, industrialists, city planners, publishers, and bankers” (Frieden and Sagalyn 1989, 15).

In the same year the first conference of Urban Design was held at Harvard (Jacobs and Appleyard 1987). Although this conference was still in the CIAM tradition, it marked an emerging interest in the
downtown urban design Project with design guidelines depicting the concepts of the desirable designs as compared to the undesirable cases. Glendale, California (Lang 1994, 110). Several scholars have attempted to define the realm and the task of urban design. Jonathan Barnett defines urban design as “designing cities without designing buildings.” Robert Shibley explains that urban design involves enabling but not authoring the built environment. Richard Lai believes that urban designers use laws to spin an “invisible web” which guides urban development (Varkki 1997). What these definitions have in common can be distilled into two key subjects: the focus of urban design on the public realm and its purpose to control and guide individual cases of development, through the policies, plans, and guidelines rather than by means of direct design, to achieve a cohesive urban ensemble in the course of time. The historical review of the contemporary downtown public space is strongly associated with examination of the planning visions, policies, and tools that have been contrived to control and guide the process of public space formation in the downtown developments.
design of city space per se and not just as a leftover space between its buildings. Later on urban design was developed into a more distinct and independent academic discipline and professional field of practice. Jacobs and Appleyard (1987) note that as people became disenchanted by the increase of CIAM-style developments, many began to look through new lenses into the physical environment. In general the view toward the city form shifted from seeing it as a kind of sculptural garden to considering it as a place of "urban experience" for individuals and communities. In urban planning the utopian ideas took a less ambitious stance. Instead of attempting to fix the maladies of the contemporary city with comprehensive plans based on rational models, observers began examining the quality of the urban environments at more modest scales, as experienced by people and in the course of daily life. Based on this conception a whole new vocabulary of urban form was developed which was focused on the sensory and behavioral relationship between observers-users and their physical environment.

PUBLIC SPACE FOR PEOPLE

Lang (1994, 416) mentions that since the 1960s there have been several manifestos of urban design issued and there is much that is common to all of them. One feature of them is that they take opposition to the Athens Charter as their point of departure. But their other common assertion is that in urban design "the human being as the measure of all things should be renewed as the guiding principle in environmental design" (statement quoted from Preiser, Vischer, and White). Stephen Carr and his coauthors suggest three basic premises of good public places, that they should be responsive—that is, designed and managed to serve the needs of their users; democratic—accessible to all groups and providing freedom of action; and meaningful—allowing people to make strong connections between
the place, their personal lives, and the larger world (quoted in Cooper Marcus and Francis 1998, 8). From this statement democratization of public space seems to be the central issue of most urban design debates of the last four decades. In the United States, according to Moudon, most research of urban design focuses on the study of people in the environment. Such a subject orientation emerged in the 1960s as a reaction to ‘old guard’ designers’ earlier focus on the physical components of the environment, the object oriented view. During the 1960s and in the following decades, the object oriented view was seriously criticized as their designed environments continued to bring unsatisfactory results (Moudon 1992). From this the community-oriented design was born. This was associated with an active concern for social groups affected, usually negatively, by city planning (Jacobs and Appleyard 1987). In their manifesto of urban design Jacobs and Appleyard emphasize that good city environments should be accessible to all, and that “every citizen is entitled to some minimal level of environmental livability…. Good urban design must be for the poor as well as the rich.” They add that “the structure of the city should invite and encourage public life, not only through its institutions but directly and symbolically through its public spaces. The public environment, unlike the neighbourhood, by its definition should be open to all members of the community. It is where people of different kinds meet. No one should be excluded unless they threaten the balance of that life” (Jacobs and Appleyard 1987, 116).

Although such assertions on the necessity of a democratic approach to public space might sound intriguing at the level of manifestos and theories, however development and management of downtown public space to be used by all people has proven to be a controversial issue and a challenging task. In North American communities, where market economy frames the development of cities and the life of the people, access to space, similar to almost any other means of living, is

The First Federal Bank Plaza, Minneapolis (Cooper Marcus and Francis 1998, 22).

Public space as an impressive stage-set for the corporate building with no people to use it.
determined by the financial and social status of users. Therefore, although all people might have an equal “right” for access and use of public space, however, they are not equally “capable of taking advantage” of such right, particularly when public space is privately owned, and/or financed to be built. Loukaitou-Sideris and Banerjee mention that in the process of transformation of downtown into the modern corporate center, public open spaces are not exactly democratic or public, but they are designed and furnished to appeal to specific user groups (1998, 147). Further on, they quote from Ellickson that development efforts to create spaces that are presumptively public have been part and parcel of the new urban design downtown, but the publicness of these spaces remain indeterminate and contested, and that it is best to think of the use of these spaces not as a right but as a privilege, one that is limited to white-collar office workers (155). Then, drawing on the exclusion of “unholy” and “unwashed” (terms coined by Lyn Lofland) from the privately owned and controlled public spaces, they remark on the homogeneity of the social context of corporate public spaces and the sharp contrast of those with streets that are more racially and socially integrated and used by all groups of people (183).

It is also informative to examine how exclusion and control is carried out in public spaces. In the first place, there is “hard” control that eliminates certain “undesirable elements” by using vigilant private security officers, surveillance cameras and regulations that either prohibit certain activities from happening or allow them only by issuing permits, programming, scheduling, or leasing. But even more intriguing is the means and methods of “soft” control as those focus on symbolic restrictions such as the lack of facilities (e.g. seating, washrooms, food vendors) that could appeal to street people or encourage functions deemed undesirable. In almost all spaces studied
by Loukaitou-Sideris and Banerjee they have found the “opulence” of design materials, the rigidity of design and programming, and the perfection of architectural form as clear signals of the spaces’ territorial identity. Such treatments were effective in keeping the homeless and other denizens away from the premises of corporate businesses (Loukaitou-Sideris and Banerjee 1998, 184-186). Such control practices sometimes extend to traditional public spaces, as the same researchers mention in the case of the Saint Julian Commons, a skid row park, at the edge of downtown Los Angeles, where the sprinklers are turned on every night to prevent the homeless from sleeping on its grounds (186).

Crime and incivility, and most importantly the fear of those, is another hindrance to unconditional ‘publicness’ of public spaces. According to Oc and Tiesdell, perceptions and feeling of personal safety are prerequisites of a vital and viable city center; if a city center is not perceived to be safe enough, those with choice will choose not to use it, making it less safe for those with fewer choices. Hence, there is an important social justice dimension to efforts towards making city centers safer (1999). Jane Jacobs (1993) has denounced ‘street barbarism’ as a deterrent of livable urban environments. It appears that downtown areas should be protected from crime and criminals to become usable for all people. “If fear of victimization and concerns about a lack of personal safety are regarded as a threat to the use of public space in city centres, those with responsibility for city centres need to consider the actions they can take to alleviate fear and create a greater sense of safety” (Oc and Tiesdell 1999).

However, protection and prevention are double-edged traits as they involve control and exclusion, which are themselves constraints to democratization of space. Therefore finding solutions to reduce the risk of crime and to increase the sense of safety without compromising the ‘publicness’ of downtown public space has been one of the challenges of urban design. The most obvious ways of protection and prevention of crime—physical segregation and
defense of territory through, for example, access controls
determining who can and who cannot enter ('the others'), or policing,
patrolling, televised surveillance, etc—have proven to be less
successful in keeping the subtle balance between controversial issues
of safety and publicness. Oc and Tiesdell (1999) have remarked on
those methods as the “fortress” and the “panoptic” approaches.
They mention that by isolating and defending particular territories
(and thereby certain social groups) the fortress approach is inherently
socially divisive, and when applied frequently it gives an area a dead
appearance and makes it look like a hostile environment. Such
methods of making public spaces safe, when exercised by those who
view the physical environment as a means for creating profits, e.g.
shopping mall business holders, will tend to focus their attention on
people with money to spend, and ignore or exclude the poor (Carr et

The explicit regulation of public space has been another approach for
attaining safety in downtown areas. Traditionally, regulating has been
a responsibility of local authorities. However, as the financial ability
of those authorities has declined there has been a tendency to
promote a sense of proprietorship and ownership in regulation and
management of city centers. Oc and Tiesdell (1999) have remarked
on the creation of ‘town-centre management partnerships’ in the
United Kingdom. Similar provisions have been employed in North
American cities. These partnerships, however, have been criticized as
being less accountable in the ‘democratic’ manner of local authorities
and of having a potential of swaying towards a more commercial
agenda (Oc and Tiesdell 1999). Another difficulty with the regulatory
approach is its inherent contradiction with personal freedom, as this
has been the case about banning drinking in public spaces or
restricting skateboarding in public plazas.

No method has been introduced more effective than the “animated”
approach for increasing safety without implementing direct
surveillance or regulation of public space, or preventing certain
groups from using it, or banning certain activities. Animating the
public space is essentially about increasing the presence of people in
public spaces. “A common claim is that ‘peopled’ places are safer
places; a human presence in public space is reassuring for many
people and the presence and activity of people will often attract other
people. Jane Jacobs, for example, has famously written of the need
for ‘eyes on the street’” (Oc and Tiesdell 1999, 276-7). According to
Jane Jacobs

“...The public peace—sidewalk and street peace... is not kept
primarily by the police, necessary as the police are. It is kept primarily
by an intricate, almost unconscious, network of voluntary controls and
standards among the people themselves and enforced by the people
themselves” (quoted in Broadbent 1990, 139).
Animation or 'peopling' (term used by Oc and Tiesdell) of public space can be best achieved through planning and design: for example, by land-use controls which encourage a mix of uses within a particular area and mixed-use developments and, thereby, the natural animation of the public realm. Having more people on the street means, somewhat, increasing the density of residential population in downtown area or parts of it. Therefore, encouraging mix of uses and bringing housing back into the city center have been considered as two key policies in recreating lively and livable downtowns in recent decades. Along with these major policies cities have also focused on the need to develop or enhance street life, for example by improving public transit, bringing back shopping, or promoting an 'evening economy’ in their downtowns. “Too much empty space and too few people,” Whyte concluded from his observations of the downtown public spaces, “this finally emerged as the problem of the center in more cities than not” (Whyte 1988, 6). Then he advised that “what our center cities have needed most is more people living in the center” (1988, 325).

In our time the challenge of maintaining and enhancing the publicness of public space is hovering between desolation and hope. On one hand, with diminished public resources and increased involvement of the private sector in development and management of public space scholars are warning about the consequences of the privatization of public space in North American cities, especially in the United States and in the context of declining public life (Loukaitou-Sideris and Banerjee 1998). Some even see the threat as the transformation of public space into the exclusive playground of the white middle- and upper-class consumers. On the other hand, some commentators are optimistic about the private sector’s participation in redevelopment of North American downtowns and their role in bringing back prosperity and conviviality that was absent in the city centers during the decades after the Great Depression until

Crowded public spaces feel safer and are more intensely used by different groups of people, and particularly by women.
the 1960s (Frieden and Sagalyn 1989). “In downtown office districts... private developers (usually corporations) are replacing financially strapped public agencies as the providers of plazas. This more... has given our cities outdoor spaces in districts where employees need just a place to sit” (Cooper Marcus and Francis 1998,3).

MAIN TYPES OF PUBLIC SPACE IN CONTEMPORARY DOWNTOWN

Public space of the contemporary downtown is a complex phenomena. It is an interconnected system—a whole—yet made of a number of gross spatial elements. Some of these elements (e.g. office plaza, shopping mall) are relatively new developments, while some others are productions of the past (e.g. street, square, park). But even the old types are more or less modified to fit into the context of contemporary downtown. Therefore it is difficult to draw a sharp line between old and new types of public space as they coexist today. It is also difficult to determine a clear distinction between public and private spaces as in most types of spatial elements that downtowns are composed of there is a considerable overlap between those concepts. For example, a shopping mall can be identified as a kind of public space since all groups of people (or most of them) can attend there. However, from the perspective of proprietorship and management the shopping mall is a strictly private domain. There is also a temporal dimension in the distinction between public and private space. During the day, for example, a shopping mall performs as a public space, but at nighttime it is closed to public.

Keeping those complexities in mind, this section will briefly review the most basic types of contemporary downtown public space, with an emphasis on newly developed kinds of those prototypes. In the following agenda the street is not a newly developed spatial element. However, for its reclaimed importance in contemporary urban design, and its status as the skeleton of the public space network and the connector of other spatial elements, it is included in this investigation. This review will commence with the street as the uncontested type of public space and move on to the more controversial types of public space: those which are associated with some sense of private proprietorship.

- street
- pedestrian mall
- office plaza
- shopping mall
- indoor public space
STREET, RECLAIMED

In a sense the advent of urban design as a field concerned with the quality of public space is congruent with the emergence of interest in the street as the most essential unit of public space. Jane Jacobs’ book of 1961—*The Death and Life of Great American Cities*—heralded such interest. “Think of a city,” she wrote, “and what comes to mind? Its streets. If the city’s streets look interesting, the city looks interesting; if they look dull, the city looks dull” (quoted in Broadbent 1990, 138).

This speaks to Jane Jacobs’ understanding of the importance of streets and sidewalks as the true public spaces of a city. At a time when many planners were arguing that streets were wasteful, and that pedestrians needed to be separated from cars, Jacobs looked closely at how streets and sidewalks are actually used. She concluded that street traffic is a necessary part of city life, so long as the use of streets is managed to favour pedestrians and public vehicles over private automobiles (Wickersham, 2001).

Allan Jacobs and Donald Appleyard (1988) remarked on livable streets (and neighbourhoods) as one of the five basic physical features of a good city and as a prerequisite for a sturdy urban life. In their opinion the revival of street activities, street vending, and street theatre could be the precursor of a more flourishing public environment, “if the automobile can be held back.”

William H. Whyte, known for his study and analysis of downtown public spaces, based his study on the street as the principal domain of public life. In his book of 1988—*City Rediscovering the Center*—the first five chapters are dedicated to the study of social life on the street. Loukaito-Sideris and Banerjee consider the street as the key spatial element in downtown urban design. They believe that downtowns of isolated public and private realms are those in which streets are not treated as public spaces for people. Therefore “the rediscovery of the street and alley network in downtown should be part of the strategic design framework” (Loukaito-Sideris and Banerjee 1998, 304). This

Robson Street as downtown Vancouver’s walking Street (internet).
emphasis on the street and its revival as the scene of public life is strongly reflected in contemporary approaches to downtown planning and urban design—in downtown plans, zoning bylaws and design guidelines—as opposed to the visions of the orthodox modernist city planning that considered the street merely as a corridor serving the function of transportation.

According to Robertson (1995) in planning for downtowns planners rely upon a familiar set of redevelopment strategies. These strategies commonly relate to urban design and land use, and in most cases are also integrated with financial and promotional tactics. These strategies, except in the smallest of cities, are rarely used in isolation. In fact, the larger North American downtowns often use these strategies in concert. One of these strategies is pedestrianization which has become almost a fixed prescription of contemporary downtown plans. Isaacs (2002) points out the growing interest in pedestrian-oriented urban design as part of a strategy to revitalize existing urban centers and to counter suburban sprawl.

Allan Jacobs and Donald Appleyard (1988) emphasized that the most important public places must be for pedestrians, for no public life can take place between people in automobiles. “Most public space,” they assert in their urban design manifesto “has been taken over by the automobile, for travel or parking. We must fight to restore more for the pedestrian” Jacobs and Appleyard 1988).

Most downtown planners agree that making the downtown more pedestrian-friendly will improve traffic management, economic revitalization, and environmental quality (Brambilla and Longo 1977 cited in Robertson 1995). However, according to Robertson, the most important benefit from improving the environment for pedestrians is a more attractive image of downtown for potential users. “The vitality and positive image of a downtown often are gauged not by economic indicators, but by the volume of pedestrian
activity” (Robertson 1995). Cooper Marcus and Francis indicate that the importance of downtowns as pedestrian-friendly environments is far greater than simply their aesthetic appeal. According to psychotherapist Joanna Poppink, spending time in an outdoor café or bustling shopping street is more than just a pleasant diversion; it is a necessary element of healthy urban life. Much of the fear and distrust experienced by urbanites is directly related to the lack of open public spaces where different groups can interact (cited in Cooper Marcus and Francis 1998, 3). Cooper Marcus and Francis also see a relationship between the zeal for pedestrianization and the increasing public awareness about health issues, and widespread recognition of the benefits of walking for exercise (1998, 20). They also remark that with outdoor eating becoming more popular downtown walking has become more appealing (1998, 13).

In recognition of pedestrianization as a policy of downtown revitalization many cities have planned to create a pedestrian network in downtown districts. In the San Francisco Downtown Plan—acknowledged by architectural critic Paul Goldberger as “the most carefully-worked-out downtown plan in the United States”—particular attention has been paid to creating a pedestrian network by connecting new and existing plazas via pedestrian streets and access ways, so that the end result will be a pedestrian system rather than a series of isolated oases (Cooper Marcus and Francis 1998, 18). The idea of pedestrian networks can be conceived even broader by including through-block walkways and other types of enclosed connectors.

PEDESTRIAN AND TRANSIT MALLS

Pedestrian malls were one of the earliest attempts—in rejection of CIAM-style city planning—to bring back prosperity and vitality to the depressed downtowns of the 1950s and 1960s.

According to Cooper Marcus and Francis (1998) pedestrian malls were primarily a phenomenon of the 1960s, which were created in a desperate attempt to recapture the shoppers who were abandoning the traditional downtown shopping streets for the convenience, ample parking, and controlled environments offered by a proliferation of suburban, enclosed shopping centers. Frieden and Sagalyn mention that in a short burst of activity between 1957 and 1962, some fifty cities tried to keep the retail core compact and competitive by closing off selected downtown streets to traffic and landscaping them in suburban style to create low-cost malls (Frieden and Sagalyn 1989, 77).

Robertson has distinguished three types of pedestrian malls: 1) traditional pedestrian streets, designed for pedestrians only, 2) shared
malls, which allow limited automobile traffic, and 3) transit malls, which accommodate both transit and pedestrian use.

Pedestrian malls in all too many instances were unsuccessful in terms of their original objective of stimulating retail development in the downtown district. They rarely brought an influx of happy pedestrians (Cooper Marcus and Francis 1998,19).

"Most lacked the ample parking, coordinated shop hours, and careful maintenance shoppers found at suburban malls; worse, the trees, benches, and fountains attracted vagrants and boisterous kids. Pedestrians stayed away, merchants left, and stores remained vacant. After these well-publicized street closings turned into waste lands, many cities such as Boston, Toledo and Seattle moved to reopen the streets, take away the furnishings, and landscape the sidewalks". (Frieden and Sagalyn 1989,77).

Whyte has commented on pedestrian malls from a design point of view. In his opinion most of these spaces are over-designed. "There's too much unified signage, too many award-winning light standards—too much good taste in general, or the presentation of it, and since many designers have the same good taste, the result is a bland conformity"(Whyte 1988,102). Somewhere else he wrote:

"Many cities compound their problems by the way they distribute what people they do have. They spread over a large area what would work were it concentrated in a small one. Pedestrian malls are an example.

Granville Street as transit mall. Downtown Vancouver (internet).

In 1974 Granville Street in downtown Vancouver was configured as a transit mall, as an initiative to revitalize retail activity, improve transit movements and pedestrianize a portion of the downtown. For this purpose sidewalks were widened to 35 feet, trees were planted, and the motorway was curved to slow traffic (Gordon 1998).
Some have worked well. Many have not. There are a number of reasons for failure but the principal reason has been too much space for too little activity. Some cities have very broad right-of-way—especially in the West, where streets are sometimes a hundred feet across. Take away the cars and the places look empty. There is a vacuum and it is not filled by rock gardens and play sculpture. The breadth of the area is so great that one side of the street is out of impulse distance of the other. Sometimes you can’t even read the lettering on the stores on the other side. There is too much length as well. When cities gear up for a pedestrian mall, they like to shoot the works and go for one that’s six to eight or ten blocks long. It is too many. Few cities can sustain a mall of that size. I have yet to see a mall that would not have been better if it had been several blocks less. Three blocks is not a bad limit, as several cities have found when they ran out of funds for a larger one” (Whyte 1988,312).

