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PLANNING AND DESIGN: THE ESSENTIAL RELATIONSHIP

The Role and Purpose of Physical Design in the Planning Profession

by

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A Thesis Submitted to the
Department of Urban and Rural Planning, Faculty of Architecture,
in partial fulfilment of the requirements
for the degree of

MASTER OF URBAN AND RURAL PLANNING

DALHOUSIE UNIVERSITY DALTECH

Halifax, Nova Scotia 1999

Dedication

In loving memory of my grandparents, Ronald and Norine Wright.

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ACKNOWLEDGMENTS

Thank you to everyone who has provided support and assistance through the course of this thesis. Specifically:

Frank Palermo for his guidance, enthusiasm and encouragement;

Grant Wanzel for his fresh perspective and insight; and

Rossalyn Workman and Denise Carbol for their help with editing and organization.

Thank you as well to family and friends who have offered advice and given support through the past several years, in particular:

My sister Karen, for her continued support;

Angela, Connie, Jean and Diego;

Gail and Ken for their generous assistance; and

Brian, most of all.

ABSTRACT

By eliminating the planning profession from physical design, urban policy planners have been placed in a situation where they are required to devise new rules and solutions to urban problems, without being in a position to fully understand the causes, relationships or effects. As a result, a question arises regarding the role of the Planner in the design and evolution of the built environment. It is within the framework of this question that this thesis investigates the physical and theoretical concepts of the planning and design of urban places.

The underlying basis for this investigation is public space and the creation of places, streets and neighbourhoods which are attractive, functional and comfortable. Determining where the attention of the profession stops and where the role of the architect or landscape architect begins, arose early in the intellectual exploration of the question. Recognizing that there is a 'grey area' between planning and the design professions in how the public realm of the street is designed, contributed to the form and focus of the thesis question and overall project goals.

The project is structured into three main parts - Question, Approach and Response - which investigate theoretical perspectives and practical alternatives for understanding the structure and components of the form of an urban street. Applying developed principles and guidelines to a specific location, provided examples of the ways in which the Profession can begin to define and accept a new role in the physical design of the urban landscape.

PROJECT DESCRIPTION

Planners and planning students are often told that the design of the built environment is the realm of architects and landscape architects. This situation is dangerous in its implications for the effectiveness of the Profession. By eliminating the planning profession from the design of the urban fabric, urban policy planners are placed in a situation where they are required to devise new rules and solutions to urban problems, without being in a position to fully understand the causes, relationships and effects of the problems or possible solutions. As a result, a question arises as to the role of the Planner in the design and evolution of the built environment. It is within the framework of this question that this thesis will investigate the physical and theoretical concepts of the planning and design of urban spaces.

The goal of this thesis is to identify an approach to understand the structure and relationships which exist in the urban environment providing an example as to how the Profession can evolve to incorporate physical design. This will be accomplished through a theoretical exploration of recent discussion on the topic and a detailed study of the form and structure of a portion of the urban landscape in Halifax.

The underlying basis for this investigation is public space and the creation of places, streets and neighbourhoods which are attractive, functional and comfortable. Determining where the attention of the profession stops and where the roles of the architect or landscape architect begin, arose early in the intellectual exploration of the question. It was recognized that there is a 'grey' area between planning and the physical design professions as to how the public realm of the street is formed. In doing so, it became necessary to acknowledge that the current envelope of the planning profession is not sufficient to effectively address the structure, evolution or creation of the urban environment. As such, expanding the boundaries by incorporating physical design planning back into the professional culture became one of the primary objectives of the thesis.

FIGURE 1: Community Context Map

The chosen study area is located near the south-eastern end of the Halifax peninsula. Barrington Street runs the length of the peninsula, long holding a place as the most vital and important street in the city. Through the course of several decades, the commercial viability of the street has decreased, as a result of a number of major infrastructure and building projects. As well, historic connections to a number of parts of the city have been damaged or eliminated, contributing to its decline. While much study has occurred on the portion of the street in the downtown core, little has been done to address the conditions of its other parts. Therefore, the southern portion of the street will be investigated through visual documentation, analysis and interpretation of the existing built and unbuilt spaces, leading to a design solution focused on the erosion of the urban form and the design of the public realm. In doing so, an approach that addresses the main thesis goal will be provided as an example of the way(s) in which the Profession can expand.

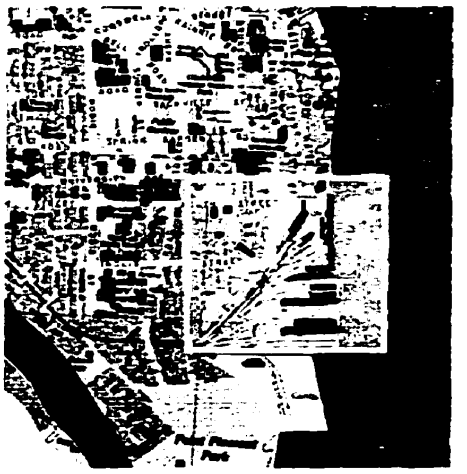


FIGURE 2: Study Area

Approach

The overall approach taken for the thesis is one which is visually oriented, focused on the structure and components of the urban fabric. It is geared toward the first of three objectives, that being the determination and application of a new way of understanding urban spaces and streets.

Centered around the problem of the decay of the urban form along south Barrington Street, the investigation documents and analyses the area using visual and graphic means, drawing from it an interpretation and set of lessons based on its form, not on its zoning or other regulatory controls.

In doing so, the thesis has been organized into three Parts: *Question*, *Approach* and *Response*, which are tied together by three main threads:

- The concepts of space and place - what they are, how they effect us and how we effect them;

- Urban design and its guiding principles, purpose, practitioners, and how it can be strengthened; and

- The culture of the planning profession - what we do and why, and how this culture limits what we do, or think we can do, regarding the management and evolution of urban environments.

Through the investigation and discussion of each, two other objectives will be addressed, those being the 'grey' area that exists between planning and the design professions; and an expansion of the professional envelope by the re-introduction of physical design into the culture of the Profession.

The first Part is concerned with the Question. What is the role of the planner in the design and evolution of the built environment? This is where the three main threads of thought are introduced and briefly discussed. However, at this early stage, the relationships that exist between each and the group are not forced or identified, allowing them to develop and to be investigated within their own right. This Part will also establish the theoretical framework within which the following Part will be completed.

The second Part - the Approach - is where the physical investigation, analysis and interpretation of the street will be accomplished. It will briefly outline a number of methodological approaches for evaluating and analyzing parts of the urban landscape, identifying the chosen method to be utilized.

The formal analysis of south Barrington Street will provide the project with two elements. First, it will display and highlight the various components, relationships and opportunities that exist within the built form and environment of this portion of Barrington Street. Second, it will begin to address the 'grey' area by providing lessons as to the ways in which Planning can fill that gap by taking a more active role in the design of the public realm. It will also help to provide a link between the conceptual and theoretical discussion of the first Part, with the design application and conclusions of the third Part.

The third and final Part - Response - is the where the above noted theoretical and

conceptual threads of thought will be woven together. It includes the identification of general urban design principles and guidelines which specifically address the conditions of the street and the design of the public realm.

With the vast majority of urban policy planners not being conversant in the physical design of urban environments, serious problems and mistakes have occurred.. Often, policies directed at solving a particular issue or problem are written in a manner that allows (and often encourages) a large breadth of interpretation. In part, this is due to a lack of knowledge and understanding of the forces at play in the urban environment and a description of what they should address. It is this lack of description that the third part of the thesis will address by outlining an example of the method, scope and communication techniques available for the explanation of design solutions.

Finally, the design solution will establish a basis from which recommendations for professional change will be made. Included in these will be the visual and graphic tools utilized as part of the final presentation component of the project.

Part One - Question

Upon beginning an urban planning study, we most often start with the site - the location in the city or metropolitan area that will receive attention, evaluation and ultimately a solution. Our professional vocabulary has evolved to the point where we accept its definitions without question. As students, we are taught to read the urban environment, to understand its component parts, to make suggestions for open space and streetscape design plans, and to draft policy and guideline solutions that will enable changes to be made which will be beneficial to the city. As practitioners, we are faced with having to make hard decisions as to the relative strength of one solution over another, to draft policy and zoning regulations that solve identified problems, and to negotiate with those professions who design and build the structures of the city to achieve what is most beneficial to all.

Unfortunately, our cities do not always display these aspects or professional achievements. Often, we find areas that are in significant decay and decline, punctuated by new buildings which conform to zoning and policy regulations, but which do not relate to the surrounding landscape. It may be surprising then, to discover that the new shape and form much of our urban landscapes are taking are based on those same principles and theories entrenched in our professional and educational systems.

Perhaps what is needed is a new vocabulary, one that draws from other disciplines and allied professions. What we may also need is a rediscovery of the various pieces and components of the urban landscape and a re-evaluation of our role and responsibilities as a profession.

In order to achieve the goals and objectives of this thesis, there must be a thoughtful and thorough investigation of the building blocks of the urban landscape. An understanding of the various components and relationships must first be obtained, prior to specific evaluation and documentation of the chosen site. In doing so, an understanding of a number of concepts, methods and opportunities will lead to a more complete and educated response to the forces of change. In this first Part of the project, a number of these items will be explored, including the concept of space, the principles of urban design and our roles and responsibilities as a profession.

Section One - Space

A discussion regarding space must first begin with an understanding or acceptance that a definitive description or definition does not exist. Instead, interpretations of the concept of space will be incorporated into the discussion in order to heighten awareness of its ambiguities and to allow flexibility in determining which interpretations - or portions thereof, will aid in the development and achievement of the larger thesis goals.
We speak about *space* in many different ways through the course of our professional pursuits. We create regulations governing *open space*, attempt to describe and analyze urban issues through the use of *spatial diagrams* and speak directly about the effects and design of *the space* as an entity or unit unto its own. However, a clear definition or understanding of the term *space* is not part of our professional culture or language. Does space exist all around you? Are objects located within a space or within space itself? Is space merely the void that exists between two buildings or objects? How space is defined and manipulated becomes key to the success and functionality of our urban environments. Without an overall or conceptual understanding of the term, we are not able to successfully address it as a profession.

Space

Why some places and streets have more of an impact on our senses than others is a question that goes to the root of the discussion on *space*. The components, and how they are arranged, effect us on intellectual and emotional levels.

Often, the terms *place* and *space* are interchanged while discussing the particular attributes or characteristics of a portion of the city. In his essay "Urban Design and the Dilemmas of Space" (1996), Ali Madanipour quotes Albert Einstein's theory of space.

> "[Einstein] contrasted the two concepts of relational and absolute spaces as "space as positional quality of the world of material objects" versus "space as container of all material objects". The first meaning, he maintains, is rooted in the concept of place, which is older and easier to grasp: material objects have a place in the world, that is, a small portion of the earth's surface or a group of objects. The second is a more abstract meaning, seeing space as 'unlimited in extent', framing and containing all material objects." (Madanipour, A., 1996, p. 333)

This description of two conceptual approaches provides a basis from which to develop an understanding of *urban space* and how it is created, including its components and emotional and sensory effects. As Porter and Goodman (1988) describe:

> "[in addition] to the theoretical approach, there is a sensory approach to space. From this perspective, our experience of spaces is a "sensuous event". This involves movement ... which creates "a kaleidoscope of changing impressions, of transitions between one spatial sensation and another" (in Madanipour, A., 1996, p. 337)

This idea is similar in concept to a definition of 'real space' purported by Madanipour when he stated that "Real Space is differentiated from the human being's intellectual interpretations of the world (understood through the senses) which create a mental construct." (Madanipour, A., 1996, p. 337)

In addressing the larger theoretical discussion of *space*, we may also begin to more fully understand the relationships between built and unbuilt locations, thereby establishing a clearer path toward recognizing and strengthening beneficial relationships.

Urban Space

In beginning the investigation into *urban space*, it may be helpful to consider one of the questions posed by Madanipour in his essay when he asks:

> "Does it not make sense to say that in our walking the street we have both a spatial experience, in which enclosures are different from open spaces and streets from squares, and an experience of the material objects which shape or condition this space?" (Madanipour, A., 1996, p. 336)

Discussing *urban space* as a unit of perception - existing between buildings which help to frame and enclose it - will direct the focus of the investigation toward the qualities of *space* and the ways in which elements are assembled within that *space*.

This interpretation (or explanation) of *urban space* lies between the theoretical notion of "space as a container of all things" put forth by Einstein, and as a constructive element in the creation of *places*. Accepting that *space* is all encompassing where objects (people & buildings) fill limited amounts, enables a hierarchy to develop such that *space* becomes

the primary building block. Following from this, *urban spaces* (including the street) can and should be read as a series of contrasting, complimentary, but most importantly linked *spaces*, that one perceives as they move along a chosen path. Viewing *urban spaces* and the street as a series or sequence of events through which to pass, provides an additional layer of interpretation to the conceptualization and understanding of the urban environment.

Finally, introducing the element of time adds another layer to the discussion. Investigating how a *space* has changed over time in terms of its arrangement, functionality and use can deepen our knowledge by discovering its geographic and sociological roots. As Madanipour states, "the lived experience of space is one in which time is inherent." (1996, p. 347)

Place

What is important for the purpose of this investigation, are the ways in which *places* are formed, the qualities they exhibit and the sensory effects they contain. Following the hierarchical arrangement (space - urban space - place) the *places* along a street combine to form a neighbourhood which would then exude its own measure of distinctness within the larger community.

Where the permeability of *space* allows movement and passage, *place* is endowed with a history that speaks to our senses and emotions. In his book *Finding Lost Space: Theories of Urban Design*, Roger Trancik provides a concise description of this relationship. He states that:

> "If in abstract, physical terms, *space* is a bounded or purposeful void with the potential of physically linking things, it only becomes *place* when it is given a contextual meaning derived from cultural or regional content." (Trancik, R., 1986, p. 112)

What is most interesting about the qualities of a particular *place* is its evolving history. As individuals, we are drawn to places that exhibit interesting and unique characteristics. A personal history is created by our interaction to and with that *place*, establishing a connection to its forms and qualities. As such, its history is further strengthened and entrenched into the sociological fabric of the neighbourhood and community.

As the use and attraction to the *urban place* grows, so do its sensory qualities. Among these qualities, is the feeling of security - both physical and intellectual. When a *place* is visited and used on a regular basis, less frequent visitors become aware of the 'fixed' population, enticing them to visit more often based on the regular patterns of use. The adage 'safety in numbers' plays a large role in our perceptions and feelings of physical security as individuals and as a society.

Investigating the various interpretations of *space*, the qualities and characteristics of *urban space*, and the formulation and sensory effects of *places*, a deeper understanding of the urban environment has been gained. It is the reading of these distinct *places* and neighbourhoods which contribute to the overall vitality of a metropolitan area. Therefore, maintaining and creating *places* with such qualities is essential to our role in the evolution and management of the urban environment.

Section Two - Urban Design

As noted earlier, an understanding of the intellectual, emotional and physical qualities and characteristics of a *space* or *place* must first be gained prior to any attempts at alteration. As such, the role of the Planner is at once caretaker, visionary and historian. Incorporating successful elements from one area directly into and onto another may not result in a similar level of success. Following a process that resulted in an intervention scheme accepted and approved by the majority of local residents and political actors may not harvest the same reactions in another neighbourhood or community.

Conceptually, the design of the urban environment does not pose too much difficulty understanding why it is a useful and necessary professional pursuit. However, when attempting to identify what its guiding set of principles are, or which elements of the urban environment should be included within its parameters, the comprehension of the concept is quickly lost.

This section will briefly outline a rationale for the practice of urban design and identify several descriptions of its scope and context in order to provide a greater understanding of its complexities. In doing so, it will establish a basis from which to develop general principles and guidelines for the design phase of the project.

RATIONALE

Private land development, the creation of public *places*, transportation and infrastructure needs, environmental management and stewardship, economic interests and residential development requirements can all be incorporated under the umbrella of city-building. As Robert Beauregard writes: "[The] city-building process has a clearly identified practical side. Property development is a significant phase in the growth and decline of cities ... and is a major source of economic activity." (1990, p. 212) City-building as the central component of planning draws the list of seemingly divergent interests together. In this context, *urban design* addresses the larger picture and relationships between these interests, contributing to the overall evolution of the neighbourhood and community.

Delving deeper into the roots of *urban design* brings forth the notion that at its heart, it is concerned with the relationships between the public and private realms. Following the hierarchical organization outlined earlier, connection to the public realm is within the structure of a neighbourhood. While "the city [may] provide an identity, [the] visual understanding tends to be contained within the neighbourhood with its distinct nodes and edges." (Lynch, 1960)

The opportunities that exist for the creation of *places* through the practice of *urban design* can significantly enrich our profession, instilling it with an additional layer of purpose and importance. A focused interpretation of the practice by Jon Rowland asserts that: "urban design involves managing the design of the public realm - height, massing, scale, creating character and diversities - all in three dimensional form and in an integrated way." (Rowland, J., 1997, p. 36) Incorporating the more technical aspects of the practice of *urban design* with the management and visionary skills of the city-building process, makes our role more comprehensive than that of architecture, landscape architecture or the development industry. As such, we bring a different perspective to the design of the public realm, expanding the vision to the community level while maintaining a focus on the formation or evolution of a *place*.