Another issue of pedestrian malls was sustaining activity into the evening. In some cases this has been achieved by selectively mixing a variety of commercial and retail uses. Success of these cases speaks to another point, that pedestrian malls have proven to need coordinated management of promotion, maintenance and programming in order to succeed (Cooper Marcus and Francis 1998,19).

Robertson (1995) has remarked that the successful malls tend to be transit malls in larger cities, or traditional pedestrian streets in university towns with built in sources of foot traffic. In fact, allowing a controlled level of vehicular traffic—mainly public transit—was introduced as a solution to the general failure of pedestrian malls. Bringing public transit onto the walking mall was intended to increase and stabilize levels of activity on the mall while at the same time increasing the density of the pedestrian activity in the space remaining (Cooper Marcus and Francis 1998, 19). In transit malls usually one or two lanes are set aside for buses or streetcars (as in Portland, Oregon), which not only provide better access to the areas of downtown but contribute to a more active urban environment. As a result, transit malls have been more successful in attracting retailing and, reportedly, the closing of one downtown street to cars has not created congestion in the others (Whyte 1988, 75).

**Office Plaza**

It was in the early 1960s that architectural conceptions of open space associated with office buildings triggered planners to think of the office plaza as a substitute for public space. Whyte, for example, had mentioned the need for midtown small spaces, or parklets as he called them, which could serve office workers and shoppers. “There is no lack of small open spaces,” he wrote, “in the heart of our cities, but most of them are used as parking lots” (Whyte 1966, 305). In 1961 New York was the first city to utilize *incentive zoning* as a
planning tool to encourage developers to designate a portion of the site as open space for public use. Whyte has pointed out the influence of the much adored Seagram Building’s plaza as a model for the initiation of incentive zoning, “to prod builders into providing comparable spaces” (Whyte 1988, 232). Other than provision of public space in downtown it was assumed that these open spaces would allow better passage of light and air among tall buildings (Vance 1990, 481). The by-law allowed an extra ten square feet of office space per each square foot of plaza. Soon plazas began to flood the Manhattan landscape so that “by 1970, in the central square mile of midtown Manhattan alone, there were over eleven acres of public pedestrian space on private land and over two acres of ornamental space consisting of landscaping and fountains” (Pushkarev and Zupan, quoted in Cooper Marcus and Francis 1998, 17). However, the designers of these new plazas fell into the trap of “if open space is good, more open space is better.” Most of the plazas built as such failed to persuade people to use them (Cooper Marcus and Francis 1998, 17).

The early plazas in many cases were empty open spaces devoid of amenities and furniture. Cooper Marcus and Francis mention the HUD Building in Washington D.C. (designed by Marcel Breuer in 1969) as an example. Its large front plaza was traversed by fourteen thousand people a day, yet no one stopped, for there was no seating provided. In San Francisco, as in New York, the bonus specifications were vague enough so that some plazas offered only limited use to the public. In 1977, of eighty-six buildings of over fifteen stories in downtown San Francisco, only eighteen, or 21 percent, provided plazas that were accessible to the general public (Dornbusch and Gelb quoted in Cooper Marcus and Francis 1998, 17). Whyte has made a similar comment on New York’s early plazas, that lots of them were awful: sterile, empty spaces not used for much of anything.

Kayden defines privately owned public space as “a physical place located on private property to which the owner has granted legally binding rights of access and use to members of the public, most often in return for something of value from the city to the owner” (quoted in Kiefer 2001). Derived from this definition, Kayden likens the legal status of such spaces to an easement held by the public on private property.
except walking across. The mounting criticism moved the City, in 1975, to replace the ordinance of 1961 with a more rigorous set of design rules in which details such as the maximum permissible height of a plaza, the amount of seating, and the minimum number of trees were determined, and provision of amenities such as night lighting, trash receptacles, identifying signs, and decorative paving was specified. Also, retail or service establishments were required to occupy at least half of the building frontage along the space. Building service facilities such as parking spaces, driveways, loading docks and exhaust vents were prohibited (Kiefer 2001). The new bylaw not only brought about better plazas but also encouraged the retrofit of existing ones so that a number of hitherto dead ones were brought up to life. Soon other cities adopted similar plaza design regulations (Loukaitou-Sideris and Banerjee 1998, 85), that in some cases were obviously derived from formulas used in New York. A well-know example is the requirement of one linear foot for every thirty square feet of plaza space, which has been used in countless zoning ordinances as a rule of thumb (Whyte 1988 234-5).

The Downtown Plan of San Francisco, adopted in 1985, developed an elaborate set of regulations and guidelines for public space design. According to this plan developers of high-rise buildings must provide accessible and usable indoor and outdoor public space. In addition, they must pay to the City’s park fund two dollars for each square foot of office space. Moreover, the plan specifies details such as minimum size, location, access, seating arrangements, landscaping and design, commercial services, food, sunlight, wind, and public availability

Queen Elizabeth Theatre Plaza in downtown Vancouver. A public space of the 1960s which is hardly ever used during the day. (photographed by the author).
(hours of operation) for plazas and other kinds of outdoor and indoor public spaces (Loukaitou-Sideris and Banerjee 1998, 106).

Progressively the incentive zoning became more complex and inclusive. For example new kinds of bonuses were introduced for through-block corridors, covered pedestrian areas, arcades, atriums, and shops in them. Also with the design review board becoming a common constitution of the cities’ planning and building permit departments (Varkki 1997), the process of design approval, particularly in the case of large and sensitive developments, became more negotiable and flexible, and this allowed more creative designs of plazas and open spaces. The Downtown Plan of San Francisco, for example, has recognized eleven types of outdoor and indoor public spaces with specifications about their size and location (Loukaitou-Sideris and Banerjee 1998, 107).

Kiefer has remarked on the correlation between the evolution of the zoning bylaws and increasing complexity of public space design;

"[In New York] as the ordinance has evolved, individual categories of public spaces has proliferated, each with detailed design standards attached to them. The geographic areas within which certain specified spaces would be bonusable have been more carefully delineated, and the amount of bonus has been more carefully calibrated. Grated public amenities have been required to enliven and increase the utility of spaces. This increased complexity has required more discretionary review and more attention to mechanisms to enforce owner obligations" (Kiefer 2001).

Loukaitou-Sideris and Banerjee have pointed out the diversity of open spaces that are developed by private enterprise—plazas, paseos, gallerias, roof gardens, and arcades—as a distinctive facet of contemporary downtowns. They have also emphasized the importance of open public space as "the leading metaphor for understanding the structure and design of the contemporary North American downtown" (Loukaitou-Sideris and Banerjee 1998, 86).

Privately owned public space is a ground of conflict, as there has been ongoing dispute on the status of its use and people who might be allowed to use it. Controversy rises from the equivocal nature of such space—from the fact that it is owned privately but it is supposed to be accessible by all people, the same way as the publicly owned spaces (street, park, etc) are. The conflict on the matter, generally, is between two groups of stakeholders each drawing on one facet of the equivocal space—on its privateness or publicness. In a rather simplistic abstraction, the first group consists of developers, owners, and business holders residing in the building that is hosting the open space. These consider such open space as part of their occupied and/or paid-for property, and would be concerned about it from the perspective of their business interests and privileged social status. The second group—the “public”—is represented by the city
officials, planners, academics, media, and groups or individuals of activists who might raise a voice on behalf of the public, and particularly for those with less power, articulation, or awareness to seek their own rights of accessing and using the public space, or members of the community who are especially disliked by the first group: the so-called “undesirables.”

According to Whyte, for most businessmen undesirables are not simply muggers or dope dealers that are particularly annoying, but they are “winos, derelicts, men who drink out of half-pint bottles in paper bags—the most vulnerable of city’s marginal people…. For the retailers, the list of undesirables is more inclusive. There are the bag-women, bag-men, people who talk out loud in buses, teenagers, older people, street musicians, street vendors” (Whyte 1988, 158). In a recent study, interviews with developers, managers, and security officers of downtown open spaces have shown that the category of undesirables includes not only criminals and dangerous elements but also street vendors, street performers, noisy teenagers, children and in general “everyone, who does not conform to the management’s standards of appropriateness or whose presence might damage the image of a clean, proper, and safe environment. Sometimes even appearance or clothing is the sole basis of excluding potential users” (Loukaitou-Sideris and Banerjee 1998, 186).
In many cases building managements go far beyond precluding the "trouble-makers" and other types of undesirables. They simply disregard the fact that the plaza space was provided by the public through its zoning and planning systems to be used, by and large, as public space. Instead they exercise their much narrower concept of access. They do not allow, for example, entertainers, and people who distribute leaflets or give speeches (Whyte 1988, 163). Kayden in his recent study of 320 buildings with public spaces in New York has found that almost half of them are out of compliance with the agreement that was made in the first place between the City and the developer to accommodate open space for public use. Most often these violations relate to denial of public access to areas, encroachment of private uses onto legally mandated public spaces, or a reduction in required amenities. For instance, in many cases, spaces are inaccessible due to locked gates or other obstructions. Signs identifying rights of public access were never provided or have been removed or obscured. Sidewalk cafes, newsstands or other private uses have encroached into space required to remain public. Finally, amenities such as seating and trees or other landscaping have been removed or not properly maintained. Ironically, more recent spaces are more likely to be in violation, both because they are likely to be subject to more detailed requirements, creating the potential for more violations, and because they are likely to be more heavily used by the public, ironically creating a stronger disincentive for the property owner to comply (Kiefer 2001).

Several scholars have raised questions about the publicness of the privately developed public space. In reference to major cities Loukaitou-Sideris and Banerjee remark that although contemporary downtowns have developed a substantial amount of corporate open space through mandates of negotiations, there is little open space that serves the poor residents. In the realm of paradoxes, as they characterize the downtown of large cities, they observe the low-income working class, growing by immigrant labour force, contributing to the street life, while the upper- and middle-income, professional, white-collar, and mainly white office workers becoming increasingly cloistered in sanitized office towers, clubs, cocktail lounges and restaurants (Loukaitou-Sideris and Banerjee 1998, 154).

Policing and surveillance are not the only methods for limiting access to and controlling activities in corporate open spaces. Exclusion of certain groups is achieved more effectively and subtly through the means of "soft" control as this approach focuses on the passive or symbolic rather than actual restrictions. An example of such approach is the lack of facilities (such as public restrooms, food suppliers, sandboxes, etc) that could attract certain people or encourage functions deemed undesirable. Design can work as a...
powerful means to soft control as it can make the corporate space become uninviting or even intimidating to certain groups. In modern urban plazas opulence of design materials, rigidity and formality of design and snobbish look of the architectural form, while aimed towards creating impressively stylish spaces, also work as signals to the spaces' territorial identity (Loukaitou-Sideris and Banerjee 1998, 183-186).

Introversion is another common trait of contemporary corporate public spaces as their exterior gives few clues to the space within. In many cases the space is separated from the street either by de-emphasizing the access from that side or by elevating, depressing or fencing its view. The defensive designs achieved by these means insulate plazas from the streets, and thereby disrupt the continuity of downtown public space as an interwoven spatial fabric. In the same line is the trend of contemporary downtown developments, particularly in larger projects, to displace the retail space from its conventional position facing the street and placing it on secluded plazas or in the enclosed courtyards or atria. This reduces street life and aggravates the incoherence between the street and privately developed public spaces.

Some critics have discussed the commodification of privately produced public space (Sternberg 2000), as its development is all about creating a marketable package. For a developer, in fact, a building's open space, before serving any other purpose, is a showcase of his development that has to be tidy and trendy to attract perspective customers; just like any other commodity that might be presented in today's competitive market. Therefore, it should present a classy and impressive environment by its outlook, the people who would use it and the activities that would be expected in there. By
this rationale the office plaza has to be separated and protected from the unpleasant realities of street life and at the same time it has to stimulate a sense of affluence in consumers. Loukaitou-Sideris and Banerjee have discussed the formalist trend of contemporary plaza design in the context of the postmodern paradigm as compared to the strictly modernist plazas of the 1950s and 1960s. In the recent plazas the austerity and universality of the modernism are replaced by designs custom-made for developers and their clients. “Ironically, however, these designs do not show any particular sensitivity to the context, culture, or local history of places, but simply provide the décor for the act of consumption” (quoted from Boyer in Loukaitou-Sideris and Banerjee 1998, 280). Scott Lash has commented on the “de-semanticized historicity” which is revealed in the postmodern generation of public spaces since in their design historical signifiers are utilized not for their relationship to the history of the setting but simply for their ability to produce an effect on the consumer (Lash 1990, 72).

Since the invention of incentive zoning in the 1960s North American cities have increasingly sought ways to privatize the provision of public space, and in so doing they have departed from past procedures of city building by which the public sector built streets, utilities, parks and civic amenities, and the private builders filled in the spaces in between. The increasing share of the private sector in the production and control of public space has corresponded to a substantial advancement in the conception of downtown planning and in the methods and processes of directing the resources and initiatives of the private sector to the better interest of the public. The process of development in contemporary downtown is largely based on negotiation and deal-making between public and private sectors, on a win-win basis. In this context it is a responsibility of the city officials, and the planners working with them, to be aware of the potential pitfalls and deteriorating effects of the privately developed public space to direct the design of individual projects to contribute to the cohesion, continuity and richness of the public realm, thereby prevent social exclusion and inequity in its use. To develop integrated public realms downtowns need to have strategic plans. Such plans function as organizing frameworks to envision the pieces of public space—streets, plazas, and indoor public spaces—as an integrated system, and a visual and pedestrian connection to each other. In the absence of such frameworks it is unlikely that individual market-driven projects would create lively and livable downtown environments.
**SHOPPING MALL**

Downtown shopping malls, as they became common in the 1970s and 1980s, were modeled on successful suburban shopping centers. Victor Gruen was one of the influential designers in the development of the enclosed shopping mall concept. He designed the Midtown Plaza in Rochester, New York (completed in the early 1960s), which was the first downtown shopping mall in North America. Most of the downtown revitalization plans developed by Gruen's firm during the 1960s had planned shopping malls as centerpieces (Roberson 1995). Gruen envisioned the shopping mall as an enjoyable “total” environment that could bring people in and get them to stay. “More people,” he reasoned, “—for more hours—means cash registers ringing more often and for longer periods” (Gruen 1973 quoted in Frieden and Sagalyn 1989, 65). Downtown indoor malls, particularly in the earlier developments, shared some key characteristics with their suburban prototypes: centralized management, a carefully planned retail mix, the domination of franchised businesses and chain stores over local independent stores, and a clean, secure, attractive and climate-controlled environment. Yet they differed from their suburban counterparts in their compact and multi-storey structures and limited provision of parking (Robertson 1995). The urban design goal was to revitalize traditional downtowns so they could compete successfully with the rival suburban malls, which by 1974, accounted for 15000 malls capturing 44 percent of the retail trade in the United States (excluding automobile products and building supplies). The objective was to upgrade existing retail areas through the provision of...
congenial, safe, middle-class shopping environments (Lang 1994, 370).

From an economic point of view building shopping malls in downtowns came up partly as a viable investment alternative after the energy crisis in the early 1970s. At that time the market for suburban mall development was shrinking and the North American community was becoming aware of the devastating impact of unbounded urban growth on the rural land and natural environment. Consequently, the rapid build-up of suburban growth regulations, and the emerging anti-development climate, were important factors that were making suburban shopping mall development increasingly difficult. On the other hand, the decline of downtown shopping was one of the most pressing problems of the central areas. The city officials, planners, academics, and the business community agreed that shopping mall development might function as a starter for downtown revitalization. For example, in one city the economic consultant advised that retail space would diversify the downtown economy and stimulate further development, and urban designers argued that stores were important to bring people into downtown streets and break the monotony of rows of offices. (Frieden and Sagalyn 1989, 124). As downtown shopping mall development became a feasible alternative more than fifty cities decided to start building them, yet every city had its own reason for making such a decision. “No matter whether a city’s

Pacific Center underground shopping mall, Downtown Vancouver (internet).

Pacific Center—the underground shopping mall of downtown Vancouver—is reputed as a controversial development. In 1965 City Council approved this project to be built by a consortium of developers including the Toronto-Dominion Bank and Eaton’s, the owners of the adjacent Block 52. The many small shopkeepers in Block 42, where the project was to be built, complained they would be dispossessed when their older and rather unattractive buildings were demolished. Council promised to do “everything reasonably possible” to help them during reconstruction but used its expropriation powers to help assemble the land. Council agreed with the Board of Trade that a development of “such magnitude” would “transform downtown Vancouver” and become “a symbol of confidence for the citizens of Vancouver in the City’s future growth and development.” Pacific Center did become a symbol of confidence. Between 1966 and 1973, the rentable office space in downtown Vancouver almost doubled.

Paradoxically, on its completion, Pacific Center also became a symbol of redevelopment’s negative effects. The complex, including Eaton’s store, a thirty storey Toronto-Dominion Bank building, an eighteen storey IBM building, and the Four Seasons Hotel, is linked by an underground shopping mall with the Hudson’s Bay department store and the Bank of Nova Scotia Tower in Vancouver Center. Critics blamed its designers for creating wind tunnels, erecting “towers of gloom and darkness” with black anodized exteriors, and destroying surface pedestrian traffic. In an attempt to restore street level activity, the City adopted a Minneapolis plan and turned Granville Street into a transit mall with widened sidewalks and a narrowed street open only to buses, taxis, and emergency vehicles. The underground shops, however, retained their popularity and Granville Mall was deemed a failure (Roy 1980, 148).
immediate problem was to save a historic building, remove an eyesore, or demonstrate the mayor’s competence, the favorite solution of the 1970s was to build a mall” (Frieden and Sagalyn 1989, 107).

Frieden and Sagalyn (1989) have distinguished three types of downtown shopping centers: 1) regional malls centered around traditional anchor department stores, 2) mixed-use centers, which integrate retail with a hotel, transit mall, or convention center, and 3) festival market places, which offer a series of unusual shops, emphasize food and entertainment as much as retail, and often incorporate an historical theme. James Rouse, an American developer with a notable record of downtown shopping mall development, has been credited with introducing the idea of “festival market-place” into the planned indoor shopping environment (Robertson 1995). An early example of festival market-place was Boston’s highly successful Quincy Market which was opened in 1976. The mall was built within a graceful, yet decaying, structure of 1826 that was revived and combined with modern design. The plan was to merchandise history in a contemporary shopping environment to achieve a carnival atmosphere.

Based on the idea of bringing shopping and leisure together shopping malls were developed in a variety of themes and atmospheres.
“Through the choice of interior materials, colours and textures, artwork, lighting, landscaping, and other finishing touches, malls were dressed to fit many moods: American regionalism, country village life, European culture” (Frieden and Sagalyn 1989, 74). The environments within shopping malls were designed as spectacular settings of fun and fantasy with plantations, fountains, streams, waterfalls, statues, trees, and mimicked outdoor cafés, carefully arranged in the glass roofed courtyards and galleries. These spaces were to be experienced as replicas of fictional town places, from the past or future, yet free from the hassles of the real world urban environments, i.e. harsh climate, polluted air, undesirable people, and distasteful scenes of poverty, negligence and violence—a perfect place for the leisure and shopping of the middle-class consumers. The sense of market-place could be accentuated by creating a space saturated with the sight and smell of food.

When downtown shopping mall development proved to be profitable city officials began making deals with developers to facilitate the project in exchange for low-profit or non-profit facilities for the use of the community that would be included in the project. For example, a shopping center in San Diego, completed in the early 1980s, was planned to include an ice rink, daycare center, health facility, folk art museum, repertory theatre, amusement arcade, food market, professional offices, art gallery, disco-restaurant, and rooms for adult education classes and club meetings in the mall. These facilities were estimated to add $7 million to the cost, which was paid

Eaton Center at the heart of Toronto is designed as an interior shopping street and is called “galleria” after the shopping arcades of the nineteenth century Milan, Naples and Brussels. It contains three levels of stores, parking, cafés, restaurants and sitting areas with sculptures, fountains and plantation, connected to the city’s major subway line. Three subway exits which are linked into the complex bring in the crowd and stimulate “impulse shopping.” The center is reputed as the most successful downtown shopping mall in the world and a fine achievement of design in integrating a large scale enclosed public space into the urban fabric (Pressman 1988).
off handsomely, after the mall was opened, by higher than expected sales and rent receipts. The financial success was credited to the community services that attracted people and persuaded them to stay longer than visitors to other shopping malls (Frieden and Sagalyn 1989, 127-8).

As people like to spend time in shopping centers it has become a new kind of public space. For teenagers the mall is a fun place to hang out, and a significant source of part-time jobs. For the elderly it is a place to meet friends or to do some walking exercise in a safe and comfortable environment. And the advantage is that people do not have to pay for using the space. Shopping malls were designed to attract people but they were not supposed to be used as public spaces, but their appeal has made them so. This has been a controversial matter so that in some cases the conflict between the users and the owner(s) of the mall had to be taken to the courts. In one case, in 1968, a California state court permitted anti-pollution petitioners to enter a San Bernardino mall reasoning that “in many instances the contemporary shopping center serves as the analogue of the traditional town square” (Diamond v. Bland 1968, quoted in Loukaitou-Sideris and Banerjee 1998, 188). In 1979 the California Supreme Court used the state’s constitution to protect free speech on private property used as public space in malls, corporate plazas, and private university campuses (Prune Yard Shopping Center v. Robbin 1979, quoted in Loukaitou-Sideris and Banerjee 1998, 188). Since the 1980s, however, ruling over such disputable uses of shopping malls (and other kinds of privately-owned/ publicly-used spaces) shifted in

The Renaissance Center has become a prototype of a troubled downtown mall. It is a complex of four office towers, a retail mall and a gleaming seventy-three-storey hotel which was opened in 1977. It has an intimidating appearance from the street with nearly invisible entrances, suggesting that the only way to arrive here is by car (Frieden and Sagalyn 1989, 220-221).
favour of owners. Whyte comments truly that shopping malls are “public, but not too public.” Those are known as new town centers, but they reject many activities of a true center. “They do not welcome—indeed, do not tolerate—controversy, soapboxing, passing of leaflets, impromptu entertaining, happenings, or eccentric behaviour, harmless or no.” He reports the case of Toronto’s Eaton Center, where police handed out trespass tickets for a fine of fifty-three dollars for undesirable behaviour, and that in 1985 they forcibly removed about 30,000 people, mostly derelicts, teenagers and other “undesirables” (Whyte 1988, 208).

While downtown shopping centers have been acknowledged for reanimating downtowns by bringing back shopping activity and some level of economic vibrancy to city centers, they are nevertheless open to several criticisms, as follows:

First, indoor shopping centers tend to exert a fortress effect; that is they are self-contained structures poorly integrated with the surrounding environment (Robertson 1995). Whyte has blamed the “encapsulating” effect of the indoor retail centers, resulting from their design tending to be self-contained and isolated from the street (Whyte 1988, 313).

Second, downtown shopping malls have a potential to dilute street life by dragging pedestrians and shoppers from the street into their enclosed and climate-controlled spaces. Competition with the street becomes more problematic when the shopping mall is located above or below the ground, as in such cases the mall creates a second level walkway system in competition with the street sidewalks. Whyte has provided an example of such rivalry in a modern town center in Charlotte, North Carolina, where the second-level retail space was rented out quickly, but shops at the street level remained vacant for years. He has also mentioned a case in Minneapolis where street frontage was deliberately dullified to make the off-street retailing thrive. In several other cases the exterior of the shopping mall was designed as blank walls for the same purpose.

Third, there is also an issue of social segregation resulting from the split of the mall level from the street. “The second level,” Whyte reported about the aforementioned shopping center, “is used by middle-class whites; the street level by blacks and by people who have to use the bus” (Whyte 1988, 203-4).

Finally, enclosed shopping centers can encourage “commercial gentrification,” by which national chains selling specialty items to more affluent shoppers would drive local independent retailers out of business (Robertson 1995).
INDOOR PUBLIC SPACES

One facet of modern downtown, compared to the past, is diversity of its public spaces in their typology and in the expanse of the public realm far broader than its traditional territory—i.e. streets, squares, parks—into the enclosed environments. This trend has been concomitant with the increasing share of the private sector in development and management of public space—a process succinctly called ‘privatization of public space.’ In fact there is a telling correspondence between the upsurge of enclosed urban spaces in their scale and complexity of form and function (notably embodied in mixed-use mega-projects of city centers), and the increasing magnitude of the corporate investment and the complicated procedures of financing, approval and development of such projects (usually supported or partnered with the public sector).

Replicating the sense of the outdoors in the safety of the enclosed structures appeared to be particularly appealing in the presumably dangerous environment of the declining downtowns of the post-war period. Therefore, it was in the 1960s that urban-scale forms of indoor space, with some sense of publicness, began to be extensively utilized in the downtowns of large cities. Advancements in the technology of air-conditioning was contributing to this trend, as at that time such technology was developed for suburban enclosed shopping malls.

Competition for creating ever more impressive spaces in commercial developments was another reason for proliferation of indoor urban environments (as discussed in the case of shopping mall development in the previous section of this study). Another new type of enclosed space was the atrium, which was initially utilized as a cathedral-scale


The ambition for capturing the atmosphere of open urban space within enclosed structures can be traced back to the nineteenth century—the era when revolution in technology was an inspiring source for innovative explorations in construction and design. The Crystal Palace of London, designed in 1851 by Joseph Paxton for housing the first world exhibition, was an impressive achievement in creating an urban-scale environment. It covered some 1800 feet by 450 feet area, which was entirely enclosed within a structure made of iron and glass.
kind of lobby space in a series of spectacular hotels such as the Hyatt Regency in Atlanta, Georgia (1967) and San Francisco (1974). The innovation was soon experimented with in office buildings. In New York the Atrium of Citicorp Center (1977) was acknowledged as an exemplary accomplishment of its kind. It brought new life to a Manhattan city block by creating an exciting interior plaza, seven storeys high, with shops, restaurants and performance spaces. It was connected to a subway entrance and even included a church. At the top it was covered by a diagonally cut glazed roof with solar collectors (Broadbent 1990, 75)—perhaps as a hi-tech gesture in the years of energy crisis—crowning the ambitious architectural scheme of the project. Citicorp atrium became a reference model of indoor public space for New York’s incentive zoning in the same way that the Seagram plaza had been considered as a prototype for open space plazas. Whyte mentions that after the remarkable success of the first ordinance of incentive zoning (effective since 1961) for increasing the city’s stock of outdoor public plazas planners began bonusing other off-street spaces—from sidewalk widenings to recessed sidewalks, to shopping arcades within buildings, to through-block circulation areas. This progression from street to interior culminated in the covered pedestrian areas (Whyte 1985). Whyte pointed out that planners’ response to enclosed public spaces was a manifestation of one of the most venerable concepts of city planning: the separation of vehicular...
from pedestrian traffic. “From the Victorian era on,” he observed, “almost every utopian projection of the future has featured such separation, often in romantic terms—great bridges and tunnels in the sky, subsurface pleasure grounds and promenades, dirigibles and monorails, and, lately, computer-directed people movers” (Whyte 1988, 193).

Perhaps the most elaborate types of indoor public space have been developed within the city-center large-scale projects as they became common in the 1970s. A common trend in these mixed-use projects is to hybrid different types of enclosed and outdoor spaces designed to accommodate various uses, yet unified in an impressive complex scheme. Commercial use, usually retail, is a pivotal function in these mega-projects, which is contrived in a variety of architectural arrangements.

In fact the extension of indoor urban spaces is closely related to the evolution of the enclosed shopping mall. As discussed in the previous section, shopping mall developers learned to provide the commercial space with an overlay of entertainment, relaxation, art and sculpture, civic goodwill, and space for community meetings and public events—places where people would mix leisure with shopping. Since the 1960s, increasingly the newer malls featured monumental central courts ornamented with sculpture, dramatic displays of light, and eye-
catching graphics and floor designs that went far beyond commercial standards. In an intensely competitive environment the central court became almost a standard feature of the shopping mall public space—a premier place for meeting and relaxation, and also the stage for promotional events that could draw more shoppers (Frieden and Sagalyn 1989, 67-8).

At that time most of the critics were objecting to the escalating trend of commercialization of public space. In 1963 in a Harvard University conference for exploring the potential of the shopping center as a nucleus of inner-city activity, when the high-profile developer, James Rouse, explained how his firm integrated a church and an arts program into one of its malls in order to fulfill a community need, Harvard professor, Serge Chermayeff, denounced mixing the arts or a church with commerce as “prostituting legitimate uses” and as an “outrage” (Frieden and Sagalyn1989,72). Yet there were a number of critics—such as Grady Clay, real estate editor of the Louisville Courier-Journal—who saw positive points in the provision of public space in the format of commercial developments: new standards of quality, a compact retail core ready-made for pedestrians, and public spaces with “humour, inventiveness, and ingenuity” that were holding “promise of the future” for downtowns (quoted in Frieden and Sagalyn 1989, 72).

As competition spurred on developers for innovation, commercial projects swayed toward elaborate and intricate schemes, as in two pioneering projects in Echelon, New Jersey and Columbia, Maryland where the core shopping space was linked to apartments, offices and hotels as well as to places for entertainment and cultural events.
Town Square in St. Paul, Minnesota (opened in 1980) presented a more advanced type of downtown mixed-use development with a hybrid system of enclosed public space packed around a retail core. The structure stretches over two city blocks and contains three levels of stores and an enclosed rooftop city park. Flanking the retail core are a 250-room hotel on one side and office towers of twenty-five and twenty-seven storeys on the other; underground is a 500-car garage. Without going outside, visitors can cross four skyway bridges to surrounding office buildings and Dayton’s department store, as well as to the entire skyway network that winds through twenty-six downtown blocks. The internal layout is tightly packed, with the office building lobbies pressing close to the retail shops on one side and the hotel lobby close on the other. The four skyways converge on the retail hub with its store-lined passageways. Escalators and an elevator carry people from one shopping level to another and to the park on top. Waterfalls, trees, and shrubs fill the space between the escalators, and the water splashes from the park down through two levels of mall stores and then into a collecting pool in the below-ground food court. The park has no fewer than 250 types of plants. A huge glass roof lets in sunlight, and trees and flowering shrubs alongside the moving water create the sense of a greenhouse even when the sky is gray. Besides greenery, the park has play areas, an open theatre, and a place for exhibits (Frieden and Sagalyn 1989, 189).

One type of enclosed urban space that is of particular appeal to both...
planners and developers is the underground or above grade pedestrian walkways (sometimes called skyways). Whyte asserts that the below-grade walkways were originally developed as adjuncts to the underground rail systems (Whyte 1988). Despite the adverse impact of off-grade walkways for draining pedestrians out of street scene, many cities, and particularly those with harsh climates, began to develop them as networks. For example, by 1974 the city of St. Paul, Minnesota had built one-half mile of enclosed skyways connecting new and old buildings at the second-storey level, which had a devastating impact on street shopping (Frieden and Sagalyn 1989, 119-120). Another example is Calgary's some 8.5 kilometers (by 1986) of above-grade walkway network—known as +15 pedestrian system, named for its grade level approximately 15 feet above the ground. In the 1970 Calgary Plan, "protection from adverse climate" was cited as one of the major objectives of the system. The City decided to go above grade—rather than below grade as in the cases of Montreal and Toronto—because it felt this created a more acceptable walking environment providing improved accessibility to, and easier circulation within, buildings. The +15 plan was integral to a master plan for the entire downtown with the aim of connecting buildings and creating a total pedestrian environment one level above the street—moving through buildings and over open spaces. Public and private joint funding pays for bridges over the streets. Developers, on the whole, manage and maintain the +15 walkways through their buildings and the bridges that they build while agreements obligate the City to assume responsibility for the policing. The City remains, however, the legal owner of the +15 bridges (Pressman 1988, 47-48).

As mentioned earlier, indoor urban environments have been particularly incorporated in cities with harsh climatic conditions and some of those cities have developed unique and unusual projects in that regard (as demonstrated in the case of Calgary's skyway system). In 1974, Quebec City built the first totally enclosed pedestrian mall over the existing Rue St. Roch. At a stretch of five city blocks (2000 feet) the street was repaved and roofed with a free standing structure with a number of sky-lights. The project was significantly expanded in the mid-1980s to include pedestrian tunnels, additional shopping both above and below grade, a public library and parking facilities thus making it an important inner-city shopping node (Pressman 1988, 51).

Skyways in a speculation on the twenty-first century city - 1928
(Lang 1994, 197).
Summary and Conclusion

The public realm of the contemporary downtown can be conceived as a hybrid creation—a complex construct made up of several elemental types of open and enclosed spaces. The street is the most important type of the downtown public space. It holds the highest degree of publicness and is the place where public life flows in its vigour and diversity.

In most North American cities the network of streets is a grid, which is laid out before the emergence of downtown. Grid system does not have a geometric center. Therefore, the conception of centrality of the downtown in the North American city is substantially different from that of the pre-industrial city formations, where the town square was the central public space. In downtown the network of streets function as a spatial structure that buildings as well as the other types of open spaces are weaved throughout its mesh.

The elemental types of the downtown public spaces are products of the different periods. Aside from the town/city square as a public space of the pre-industrial period, other main types of the downtown public space are: 1) the shopping street (also known as the Main Street), 2) the pedestrian and transit mall, 3) the off-street open space as the publicly accessible part of a private property (e.g. office plaza), 4) the enclosed shopping mall, 5) other types of the enclosed public spaces within the large-scale downtown projects (atria, concourse, galleria, etc).

The public spaces of downtown hold different degrees of publicness. Since the advent of the incentive zoning in the 1960s the private sector has got an increasing role in the production and management of the public space. In terms of accessibility and use by the public, the public spaces that are developed on the private properties and from the private funds are not usually as accessible and usable by all groups of public. Restrictions are more likely to be implicit and through the means of design rather than by the direct methods of control and exclusion. Also, enclosed public spaces such as shopping malls and office atria, are usually more restricted in terms of access and use by the public as compared to the open spaces such as plazas.

Generally, the privately developed public spaces are contested realms, because they are designed and furnished to appeal to the privileged user groups rather than all groups of public. It has been a task and a challenge of planners and designers to increase the publicness of those spaces through the policies, plans, and design guidelines, and by improving their integration with the large network of downtown public space.
Chapter Two

FUNDAMENTAL QUALITIES OF THE PHYSICAL DOWNTOWN
"Because we could not create a downtown today, not in totality, we should realize its unique appeal, and not allow it to be made into the image of the simple realms that ring it. If the city is to be made up of consciously structured environments, we must understand the way the downtown came about.... All that remains to be said is the appeal to you to plan for complexity in the downtown, allowing some "mistakes" to survive because they may seem less clearly misguided to our children" (Vance 1971, 120).

In the former chapter I reviewed the historical evolution of the downtown to understand the structure of its public space in parts and in whole; and in the next chapter I will focus on a particular type of public space—the plaza—in a particular context—downtown Vancouver—in an attempt to analyze the factors of planning and design which are influential in formation of those spaces. The present chapter is supposed to have a transitional role, to take us from the substantive-prescriptive mode of analysis to the normative-prescriptive method of synthesis. Therefore, this chapter is phenomenological in its approach, as it discusses our basic understanding of downtown as a phenomenon of form and space animated by life. An awareness of these qualities is important because they form the "ethical" foundations on which we, as planners and designers, reconstruct the city.

Another objective of a historical review is to inform us of the main types of public space as they have emerged and evolved in the course of time. These main typologies coexist, completely transformed or partially intact, in the spread of the contemporary downtown. The types that emerged earlier do not have the same role or meaning that they had in the past, but they still exist, with new meanings and functions, even new forms, as dictated by the social, cultural and economic implications of our time.
DOWNTOWN IS A SPECIAL PLACE. Ask people about their image of a city and most of them will recall some places or some aspects of its downtown. Their responses would probably differ, not only because people are different by education, cultural background and personality, but because of the diversity of the place itself. Downtown is a realm of diversity. It is a fabric of many types of buildings, spaces, activities, and memories associated with places, condensed in a relatively small area, as compared to the spread of spaces and activities in the other areas of the city. Diversity and density are the essence of downtown’s uniqueness and sources of its vitality. Think of downtown in its various aspects, and there you will find diversity in almost every sense. Downtown is the place of high towers as well as single-storey shops, and the oldest buildings as well as the most recent ones. Regarding architectural style it is a collection of types from different periods and cultures. Downtown is a place of business, shopping, entertainment, tourism, culture, and even habitation—if the city has been wise enough not to reject its urbanity some time ago, replacing it with simplistic conceptions of modernization. Diversity in relation to certain aspects might be interpreted in peculiar terms. For example, when thinking of diversity of scale (of the buildings and open spaces) it would appear as ‘rich graining’ of the physical fabric; or diversity of functions and activities would be conceived as ‘mix of uses.’
Diversity relates to other qualities of downtown place: its spatial and functional complexity, and its rapid pace—or intensity—of transformation. Downtown is a complex phenomenon because it is a construct of many elements and many processes that are supposed to work at a more or less optimum and efficient level in a relatively tight area. Diversity as an integration—and not simply a summation—forces downtown to perform as a unified whole, yet not as rigid and mechanistic as a machine but perhaps more similar to the loose and partial interconnectedness that can be found in ecological systems. In interpreting the dynamic mechanism of those systems, diversity, with some affinity to complexity, is identified as both cause and consequence of resilience and durability of perpetually changing ecological systems. Regarding their nature and behavior these systems are “dirty, changing, growing, and declining. That is the source of their resilience and diversity” (Holing 1977, 35). This statement sounds as being equally applicable to downtown in relation to the dynamics of its development and transformation. Vance probably had a similar understanding of downtown and its dynamism when he wrote:

“Half the problems that we face in downtown areas today come from the very success of those areas in holding their own. The inadequacy of the streets for the loads we put on them, the failure of buildings, or even full blocks, to conform to our notions as to the desirable urban pattern, and the presence of uses that we think demean our city—all can be related to the ability of the central area to maintain its position under a diversity of situations. Elsewhere in the city the problems are usually the spaciousness of neglect rather than the crowding of success” (Vance 1971, 113).

Based on the analogy between a downtown and a natural ecosystem, as drawn upon in the former paragraphs, we may conceive the downtown as a meta-organism, which might react rather autonomously to the various modes of the “planned” decisions and rather independently from the conceptions and preferences of the human agents who might make those decisions. We may conceive such a meta-organism, in a remote sense, similar to our body system, which reacts to the ways we might treat it independent from our desires and preferences (keeping in mind that a downtown or an ecosystem is not such an integrated system as a body organism is). Then we may say that due to its complexity and diversity, downtown has not responded well to monolithic planning schemes and comprehensive approaches. It has resisted master plans and discretionary land-use. It has become the defeating ground of rigid and deterministic plans such as urban renewal projects. It has reacted to the large-scale, engineering-based modernizations such as highway constructions that did not pay respect to its diverse-grain and entwined fabric of urban life. Ironically yet, downtown has paced its
own way of modernization by utilizing the highest achievements of technology in construction, transportation and urban infrastructure. Downtown has had its own way of rejection or acceptance of technology. For example, it has not been so amiable to the automobile while it has come along successfully with different types of rail transit systems.