It is through the evolution of the public realm where *urban design* becomes key to the process of city-building. In enabling development and growth to occur as part of the economic activity of the city, public *places* are regularly created. As a result, new built form should help support and strengthen neighbourhood and community connections by becoming part of the fabric of the area. This can be achieved by facing the buildings toward public *places*, (parks, civic squares and streets) rather than toward expansive

parking lots or service corridors. Whether located within the existing fabric of a neighbourhood (infill development) or as part of a new development (commercial center), new built form should add to the *place* by supporting or reinforcing its history and characteristic elements.

DESCRIPTIONS

In Britain, a legal interpretation of *urban design* has been recently been developed which states:

> "[U]rban design is the relationship between different buildings; the relationship between different buildings and the streets, squares, parks, waterways and other spaces that make up the public domain; the nature and quality of the public domain itself; the relationship between one part of a village, town or city with other parts; and the patterns of movement and activity which are thereby established." (Rowland, J., 1997, p. 35)

This definition is important for two reasons. First, it expresses the range of relationships between the elements of the city - both built and unbuilt. Second, it provides a focus for the identification and discussion into the description of *urban design*. By acknowledging the complex relationships and patterns within a neighbourhood or community, it helps us to maintain a wider focus when engaged in the practice of designing an urban *place*.

Since the early part of the decade, professional interest in *urban design* has increased in both the professional and academic environments. Contributing to this growth has been the formulation of a number of generalized sets of guidelines which have attempted to communicate the more straightforward and direct ideas. One of the earliest was a list compiled by The Prince of Wales, which drew from such classic texts as Kevin Lynch's *The Image of the City* and Jane Jacobs' *The Death and Life of Great American Cities*. While limited in its scope and often focusing merely on architectural details, it has been credited with spurring a new interest in *urban design*, its components and participants in Britain and other parts of the western world. (Punter, J., 1990, p.11)

Beginning at this point, a selection of 'principles' will be outlined chronologically tracing the evolution of the predominant ideas. While the aim of this segment is not to develop a listing of guiding principles, it will be useful in the later part of the thesis to draw upon

those ideas which have remained part of the design vocabulary.

John Punter, in his essay *The Ten Commandments of Urban Design* outlined a list of 'pointers' for the practice of urban design. To begin with, he highlights the importance of including and focusing on elements exposed by Kevin Lynch and Jane Jacobs, namely efficiency and social equity (Lynch) and safety and the attrition of the automobile (Jacobs). A selection of these pointers is as follows:

- "... these principles take us into questions of the protection and enhancement of the public realm. They embrace issues like the control of anti-social behavior, traffic calming and pedestrianization, and ensuring that there is a social justice in urban design through the provision of access to urban space and a wide range of urban facilities;
- A checklist or formula approach to design or design control, uncritically applied, can stifle creativity by overemphasizing the importance of context, narrowly shared meanings and historical forms, particularly if it suggests that there is only one solution to a particular design problem;
- Any set of design principles have to be relevant to user experience and in this sense issues of access, safety, comfort, cleanliness and convenience are likely to be more important than architectural delight;
- Urban design principles have to embrace issues of landscaping and ecology in a much more fundamental way; and
- If urban design or aesthetic controls are to come of age [in British Planning] they will have to become more overtly analytical, more positive, more prescriptive, more based on user experience, more defensible against developers and funding institutions and less reactive to individual development proposals." (1990, pp. 12-13)

In his article *Neighbourhood and Community*, Peter Calthorpe describes an alternative perspective to *urban design* as a means of creating healthy communities and places, connecting the practice to the social fabric of a neighbourhood or community. Phrased in this manner, he provides the following four statements which encapsulate his vision.

- "Neighbourhoods are the physical and social expression of [a] community and its sustaining infrastructure. Preserving usable public space and local history and establishing thriving neighbourhood centers are essential to fostering healthy communities;

- The fundamental physical elements of a neighbourhood are walkable streets, human-scaled blocks, and usable public spaces. Too often public spaces become residual, housing loses its neighbourhood scale, and streets deny the vitality (or useability) of pedestrians. The result is a loss of identity and the scenic of place that once formed the physical infrastructure of the neighbourhood;

- New housing projects should help create or reinforce blocks that are interconnected throughout the neighbourhood. Street improvements should favour the pedestrian. Small parks should be distributed within walking distance of most homes AND should be designed to have active edges and allow local surveillance.

- The individual and family are the measure of a community or neighbourhood. Consolidated plans should seek to establish human scale in the physical design of neighbourhoods, in economies by enhancing local businesses, and institutions by decentralizing and personalizing services. Human scale in community means a strong neighbourhood focus and an environment that encourages everyday interaction." (Calthorpe, P., 1995)

Following in the perspective of complete communities Jon Rowland outlines five 'principles' from his paper *Designing the Humane City* .

- "*Context*: understanding the layers of the city: relating urban change to the best of what already exists, physically, culturally and economically;

- *Diversity*: Less zoning, more opportunity for informal activities, a mix of uses. More choices where that has been denied;

- *Equity*: making places accessible to all, reversing the trend of privatization / corporatization of our realm and ensuring that everyone can participate in and enjoy the urban environment;

- *Stewardship*: ensuring that we look at the scale and rate of change, responding to the incrementalism of many cities, stitching the seams together in a way that takes a long term view of costs and benefits, management and revenue; and

- *Empowerment*: having a greater say in the environment we all live in. Encouraging identity and 'ownership', and creating partnerships." (Rowland, 1996)

The final set of ideas reviewed was a list by Rowland drawn from Francis Tibbalds' *10 Commandments of Urban Design* .

"1. Places are more important that buildings.
2. We need to learn from the past.
3. Uses and activities need to be mixed.
4. Human scale is important.
5. Freedom of pedestrian movement [permeability] is equally important.
6. Towns and cities are about human contact, and accessibility for everyone is paramount.
7. Our built environments must be clear and 'legible', to help people understand where they are.
8. Our built environments must be 'robust', that is long lasting and flexible [to change].
9. We need to be more sensitive in controlling the scale and rate of change in our cities - so comprehensives is tempered with incrementalism.
10. This need to come together to form a rich, attractive and enjoyable public realm." (Rowand, 1997)

A summary of the re-occuring ideas of urban design are:

- local history and context;
- community involvement and empowerment in the development process;
- a human and/or pedestrian-scaled public realm;
- equity in the creation and access to public facilties (including parks);
- legibility (connections to other neighbourhoods); and
- places which are defined and useable, not merely the residual spaces of development.

Section Three - Professional Culture & Environment

The third thread of discussion centers around the existing culture of the Profession. For clairity, this section has been organized into three sub-sections which address current practice, the educational environment and an option for a new role in the management of urban growth.

Current Practice

Over the course of a number of decades, the planning profession's involvement in the

physical design of the urban landscape has been reduced. This situation is dangerous in its implications for the effectiveness of the Profession. By removing the profession from the design of the urban environment, urban policy planners are placed in a situation where they are required to devise new rules and solutions to urban problems, without being in a position to fully identify or understand the causes, relationships and effects of the problems. "Our urban surroundings suggest that planners know much less about design than they should and architects know much less about city building processes than they claim." (Kreditor, A., 1990, p. 157)

A good part of the reason the profession has lost its influence and legitimacy is due to the bureaucratic process that has overwhelmed the building of our cities. Planning activities have been separated into *long-range* and *development services* often within different departments of the municipal organization. The segregation of these two 'functions' has led to the former being concerned with the creation of new policies and the later being consumed by the rules and regulations of a zoning bylaw. What has been most damaging to our city form, is the transfer of responsibility, authority and decision-making power to planning technicians or 'development officers'. Most often, the maximum educational requirement for such a position is a two-year college diploma in planning technology, where graphic, database management and administrative skills are taught. Without being educated to understand the larger-scale implications of new buildings or development proposals, this group generally upholds regulations (zoning bylaws in particular) as the 'rules' to which everything must conform.
Planners engaged in 'long-range' activities are not without blame for the form many cities have taken over the past 40 years. "The suburbanization of [North] America - which is ecologically, financially and socially unsound - has been achieved largely during an era when the number of planners has burgeoned and the credibility of planning has dissipated." (Carter, E.J. Jr., 1993, p. 160) Procedural fairness has become the cornerstone by which planning activities are measured and guided, attempting to remove planners and planning activities from the legal responsibility for the growth patterns of the city. The procedure or approval structure of a planning department has taken on larger importance and consideration than creating places which are livable, sustainable (economically and ecologically) and functional. In discussing the education and training of planners, Emmanual J. Carter Jr. asserts:

> "[P]lanners insist on preparing master plans, development plans, zoning ordinances, subdivision regulations etc. and engaging in design review of them with results that clearly indicate a misunderstanding of how the three-dimensional environment might be structured or might work. As a

> result, when planners have to envision futures or design scenarios, review designs, engage developers and designers, or make clear to citizens what a range of planning alternatives means in terms of "real places", they are at a serious, dangerous and unforgivable disadvantage." (1993, p. 160)

What is required to solve the problems we have created over the past few decades is a re-focusing on the purpose and role of the Profession. Rather than simply upholding a position as managers who provide advice to the decision-makers (i.e. politicians), we must begin to take an active responsibility for the evolution and growth of our cities. In doing so, we can provide new opportunities for ourselves as a profession, by taking a more focused position, while at the same time widening its scope.

In his article If Planning *Includes Too Much, Maybe it Should Include More*, William H. Lucy (1994) identified a number of themes which he believes provide a central focus for the Profession. First and foremost, he believes that the central principle is that 'healthy places nurture healthy people'. Therefore, public policy should be aimed at satisfying both people and places, not one or the other. Within this, he 'defines' place as anywhere from as large as a nation to as small as a dwelling with all units in between. (1994, p. 306) Such a holistic view is well within the strength of planners, enabling an incorporation into our existing vocabulary. Second, he believes that in order to achieve intimate connections between the people and places, physical and environmental design should be addressed by the planning profession. He feels that "physical design shapes the spirit as well as the details of specific places in society, and therefore is relevant to ... planning curricula." (Lucy, W. H., 1994, p. 306)

Beverly Sandalack's essay Space, *Time and Identity: Some Implications for Urban Design* provides a succinct statement as to how the profession can redirect itself toward a new focus. Without trying to completely reinvent itself, she believes:

> "An important responsibility of designers and planners is to support the community and its identity, and to do this in a way that creates, and supports a cultural and environmental memory, of historical references and connections to the past, while allowing development in response to present day demands." (Sandalack, B., 1997, p. 63)

These ideas will be investigated and discussed in greater detail in the following sections, culminating in a connection to the practice of urban design and the ways in which we, as planners, might become more active.

Educational Environment

While discussing the current educational environment, it must be acknowledged that curricula varies between Canada and the United States as well as between individual planning schools. However, there are a number of commonalties that exist which form the backbone of planning education in North America. It is these commonalties that will be highlighted in regard to the culture of the profession and the preparedness of planners to engage in the practice of urban design.

Accepting the position that the role of the planner is to help guide the evolution and development of the city in all respects and in cooperation with associated professions allows a more rigorous evaluation of the ability of planners to fulfill this role, particularly in relation to the practice of urban design. Key to this position is understanding that the evolutionary path and form of a city must be a cooperative venture involving planning, architecture, landscape architecture, engineering and the developoment industry to name a few. An inter-disciplinary partnership, where planning assumes a more proactive and defined role, is essential in order to create places, neighbourhoods and communities. That means that planning must be able to define itself, its role and its purpose within a larger context. It also means that the ways in which planners are educated, particularly with regard to design techniques and concepts, must change. While many of the skills we are taught provide an important mix of sociological, economic and ecological background, there is considerable need to include a greater level of design education within the system.

We cannot, as believed by many, leave the design of places to other professions, disassociating ourselves from the three-dimensional world. As Carter explains:

> "Those who argue that community design should be left to architects, landscape architects and engineers (as Alan Rabinowitz suggests in Knack, 1991) must not truly understand how such professions are trained. Those who argue that planners (those with a professional planning degree, but without a design degree) can handle community design, based on their training, are not being realistic." (1993, p. 160)

The divergence of these professions has left a gap in the treatment and understanding of the urban environment, particularly at the level of the street where public space becomes private space. Frank Palermo, in his article Emerging Needs from Divergent Paths *of Planning and Architecture*, theorizes that over the past few decades, the focus of planning has become one of process, building a strong connection to the social sciences

and concerning itself with formalized methodologies. It has become a way of thinking, rather than a form of action, eliminating the contextual situation from its theoretical investigations. (Palermo, F., 1990, p. 48) Seeing planning, architecture and landscape architecture as sister professions rather than as divergent disciplines, may begin to provide new light on the ways in which we, as planners, need to be educated. He further states that:

> "Planners should understand and manipulate (plan, design, regulate) the forms, structures, textures and components of community and the host landscape, and do so in a manner to attain positive social, economic and environmental impacts. This means that the planning profession must retain its strong concern and skills in the sociological/economic/ environmental [and historic] aspects of community. It also means that planning must be able to offer real skills in integrative, large-scale design." (Palermo, F., 1990, p. 161)

To reach this point, Carter and others (Pivo, 1989) have suggested that the current length of professional education is not sufficient provide planning students with the tools and critical judgement abilities to effectively address the complexities of the urban environment. This idea goes to the very heart of planning education in North America, questioning both the professional and academic institutions entrusted with this responsibility. Changing the minimum length of a professional degree in planning has financial implications for both students and universities, as well as continuing professional education for planners. However, the American Planning Accreditation Board, an organization within the governing body (AICP) has set the minimum length of time for a first-professional graduate degree at two years of full-time study. The entrenchment of a minimum time, as opposed to a minimum of preparation (based on course-work) would require a significant shift in the direction and culture of the profession. As Palermo indicates "[a] first step in the new direction would be to accept that a two-year professional master's degree for a person without a non-planning/non-design bachelor's degree in inadequate. It is with good reason that law, landscape architecture, architecture and other disciplines offering a first degree at the graduate level acknowledge their complexities and require a minimum of three years of study." (Palermo, F., 1990, p. 161) What should be more important than the minimum length of time is the preparation and range of experiences provided to students of planning, particularly with regard to urban design training. As he concludes:

> "This approach makes the planner less dependent on allied professions, puts forth a clear sense of what the planner knows and makes the planner much more authoritative and credible when dealing with such issues as

> urban design, development planning, site planning, site plan review and design guidelines, and with such people as engineers, ecologists, architects, landscape architects and developers." (Palermo, F., 1990, p. 162)

In moving from this evaluation of the educational system and its constraints toward a discussion and determination of planning's role and responsibilities, there are two thoughts that provide assistance. First, Sandalack holds that: "planning and design have often been described as "problem solving" activities, implying that planners and designers have to equip themselves with a steady supply of problems to solve. That way of looking at the built environment is conditioned by a need to fracture it into discrete problems that can be identified and solved." (1997, p. 64) What is needed, then, is a way of viewing the built environment in its totality, addressing the relationships that exist, acknowledging that they cannot be pulled apart into neat, individual components. However, what is also needed is a perspective that allows planners to be the designers, incorporating design into the vocabulary and practice of the profession. Second, Alan Kreditor outlines the idea that "if urban design includes more than visual-spatial arrangements and is linked to forces outside the grasp of traditional design disciplines, then the search for large-scale design paradigms that can cope with complex urban and regional form, must be cooperative and involved several fields and many institutions." (1990, p. 161)

Roles and Responsibilities

Addressing the often competing interests and professional involvement in the practice of urban design brings forth a number of questions regarding the various roles and responsibilities for each of the players. Following upon the preceding discussion, one approach for the planning profession to assume is that of city-building as the core principle. Robert A. Beauregard provides a template for this idea, providing a holistic theoretical and practical view. His essay, Bringing the City Back In (1990) describes the theoretical basis and practical objectives of focusing on the ways in which the city is built, rather than on specific aspects or elements of its form. He believes that in taking such an approach, planning has the opportunity to become more progressive, addressing all scales and patterns of evolution. In it he states:

> "This formulation is not meant to confine the development of the built environment to large, dense communities that are commonly labeled cities. Rather, the city-building process refers to the production and reproduction of all types of settlement patterns. The process is likely to be different in a small town, but the insights conveyed by this perspective

are not likely to be diminished." (1990, p. 212)

This approach encompasses both a generalist and detailed perspective, free of constraints of scale, size, settlement pattern, economic dependence, location or ecological issues. As such, it has the potential to be adopted as the guiding principle for the profession, allowing a common scope and direction through the incorporation of development trends, human desires and intentions, and constructive forces, without nullifying our theoretical history.

Beauregard outlines four reasons for focusing on city-building as the central principle for Planning.