Today, these observations might seem to be obvious, yet cities have paid a heavy cost to learn the appropriate ways of doing planning and design intervention that would match the peculiar nature—the diverse, complex and dynamic nature—of downtown. This knowledge has been gained mostly by experimentation, by trial and error, rather than pre-conceived theories of rationalist thinking and scientific analyses aimed at maximizing efficiency and economy of urban forms and their functions. In acknowledgement of downtown's diversity and complexity as sources of its vitality the policies of planning and processes of physical development have increasingly incorporated features of flexibility, incremental planning, and case-by-case decision making in their approaches.

In regard to the use of land, visions in favour of creating mono-functional zones (as one of the key principles of modernist planning) have been rejected, since it has been proved that segregation of urban functions reduces the potential for social interaction and strips public space from the overlay of activities and results in monotonous and unsafe urban environments. Therefore, mixed-use zoning has been widely recognized as being instrumental in the creation of vivid and gregarious urban environments. By mixing uses the public realm of downtown has become more bustling and lively. Streets and other public spaces have been “peopled” more intensely and for longer periods of the day and throughout the week. Mixed-use environments are viewed as being safer and more attractive for walking, shopping and lingering.

The trend of contemporary planning in favour of mixing functions and uses in the downtown area has been complemented by increasingly diverse supply of public spaces regarding their typology, size and location. By such diversity downtown's public realm have become a composition of plazas, squares, shopping courts, gallerias, atria, roof-gardens, arcades, concourses, sky-ways, underground, at-grade, or above-ground pedestrian malls, and other types of outdoor and indoor public and semi-public spaces connected by a network of streets. Recognition of diversity, at both levels of form and function, has increased the choices of people to use and enjoy downtown for various occasions, times, seasons, types of activities, etc. Intensity of use—bringing uses together, over-laying them, and letting them interact—seems to be a virtue of planning at all levels, as it has also proved to be a key to success in commercial developments as well.
However, diversity as an over-ruling conception implies that there is as much need for intense, bustling, engaging, and inclusive spaces as for the oases of calmness, serenity, and silence.

Diversity and complexity of downtown areas also implies uncertainty and unpredictability. Therefore, the conduct of planning has evolved from the rigidity of comprehensive plans and blue-printing of the future towards flexible decision-making and creative problem solving, based on negotiation, deal-making and partnership between public and private sectors. These changes have blurred the boundaries between planning, design, and actual development, as well as the lines between the public authorities and private developers as they are both sharing benefits and swapping responsibilities of conducting downtown’s development. At the same time control of the development processes has moved from generalized formulas of conventional zoning and has inclined towards case-by-case decision-making depending on the context and situation. Developing projects based on flexible deal-making and negotiation is allowing the projects to be constantly revised and bylaws to be modified and relaxed to find the most fitting solution for each location. Also adopting loose and dynamic processes of decision-making allows moving ahead without having to resolve every issue in advance and leaves plenty of freedom for creative problem solving.

Thompson’s discussion (1998, 16-17) on the role of ‘design management’ as a process to maintain flexibility of design and to enhance diversity of building forms in urban environments seems to be fairly applicable to the situation of downtown. According to her, “zoning is still the predominant mechanism for design control in community development. Yet it is mainly a coarse tool intended to prevent nuisance and separate uses.” Zoning regulations, when accompanied by prescriptive architectural code (as pioneered by historic districts), result in rigid conformity to preset goals. But community agendas, today, are more complex; and zoning should allow for more mix of uses and diverse physical expression. She suggests a different process that begins with a vision-based master plan. The redevelopment ordinances that grow from such a plan can combine prescriptive environmental and use rules with performance-based design guidelines. These require positive, design-oriented solutions, governed by a process of collective judgment called ‘design management.’ Design management avoids creating a definitive architectural code. It, rather, aims to encourage the creative application of design principles to specific sites and existing communities in a “patchwork quilt” manner. An architectural code is suitable for homogenous communities; design management embraces a variety of options. Architectural codes severely limit choices to a prejudged market and product, while design management expands
choices and viewpoints to fit local conditions. Architectural codes use rigid rules to achieve sameness (precise roof structures, finishes and cladding, door and window types, fence details), while design management targets contextual principles of scale, variety, and good neighbourliness—reached by consensus. Architectural codes seek one-step efficiency; design management, clearly more demanding, involves collaboration throughout the design process—in the belief that there is discernible good and bad, but no absolute right and wrong, in design. Finally, architectural codes yield stylistic conformity that is soon dated. Design management values creativity in the service of a lasting diversity. In short, it is a process to achieve naturally varied urban environments born of public-private collaborations in a free-market setting.

DOWNTOWN IS A PRECEDENT. In most cases it is the place of the old town itself and the original point of settlement in a region. No matter how much a downtown might be modernized, this aspect of longevity is embedded in its geographical location as well as its built form. The street system is perhaps the most endurable physical footprint of such longevity. Also in some parts of downtown, yet more sporadically, there might be structures and spaces—buildings, row of facades, or even clusters of city blocks, as well as streets, squares, parks and open spaces—remaining from the past. Structures and spaces might be associated with activities and uses with some tradition. Downtown, therefore, is a storehouse of a city's memory encoded in place, and in this sense it is a unique and irreplaceable public asset—the physical reference of the city's social identity. The ongoing process of redevelopment as well as changes in the ways of living, tend to eradicate buildings, spaces and traditions of the past and erase the traces of memory. The culmination of this process was in the early decades of the post-war period when the city of the past was simply considered deficient and outdated, and modernization was equal to knocking everything down and building from scratch. However since the 1960s with the paradigm shift in the value system of city planning the significance of downtown as the place of the city's memory has been increasingly recognized. Since then the value of conservation of the past has widely influenced the theories and practices of planning and design. Sensitivity to the memory of place can be identified in two conceptions: preservation and contextualism.

As a distinct policy of planning, historic preservation is basically about rehabilititating the architecturally distinctive old buildings for a new use. Adaptive reuse, by which a structure constructed for one purpose (e.g. a railroad terminal, a bank) is converted to a different one (e.g. a festival marketplace, a restaurant), is widely utilized to
preserve downtown buildings, city blocks, and even entire districts. In 1966 in the United States the Historic Preservation Act gave substance to the need to protect historically and architecturally valuable districts “having special meaning for the community.” By 1975 over two hundred cities had designated heritage areas, whereas in 1931 there had been only two cities, and in 1951 twenty cities with such areas (Relph 1987, 221).

Contextualism is about designing new structures and spaces in an attentive manner, so that they would fit into their urban context and would enhance the quality of their vicinity. Contextualism includes, yet surpasses, sensitivity to the historical fabric. From this perspective context-sensitive design is an attitude more than a formula. It is an ethic more than an aesthetic. “It is about PLACE-making, which is not the same as BUILDING-making, which was more the focus of the modern school as perpetuated by the Bauhaus-Gropius-Harvard line” (Malo 2002, web page).

Such a conception of context-sensitive design corresponds to the theory of urban design as formulated by Christopher Alexander and his colleagues. In their view appealing urban environments, such as some of the configurations of the old towns, possess a quality of wholeness or organic-ness. Yet, in the constantly changing and growing urban fabric wholeness is a dynamic quality, so that its wholeness at present is “the birthplace, the origin, and the continuous creator” of its wholeness in the future (Alexander et al 1987, 10). Such state of wholeness, or coherence, would be realized through commitment of all participants to a single over-riding rule, which must govern every act of construction in the physical fabric; “every increment of construction must be made in such a way as to ‘heal’ the city” (Alexander et al 1987, 22). Herein, healing should be understood as the contribution of new developments to the enrichment of the existing whole; in other words, making planning and design decisions with sensitivity towards the context. Since the overall quality of the public realm is the result of accumulation of many small decisions of design over a long period of time, therefore every new act of design has to be rendered with care and commitment to enhance the meaningfulness of the urban form and space within the area of its influence.

Buildings and spaces exchange meanings with their environment. They can send messages of inclusion or seclusion, sharing or secession, invitation or rejection.... These messages stimulate certain perceptions in people. This way the meaning of form of the public space can evoke senses of identity, rootedness, social responsibility, openness, participation... or their adversaries, e.g. alienation, isolation, defensiveness, etc.
While a context-sensitive approach seems to be valid as a general rule of urban design, however it is of prime significance in the context of downtown, due to the historic, architectural and civic values of this area. In fact, any new design in the context of downtown can be considered as an act of retrofitting or transplanting within an established urban fabric. Its responsibility is to enhance meaningfulness and integrity of the surrounding physical as well as non-physical fabric. The evolution of downtown planning and urban design approaches since the 1960s manifest the increase of such attentiveness, as they have changed from "bulldozing" approaches of the post-war urban renewal and highway construction projects to what Frieden and Sagalyn have called a "micro-surgery" approach to downtown redevelopment (1989, 132).

FINALLY, DOWNTOWN IS THE PLACE OF URBANITY. It is the place where one can experience the sense of urban space and civic life in full vigour and intensity. Even before being a place, downtown is an image made of scenes, senses and spaces. Thinking of downtown evokes certain senses and images: the image of the vertical skyline, the scene of a shopping street bustling with crowd, the sense of window shopping, the sense of time ticking from 9 to 5, the scene of

**New York's Chrysler Building on a postcard** (source: internet).

**Disney World, Florida - Main Street** (Rowe and Koetter 1978, 43).

*Some cases of the commercial uses of the downtown images.*
sidewalk cafés, the sense of subway, the sense of bar-going, the sense of global business, the sense of luxury, the sense of the neglected and scary alleys, the image of neon signs, the sense of tourism, the sense of money (and pennilessness), the sense of being lost in the crowd, the image of canyon streets running through the ridges of high-rises, the image of “Main Street” with crafted old-style facades, the sense of traffic,…

Such a complex image, as it is shared among many, and perhaps all, people, is a collective portrayal—a collage made of prototypical scenes and stereotypical senses. Think of one of the stories that you know. When you recall it from memory it comes up not as a text of words, but as a snap shot collage-image made of characters, scenes and events, highly charged with emotions. The image of downtown is similar to the scenes of stories; it is a “story” perceived directly, without the mediation of words, in the language of sense, scene and event; an existential statement of the condition of civility depicting the immediate sense of that condition as felt through the routines of daily life, as well as the deep social, historical and philosophical meanings of it as encoded in the composition of its four-dimensional space and in the “roles” of the human figures in its context. Downtown is an image that belongs to all citizens and in some cases to the nation, and even to the human community, as its landmarks and places become icons representing a city, a country, or contemporary urbanity. It is not like the image of another neighbourhood, which is shared only among a limited group of its inhabitants; this is “my” neighbourhood, that is “your” neighbourhood…. Downtown belongs, paradoxically, to everyone and to no one. That is why downtown, regardless of ownership of its buildings and land parcels, is a public asset; and its public space is more public than other public spaces in the city. That is why, using Lynch’s conception, imageable downtowns, and imageable places of downtowns, can become tourist attractions. They come to visit what Vance has called “the greatest conscious creation” (Vance 1971, 120). The actual place of downtown is the physical counterpart of such a collective image. Walking through the spaces of a well-articulated and enlivened downtown is indeed an engaging and moving experience at different levels of sense and mind.

The environment of downtown, the configuration of its form and space as it is mainly perceived by visual sensation in the course of walking, should evoke the allure of urban life and delight of urban space. It seems that such allure and delight can be achieved through informed planning and good design. Regarding the form, at the most abstract level, appealing urban environments are described as having qualities such as coherence, continuity, consistency, etc. These abstract conceptions imply some sort of order achieved through design. Yet I am going to argue that the appeal of urban form,
particularly in the complexity and diversity of the downtown environment, is partly due to its un-designed and random character. In fact the aesthetics of downtown form is as much due to the “orders” of design as to the “chaos” of non-design. The appeal of downtown form emerges from a balance between consistency and difference; planned and spontaneous, legibility and mystery.... I am suggesting that the aesthetics of form and space in downtown, more than any other urban environment, is based on contradiction and paradox.

This is not an original observation. Many of the theories of aesthetic suggest contradictory qualities in the perception of form as fundamental to the sense of aesthetic. In a recent paper about the aesthetic experience of pedestrians in urban spaces Isaacs has reviewed a number of those theories (all of the following quotes are summarized from Isaacs 2000). According to Monroe Beardsley aesthetic experience occurs when complexity and unity are sensed together in a form as the subject of perception. Gombrich believes that aesthetic is a balance between order and confusion. Order is easy to perceive and remember, yet order by itself is tasteless and boring, so it ought to be associated with disruption and variation to excite the mind. The formulation of Kaplan and Kaplan is based on the same kind of dialectical tension between antithetical qualities of form: coherence/complexity and legibility/mystery. Appealing urban environments would provide enough complexity and mystery to stimulate, while offering degrees of coherence and legibility to avoid the reaction of being overwhelmed (all quoted from Isaacs 2000). In Alexander’s observation the allure of form stems from “the endless play of repetition and variety” (Alexander 1979, xi).

Some thirty-five years ago Robert Venturi has convincingly discussed the aesthetics of complexity and contradiction in architecture and city design, and here I am just going to directly quote from his book—*Complexity and Contradiction* — 1966—rather extensively, as his statements seem to be most aptly fitting the partially-designed condition of form and space in the downtown context. In this regard I have found his text still highly valid and most inspiring. In approaching the aesthetics of complexity and contradiction first he dismisses the obsessions of the conventional design-oriented mind:

“...I like elements that are... hybrid rather than ‘pure,’ compromising rather than ‘clean,’ distorted rather than ‘straightforward,’ ambiguous rather than ‘articulated,’ perverse as well as impersonal, boring as well as ‘interesting,’ conventional rather than ‘designed,’ accommodating rather than excluding, redundant as well as innovating, inconsistent and equivocal rather than direct and clear,... I am for messy vitality rather than obvious unity.... I include the non sequitur and proclaim duality.... I am for richness of meaning rather than clarity of meaning...” (Venturi 1966, 16).
Another obsession is about seeing the phenomena as separated entities: thinking of meanings as mono-dimensional absolutes; seeing the values as absolute rights and wrongs, goods and bads, totems and taboos; undermining the connectivity and over-emphasizing the partitioning: form and function, abstract and concrete, reality and fiction, ends and means, teaching and learning. This obsession has its own parallels in planning and design: conceiving the city as separated zones of functions; thinking of the city space as clear-cut divisions separated from each other by hard edges and rigid boundaries (e.g. buildings and open spaces, public spaces and private spaces, plazas and streets); or even treating the disciplines of city planning and architecture as disjointed turfs. For understanding the complex phenomena of the city—its form and its mechanisms—we need to analyze it, but it seems that in the practice of analytical thinking, planners and designers have got excessively fixed on simplification and have forgotten how to properly synthesize. Modernist design, as Venturi critiqued it, overlooked complexity in its syntheses, and that was how urban environments of that period came out as deadly monotonous and un-engaging. The following quote of Venturi from Cleanth Brooks (Venturi 1966, 20) seems particularly relevant:

“It is not enough for the poet to analyze his experience as the scientist does.... His task is finally to unify experience. He must return to us the unity of the experience itself as man knows it in his own experience.”

The essential task of urban design seems to synthesize for unity without compromising diversity and variety and without forgetting that such a goal in the vast and complex spread of urban environments can be achieved only in fragments and increments. Such unity implies blurring the boundaries between “black” and “white” and making them to be perceived as “black and white.” It is about putting two (or more) things (spaces, forms, meanings) in some sort of dialectical tension to make them be perceived as one, without losing their meaning as two separate things. Herein I am going to restate Venturi’s interpretation of the state of contradiction and ambiguity of meaning in design, yet replace his examples with what I have picked from the downtown Vancouver. Venturi mentions that Contradictory levels of meaning and use in design involve the paradoxical contrast implied by the conjunctive “yet” (Venturi 1966, 23). The west façade of Hotel Vancouver is symmetrical yet asymmetrical; the semi-circular stepped seating of Vancouver Public Library at its south plaza is an extension of the building yet part of the sidewalk; in the same building the glass-roofed concourse is an extension of the library yet a public walkway with shop fronts and “outdoor” cafés; an urban street is a directional
space as a route yet a static space as a place. Following the same line of thought, Venturi declares preferring “both-and” to “either-or,” black and white and sometimes gray, to black or white (1966, 16). Cleanth Brooks talking about art refers to the phenomenon of “having it both ways.” But, he says “most of us in this latter days, cannot. We are disciplined in the tradition “either-or,” and lack the mentality or the attitude “which would allow us to indulge in the finer distinctions and the more subtle reservations permitted by the tradition of both-and.” (quoted in Venturi 1966, 21). Gordon Cullen also uses the metaphor of “black and white” to point out the conflict of the rigidly thought urban environments with the flowing processes of city life. “In a world of black and white,” he writes, “the roads are for movement and buildings for social and business purposes. Yet since most people do just what suits them, we find that the out-of-doors is colonized for social and business purposes” (Cullen 1961, 21).

Contradiction and ambiguity are the bases of the aesthetic perception. Yet recognition of those qualities in design should not be understood as a suggestion to consider the city or its valuable core as a piece of art. Venturi mentioned that the architecture of complexity and contradiction does not mean picturesqueness or subjective expressionism. He denounced the formalism and artificial complexity of postmodern designs as much as he objected the puritanical simplicity of modernism. “Simplified or superficially complex forms will not work. Instead, the variety inherent in the ambiguity of visual perception must once more be acknowledged and exploited” (Venturi 1966, 19).

Among contemporary scholars Loukaitou-Sideris is particularly outstanding for recognizing the validity of the controversial and “non-complete” as qualities of meaningful urban space. She mentions that a meaningful space arises from conflicts over use where the stakeholders-users participate in the process of design to come up with a synthesis of antithetical interests. She continues:

“A meaningful space is culturally bounded; it is informed by the past—the history of its physical and social context—but is determined by the present—the contemporary needs and values. A meaningful space is never completely built, but can be changed, adapted, reused and reconfigured by its users. Finally, a meaningful space incorporates links and connections to other spaces, neighbourhoods, districts” (Loukaitou-Sideris 1996, 102).

Loukaitou-Sideris and Banerjee believe that the poetics of urban space can be seen basically as rhetorical attempts to mediate between dialectical aspects of urban space. One such dialectic, and perhaps the central theme of contemporary downtown urban design, is “the tension between the private realm of corporate ownership and the
public domain." Yet, there are parallel dialectics as "subtexts of this main theme: they are the tensions between outside and inside; alienation and identity; exclusion and inclusion; change and continuity" (Loukaitou-Sideris and Banerjee 1998, 231).

In conclusion, what this chapter has been trying to achieve is calling for a reorientation in our mind-set. We need to liberate ourselves from the grip of looking into the social phenomena through the Cartesian lens of a science-obsessed mind; from seeing the phenomena of social life and social space as a digitized picture broken down into black and white squares, into 0s and 1s, into yes and no, into right and wrong...

This is not to compromise the scientific approach but to enrich it;

This is not to abandon order, but to allow, or even bring in a degree of chaos, in a controlled and caring way;

This is not about denying the boundaries between things (spaces, territories, modes, concepts, etc), but to enrich human experience by acknowledging and celebrating the overlaps, the thresholds, the zones of sharing which interlock things and make them complementary wholes;

This does not imply negating law, order and hierarchy, but to let in some degree of casualty and spontaneity in a civilized manner;

This is to let some messiness of daily life in the frame of the tightly set social order and urban space;

This is about thinking of planning and design in a more natural and organic way without compromising the integrity of the systematic approach.
Chapter Three

Analysis and Evaluation of Two Public Spaces in Downtown Vancouver
"... In planning in general, there has been no systematic effort to find out what has been working and what has not been. Nor is there training for it in most schools of planning and design. It is odd that this should be so. Planning literature is so full of such terms as “evaluation,” “monitoring,” and “feedback” that one might assume they were imbedded in standard operating procedure. They are not.... You can read through all of the table of organization, zoning texts, and comprehensive plans without finding a provision or a budget line for so much as one person to go out onto the street and look” (Whyte 1988, 253).