- "The most important centers on the historic role that the physical city has played within the profession, beginning with its emergence as a synthesizing concept and continuing through its contemporary disembodiment as land use functions. In this sense, the city-building process provides temporal integration. It retains a memory of a planning past and taps into planning's initial source of legitimacy.;
- A second and related reason is that the city-building process has a clearly identified practical side that makes it relevant to the work of planners. Property development is a significant phase in the growth and decline of cities, suburbs and regions, and is a major source of economic activity. (Beauregard 1989; Fainstein et al. 1986);
- Third, city building is a theoretically as well as professionally integrative concept. The city-building process is more than architectural design and construction activity. City building is central to the workings of the economy, often pivotal in urban politics, a major carrier of cultural symbols and social aspirations, and, most significantly, the shaper of the built environment in which people carry on their daily lives and experience their social and economic positions. (Harvey 1985; Gottdiener 1985;Warner 1978); and
- [Fourth], the city-building process as a concept is less problematic theoretically than the city itself (Beauregard 1988; Sayer 1984). City building is dynamic, intrinsically historical, and easily traced to specific agents and forces (Ball 1986; Knox 1987). Moreover, it is a pivotal element in social well-being and public life, and a target for large-scale capital investment and disinvestment." (1990, pp. 212-213)

The city-building principle also has implications to the ways in which we, as planners, are educated, including academic organizational structures and relationships. Encouraging a greater level of interaction and cooperation with the design professions would enable a

more complete understanding of the roles and responsibilities they have in the process, thereby forming a stronger link and communication throughout. As Dagenhart and Sawicki suggest in their article Architecture and Planning: The Divergence of Two Fields:

> "When architecture and planning are located together, one can imagine such a collective enterprise that could bind the research, scholarly and creative work agendas of the two disciplines, including questions of both form and policy, in ways that previously have not been considered. Pursuing such a discourse could be a remedy for the ineffectiveness of both disciplines and both professions in their attempts to influence the form and quality of the contemporary city." (1992, p. 13)

Attaching the concepts of space, place-making and urban design into the role and responsibility of the planning profession imparts us with a more important and vital role in the evolution of settlements. Drawing inspiration from our own and allied professional history and theory, and molding it into new and creative ways of assessing the functionality and vitality of an area, can provide solutions to urban problems and guidance to urban growth in a more focused and responsible manner. Addressing the form, creation and success of the public realm through the guiding principle of city building can impart a renewed vigor and legitimacy to the practice of planning, both as an activity and as a process.

We have a responsibility and crucial role to play in the form and organization of the built and unbuilt form of the city, focused within the public realm. It is in the public realm where our policies and regulations take physical shape. Therefore, we have an important role to play in the organization and composition of the built and unbuilt form of the city. A greater knowledge and training of spatial design concepts is essential to fulfill these responsibilities.

What is also needed is an acceptance and acknowledgment that a single approach to solving urban issues is not realistic. We must learn from our history and recent theory on methodological approaches to investigating and analyzing the form, structure and relationships that exist within a neighbourhood. Drawing from a range of sources and methodologies will enable an analysis approach that is more defined and responsive to the particular area and issue in question. As such, we enable a greater degree of flexibility, creativity and legitimacy to our role in the city-building process.

This ideology will be central in the analysis and understanding of the forces and situations existing within south Barrington Street, and will guide the formulation of urban design principles, guiding policies and physical design response to the identified issues.

Part Two - Approach

Planners have, to a great extent become generalists. One of our greatest pitfalls is an apparent need to develop a solution that will address all our urban ills. Our theoretical history is rich with 'the next big solution' from the rationale comprehensive model, to master planned communities to neo-traditional development. The impact this has had on the professional legitimacy and reputation of the profession has to a large degree, been negative. Planners are seen as part of the problem, standing in the way of development, often more concerned with the integrity of the "processes" than of contributing to building better communities.

Built form analysis methodologies have followed a path similar to our theoretical history, with new formulations often being heralded at the 'best' way of investigating and understanding the relational factors at play within a community.

However, that is not to say that some approaches have not taken on a 'classic' form, instilled as part of most planning curricula and education. Kevin Lynch's *The Image of the City* outlines five elements of urban form (paths, edges, nodes, districts and landmarks) that have become ingrained in planning vocabulary. As well, the ideas put forth by Jane Jacobs in her book *The Death and Life of Great American Cities* have been incorporated in a similar manner. While also lauded as a classic planning text, its ideas have become part of mainstream planning thought. What they can provide, is a reminder of some of the elements that have contributed to urban streets and places that are both functional and enjoyable.

This project attempts to break from that pattern in two ways. First, research and investigation into a range of methodological approaches will enable a greater understanding of the types and scales of analysis suggested, as well as the ways in which they communicate the qualities of the city. Those investigated range from the larger community scale (Lynch, 1960; Sandalack and Nicolai, 1998), to neighbourhood organization (Morrish and Brown, 1994; Calthorpe, 1995) to streetscape elements (Jacobs, 1993; Whyte 1980) and finally morphological investigation (Trancik, 1986; Vernez Moudon, 1994).

Second, where many planning studies fail is in their imposition of a generic analysis approach onto a neighbourhood, expecting that it will identify all its uniqe characteristics. For this project, it was decided that the final methodological approach would benefit from a preliminary investigation and documentation of the study area. This step is to help ensure that the chosen approach would be responsive to the existing urban form. To this end, documentation of the area was completed, concurrently with the methodological research, influencing both the scope and form of the project.

Section Four - Preliminary Investigation

The intent behind this phase was to view the study area without a preconceived analysis methodology in mind in order to 'take in' the place and obtain a personal sense of its personality. This was so that components of the urban fabric from the scale of the community to that of the block, would not be overlooked. It is important to note, however, that the original question regarding a planner's role in the design of the built environment provided an underlying bias to the ways in which interesting elements were acknowledged and the composition of the street documented. This bias has been accepted as part of the reason and framework of the overall study with no attempt being made to be truly objective.

Observations were completed over the course of several weeks, but no notes or comments were recorded. Instead, it was more important in this first stage to obtain a sense of the area, to observe is structure and environmental components in a way that neither tried to categorize or evaluate. After several weeks, the area was documented photographically, once again making no attempt to highlight or ignore any one element or component.

After documenting the area, a number of diagrams were prepared from memory. They begin to describe the forces at play, the physical structure and the overwhelming visual and sensory impacts of the street. Several spatial relationships were identified,

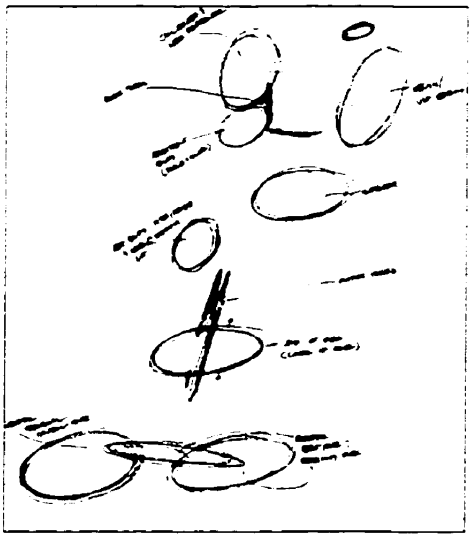


DIAGRAM 1: Dominating Elements

influencing both the preceding theoretical review and forthcoming methodological investigation. As well, during this phase, a number of questions arose regarding:

- connections between the macro scale of the community and the micro scale of the portion of south Barrington Street;
- the relationships between the immediate surrounding area and other partsof Halifax, in particular the area known as the South End;
- the neighbourhood south Barrington Street is located within; and
- the influence of the evolution and history of the area on the current form, character and perception of the street.

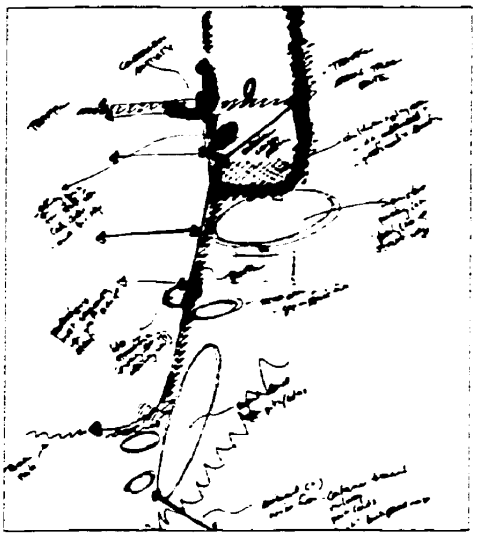


DIAGRAM 2: Neighbourhood Influence

The photographic documentation and preliminary investigation diagrams are displayed in the following pages and include:

- Dominating elements;
- Neighbourhood influences and characteristics;
- General community uses and activities;
- Areas of concern or opportunities;
- Streetscape photographs, east and west sides;