Chapters one and two of this study were dedicated to the substantive examination of the downtown public space from a broad perspective. This chapter will focus on a particular type of the downtown public space—the urban open space, in a particular context—downtown Vancouver. The purpose is to suggest a normative framework that can be used for guiding the process of design and for evaluation of the existing designs—on the drawing board or on the ground.

This chapter consists of three sections and a conclusion. The first section is about developing the set of evaluation criteria. In the second and third sections the proposed criteria is utilized for evaluation of two open spaces—the Art Gallery Plaza and The Robson Square—in the central area of downtown Vancouver.
Plaza Evaluation Criteria

This study considers three broad categories of factors—contextual, functional, and physical (as related to form and design)—as being decisive in the assessment of public spaces in terms of their functional and aesthetic value and the intensity and quality of their use.

In this section factors pertinent to these three categories will be briefly discussed and, at the end, a checklist of those factors will be provided. This checklist will be used as the outline of analysis for assessment of two public spaces in the core area of downtown Vancouver.

1- Contextual Factors

This group of constituents includes location, density, land use and other zoning regulations in the area, and the historical background (socio-cultural and physical) of the place. These are, obviously, postulates of design that should be considered as 'givens.' These parameters outline a framework for the design, and determine the possible forms and the potential uses of each open space as related to its context. Then, allure of each plaza would depend on how carefully and sensitively the design has been responsive to these contextual imperatives.

1-1- Location

Although, good design and skilful landscaping and detailing are essential factors in attractiveness of plazas, it is primarily the location which is influential in the intensity and quality of plazas' use. The imperatives of location are usually out of the designer's control and manipulation. However, sensibly taking into account the social and physical aspects of the location is truly influential in achieving an appealing design.

1-2- Zoning (Density – Land Use)

Plazas would be used more intensively in the areas with a greater density of people and buildings, diversity of activities and ample foot traffic. Zonings in downtown areas usually create such a context. Density is particularly important since it assures presence of more people around to use the plaza.

A study of the effect of context on the use of five downtown Minneapolis plazas found that the most frequently used plaza was in the area of greatest land use diversity, where office and retail districts overlapped (Chidister 1986).

Pedestrian traffic is also a crucial factor. This can be noted in the Eaton's Plaza in downtown Vancouver. Located at the busy Georgia and Granville intersection with several bus stops and skytrain station
close by, which generate considerable pedestrian traffic, this plaza is more intensely used than nearby Queen Elizabeth Theatre Plaza with ample sunlight but with limited pedestrian presence.

According to Cooper Marcus and Francis (1998, 23), within downtown areas, the best locations are those that attract a variety of users, i.e., workers, tourists, shoppers, nearby residents, transit commuters, etc. This variety in turn draws a diversity of vendors, entertainers, artisans, teens, lingerers and so on.

1-3- The Legacy of the Place

Each piece of the city’s land possesses a status, due to its physical surroundings and the memories and events associated with the location. Status can also be partially interpreted as the esteem, or character, or the memory of the place. Status of a place is a trait that can be changed or manipulated to a lesser extent than its other attributes. Status is some sort of cultural identity, which is both an outcome of the past and the account (both in positive and negative sense) that the place would hold due to its vicinity. The places in an area, depending on their design quality and functional role at present and in the past, may exalt or degrade the status of their locality.

As an example, the Art Gallery Plaza in Downtown Vancouver holds an eminent architectural and historical value reinforced by the gallery’s function at present, and affiliation of the place to the prestigious Robson Square complex as a significant architectural and landscaping compound and a reputable design achievement of the twentieth century.

Design must be sensitive to the cultural context of the area, and should seek to enhance the quality of its surrounding environment. It is also necessary to examine whether or not a design has been capable of accomplishing this aspect.

2- Factors of Function

Plaza as a space should be analysed both by its physical characteristics and its prescribed and actual uses. Form and function are correlated so that one affects the other. How people would use a space depends on how inviting its formal and visual characteristics are, i.e. its form, scale, detailing and setting of components, material, texture, colours, and so on. These in turn would enhance (or prevent) activities and patterns of circulation in the site. In this dynamic relationship between form and function, features of form once set through the design, appear to be relatively fixed and unchanging, whereas uses and activities seem to be flexible, flowing within the space, thereby animating it, and changing with time and season. Modes of use are also affected by users’ perception of space. This study believes that
both of these aspects—functional and physical characteristics of the space—is essential for evaluating as well as designing plazas.

Plaza as a Place of Activities

Basic Modes of Activities
(What People Do in Urban Spaces)

Three basic modes of activities—Sitting, Standing, Walking—can be identified as primary behaviours within public spaces.

Other activities such as watching, reading, talking, meeting, etc, can be performed through one or several of these three basic modes. When designing plazas it is useful to determine what activities under which basic modes are expected or preferred to happen. This would be helpful for “programming” the space, and for creating a structured space with some degree of clarity of the purpose and character. Preparing a scenario of activities will be also useful in determining zones of them and controlling potential conflicts between them.

The table on the next page depicts different kinds of activities that are likely to take place in public open spaces such as plazas. Those include most activities that may occur within plazas. The table can be used as a checklist for design and evaluation.

Unfortunately, in some cases the building management authorities have an obsessive fear of “undesirable users”, which is a cause of poor accommodation in plazas (Whyte 1980, 60-66).

Mutually Enhancing Effect of Activities

Access to and views of an active public sidewalk is suggested to be one of the three principal requirements of plaza design. The other one is mentioned as “activities that attract people and encourage people-watching”, known as “triangulation effect”—activities that are interesting to be watched/ people watching activities/ people watching people (Whyte 1980, 94-101).
Common uses of plazas as matching to the three basic modes of activities.

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<tr>
<th>Activities</th>
<th>Eating</th>
<th>Reading</th>
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<th>Watching</th>
<th>Meeting</th>
<th>Listening</th>
<th>Smoking</th>
<th>Being Entertained</th>
<th>Talking</th>
<th>Viewing</th>
<th>Day-Dreaming</th>
<th>Napping</th>
<th>Leaning</th>
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Means to Enhance Plazas’ Use

2-1- Seating

Adequate seating is known as one of the principal factors which enhance plaza’s use. Sitting as the basic mode of many other activities (relaxing, reading, sun-bathing, eating, talking, etc) needs physical accommodation. These, conventionally, can be benches, stools, chairs and the like. Though, row upon row of benches can seem obnoxious and especially intimidating when only a few people are

(Cooper Marcus and Francis 1998, 42)
present. In this respect a plaza might offer a plenty of informal seating—so-called secondary seating—like mounds of grass, steps with a view, seating-level dividing and retaining walls. These can be designed as attractive features and need not look lonely when devoid of people.

It is important to provide a variety of seating choices, e.g., single, couple, group, backed, back-less, sheltered, wide, narrow, high, low, wooden, stone, etc.

One study suggests one linear foot of seating for each thirty square feet of plaza space (Whyte 1974). The San Francisco Downtown Plan (1985) requires one linear foot of seating for each linear foot of plaza perimeter. These standards provide an idea about adequate seating. However, the optimum amount would highly depend on the location and the predominant character of each plaza.

2-2- Food Services / Vendors

"If you want to seed a place with activity, put out food. In New York, at every plaza or set of steps with a lively social life, you will almost invariably find a food vendor at the corner and a knot of people around him—eating, shmoozing, or just standing.... Food attracts people who attract more people" (Whyte 1980, 50).

Food and beverage services, when located in or adjacent to open spaces, noticeably help to attract people to the place. Unfortunately, seeing vendors as bothering elements in the city scene has been the prevalent view of some of the building management authorities and shopkeepers. However, since the publication of the findings of William Whyte there has been a remarkable reversal of this attitude in many downtown areas. Cooper Marcus and Francis (1998, 51) indicate that one way to increase the liveliness and activity (and hence leave little room for “undesirables” or potential vandals) is to provide a food kiosk or be tolerant of pushcart food vendors. Merchants, also, began to realize that vending certain types of goods in particular locations can increase the popularity of retail areas, enliven the environment of a plaza or a sidewalk, and provide security.
2-3- Programmed Activities

Urban plazas can be the place for a variety of programs. Some examples might be given as, concerts, exhibitions, open space markets, ceremonial events, and so forth. These types of activities usually are exclusively determined and specifically designated to a particular place. But they are not common and usually are not decided during the design. However, when an event, usually as an occasion on a regular basis, is assigned to a place, those both acquire a reputation for this match, which can also significantly enhance the prestige and the esteem of the location.

A more common, and easier to manage, form of these activities are street performers and artists who could be auditioned and licensed to entertain passersby in major city squares, metro terminals and street malls.

2-4- Views

A good view is a definite asset of a plaza. In a study of Vancouver (Joardar and Neill 1978), waterfront plazas with views of distant mountains and marine activities were rated as more pleasant than were most other spaces. Direction of the pleasant views from the plaza location should be studied and taken into account during all design stages.

Trees planted in a wrong position can block a good view. Height of planters and parapets in the direction of a view should be carefully decided not to obstruct the sight of the plaza users at the seating position neither to block the view of the passersby into the plaza stage.

In many cases, when there is no attractive remote scene, nearby views are more important. For example, the street scene can be an interesting view from a slightly elevated place (like the view of Robson Street from the Art Gallery annex front stairway).

Inside views are also crucial. People should be able to feel plaza's spaciousness. Therefore, providing a mass of trees, high planters and pieces of public art in the middle of the space should be carefully studied to not jeopardize the effect of the spaciousness or to block street views.

2-5- Microclimatic Concerns

Climatic convenience is a prerequisite of plaza's ample use. Every plaza designed for stationary use (standing, sitting) should have as much area as possible falling within the comfort zone. Under this category three major microclimatic concerns—sun exposure, rain protection and wind protection—are discussed. Glare and temperature are two other, though less important, factors.
**Sun Exposure**

In the area of this study (Vancouver region) sun exposure seems to be the primary climatic parameter impacting a plaza’s use. A plaza should be located on the site so as to receive as much sunlight as its surrounding would permit. The seasonal movement of the sun and the existing and proposed buildings all must be taken into account so that the plaza would receive the maximum amount of winter sunlight. A study of eight urban plazas in San Francisco indicated the sun access to be the most common concern (25 percent) on using plazas (Lieberman quoted in Cooper Marcus and Francis 1998, 32).

The recent San Francisco plaza guidelines not only urge noon hour sun access but advise designers to consider using “borrowed” sunlight, reflected off nearby steel, glass, or marble buildings, to brighten and warm a plaza space that has little direct sun exposure.

The most desirable sun exposure is southern, then are east and west. The critical day is the solstice, December 21, when the sun reaches not more than 17° above the horizon (at noon in the Vancouver region). One study (Jamieson, 1996) suggests the equinox (March 21 and September 21) between 10 a.m. and 2 p.m. to determine sun on sidewalks and plazas. The critical angle is 34° (azimuth 37.4°).

**Rain protection**

Since in our study area excessive rainy days does not allow the convenient use of outdoor spaces in all seasons, some rain protected locations in plazas would greatly help them not to be laid vacant and dead during those periods. This is particularly important in the cases where the plaza is designated for a particular use, e.g. street café, watching a scenic view and so on. Examples of this type of protection can be provided as:

- Overhang/ Upper floor projection;
- Colonnade/ Arcade/ Galleria;
- Porch/ Veranda;
- Covered passage/ Corridor;
- Pavilion/ Gazebo;
- Tent-like seasonal shelter (made of clear or colour plastic material);
- Umbrellas.
The other alternative, though more expensive and less flexible, would be providing indoor public spaces such as an atrium, foyer or a glass covered courtyard. Two interesting examples of this solution in the central area of downtown Vancouver are Pacific Center glass domed entry and Vancouver Public Library concourse.

**Wind Protection**

Excessive windiness is an aggravation to the plaza users. When clothing or hair is disarrayed, reading material at risk of blowing away, or food-wrappers need to be held down, the enjoyment of an outdoor experience is considerably compromised.

Locating seating places and zones of activity in less exposed and relatively protected spots and use of tree and hedge planting as wind-breakers are common solutions to mitigate the wind effect.

**2-6- Safety Concerns**

Visibility and presence of people are two important factors that increase the safety of plazas. In this study both of these issues are discussed under several titles such as density of people, change of level, views and planting. Here it is worth emphasising that plazas that are designed considerably below or above the street level hardly feel safe. However at dark hours when visibility is reduced sufficient lighting ought to be provided regardless of a plaza’s relation to the street.

Lighting is perhaps one of the most neglected features of plaza design. It not only increases the safety of the place at dark hours, but also extends the time of the plaza’s use and allows people to enjoy outdoor life after work. It also helps the business of street shops, particularly food places, by keeping people in the street during evening hours.

**3- Factors of Form and Design**

**3-1- Site Planning**

*Plaza’s Location on the Block*

Location of a plaza on the block influences the type of space it will become:

- A corner location where two streets meet will make the plaza an active meeting place, a place to pass through, and a place to watch passersby (sidewalk walkers as well as plaza users). It will have the highest use potential if it receives lunchtime sun.

- A high elevated or deeply recessed plaza, especially when out of sight from the sidewalk, (e.g. White Spot’s recessed entry court or sunken plaza at the CBC site in downtown Vancouver) will
neither present itself to draw people in nor encourage them to pass through.

- A mid-block location where the plaza extends right through the block will generate passing through traffic and may also become an oasis space or quiet sitting area, depending on its size, design and ground level relation with adjacent buildings.

- A mid-block location where the plaza does not extend through the block but forms a cul-de-sac may result in a verdant, human-scale oasis or a cold entry slot, depending on orientation, the ratio of width to depth and height, and other architectural traits of the space.

- A widened sidewalk forming a partial setback for a building, circulation and sitting space can be a highly successful people place or a problematic one, depending on design details. A basic conflict in this form is between inviting passersby in (therefore keeping the plaza open to access at many points) and creating an oasis space to encourage sitting.

**Plaza's Position on the Site**

Cooper Marcus and Francis (1998, 23-24) provide a checklist of the influential factors when deciding on the location of the plaza within the site:

- Sunlight analysis within the site;
- View analysis from inside out (both near and far views);
- Visibility of plaza from surrounding streets;
- Edges exposed to busier sidewalks in the surrounding streets;
- Circulation patterns within the site, e.g., parking entries, sidewalk entries and building's other ground-level establishments, thorough paths, shortcuts, etc.

**Plaza as a Distinctive Architectural Entity**

The form of the built environment not only is determined by the buildings, but also by the spaces between them. The urban landscape is mostly remembered and identified by its open spaces. Those spaces, physically and psychologically, serve as anchor for their surrounding area. Within the urban setting, open spaces are dependent upon the built environment to frame, enclose, and define them. This delicate relationship is characteristic of a quality urban environment (San Francisco Downtown Plan 1985).

**3-2- Size/ Scale**

It is difficult to make recommendations regarding the size, as every location and context is different. However, Kevin Lynch (1971) suggested that dimensions of 40 feet appear intimate in scale; up to 80 feet is still a pleasant human scale; and that most of the successful
enclosed squares of the past have not exceeded 450 feet in the smaller dimension (quoted in Cooper Marcus and Francis 1998, 25). Gehl (1987, 67) proposed a maximum dimension of 70 to 100 meters (230 to 330 feet), as this is the maximum distance for being able to see events. This might be combined with the maximum distance for seeing facial expressions, i.e. 20 to 25 meters, or 65 to 80 feet.

3-3- Distinctive Shape (Overall Geometry)

An open space with a simple geometrical shape (triangular, square, round, oval, polygonal, etc) can create a distinctive place. Symmetry combines the feature of an axis with a distinctive shape. Symmetrical design and use of visual axis was more common in the past to define designed open spaces.

3-4- Plaza as a Compound of Subspaces

Large open spaces devoid of planting, furnishing, or people seem barren and inhuman by sight and scale and intimidating to most people. In such a space people tend to quickly pass through or stick to the sides. Moreover, a large open space, since it is not broken down to smaller pockets, would seem boring and ‘obvious’ as negatively commented by plaza users in Vancouver (Joarder and Neill 1978). Such a space would be incapable of providing opportunity for several uses and therefore, most likely, would remain underused most of the time. Consequently, with the exception of plazas specially designed for large public gatherings, markets and rallies, large plazas are better to be designed as an aggregate of subspaces to encourage their use.

In this case, as well, subspaces should not be achieved by physical boundaries, but through defining them clearly, though subtly, by the

Cooper Marcus and Francis 1998, 36
means of form, so that a person may not feel segregated from the rest of the plaza’s space. The size of the subspaces, must not be so small that a person would feel entering a private room and intruding on the privacy of someone who may already be there. Nor should it be so large that one might feel intimidated or alienated sitting there alone or with a few others present.

3-5- Edging/ Enclosing

Providing a sense of distinctness is a crucial factor in differentiating and defining a plaza or a portion of it out of its surrounding open space. This might be achieved through edging the desired space by some physical medium such as planters, trees, steps, benches, change of pavement, etc).

A plaza must be perceived as a place by itself and distinctive from the sidewalk realm, yet not segregated from it. A minor barrier can considerably reduce the number of passersby who enter and use a plaza (Pushkarev and Zupan 1975). In other words, a plaza to become a place, should be defined together with, and not limited or isolated from, its surrounding space. It should be shared with the street and differentiated from that at the same time. It is the subtle balance between these dual meanings—being shared with and yet distinctively differentiated from the surrounding urban space—which makes a plaza an interesting place. Therefore, the transition from one space to another—the ‘edge’ between sidewalk and plaza—is one of the most important aspects of plaza design, since if not fully accomplished the plaza would fail in drawing people in.

Edging should not block the view and be such a physical barrier to obstruct foot access all along the edge. It is preferred that it be rendered in part and not all through the border, since this might cause a plaza’s isolation from the street, unless such a pronounced distinction is deliberately intended to provide privacy and seclusion—for example in the case of an outdoor restaurant in an excessively crowded sidewalk.

People commonly tend to sit on the edges of spaces rather than in the middle. Therefore, the edges or boundaries of a plaza are more appropriate to be planned for seating and viewing. A straight edge accommodates fewer users than does an edge that has many ins and outs.

Some writers comment that street plazas generally have no boundary of any sort. Street plazas—barely distinct from the adjacent sidewalk—are popular because they provide easy access, a passing parade of people to watch, and a sense of surveillance and security (Cooper Marcus and Francis 1998, 34-35).
3-6- Level Changes

A plazascape that includes some changes in level is preferable aesthetically to one that is absolutely flat, since it is more perceptible as a distinctive space and also more visually engaging. Advantages of level changes can be mentioned as follows:

- Breaking down the inhuman scale of a large space;
- Easily providing edges for seating or stages and terraces for activities, performances or speeches;
- Providing some high-level vantage-points that are generally preferred for watching people and activities in a low-level arena.

Interestingly, Cullen suggested that height in the townscape equals privilege; depth equals intimacy; and, depending on one's psychological need, a plaza incorporating level changes provides locales for both these moods (Cullen 1961, 175-7).

The level of the plaza should not be excessively different from the sidewalk, and particularly not too high or too low to be invisible. Plazas that are out of sidewalkers' sight are most likely to stay vacant and under-used. In the San Francisco Downtown Plan (1985, 57) it is commented that "plazas and parks more than three feet above or below grade are less inviting, and as a result, are less frequently used."

If a plaza has to be designed below grade, an eye-catching feature may draw people in; the farther down the plaza is, the stronger the draw has to be. Yet, level changes within the plaza itself should be more moderate to avoid sense of isolation between subspaces.

The use of differing levels must be handled with care so that disabled users are not precluded from access to any of the spaces.