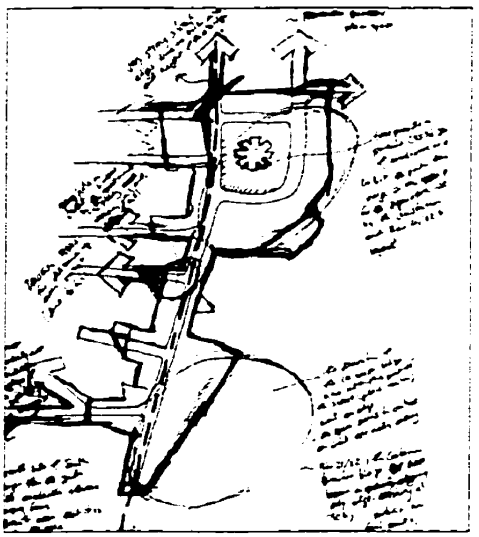


DIAGRAM 3: Perceived Boundary

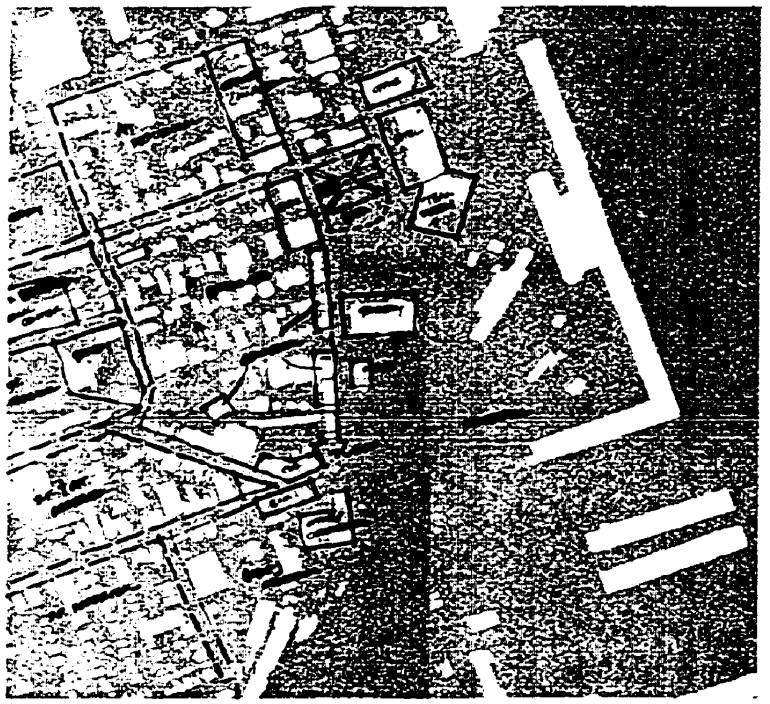


DIAGRAM 4: Community Uses

Figures 3-21: Selected Study Area Images

Section Five - Methodological Influences

Investigation into a range of urban form analysis methodologies available to an urban planner was felt to be crucial to the overall objectives of the project. Generally, it was found that existing methodologies can be grouped into three scales: *community*, *neighbourhood*, and *streetscape*. While not connected to any one scale a *morphological* approach to urban form analysis imparts the element of time into the analysis approach, while not being constrained to a geographic 'unit' of a city. These four methods will be briefly investigated and discussed, in the process highlighting their respective strengths in relation to one another.

Community

Indicated earlier, systematic analysis at the scale of the community or city can be attributed to Kevin Lynch and his five elements of city form (1960). These include paths, edges, districts, nodes and landmarks, each deeply ingrained into the educational and philosophical culture of the profession. Devised as a formal code for identifying and understanding the problems of urban environments, they have greatly influenced successive generations of planners and planning theorists in their attempts to define new and 'up-to-date' methodologies. An excerpt from *The Image of the City* outlining the five elements are as follows:

- "*Paths*: Paths are the channels along which the observer customarily, occasionally or potentially moves. The may be streets, walkways, transit lines, canals or railroads. For many people, these are the predominant elements in their image. People observe the city while moving through it, and along these paths the other environmental elements are arranged and related.

- *Edges*: Edges are the linear elements not used or considered as paths by the observer. They are the boundaries between two phases, linear breaks in continuity: shores, railroad cuts, edges of development, walls. They are lateral references rather than coordinate axes. Such edges may be barriers, more or less penetrable, which close one region off from another; or they may be seams, along which two regions are related and joined together.

- *Districts*: Districts are the medium-to-large sections of the city, conceived of as having two-dimensional extent, which the observer

mentally enters "inside of", and which are recognizable as having some common identifying character. Always identifiable from the inside, they are also used for exterior reference if visible from the outside. Most people structure their city to some extent in this way, with individual differences as to whether paths or districts are the dominant elements. It seems to depend not only upon the individual but also upon the given city.

- *Nodes*: Nodes are points, the strategic spots in a city into which the observer can enter, and which are the intensive foci to and from which he is traveling. They may be primarily junctions, places of a break in transportation, a crossing or convergence of paths, moments of shift from one structure to another. Or the nodes may be simply concentrations, of some use or physical character, as a street-corner hangout or an enclosed square. Some of these concentration nodes are the focus and epitome of a district, over which their influence radiates and of which they stand as a symbol... In any event, some nodal points are to be found in almost every image, and in certain cases they may be the dominant feature.

- *Landmarks*: Landmarks are another type of point-of-reference, but in this case the observer does not enter within them, they are external. They are usually a rather simply defined physical object: building, sign, store or mountain. Their use involves the singling out of one element from a host of possibilities. Some landmarks are distant ones, typically seen from many angles and distances, over the tops of smaller elements and used as radial references... Other landmarks are primarily local, being visible only in restricted localities and from certain approaches. These are the innumerable signs, store fronts, trees, doorknobs, and other urban detail, which fill in the image of most observers. They are frequently used clues of identity and even of structure, and seem to be increasingly relied upon as a journey becomes more and more familiar." (1960, p. 47-48)

While a geographic scale is implied within each of these elements, there are opportunities for interpretation and classification at several different levels. For example, an area may be deemed to be a node within the larger context of the community, yet may be its own district in the context of the smaller neighbourhood scale. As well, a path for vehicular traffic may also be an edge for pedestrian traffic, depending upon its size and ease of crossing. While the city may be classified into different districts, each may consist of several neighbourhoods - districts of a social and/or daily activity organization. Finally, as outlined above, local landmarks may be as simple as a storefront window or sign, which are simply part of the urban fabric at the larger community and metropolitan scales.

NEIGHBOURHOOD

William Morrish and Catherine Brown developed a methodology for understanding elements at play within a neighbourhood unit, described through their handbook *Planning to Stay: Learning to See the Physical Features of your Neighborhood* (1994). Concerned with the amount of jargon and 'technical' words used by planners, they focused instead on descriptive terms which could easily be understood by neighbourhood residents. This point is central to the purpose of their book, which is to be used as a tool for residents to address concerns within their neighbourhood. The premise is outlined by the authors as follows:

> "We have deliberately used new language for this book, because we are trying to help people see familiar things in a different way. This vocabulary shift is meant to help you express some important ideas about your neighborhood more vividly and precisely, without resorting to technical terminology.
>
> We have avoided using standard "land use" terms used in typical city planning documents or descriptions you may assume you already understand. These new words reflect both the quality of places found within Twin Cities [Minneapolis and St. Paul, Minnesota] neighborhoods as well as their functional role in the making of community.
>
> For example, we have found that neighborhoods can be and have been defined in many ways: from something as ethereal as "a state of mind" to something as mundane as an "area within the lines" of a planning map. We use "neighborhood" to describe the basic social unit and physical building block of our cities. We use "neighborhood niche" instead of business/ commercial district" to describe specific neighborhood marketplaces. "Public gardens" is used instead of "park system" to embrace public and private open spaces, including small gardens and large campuses, in addition to our extensive city parks and recreation systems. The language we have chosen for this book - and the concerns these names express - are specific to the Twin Cities. For example, what we call public gardens might be a typical southwestern city's "public oasis". The language you choose will express what is appropriate for your conditions.
>
> Language is a form of power, because it reflects a particular view of the world. New words can give you a new power. By having to learn your neighborhood language, developers and officials will also have to acknowledge your way of seeing your environment." (1994, p. 15)

Like Lynch, they also outline five elements within their framework for describing a neighborhood. Briefly, these elements can be summarized as follows:

- "*Homes and Gardens* are the spaces where we rear our families, sustain our daily existence's, display our identities, and contribute to the overall neighborhood image. The home and garden feature can be found in many different types of housing units - from the single family house with lot to the multifamily unit with courtyards, patios, and balconies. In every home type, it is important to have a sense of privacy within the dwelling and yet be connected at will to the natural environment and the larger community.

- *Community Streets* are lanes that supply a functional and pleasant balance between use by automobiles and pedestrians. These streets provide significant social spaces for sidewalk conversations, walking the dog, and strolling the baby. These informal activities can coexist with traffic when streets are scaled to pedestrian dimensions and proportions.