Since a single step might be invisible and hazardous, there should be at least two steps between adjacent level changes. Minor level changes should be accommodated by a slope or ramp.
3-7- Circulation patterns

The principal use of many plazas is by pedestrians entering and leaving nearby buildings (Cooper Marcus and Francis 1998, 37). People tend to take the shortest and straightest route between the sidewalk (bus stop, car drop-off, intersection) and the nearest building entry. A basic decision in plaza design is, thus, predicting the routes by which people will flow in and out of building entrances, thereby ensuring an unimpeded path for their movement.

Moreover, most plazas must be able to accommodate three other forms of circulation:

1. Passing through: people using the plaza as a shortcut or a pleasant walking-through space.

2. Access to a café, bank, or other retail use peripheral to the plaza.

3. Access to seating or viewing areas: people entering the plaza in order to sit in the sun, eat a bag lunch, view an exhibit, or listen to a concert.

If the intention is to guide pedestrians in a certain direction, this message must be clearly conveyed in physical form through the location of walls, planters, bollards, or change of level and pavement texture.

Cooper Marcus and Francis (1998, 38) suggest that ramps must be parallel—or provided in conjunction—with stairs where changes of level occur. The whole plaza must be equally accessible to disabled persons, the elderly, parents with strollers, and vendors with display carts.

Different treatments of the walkways' edges (Cooper Marcus and Francis 1998, 40).
3-8- Axis/ Walkway

Axis within an open space is an effect perceived as a prominent direction and is strongly associated with a sense of movement (walking) along that direction. Therefore, a walkway may produce the effect of axis and vice versa. However, the strongest effect of axis can be achieved along a straight line, and it is similar to walking from point A to B, which tends to be straight. The more bending and meandering the walkway, the less obvious would be the effect of axis.

A walkway is often visualised and emphasised by other means of design such as edging, sheltering, distinctive paving, and so forth. It can also serve by itself as an edge for a subspace or for the whole plaza.

3-9- Sheltering

Most of the plaza’s space is uncovered. However, some sheltering may be arranged to provide weather-protected areas over busy passages (corridor) or in front of the peripheral structures such as retail shops (overhang, colonnade, arcade, awning), food/ coffee/ snack places (pergola, umbrellas) or building entries (porch, veranda).

Since sheltering features are generally higher than eye-level, using them in the middle of the space (as a pavilion, gazebo, temporal shelter) might rarely be possible and when decided should be designed with utmost caution not to dominate the space and block the views. For this reason sheltering is usually better to be used at the edges and borders.

In addition to protecting from rain or sun, sheltering features may be used to provide a pleasant visual experience of contrast between shade and light.

A tree canopy is a pleasant, versatile and commonly used shelter. A row of trees, especially when doubled, can pleasantly emphasize a circulation path and provide a sense of enclosure and intimacy along a passage.
3-10- Focal Point

A focal point is a visually interesting spot within the space, and is usually located where it can be seen from many sides, which is either in the middle of the space or in a special corner or at the very end of an axis.

Focal point usually conveys a feature that has a special aesthetic value, e.g., public art, sculpture, water-feature, colorful or exotic planting, etc.

Usually there can not be more than one focal point within a plaza or at least within each one of its subspaces. In case of numerous focal points, one of them should stand out (as was common in the pre-modern civic design). With too many focal points there cannot be a point to focus on!

A focal point and the rest of the space work together. So the location of focal point should be aesthetically relevant and meaningful and the rest of the space must be sensitively set to confirm and reinforce its visual and aesthetic effect. When designed properly a focal point will be highly integrated with the space. Otherwise it will stay as an arbitrary object irrelevant to its context.

Some of the best focal points are designed as features which allow people to interact with them: to sit on the edges, to climb on, to play with, etc.

3-11- Distinctive Paving

Since a plaza, as a space, has almost no walls or covering (ceiling), it is mostly defined through the features of its surface. And whereas a larger portion of its surface is hard-covered the texture and colour of its paving material is a significant factor in its definition as a distinct place. This might be more tangible when there is no chance of using other means such as level changes or strong edging. In such a case a change in surface that is readily apparent to the feet and eyes, such as the transition from sidewalk paving to brick, can define a plaza as a place of its own.
3-12- Designated Use/ Furnishing

Open space might gain its definition through its designated uses, which in turn depends on the type and the quality of its furnishing. Physical features invite and encourage people to use the space and, by this, help to define it as a distinctive place. A bench or a low-raised wall can define the space as a seating place; a trash-can with an ashtray might turn a spot into a corner for smokers; a bunch of tables and chairs in front of a coffee shop can define a portion of a plaza as a coffee-break place.

For plazas that are planned to be used for stationary activities, and not just as pedestrian thoroughfares or barren building stage sets, many kinds of sitting, leaning, and resting spots of various shapes and sizes (benches, steps, planting edges, etc) have to be provided.

Physical features within the plaza may be used in many ways that might be different from their initial purpose. Responding to this versatility is one of the most important aspects of designing a plaza's features and furnishings. Versatility of a plaza and its physical components is the quality that makes a plaza an interesting place to watch people and their activity.

There is a large variety of furnishing that is generally used in urban open spaces. Though in each plaza only a few of them can be possibly used. Plaza's furnishing is mostly fixed or heavy enough not to be moved around. Movable features and furniture like tables and chairs or display stands, usually belong to shops and are taken in when they are closed. Vendors' carts are other movable features of plazas.

3-13- Planting

A plaza is not a park! Therefore a planted area is usually less than the hard-paved surface.

In the relatively small area of plazas in most cases it is recommended to have a variety of planting to provide visual complexity.
Planting of any kind (trees, shrub, lawn, flowerbeds) is usually designed in rows and strips, and is used to define the edges, borders and boundaries or emphasize an axis or pathway.

Planting beds should be kept away from actual or potential footpaths and is better to be designed as edging. Planting beds are also better to be slightly elevated or curbed, but fencing is not generally recommended.

Planting in spot (planters, flower pots, etc) should be considered with the purpose of playing a role in its context, e.g. adding contrast or colour to a subspace or highlighting an entrance. Both the planter and the plant should be attractive and well maintained.

Large patches of planting should not occupy sunny areas that are most appropriate to be used for seating and other activities. Even lawn beds that are specially designed for seating seem to be less useable for most of the year, because of climatic conditions in the Vancouver region.

The eventual height of planting should not cut off the view of an activity or performance area.

**Trees**

Trees in plazas are usually used for:

- Defining edges and borders;
- Defining and sheltering paths;
- Screening an undesirable view;
- Breaking down the scale of a wide space or a large mass;
- Providing a wind shield;
- Creating ornamental or sculptural effect at the focal points.

It is usually desirable to use trees:

- From the species that have a distinctively shaped canopy (round, conical, slender, etc);
- Close enough, if they are supposed to screen an undesirable view or to provide a shading canopy.

Trees should not:

- Screen the sunlight into the plaza space, particularly in the cold and rainy seasons. Deciduous species can provide a considerable flexibility in this regard;
- Obstruct desirable views.

**Lawn Areas**

Lawn areas are more desirable to line the edges and borders and to be slightly sloped down towards the lower level. Large lawn spreads are usually unused, poorly maintained and generally unsuccessful in plazas and better to be avoided.
Since people tend to take the shortest way to the principal destinations within the plaza (main entry, popular coffee place, drinking fountain, etc), lawn areas should be carefully designed not to be crossed over by the shortcut paths.

3-14- Building/ Plaza Visual and Functional Connectivity

Building Height

Regarding the proportion between the size of the plaza and height of its building(s), which is designed on the same site or on the adjacent sites, it is not so much the height itself that affects how the plaza space might be felt, but the detailing of the lower portion of the building, where it is seen within an angle slightly above the horizontal eye level (usually two and not more than three storeys). This is indicated as the vertical angle of a comfortable visual field without raising your head.

Building Façade(s)

Modernist design, comparing to the styles of the past, is generally less concerned about the buildings’ external expression at the street level, i.e. how it may contribute to enrich the public space to make it more meaningful and attractive.

Parts of the building’s envelop that are facing to the public space, not only serve physically to regulate the relationship between in and out, but can significantly enhance the visual and functional qualities of the urban space.

A building’s face towards a plaza is a part of a plaza’s visual featuring. Depending on the depth of the plaza and height of the building, a facade’s lower portion is the more important part of it, since it is the portion within the vertical angle of the sight (without raising the head back). As a rule of thumb, the visually optimum height of this lower portion compared to the depth of its fronting open space is between 1:2 and 1:1. This is usually not more than three storeys high.

Following are the points that might help to break down the inhuman scale of a large or high building and make it more attractive, pleasant and interactive from an outsiders’ point of view:

- Designing the base of the building (at grade level) more visually distinct, complex and detailed than the rest of the façade;

- Allowing and promoting outsiders to interact with the building. This implies providing means to let people get close to the building for leaning, sitting, shading, sheltering, etc, or (most actively) for shopping;
- Utilizing distinctive elements such as columns, overhangs, arcades, stepped seating edges, planters, etc, would help to break down the scale, provide rhythm, enhance the visual complexity, provide interesting patterns of shade and light and, if elegantly designed, might have an aesthetic value by themselves;

- Using materials that are warmer in colour and texture; such as brick, unpolished stone, textured cast concrete, etc;

- Avoiding large blank walls, large and continuous glass openings and the like, that are visually inert and unattractive;

- Providing openings that might let outsiders see the inside public space (lobby, atrium);

- Accommodating retail shops, coffee shops and the like, facing out from the building into the plaza (where it is relevant and permissible).

**Entries**

Entry is an urban/architectural element, which should be considered as shared between the plaza and the building. A careful and sensitive design of the entrance(s) as a symbolically expressive element of transition from open/public space into enclosed/private (or semi-private) space of the inside would significantly enhance the quality of both the plaza and the building in terms of their visual and functional qualities.

Treating the entry as a visually distinctive and formally elaborate element is a major concern of both building and plaza design. Formal elaboration might be achieved through different means such as double-heighting, recessing, stepping up, using different materials, distinctive paving, adding some subsidiary elements such as porch, columns, planters, etc.

**3-15- Visual Complexity**

Studies based on surveying users’ opinion to evaluate plazas’ appeal indicate that visual complexity is a key factor in attracting people. Regarding these studies plazas with some degree of visual complexity seem to be more engaging since those provide rich perceptual experience for the users. Plazas that are bare by form, colour and texture and poor by furnishing will seem monotonous, uninviting and boring.

Complexity should be meaningful and ‘managed,’ and a designer should be careful not to lose the wholeness and integrity of a plaza’s setting in favour of the diversity of its components. Complexity should not result in chaotic clutter of elements and furniture.
Plaza Evaluation Criteria Checklist

1- Factors of Context
   1-1- Location
   1-2- Zoning (Density – Land Use)
   1-3- The Legacy of the Place

2- Factors of Function
   2-1- Seating
   2-2- Food Services/ Vendors
   2-3- Programs (Compound Activities)
   2-4- Views
   2-5- Microclimatic Concerns
       Sun Exposure
       Rain protection
       Wind Protection
   2-6- Safety Concerns

3- Factors of Form and Design
   3-1- Site Planning
       Plaza’s Location on the Block
       Plaza’s Position on the Site
   3-2- Size/ Scale
   3-3- Distinctive Shape (Overall Geometry)
   3-4- Plaza as a Compound of Subspaces
   3-5- Edging/ Enclosing
   3-6- Level Changes
   3-7- Circulation patterns
   3-8- Axis/ Walkway
   3-9- Sheltering
   3-10- Focal Point
   3-11- Distinctive Paving
   3-12- Designated Use/ Furnishing
   3-13- Planting
       Trees
       Lawn Areas
   3-14- Building/ Plaza Visual and Functional Relationship
       Building Height
       Building Façade(s)
       Entries
   3-15- Visual Complexity
Art Gallery Plaza Evaluation

1- Contextual Aspects

1-1- Location and Urban Context

The Art Gallery Plaza is located in the heart of downtown Vancouver, in a high density area of offices, shopping centres, banks and hotels. It occupies a highly prestigious spot (historically and culturally) as the Art Gallery forecourt. It can be considered as Vancouver's City Plaza.

The area surrounding the plaza is a DD zone. According to the Downtown Official Development Plan (1997), the density of the buildings in part of this zone, which encompasses the Art Gallery block, is set to 9 FSR\(^1\) with a maximum height limit of 450 feet for the buildings. This is the highest FSR and building height limit in Downtown area.

However, the inappropriate design and landscaping interventions during the past decades have changed the original configurations of the Art Gallery Plaza (formerly known as the Courthouse Public Square) for worse, undermining the aesthetic, contextual and functional value of this prominent public space.

1-2- Typology

Art Gallery Plaza, essentially, is the type of 'grand public space.' It also can be identified as 'the city plaza' type.

Considering its sub-spaces, some other types of public open space can be identified adjacent to this plaza (see the plan on page 127):
1) The “bus-waiting place” (Howe Street sidewalk, subspace ‘c’),
2) The “sun-pocket place” (subspaces ‘b’ and ‘d’).

\(^1\) Floor Space Ratio: the total area of the building floor divided by the lot area.
1-3- Architectural and Heritage Values

This plaza is also a component of the Art Gallery/Robson Square/Court House complex, which in terms of size, quality of design and diversity of functions, is one of the most important urban complexes in the entire area of downtown Vancouver. The three-block area is designated as a CD-1\(^2\) zone.

The Art Gallery buildings (the main building and the annex) and its plaza hold remarkable heritage value. The buildings were erected, originally as the provincial courthouse, in 1907-1911 and were renovated as the Art Gallery in the early 1980s. These qualities make the Art Gallery and its plaza one of Vancouver's tourist attraction spots.

A drinking fountain on the west side of the Art Gallery building (piece 'g', by the Hornby Street sidewalk), built in 1912 as the Memorial to Edward VII, is a charming addendum to the heritage complex. Sometime during the last decades the fountain has been moved from its original location on the main axis of the plaza facing Georgia Street to the present location.

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\(^2\) Comprehensive Development Zone: a type of zoning exclusively defined for a relatively small area, e.g. one or several blocks or portion of a block.
2- Functional Aspects

2-1- Uses / Activities

In spite of its advantageous location and exceptional heritage value the Art Gallery Plaza is underused. The intensity of use highly differs, depending on the season and climatic conditions. Due to the lack of sunlight and wind protection the place is devoid of people in cold season and rainy days. Inappropriate landscaping and particularly the lack of seating is another cause for discouraging use. Its uses are mainly as follows:

- **Regular (daily) Uses and Activities:**
  - Lunch time place;
  - Meeting place;
  - Sun-bathing place;
  - Tourist attraction spot;
  - Short-cut path;
  - Skate-boarding, playing;
  - Parking place for the trailers of the film-making crews.

- **Ceremonial (occasional) Functions and Uses:**
  - Social events (exhibitions, demonstrations);
  - Film making.

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**Art Gallery plaza sub-spaces**

- a- Art Gallery front steps
- b,d- Lawn beds with sun exposure
- c- Bus stop shelter
- e- Short cut crossing path (created by walking)
- f- Fenced tree planted area
- g- Heritage fountain
- h- Central water feature
- i- Main entry path
2-2- Food Services

At the time of the field survey for this study there were no food vendors on this plaza or its adjacent sidewalks.

A good number of snack and fast food places and coffee shops are located in the adjacent streets across from the plaza. These facilities promote the use of the plaza as lunchtime/coffee-break place.

2-3- Sun Exposure/ Rain and Wind Protection

Since the plaza is located at the north side of the Art Gallery building, and surrounded by tall buildings from all other sides, only a small portion of the space ('b' and 'd' lawn areas) get sunlight during afternoon hours. Therefore, despite lack of seating, in sunny days those areas are fairly used.

Other than a partial projection over a small portion of the front steps, there is no rain-sheltered place provided on this plaza.

The flat surface of the plaza and sparse tree planting leaves this place mostly open to sweeping wind. Tall towers on the surrounding streets provide a partial protection from direct blows, but may cause disturbing wind downdrafts.

2-4- Seating

Generally, the plaza considering its size, location, and high potential demand for use, is fairly poor in terms of both primary and secondary seating places.

The Art Gallery front steps (spot 'a'), the only seating space in this plaza, is located at the shaded side of the building. However, a dominant view of the surroundings makes this spot an excellent vantage point and a favourable casual seating spot.

- Primary (conventional) seating: none;
- Secondary (casual) seating:
  - Art Gallery front steps;
  - Lawn areas ‘b’ and ‘d,’ which people use for sun-bathing.

2-5- Views

The high point of the Art Gallery front steps has a great view of the plaza and surrounding streets. However, the most dominant feature of the view from this location is the oddly-shaped central water feature (spot ‘h’) and unattractive planting of the plaza.

Looking from outside the plaza, the unobstructed space provides a good view of the Art Gallery neoclassic façade.

2-6- Visibility

The plaza is quite visible from all surrounding streets. The Art Gallery façade is the prominent feature of the background view.

At night the plaza is partially lit by street lights and the building’s lights casting out from its windows. Two light posts in the plaza space are evidently inadequate and inappropriate to illuminate the plaza space and the building façade.

2-7- Safety

Due to high visibility the plaza does not seem to have safety problems.
3- Aspects of Form and Design

3-1- Shape

The rectangular shape of the plaza makes a symmetrical composition with the façade of the Art Gallery building, which is emphasized by the bordering streets on three other sides of the plaza. The symmetrical geometry of the ensemble is reminiscent of the "formal public space" as it was commonly associated with the design of the government buildings in the pre-modern periods.

3-2- The existing Design Scheme

The three-step recessed entry from Georgia Street with its semi-circular shrubbery (zone 'i'), the central water feature (spot 'h') and the building's front steps (spot 'a') are the elements that are aligned to emphasize the axial effect of the symmetrical arrangement. The rest of the landscaping elements, however, neither contribute to this layout, nor create a different meaningful composition. The result is an inept setting.

The existing design has neither attempted to define the large space of the plaza into smaller subspaces in a meaningful way, nor been able to create an integrated whole. Consequently, the landscaping does not correspond with the heritage and architectural values of the setting.

According to one of the planners in Vancouver City Hall, the plaza's original design was intentionally changed sometime in the past decades to discourage its use for the political gatherings and demonstrations.

3-3- Circulation/ Entries

The plaza's layout of the walkways and hard-paved areas in its present situation has ignored the potential patterns of movement and
circulation created mainly between the intersections at the corners and the building's front steps, which is the most favoured seating spot on the plaza (spot 'a'). The diagonal footpath 'e' through the lawn area (created by people walking over the lawn), is a clear evidence of such negligence.

The main entrance to the Art Gallery building is currently (at the time of this survey) closed. However, since the front steps of the Art Gallery building ('a') is used as the only seating place within the plaza, this spot can be identified as the main destination of users of this space.

Other than the existing north-south entry axis, the two diagonal directions from those steps to the intersections at north-west and north-east corners of the plaza (ignored by the present design) are potentially the most important paths of access to this space.

A part of the space, accessed via Hornby Street, is used as a parking space (for 2-3 cars) limited to the Art Gallery's use or occasionally used by the film making crews to park their trucks. Obviously, cars parked in the middle of the space seriously degrade its visual and functional quality.
3-4- Edges

The plaza, on three sides, shares long edges with the streets. The design, however, has been insensitive to those edges and has failed in treating them to interact with the sidewalks. Most importantly, there is no seating provided along the edges. The part of the edge at the north-west side is a fenced tree planted patch of garden (spot 'f') with inconsistent types of trees. The large lawn area, which occupies the east side of the plaza ('b'), is open to the sidewalk with no special treatment at the edge.

3-5- Shelter

There is no shelter provided in the plaza space or along its edges. A small façade overhang above the building’s front steps is the only sheltered spot across the plaza.

The bus stop at Howe Street sidewalk (spot ‘c’) provides a conventional bus shelter and a bench.

3-6- Pavement

About fifty percent of the plaza’s surface is hard-paved (asphalt and concrete). The existing design has failed to treat the pavement in any sensible way to contribute to the visual quality and to promote the aesthetic value of the plaza space.

3-7- Level Changes

There is only a three-step change of level in the entire area of the plaza (depression from the north and west sidewalk levels). Therefore, the plaza compared to its size is almost flat.

3-8- Planting

The existing planting scheme presents no functional or aesthetic purpose. In fact, its chaotic situation is one of the main reasons for the plaza’s disenchanting appearance. Inconsistent tree species and their irrelevant placement is an apparent feature of the scene.

Two semi-circular shrubbery plantings at the north and west side of the central water feature do not make any contribution to the visual composition of the overall scheme.

Two mature atlas cedar trees symmetrically located in front of the building’s wings are the only impressive features of the plaza’s planting scheme.

3-9- Special Features/ Focal Points

The water feature at the center is the main point of focus in the plaza. However, its design is not conforming to its prominent position. Neither does it match, in terms of shape, size and material,
the heritage building or to the modern sculptural composition which is placed on its center.

The Art Gallery front steps and two lion statues, symmetrically placed on its sides, along with the two atlas cedar trees are graceful sights from the surrounding streets. The building's front steps are also an excellent sitting spot with the dominant view of the streets.

The heritage drinking fountain at the west side of the building (by the Hornby Street sidewalk) is a humble, yet handsome, architectural feature. However, by its location, it is separated from the main space of the plaza. Ineptly, there is no seating provided at this spot to let people enjoy the serenity of this oasis in the middle of the busy downtown. Two decorative trees on both sides of the fountain just complement the tranquility of the place.

3-10- Furniture

No furniture is provided on the plaza space. Lack of seating at the edges is particularly evident. Two light posts, a number of flag poles, some fencing around planted areas, and railing (along the wheelchair access ramp) are provided. The high portico on the Art Gallery façade is used for hanging billboards.
# Summary of the Art Gallery Plaza Evaluation

<table>
<thead>
<tr>
<th>Name/ Address</th>
<th>Art Gallery Plaza (on Georgia Street, between Hornby and Howe streets)</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typology</strong></td>
<td>Grand Public Space. - City Plaza.</td>
<td></td>
</tr>
</tbody>
</table>

## Factors of Context

<table>
<thead>
<tr>
<th>Location</th>
<th>Heart of the Downtown – Bearing symbolic value</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoning</td>
<td>Very high density area – Commercial, Institutional, Hotel Land use</td>
<td></td>
</tr>
<tr>
<td>Legacy</td>
<td>High heritage value – Formerly the place of law courts and currently part of the prestigious Robson Square Complex.</td>
<td></td>
</tr>
</tbody>
</table>

## Factors of Function

<table>
<thead>
<tr>
<th>Seating</th>
<th>No designated seating provided – only secondary seating on the Art Gallery Building front steps.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Services</td>
<td>No food services on the site (or on the sidewalks around the site) Several coffee shops and food places in the vicinity.</td>
<td></td>
</tr>
<tr>
<td>Programming</td>
<td>No regular programming associated with the place – The plaza is occasionally used for public demonstrations, festivals and exhibitions (art exhibition, jazz festival) – Using the site as parking space (mostly for film making crew) degrades the space.</td>
<td></td>
</tr>
<tr>
<td>Views</td>
<td>Good view of the surrounding streets (particularly from the elevated position of the Art Gallery front steps – The potential, though, is not developed by design.</td>
<td></td>
</tr>
<tr>
<td>Sun Exposure – Rain/ Wind Protection</td>
<td>Partial sun exposure (see the photo map) – No rain protection – Relative wind protection by surrounding tall buildings, though wind downdraft might be a concern.</td>
<td></td>
</tr>
<tr>
<td>Safety</td>
<td>Excellent daytime visibility – Only two inappropriate lamp posts at the center – the space is partially illuminated by street light and by the building's light casting out from windows.</td>
<td></td>
</tr>
</tbody>
</table>

## Factors of Form and Design

<table>
<thead>
<tr>
<th>Site Planning</th>
<th>The plaza is located pertinent to the block, the building, and the surrounding streets – By initial neo-classic design the plaza functions as forecourt to the public building.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Size/ Shape</td>
<td>The size of the plaza seems fitting to its context – The shape is a rectangle, perfectly legible from every side – Building towers across from the surrounding streets provide sense of enclosure – the width to height ratio is not so small to feel the space being choked among the tall buildings.</td>
<td></td>
</tr>
<tr>
<td>Subspaces</td>
<td>No design provisions to define the space into meaningful and useable subspaces.</td>
<td></td>
</tr>
<tr>
<td>Edging/ Enclosing</td>
<td>The plaza edges with the sidewalks are unrelated – The sidewalks do not visually or functionally interact with the plaza space.</td>
<td></td>
</tr>
<tr>
<td>Level Changes</td>
<td>A minor level change (3 steps) from the sidewalks on north and west sides – The plaza is relatively flat.</td>
<td></td>
</tr>
<tr>
<td>Circulation</td>
<td>The prominent circulation pattern, as implied by the potential entries from the sidewalks and 'walking desire lines', are absolutely ignored as presented in the existing design.</td>
<td></td>
</tr>
<tr>
<td>Axis/ Walkway</td>
<td>No pattern or hierarchy of walkways can be observed – The only visually prominent walkway along the main axis is not adequately defined (reflecting its importance) through the design.</td>
<td></td>
</tr>
<tr>
<td>Sheltering</td>
<td>No rain protected spots are provided.</td>
<td></td>
</tr>
<tr>
<td>Focal Point</td>
<td>The main focal point is the poorly designed water feature in the middle of the plaza – Other eye-catching elements are the architectural features of heritage building.</td>
<td></td>
</tr>
<tr>
<td>Paving</td>
<td>Concrete and asphalt with no design consideration and low quality construction create poor visual effect.</td>
<td></td>
</tr>
<tr>
<td>Designated Use/ Furnishing</td>
<td>Fences around some of the planting beds, railing of the disabled access ramp, two lamp posts and a few flag poles are the only features of the urban furniture – these elements are not integrated with the landscape - space is deficient in regard of the furniture.</td>
<td></td>
</tr>
<tr>
<td>Planting</td>
<td>The planting scheme is inconsistent and haphazard – Two mature atlas cedar trees in front of the building façade are the only significant landscape elements.</td>
<td></td>
</tr>
<tr>
<td>Building/ Plaza Relationship</td>
<td>Building and plaza by their original design are strongly associated – The subsequent changes to the plaza’s design has not enhanced the relationship.</td>
<td></td>
</tr>
<tr>
<td>Visual Complexity</td>
<td>The neo-classic architectural style and rich detailing of the building provides a pleasingly visual effect – The design of the plaza does not contribute to this effect in a meaningful way.</td>
<td></td>
</tr>
</tbody>
</table>
Conclusion

The Art Gallery plaza as Vancouver's historical “City Plaza” at the core of the downtown, holds eminent symbolic and heritage value. It is located in the area of highest density of offices, shopping centers, banks and hotels. It is also a component of the Art Gallery/Robson Square/Court House complex, which in terms of size, quality of design and diversity of functions, is one of the most important urban complexes in the entire area of downtown Vancouver. However, the quality of the plaza’s design and landscaping in its present condition does not conform to its heritage, symbolic and aesthetic values.

By its original design, the Art Gallery plaza is a formal forecourt for its building. The geometrical setting of the plaza and building is reminiscent of the ‘ceremonial space’ in the style of pre-modern urban design. The symmetrical order of the initial design now is only dimly reflected in the alignment of the axial walkway and a water feature at the center of the space. The rest of the landscaping elements neither correspond to this layout, nor present a meaningfully different order.

The layout of the walkways and hard-paved areas in their present condition are inconsistent with the potential patterns of movement and circulation as determined by the position of the peripheral access spots (most importantly, the street intersections), building’s front steps, and zones of activities within the plaza. The edges are ignored, so that there is no visual or functional interaction between the plaza and the sidewalks. Lack of features such as seating, lighting and sensible planting at the edges is particularly evident.

The poor quality of the paving, landscaping and detailing undermine the plaza’s appearance. Also using the plaza for parking negatively affects its visual and functional quality.

The planting scheme presents no functional or aesthetic purpose. In fact, its chaotic combination is one of the main reasons for the plaza’s dull look. Inconsistent tree species and their inappropriate placement is a dominant feature of the scene. Two mature atlant cedar trees in front of the Art Gallery building are the only impressive features of the plaza’s planting scheme.

The central water feature is the plaza’s focal point. However, its awkward design and use of material does not match the heritage building. The building’s front steps and two lion statues are graceful features of the plaza.

Finally, due to the shortcomings of its design and despite its advantageous location and exceptional heritage and symbolic value, the Art Gallery plaza is underused. Limited sun exposure and the lack of wind protection are other reasons for such an unfortunate situation.
Robson Square Evaluation

1- Contextual Aspects

1-1- Location and Urban Context

Robson Square regarding its scale and compound design, and as a constituent of the Art Gallery/Courthouse complex, is a special case of public space in the downtown area.

The whole complex, occupying three complete blocks, was developed in the late 1970s and early 1980s as an integrated project of the public uses with major emphasis on open space and pedestrian amenities. The north block is housing the heritage buildings of the Vancouver Art Gallery, which were originally built as the courthouse in the early twentieth century. The south block is fully designated as the new courthouse building. It is designed as a low-rise glass structure seemingly not to dominate the low- to mid-rise area of its vicinity, the landscaped open space on the middle block and the set of the Art Gallery heritage buildings on the north block.

The middle block was created as a terraced structure—mostly below level—whose entire roof is landscaped. This area of the project is the focal zone of the City Square and a major attraction spot across the downtown core. The block-wide open space, commonly known as Robson Square, spreads over one and a half block of the complex.

In terms of location the relation of Robson Square to Robson Street is particularly important, since part of this street, where it crosses Robson Square, functions as an integrated component of this open space.
1-2- Zoning

The areas at the east and west sides of Robson Square are zoned for a total density of 6 FSR for all permitted uses, except that office and residential uses shall not exceed 5 and 4 FSR. A variety of uses (e.g. office and retail commercial, residential, hotel, light industrial, public and institutional, social, recreational and cultural, parks and open spaces and parking) are allowed (City of Vancouver 1997). Importantly, the official plan has emphasized the continuity of the retail use at street level on Howe and Hornby streets across from the Art Gallery and Robson Square blocks. However, the three blocks of the whole complex is designated as a comprehensive development (CD) zone which excludes its land use and density from the surrounding area. The difference in density provides an advantageous contrast between the Robson Square complex and its urban context. In this sense the one-and-a-half block open space is a desirable haven in the middle of the densely built downtown core.

Also, due to its architectural and functional importance, Robson Square complex is identified as a ‘potential character area’ by the City of Vancouver (City of Vancouver 1998).
Robson Square street level plan and its subspaces

a. Stairways on the south side of the Art Gallery main building
b. Terrace restaurant
c. Sidewalk plaza with benches and trees
d. Ground level plaza with benches
e. Art gallery annex front stairway and the wide sidewalk in its front
f. Sidewalk plaza with benches and trees (chess players spot)
g. Outdoor restaurant at recessed plaza
h. Widened sidewalk where vendors locate
i. Robson Street south sidewalk
j. Sidewalk plaza with benches and trees
k. Sheltered bus stop
l. Planters with seating edges
m. Outdoor restaurant at recessed plaza
n. Concrete stairway with zigzag crossing ramp
o. Roof garden
p. Concrete stairway to recessed plaza
q. Concrete stairway to recessed plaza with zigzag crossing ramp
r. Arcade café
s. Sidewalk café
1-3- Architectural and Heritage Value of the Complex

The Art Gallery/ Robson Square/ Court House complex is a fine achievement of urban design in the downtown core and an internationally recognized architectural and landscaping work of the twentieth century. The complex was designed by Arthur Erickson's architectural firm in the period of the late 1970s and early 1980s. The whole complex is designated as a heritage structure.

1-4- Typology

By its overall scheme Robson Square can be identified as a city square type, whereas such a similarity is only remote. In fact, it would be better understood as a combination of several types of subspaces. The following table presents a summary list of the Robson Square subspaces typology:

<table>
<thead>
<tr>
<th>Plaza Types</th>
<th>Subspaces by code</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Seating Edge</td>
<td>c, f, h, i, j</td>
</tr>
<tr>
<td>The Widened Sidewalk</td>
<td>K</td>
</tr>
<tr>
<td>The Bus Waiting Place</td>
<td>S</td>
</tr>
<tr>
<td>The Arcade Plaza</td>
<td>a, e, p, q</td>
</tr>
<tr>
<td>Sidewalk Café</td>
<td>g, m, b</td>
</tr>
<tr>
<td>Stepped Front Space</td>
<td>o</td>
</tr>
<tr>
<td>The Outdoor Lunch Plaza</td>
<td></td>
</tr>
<tr>
<td>The Garden Oasis</td>
<td></td>
</tr>
</tbody>
</table>

Art Gallery annex façade – Source: Internet

Art Gallery main building south façade with gallery shop and stairway addendum (internet).
2- Functional Aspects

2-1- Uses/Activities

Robson Square is designed as a set of landscaped terraces on top of the below-grade and ground-level structures that house different uses such as tourist information center, convention center, exhibition space, skating rink, a number of provincial institutions, restaurants, and an underground parking space serving the Court House complex.

The landscaped roof-terrace is a multi-facet open space, which is used for many activities such as lingering, sitting, watching, sunbathing, meeting, eating, etc. In a sunny day one would find Robson Square a busy place at lunch break and during the afternoon hours. In pleasant weather on weekends, when the crowd promenade along Robson Street, one would be charmingly surprised by the number of people sitting on the Art Gallery annex front steps (zone 'e'), eating, drinking, talking and watching the street.

Activity is notably intense at the edges of the space, where it meets the sidewalks, while spaces inside the landscape, depending on their remoteness from the street scene, are less frequently used.

Design plays a decisive role in promoting or discouraging use. The Remarkable diversity of activities in the area of the Art Gallery annex front steps and Robson Street sidewalk. (photographed by the author).
intensity and the type of use strongly depend on what have been programmed through the design. For example the use of the recessed plaza below street level is enhanced by the restaurants at that level which serve in the open air of the plaza space.

A number of pushcart vendors locate on Robson Street sidewalks selling hotdogs or ornamental and handcraft objects substantially contribute to the vivid ambiance of the place. Street activities are remarkably diverse. On one day, as observed by this author, those include street artists (e.g. music players), soft ball players, aboriginal handcrafters, skateboarders, and a group doing Tai-Chi in addition to the ordinary users.

Sometimes a place becomes distinctly known for a peculiar activity. In the case of Robson Square it is known for the benches on the north-east corner of Hornby and Robson streets (zone ‘f’) which are a place of congregation for chess players.

The intensity and also the types of uses differ by the time of the day. Towards the evening, when the sun sets, the regular users give place to the young skateboarders and street wanderers, and eventually the bottle collectors begin showing up along with the Art Gallery security patrols.

2-2- Seating

A variety of primary and secondary seating accommodations are provided in the space. However, seating is not evenly distributed. At the north side of Robson Street, clusters of benches in areas ‘c’, ‘d’, and ‘f’, wide stairways (spots ‘a’ and ‘e’) with excellent exposure to
the sunlight and dominant view of the street and the landscape, are extremely popular as casual seating spaces.

Area ‘e’, the front steps of the Art Gallery Annex, is perhaps the most favoured seating spot in the downtown area. These steps function as an ideal place for group or individual sitting and for enjoying sunshine while safely watching the street life on Robson Street and enjoying the view of the terraced landscape across the street.

On the south side of Robson Street, plenty of seating is provided on the roof garden (zone ‘o’) and on the plaza of the upper level waterfall. These areas, however, being considerably elevated from the street level, seem to be intended as refuge spaces.

2-3- Food Services

Robson Square provides several formal and casual catering amenities. Notable are the restaurants on the recessed plaza (zones ‘g’ and ‘m’) and a terrace restaurant in zone ‘b’. Moreover, for most of the day food vending carts reside on the Robson Street sidewalks.

Also several coffee shops and food places are located across from the street. Two of these with a prominent urban appearance are street cafés (zones ‘r’ and ‘s’) on Hornby Street across from the Art Gallery west entrance. The street café ‘r’ is an arcade space, about six to eight feet wide and a few steps elevated from the sidewalk.

2-4- Programmed Activities

Robson Square also hosts a number of occasional, programmed and ceremonial activities. Worth mentioning among these is decoration of Robson Square for Christmas and New Year’s eve and ice skating or public dance gatherings, held once in a while in the skating place on the recessed plaza.
Zone 'e' is occasionally used for political or social demonstrations by special interest groups.

2-5- Views

The vista at east and west directions is limited to the view of the street life and the medium-rise façades along Howe and Hornby streets. However, the best views are along the north-south direction. Recognizing such a potential, the dramatic change of levels has significantly enhanced the feature of view in this direction (see the section on page 146). Looking from the north side of the space...
towards the south the arrangement of the landscape, the fall and rise of the wide concrete stairways, connecting one level to the other, and the cascade of the waterfalls appear as dominant features of the view. The silhouette of slender high-rises renders the backdrop of this scenery.

Moreover, one can enjoy many sights of the architectural features and landscaped spaces from different vantage points. The most prominent of these are spots 'a', 'b', 'e' and 'n'. From other spots such as 'c', 'd', 'f', 'j' and 'i', people may watch other people and activities in the space or on the surrounding streets. Spot 'e' is particularly a preferred place for street watchers.

Many views of the space are available only by walking and exploring the space. In fact, the complexity of the design (change of levels, several focal points, clusters of subspaces, etc) demand the viewer to experience the space by sequences of walking and halting. Cullen (1961, 17) has called such a process of viewing "serial vision" which
develops into a unified image of the whole as the person gradually reconstructs many views of the place by walking through it.

2-6- Sun Exposure/ Rain Protection

Almost the entire space of Robson Square is exposed to the sunlight and, fortunately, the buildings on Howe and Hornby streets across from Robson Square are not too high to shade the landscaped space.

Regarding the ample sun exposure, at summer time during hot afternoon hours the tree canopies at spots ‘c’, ‘f’, ‘j’ and ‘l’ provide pleasant shade on the benches and seating edges. Also outdoor food places (zones ‘b’, ‘g’ and ‘m’) provide tables with shading umbrellas.

Roofed areas are discussed in the Sheltering section (section 3-7).

2-7- Wind Protection

Robson Square is by and large protected from the disturbing effect of strong winds by structures in its surrounding area, while the buildings are not so close or so tall to affect the enclosed open space by wind downdrafts. Moreover, plentiful planting, change of levels, and use of low walls protect the space from being excessively uncomfortable due to the severe winds.

2-8- Safety

Safety by visibility: Robson Square is a large complex place. Therefore, the concern about safety varies in its different zones. The edges of the space which are exposed to the surrounding streets feel highly safe even at late hours, while at the zones with poor visibility (e.g. roof garden—zone ‘o’) one may feel concerned about safety even during the day.

Safety by the presence of people: The presence of people increases the safety of a place. The recessed plaza feels unsafe when the restaurants in there are not operating. For the same reason the roof garden (zone ‘o’) in spite of its ample seating does not feel as safe as the street-level areas, particularly for individuals, to comfortably enjoy the serenity of the place.
Safety at night: The use of the plaza greatly differs by the time. After hours, when businesses and services in the surrounding area and in Robson Square gradually close down the concern about safety significantly increases. Then, only places feel relatively safe that, 1) are adequately illuminated, or, 2) are at the street level and visible from the street, or, 3) are adjacent to the operating businesses or services (e.g. restaurants, hotel entries, etc).

Also, the factor of safety at night highly depends on how well different zones within the space are illuminated and what activities (e.g. restaurants) keep operating. In this regard different types of lighting is provided so that almost no place in Robson Square is left in the dark. Moreover careful design of the lighting is a charming feature of the landscape at night.