- *Neighborhood Niches* are the places where neighbors purchase the basic goods and services - as well as some of the specialty items - that support their daily activities. For all the gravitational pull of downtowns and malls, these service zones survive and contribute to the signature of a neighborhood.

- *Anchoring Institutions* are the places where the cultural, educational and social traditions of our communities are centered. The elementary school, the parish church, the library, the community recreation center, and even the local brewery or auto plant help structure the social patterns and focus the community life of our neighborhoods.

- *Public Gardens* connect us individually and collectively to the natural environment. These public open spaces allow people of many ages, ethnic origins, and economic circumstances to gather together. At bandstands, ball diamonds, fishing docks, and vegetable gardens, we exercise the skills of acting in public, observing community norms, enjoying common pursuits, and just getting outdoors." (1994, p. 26)

In addition to these five physical features, the authors also describe five themes of organization which they feel help residents evaluate the relationships between their specific features and the quality of each "according to location, scale, mix, time and movement." (1994, p. 27).

The themes are important to the process in that they can help residents to describe the relationships and responses they may have to the physical features of their own neighbourhood. Once residents can identify what they like and do not like, it should become easier to decide what features should remain and which should be changed.

Most striking between this attempt at providing a framework for analysis and the one developed by Lynch is in the terminology and objectivity of each. While Lynch's methodology is fairly clinical and distant from any connection to a particular place or community, Morrish and Brown clearly state ownership and responsibility for their opinions and approach. They acknowledge that each community - be that different neighbourhoods or municipalities - will have its own particular vocabulary of form. Their approach provides a working handbook to neighbourhood groups, giving examples of new ways of observing and describing what is occurring. They have not created a strict categorical system in the manner of Lynch, rather they put forth a framework for observation, complete with examples of descriptive terms, that break from 'traditional' planning terminology.

While this framework relies heavily on neighbourhood cooperation and organization, it is important to recognize the change in approach that 35 years of planning theory has created. Morrish and Brown have taken a community-participation approach as the central element of change, rather than the 'planner-as-expert' stance inherent in Lynch's writings.

Streetscape

Building upon the descriptions of "community streets and neighborhood niches" from Morrish and Brown (1994), analysis at the streetscape scale provides the opportunity to identify and investigate components of the urban fabric in an increased level of detail. In doing so, we are in a position to better understand elements of the place, which in turn may help to highlight various spatial relationships.

This scale of investigation also addresses the composition of the public realm and the relationships which may or may not exist between built form and unbuilt spaces. The transition from the private realm of a building to the public realm of the street will be investigated as part of the actual analysis phase of the project. It is important to note again that the composition of the public realm along south Barrington Street was one of the primary catalysts for this study. Investigating the transition from one realm to another and the relationships which may exist between the two will provide a conceptual point from which to begin to address both the thesis question and the condition of the street.

In his book, *Great Streets*, (1993) Allan Jacobs provides a comprehensive study into the components and factors that contribute to the establishment of a street as a *place*. In the context of his book and of this study, a street is more than simply a physical pathway of movement for vehicular or pedestrian traffic. It constitutes much of the public realm of a community, tying together neighbourhoods, civic buildings and parks, while providing opportunities for engagement. A street encourages movement to discover what it has to offer, unlike a road which serves to move vehicular traffic at the greatest possible speed, with a minimum of delay.

While the bulk of discussion in his book centers around streets found in some of the largest urban centers in the world, he provides a list of components necessary for evaluating and 'constructing' a great street. The components may seem simple and straightforward at first, but as he notes, they are all required not just one or two, making the objective of a great street much more difficult to achieve (Jacobs, A., 1993 p. 270) To an extent, he continues the categorization of urban analysis techniques by providing seven qualities essential to a great street.

- *Places to walk*, particularly in a safe and leisurely manner. As he writes: "There have to be walkways that permit people to walk at varying paces ... with neither a sense of crowding nor of being alone, and that are safe, primarily from vehicles." (p. 272). Safety can be improved and the quality of the street enhanced by a tightly spaced row of trees planted adjacent to the pavement edge. This not only provides a type of physical separation from the vehicular zone, but also provides micro climate enhancements such as shade and wind reduction.

- *Physical comfort or shelter* from the natural elements. Protection from wind, rain, sun or even noise (although not generally thought of as a natural element) can be accomplished by street trees (as noted above), building canopies and overhangs or even covered walkways. Generally, a street should be as comfortable as possible, given its context - it should neither be too cold or to hot, depending on the season or the city's geographic location. Shelter from the wind is perhaps the most important of all.

- *Definition* - meaning boundaries both of a physical and visual nature. Streets are defined vertically through the heights of buildings or trees and horizontally through length, topographic features, changes in alignment and visual focus. [As Jacobs' states:] "Great streets have definition. They have boundaries, usually walls of some sort or another, that communicate clearly where the edges of the street are, that set the street apart, that keep the eyes on and in the street, that make it a place." (p. 277)

- *Qualities that engage the eyes* in a variety of ways, but not to the extent as to become distracting or chaotic. Changing qualities of light as it passes over a variety of surfaces or through partial screens (such as a tree canopy or lattice) are most common. Building facades that possess a variety of surfaces over which light may pass generally make for more visually interesting streets.;

- *Transparency*, which in Jacobs' words is essential to a great street. "The best streets have about them a quality of transparency at their edges, where the public realm of the street and the less public, often private realm of property and building meet. One can see or have a sense of what is behind whatever it is that defines the street; one senses an invitation to view or know, if only in the mind, what is behind the street wall." (p. 285)

- *Complementarity of built form*, particularly in terms of height and appearance. This does not exclude civic buildings such as church spires or clock towers or public open spaces. Rather it suggests that there should not be great drops in height between buildings adjacent to one another or along the street as a whole.

- *Maintenance of the street*, including its defining built form, pedestrian and vehicular zones, paving material and associated street trees and furniture. Generally, people would prefer to be on a street that is well maintained, clean and free of physical barriers than on one that is in disrepair or lined with vacant storefronts.

In concert with these physical qualities, Jacobs' also outlines a dozen qualities which he feels contribute to the overall composition of the street. Of these, four are of particular importance to the analysis and discussion of south Barrington Street. They include street trees, beginnings and endings, diversity of buildings and places.

- *Trees* are perhaps the most effective and economical way of improving the overall qualities of a street. That is, if the species is chosen wisely, are placed in a way that contribute to the definition, visual interest or safety of the street and are well maintained. Spacing, it has been found, should be between 5m to 7.5m (20 to 25 feet) apart if only one row is to be planted (Jacobs, 1993). This enables a pedestrian to see through to the street up to two trees in front of them, while providing a clear line or boundary to the pedestrian zone. Generally, this spacing will enable a fairly dense canopy to form, thereby contributing to the environmental comfort and visual stimulation outlined earlier.

- *Beginnings and endings* of a street are often as important as the qualities that exist along its length. These places should be well

defined and designed, punctuated by squares, green spaces, natural features or other visual elements. This is particularly important to the condition of south Barrington Street and the manner in which it ends.

- *Diversity* in the number and design of the buildings which frame a street provide greater opportunity for interesting events to occur. Diversity can also be found both the in physical and social aspects of the street - in the differences between commercial and residential built form; the potentials for minor changes over time due to a greater number of individual owners; and relationships (similar or contrasting) which may develop along its length regarding building details, colour and unique street furniture.

- *Places for people to meet*, to rest or as reference points are vital to the quality of a street. They need to be more than just intersections of other streets. The composition and occurrence of places along a street greatly contributes to the public realm, helping to make it safe, welcoming and vibrant.

There are also a number of other qualities that while important, play a supportive rather than primary role and which include density, length, contrast and time.

Of these, time - the evolution of the street - is crucial to the discussion of south Barrington Street. Changes to the physical structure of the landscape and built form along this portion of the street have been among the most dramatic in the city. Acknowledging this evolution, both of the landscape (former harbour edge) and the built form (residential and industrial) will provide clues to the current situation and establish a stronger base of information from which to address the most obvious concerns.

Morphology

The final category of influence is that of urban morphology. Simply defined, urban morphology is the study of changes in the built landscape over time. Concerned as much with the voids - or open areas - as with the built form of the city, urban morphology provides an additional perspective from which to study, analyze and understand the urban fabric of an area.

Often, morphological studies are undertaken in conjunction with detailed studies and classifications of built form and open spaces based on their typology. Together, these two areas of investigation are known as typomorphology, revealing the physical and

spatial structure of a city from all scales of the built environment (Vernez Moudon, A., 1994, p. 289). While too broad in scope for the purpose of this study, typomorphology contributes one main component. As Vernez Moudon writes: "The element that links built spaces to open spaces is the lot or parcel, the basic cell of the urban fabric. [T]he inclusion of land and its subdivisions as a constituent element of type makes land the link between the building scale and the city scale." (p. 290).