3- Aspects of Form and Design

3-1- Shape (Structural Geometry)

Robson Square, in its basic geometry, is a narrow rectangle of open space, about 280 feet wide and 600 feet long, stretched in a north-south direction. On west and east sides it is confined to two relatively narrow streets and continuous building facades along them. This setting provides a sense of enclosure of the open space.

Robson Street crosscuts through the open space. This provides a zone of axial centrality, which is emphasized by the layout of the architectural elements and landscaping.

3-2- Division of Subspaces

Through its longitudinal section the entire open space is designed as
a set of terraces at different levels—below, at-grade and above the grade of the surrounding streets. Higher terraces are located in the north and south ends of the square, while street-level open space and the below-grade plaza are located at the middle, where Robson Street cuts through. By this arrangement, the open space starts, from north to south, with an elevated terrace (zone 'b') at the back of the Art Gallery building, reaching the level of Robson Street which surrounds the recessed plaza, and gradually rises again to the elevated terraces of the roof garden (zone 'o') and other terraces at the south. This setting creates the center—the vicinity of Robson Street—as the activity scene, and the north and south elevated zones as the places of refuge and/or viewing the scenery.

The platforms at different levels are connected by the sets of spectacularly designed stairways and sloped planting beds. The stairs also function as casual seating places.

Each level is designed as a combination of subspaces, each with its own special character, which is carefully accommodated with suitable landscaping and furniture.

Despite the attentive design of each portion of the space some of the subspaces—those strongly connected to the street by access and by view—are more successful in attracting the people.

3-3- Edges

The treatment of edges is one of the strong aspects of Robson Square's design. The edges are designed to interact with their adjacent streets—drawing the passersby and the street activities in and, at the same time, contributing to the street's visual quality.

At the zones 'c', 'f' and 'j' the edges are designed as sidewalk plazas with benches and single or double row of trees.
At zone ‘e’, in front of the Art Gallery Annex stairway, the edge is treated as an informal open space arena—a graded seating with a stage in front—for watching the street life.

The wide sidewalks above the recessed plaza (zone ‘h’) work as a place for food vendors. Here are also four ‘street balconies’—about five steps lower than sidewalk level—wherefrom people can view the recessed plaza.

The sidewalk on Hornby Street, south of the Robson/Hornby intersection, is planted with a double row of deciduous trees. This treatment has turned the long and barren sidewalk (which has only one building entry) into a charming green-roofed corridor with the pleasant rhythm of the tree trunks on both sides.

3-4- Level Changes

As mentioned earlier (in the section 3-2: Division of Subspaces), Robson Square is designed as a set of terraces at different levels. In fact, by placing the elevated zones at both ends, in positions dominant over the center, the design has taken the maximum advantage of level changes to create a desirable view set in a relatively small space. However, considering factors of visibility and accessibility from the street, intensity of use and safety of the place, zones too high or too low from the street level are notably less appealing. As if being aware of such disadvantages, the design has attempted to alleviate the impact of isolation by designating certain uses (e.g. restaurants and public offices at the recessed plaza) or by treating those zones as places of refuge (e.g. the roof garden designed as an oasis and the zone ‘n’, next to the area of the reflection pools and waterfalls, designed as an oasis plaza).
3-5- Access/ Circulation

The main access spots to Robson Square are provided along Robson Street. However, the space can also be accessed from Howe and Hornby streets. This arrangement reinforces the centrality of the Robson Street axis.

The internal circulation is clearly organized to connect the levels in different elevations and to provide access to the building entries.

Some of the access paths are not as clearly visible as others. For example, access to the elevated roof garden (zone 'o') is a narrow meandering path which its entrance from the Robson Street sidewalk, half-hidden among the bushes, is intended to be "discovered" rather than distinctly seen. This is, obviously, an intention of the design to draw a limited number of the pedestrians who are curious enough, through the half-hidden entrance and the narrow pathway into the serene oasis of the elevated garden. However, such an arrangement may appear more intimidating than attractive to most people.

Robson Street as an important traffic corridor is treated fairly for both people and cars, without compromising either of them. This has been achieved through minimizing the width of the motorway and
increasing the sidewalk area. This treatment has alleviated the disturbing effect of the vehicular traffic on the pedestrian atmosphere of the street and the landscaped open space.

3-6- Axes/ Walkways

There is no single axis dominating the entire space. Instead several organizing axes can be identified. The axes are perceived either as an effect of the architectural arrangement or as the direction of the walk-paths through the space or as a combination of both. As determined by the stretched shape of the space, direction of the prominent views, alignment of the heritage façades and the pattern of the level changes, most of the axes in Robson Square are in a north-south direction. Robson Street as the prominent traffic corridor, functions as the only notable axis in a east-west direction.

Fragmented symmetrical axes composed in an asymmetrical scheme have created a sense of balance between the neoclassical style of the old facades and modern style of the landscaping and the newly built structures.

3-7- Sheltering

The middle part of the recessed plaza (the place of the skating rink) is a large roofed space and protected from sun and rain. Plenty of benches (both moveable and fixed) is provided in this space.
An exotic feature of shelter in the recessed plaza is a pair of tinted fiberglass domes—about 45 feet by diameter. This is a creative architectural solution to extend the roofed area of the ice skating rink (close to 170 feet by length) without preventing the daylight to reach deep into the covered space.

At the same plaza level the sides of the space, by the front area of the restaurants, are protected by the continuous overhangs of the same material as the dome covers.

Two staircases from the street to the plaza level are covered with concave shaped gable roofs and with the same material of tinted fiberglass. At the plaza level, four symmetrically located entrances (two of them to the restaurants) are designed with the same architectural motif.

The entry space from Hornby Street is another large roofed space, though almost without seating provision, which mainly functions as a foyer for two building entries (the Motor License Office and the provincial court offices). The foyer also functions as a short cut connection to the open space in the middle block and to Howe Street.

3-8- Focal Points

Focal spots are well distributed across the place. In fact, due to the careful design, most of the architectural and landscaping elements serve as attractive focal points in their own contexts and as matching to their scale.

The following is a list of the most notable focal points in Robson Square:
- Facades of the Art Gallery buildings, particularly the façade and the entry stairway of the annex building facing Robson Street;
- Sets of concrete stairways with zigzag crossing ramps (zones ‘p’, ‘q’ and ‘n’);
- Cascaded waterfalls on the middle block;
- Three pieces of public art: 1) Bird of Spring—bronze statue—zone ‘p’, 2) Spring—manufactured artwork at the entry from Hornby Street, 3) Primary No. 9—manufactured artwork—roof garden (area ‘o’).

3-9- Paving

A uniform and simple paving—concrete in dark colour with grainy texture and a pattern of semi-regular rectangles—is used all over the place. It is well constructed and has stayed in fairly good condition under heavy uses such as skateboarding.

In some special spots (e.g. part of the sidewalk in front of the Art Gallery Annex) a slightly different variation of the same pattern is used to create a visual accentuation.
The wide stairways ('p', 'q', 'n') are made of a lighter color concrete (some sort of dark beige) which has emphasized their appearance as focal points within the landscape. These stairways are artfully detailed and very well constructed.

3-10- Designated Uses/ Furnishing

Subspaces are subtly, but not over-emphatically, accommodated with landscaping and amenities (particularly seating) to encourage some sort of use.

Zones ‘c’, ‘f’, and ‘j’, are designed as well-proportioned sidewalk plazas with single or double row of sheltering trees and a few concrete benches.

Zone ‘o’ is designed as a roof garden with plenty of benches, litter containers and lighting features to be used as an oasis.

Three zones in locations ‘b’, ‘g’ and ‘m’ are designated as outdoor restaurants.

The public telephone is hard to find in Robson Square. Also public washrooms, if there are any, are not signed to be easily found (when I asked one of the street vendors, she directed me to use the washrooms in the Art Gallery building).
3-11- Planting

Planting is carefully arranged and combined with architectural setting and hard paved areas, and thanks to the careful maintenance, it is in good condition all over the place (even in the roof garden where the soil cannot be deep).

The planting scheme, in terms of the plant species and the setting and combination is remarkably diverse. They are designed at ground or above level as planters and flower beds, concrete hexagonal flower pots, strip plant-boxes with hanging plants, sloped plant beds, planted walkways, rows of trees and complete gardens with roof-top.
reflecting pools and waterfalls.

Interestingly, the trees are always designed in rows in north-south direction. Therefore, they never obstruct the view.

Lawn is not provided in the Robson Square landscape.

Lighting projection is provided rightly at the grade level and flashing up from below the plants. Therefore, at night, some of the plants appear as illuminated objects through the dark landscape.

**3-12- Building/ Open Space Relationship**

Buildings directly working with Robson Square are in three groups:

1- Buildings of the Art Gallery;
2- Buildings at the level of the recessed plaza;
3- Buildings accessed from 800 Hornby Street.

Of these, only the first group can be called ‘buildings’ in conventional sense, since only this group of buildings are visibly “standing” on the ground. The other two groups are buried under the surface of the plaza and terrace gardens and have minimum physical appearance at the street level. In fact, by choosing not to erect new structures on the site, the design has truly acknowledged the value of the heritage buildings and the primary function of Robson Square as an eminent open space.

The façades of the Art Gallery buildings, in their neoclassical style, function as backdrops for the scenery and enormously contribute to the aesthetic value of Robson Square. A sensible additions to those buildings and the simple pavement around them have enhanced the impact of their appearance. The addition to the Art Gallery building (on its south side) is a projected volume of a shop, which from outside is mostly buried under a set of wide stairways (‘a’) climbing to a terrace restaurant (‘b’) on top of the shop’s roof.

![Front stairway connecting the building with the sidewalk](City of Vancouver photograph collection)
The stairways on the southern fronts of both of the Art Gallery buildings (the main building and the annex) are the most favoured seating spots in this open space. This should be considered as an additional function of the old buildings which has given them a fresh meaning in the context of contemporary public space. Recognizing the importance of this function, the design has aptly chosen to change the initial purpose of those stairways as the buildings' main entrances. Instead secondary building entrances are currently used.

3-13- Visual Complexity

The rich complexity and diversity of the architectural form in Robson Square and careful landscaping of its spaces was extensively discussed in former sections. Adding to that, it is worth mentioning the fine architectural detailing and craftsmanship construction, which has remarkably enhanced the aesthetic and visual quality of the entire design.
### Summary of the Robson Square Evaluation

#### Factors of Context

<table>
<thead>
<tr>
<th>Name/ Address</th>
<th>Robson Square (on Robson Street, between Hornby and Howe streets).</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typology</td>
<td>Compound Public Space - Part of a three-block complex of law courts, public offices and art gallery.</td>
<td></td>
</tr>
</tbody>
</table>

| Location       | Located at the core area of Downtown with highest volume of pedestrian traffic - Bearing architectural and heritage value. |
| Zoning         | High density (6 FSR) mixed-use area – Retail use at street level. |
| Legacy         | Combination of heritage buildings with contemporary design – A world class design achievement of the 20th century designed by one of the prominent architectural teams of the era – A major tourist attraction. |

#### Factors of Function

| Seating        | Plenty of seating, as benches or as casual seating spots, is provided and well distributed all over the place – Benches on sidewalk plazas and two spots of front steps by art gallery buildings are most favored. |
| Food Services Access | Two restaurants at the recessed plaza and one over the art gallery terrace are formal food places – Casual food can be obtained from vendors on the Robson street – A number of coffee shops, outdoor cafes are located on the surrounding streets. |
| Programming    | Robson Square hosts a number of occasional programmed activities: decoration on New Year’s eve, ice skating and dance ceremonies, occasional demonstrations on Robson Street sidewalk in front of the Art Gallery annex building. |
| Views          | The vista at east and west is the street scene with mid-rise facades in the background – main views of the landscape and skyline downtown skyline is in north-south direction, emphasized by level changes – Robson Street scene is the focus of view at the center. |
| Sun Exposure – Rain/ Wind Protection | The landscape is fully exposed to the sunlight – The tree canopies on the sidewalks provide shade on benches – massive structures around, ample planting, change of levels, and low walls protect the space from strong winds. |
| Safety         | The edges of the space at the street level, with high visibility and presence of the people is pretty safe – Elevated levels on the south side of Robson Street, due to poor visibility do not feel that safe even during the day – Two restaurants at the plaza level help the place to be safe. |

#### Factors of Form and Design

| Site Planning   | The space is designed as a set of platforms in different levels – Higher elevations are located towards north and south – Street level open space and below level plaza are designed around the center. |
| Size/ Shape     | A narrow rectangle, about 85 by 180 meters, laid in north-south direction – This space encloses a recessed plaza by the size of 25 by 100 meters. |
| Subspaces       | The space is divided to several subspaces, each designed as one or a combination of plazas each with its own character – The platforms at different levels are connected by the sets of stairways and sloped planting beds – Subspaces below or above the street level are less successful in attracting the people. |
| Edging/ Enclosing | The diverse design of the edges has made the site interact with its context – Sidewalk plazas are particularly successful – The area of the art gallery annex entry at the edge of Robson Street is a favourite seating spot – Double row of trees on Hornby Street sidewalk shape a green corridor. |
| Level Changes   | By placing the elevated zones at both ends, in positions dominant over the center, the design has taken the maximum advantage of level changes to create a dramatic view set – However, the levels above or below the street level are less successful in attracting people. |
| Circulation     | The main access to Robson Square is through the edges at Robson Street – The internal circulation is clearly organized to connect the levels in different elevations and provide access the to building entries – The access to the roof garden is not clearly visible. |
| Axes/ Walkways  | As influenced by the stretched shape of the space, position of the main access spots and direction of the views, the majority of axes are in north-south direction – Fragmented symmetrical axes composed in an asymmetrical scheme have created balanced relation between old and new structures. |
| Sheltering      | The space of the skating rink and the entry space from Hornby Street are two large sheltered areas. |
| Focal Point     | Focal points are well distributed across the place – Facades of the art gallery buildings, sets of concrete stairways, cascaded waterfalls and three pieces of public art are the prominent focal points. |
| Paving          | A uniform simple concrete paving with semi-regular rectangular pattern is used all over the place – The concrete stairways are in lighter color. They are meticulously detailed and well constructed. |
| Designated Use/ Furnishing | Subspaces are carefully accommodated with landscaping and amenities in accordance with their functional character – Lack of public telephone is evident – Public washrooms are not well signed. |
| Planting        | The planting scheme, in terms of the plant species, layout and combination is remarkably diverse – The tree rows are aligned in north-south direction without obstructing the views – Lawn is not used – Sensible lighting at night. |
| Building/ Plaza Relationship | New structures are buried under the landscape and only the set of the heritage buildings can be seen on the stage. By choosing not to erect competing structures design has truly acknowledged the value of the heritage buildings – Sensible additions to heritage set and simple landscape around them contribute to the landscape’s aesthetic quality. |
| Visual Complexity | Fine detailing and craftsmanship construction has remarkably enhanced the setting’s visual quality. |
Conclusion

Robson Square as the largest piece of public space in the downtown core is a special case of public space. It has heritage, architectural and symbolic values. It is surrounded by the zones of mixed use with medium to high density. Robson Square is a combination of several subspaces that each can be identified as a type of plaza.

Subspaces, regarding their location in the site, relation to each other and to the surrounding streets, and their own architectural and landscaping composition support and encourage certain types of use. Activity is notably intense at the edges of the space, where it meets the sidewalks, whereas spaces inside the landscape, depending on their remoteness from the street scene, are less used. The intensity and also the types of uses differ by the time of the day. Generally Robson Square is mostly used in the period between lunchtime and sunset.

Ample seating, sun exposure, and food services, as three major factors which attract people and make the space active, are provided in and around Robson Square. However, some other factors such as excessive difference of level and poor visibility from the street negatively affect the use of some of the zones.

By its shape, Robson Square is a stretched rectangle, which on its west and east sides is bordered by the continuous building facades on Hornby and Howe streets, whereas Robson Street crosscuts through the space. The Robson Street axis is the area of street activities and un-programmed uses, while the plaza below the street level is designated to certain uses such as restaurants, public offices and a rink for dance and skating. The elevated terraces south to Robson Street are designed as a set of roof gardens with ponds and waterfalls. The design has taken good advantage of level changes to create a desirable view set.

The diverse treatment of the edges makes the site interact with its context—bringing the street's movement and activity into the space and contributing to the street's visual quality.

Elements of landscaping, i.e. walkways and stairways, pavement, sheltering, lighting, water features, elements of public art, and a variety of seating amenities are carefully designed to furnish the plazas and gardens.

Public washrooms are not signed to be easily found. Also a public telephone is a necessity. Providing a public telephone and other amenities such as a convenience kiosk (for selling newspapers, magazines and convenience stuff) in isolated roof gardens might help them to feel safer and to attract more people to use them.
Concluding Review of the Evaluation Methodology

The evaluation criteria, as categorized in three groups of contextual, functional, and design factors, has proven to be an effective tool for assessing the quality of the existing plazas. Each factor addresses one aspect of the complex space. So the whole criteria checklist provides a systematic methodology to examine the space from different angles. However, to use this tool more effectively we need to understand its potentials and limitations.

Breaking down the evaluation process to a set of constituent factors provides an objective basis for analysis and assessment and prevents personal taste and subjective criticism from interfering in the process. It takes the evaluation beyond the circle of personal preferences and allows diagnosis of the reasons a plaza does not function or does not look attractive and what can be done to improve it. Objective analysis also provides a ground for discussing and communicating the quality of design and to build a collective opinion about it. Moreover, it allows non-professionals to better understand the design and to participate in the evaluation and design process.

Some factors, mostly from contextual and functional categories, are out of the designer’s control. Those should be considered as ‘givens’ that design should respond to and take advantage from, but would be less able to control or to change them.

This study found that the assessment results are not transferable to quantitative measures (for example to a grading system). This is for two reasons. First, that design or functional attributes are of a qualitative nature. We may be able to say whether a plaza has good views or not, and to make such a judgement we need to be clear what views are good or poor and why. But it seems absurd to mark each view and add up the marks to get the plaza’s ‘total view mark’. Secondly, the quality of each plaza should be assessed in its own context and plazas in different locations cannot be compared by a ranking system. For these reasons the study chose a simple qualitative measure (satisfactory=⊙, unsatisfactory=⊗ and neutral=⊕) which was used in the evaluation summary tables to provide an overall assessment of the quality of each contextual, functional and design parameter. This method provides a summation of the assessment. However, it has minor value by itself without considering the detailed analysis of the space according to each factor.

For the same reasons mentioned in the former paragraph, the qualitative assessment of the design by various parameters cannot be summed up to obtain an overall result of a plaza’s evaluation—to conclude whether it is absolutely good or not. Each factor of context,
function or form is decisive in its own right and almost independent from other factors. A plaza with many positive points may not attract people due to unfortunate conditions of a very few, but crucial, other factors.

This leads to another point about the relative autonomy and the mutual effect of the various factors. Factors that influence a plaza’s successfulness (if we take the intensity of use as a measure of successfulness) do not weigh the same in comparison to each other. In determining one plaza’s use the views might be less important than, for example, sun exposure. While in another plaza the importance of the views might out-weigh the significance of the other parameters.

The evaluation criteria presented in this study include the factors that are most influential in regard to the quality of the open spaces. But it does not claim to exhaustively cover all such factors (for example, noise as one of the parameters which relates to the comfort of the users or signage as a design consideration). Also items of consideration can be yet more extensively investigated to provide a more elaborate tool of analysis. Such precision can be achieved through research. The more an evaluation system incorporates findings of other studies into its scope, the sharper and more accurate it would become.

Unlike buildings that stand, more or less, independent and distinguishable from each other, plazas are intimately connected to their surrounding open space—sidewalks, streets and the space between buildings. In fact the city’s open space is a network, which is more than the sum of the streets and plazas. The evaluation method used in this study addresses the plazas one by one. But does not see them as components of a larger network. To fully understand the quality of the public space in an area we also need to study it within the structure of its network.
References and Sources of Illustrations


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