Understanding how the form and structure of a city has evolved over time can contribute much to determining its future direction. The relationships between built and open spaces represent not only the physical shape of the city, but also the sociological evolution of the community. Representing these relationships, in a way that is clear and identifiable, is crucial to their understanding. Roger Trancik, in his book *Finding Lost Space: Theories of Urban Design* (1986) outlines two methods, or theories as he calls them, of representing and understanding city form: figure-ground and place theory.

- *Figure-ground theory* begins through the representation of building mass and open spaces. It is based on the study of the land coverage of the buildings through solid blocks to the voids of the unbuilt areas. The diagrams that result can be powerful tools in identifying the patterns or textures of a city, clarifying its urban structure as well as problems with its spatial order. "The crux of the figure-ground theory lies in the manipulation and organization of urban solids and voids. When the dialogue between the urban solids and voids is complete and perceivable, the spatial network tends to operate successfully." (p. 106)

- *Place theory* addresses the components of human needs including the cultural, historic and natural contexts of the urban environment. "The essence of place theory in spatial design lies in understanding the cultural and human characteristics of physical space." (p. 112). Our societies need stable places in which to develop, both socially and culturally. These needs impart created spaces with an emotional content that is more than just a physical presence. Trancik feels that: "the role of the urban designer, then, is not merely to manipulate form to make space but to create place through a synthesis of the components of the total environment, including the social. The goal should be to discover the best fit between the physical and cultural context and the needs and aspirations of contemporary users." (p. 114).

These three approaches (lot subdivision, figure-ground diagrams and social characteristics) will add to the analysis of south Barrington Street by providing a

perspective which is less concerned with the individual components and elements of the street and more with the completeness and patterns of the whole.

While the four reviewed approaches address a variety of scales, details and perspectives, none seem to fully incorporate macro-scale elements (i.e. community linkages) with micro-scale details (i.e. streetscape components). Although the neighbourhood analysis approach put forth by Morrish and Brown begins to acknowledge a 'middle-scale' of investigation, it does not identify connections or components of either of the other two scales. Therefore, it was decided to draw from each methodology to obtain a more complete understanding of the study area. It is anticipated that this combination of analysis techniques will offer a unique level of understanding not otherwise possible.

Section Six - Analysis

Analysis Methodology

To a degree, the project methodology is comprehensive in its approach to understanding the components of the urban environment that exist within the study area, while at the same time being narrow in its focus on the decay of the urban fabric along south Barrington Street. This approach speaks to a number of the problems existing within the planning profession today, most notably the search for the one best way of understanding a city, neighbourhood or street. As discussed earlier, this is one of the greatest shortcomings of the profession, both currently and historically.

Where this approach differs from others is in its acceptance of what has come before. Rather than discounting the evolution of urban form analysis, tossing aside one approach or another as being outdated or limited in scope, this analysis methodology draws the strengths of each together in a manner which enables one to build upon another, adding layers of information and understanding to the project that in a way, resembles the evolution of the place itself. Recognizing and learning from our collective history is as important as acknowledging the history of the place under study.

Analysis Diagrams

It was decided that the analysis phase of the project would need to contribute to both the theoretical discussion of the role of physical design in the planning profession and to the locational concerns with the fabric of south Barrington Street. Drawing from the four methodological influences, the following diagrams were completed, incorporating as much from the preliminary investigation stage and literature review component as from the methodologies. A brief description of the intent of each analysis category will precede the four groups along with a short caption explaining each diagram. Once completed, a review and summary of the whole will be undertaken in order to identify the range of relationships and opportunities which may exist.

While these categories address a specific scale or type of analysis, they are not easily separated. Connections and similarities between each will be shown by example, providing clues to the interpretation of the gathered information.

Community

Analysis of the urban form at the scale of the community was completed in order to understand those elements and situations which have influence beyond the bounds of the south Barrington Street area. They were completed first, to enable a volume of information to build from the most general to the most specific, and include:

- Kevin Lynch's five elements of urban form;
- Existing road patterns and hierarchy;
- Topographic model; and
- Legibility.

FIGURE 22. Neighbourhood Topographic Model

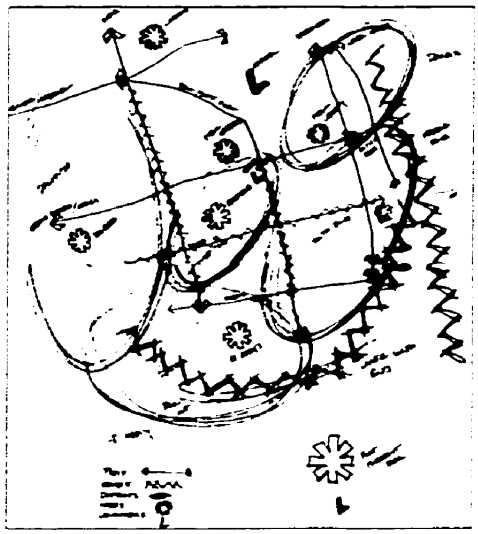


DIAGRAM 5: Elements of Urban Form

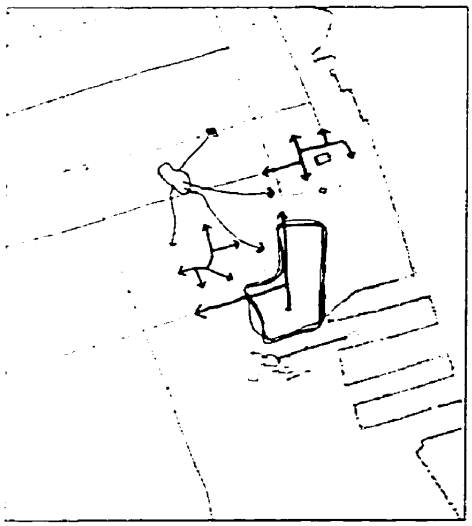


DIAGRAM 7: Legibility

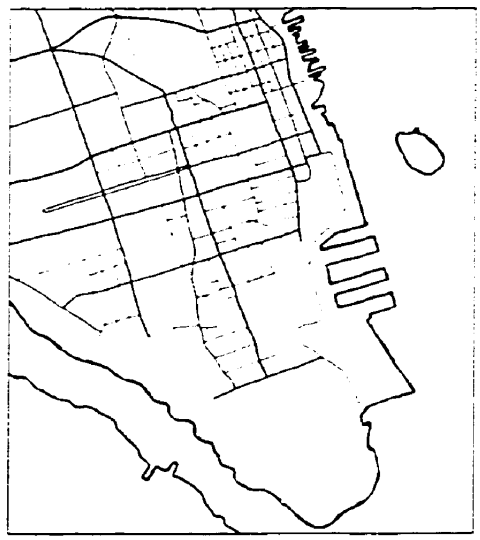


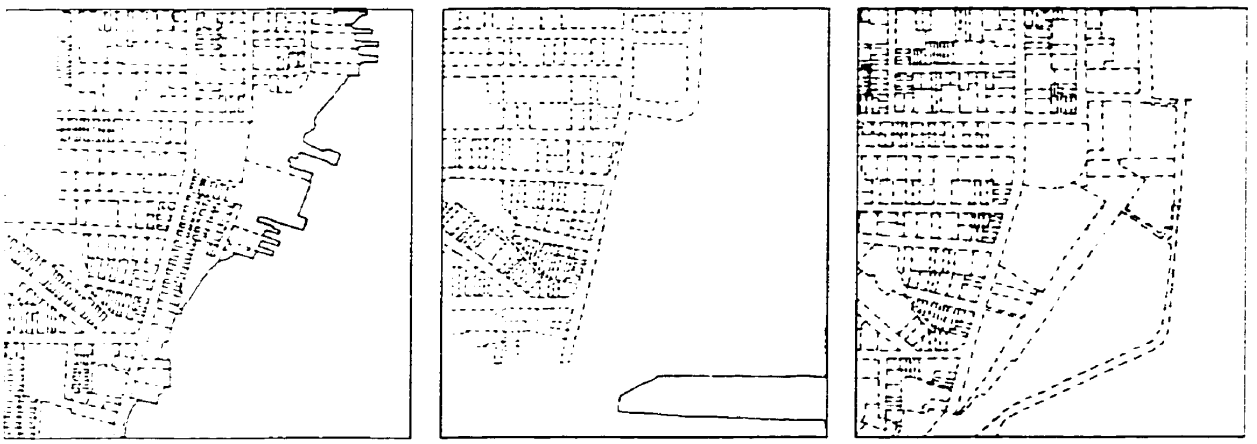
DIAGRAM 6: Circulation Heirarchy

Morphology

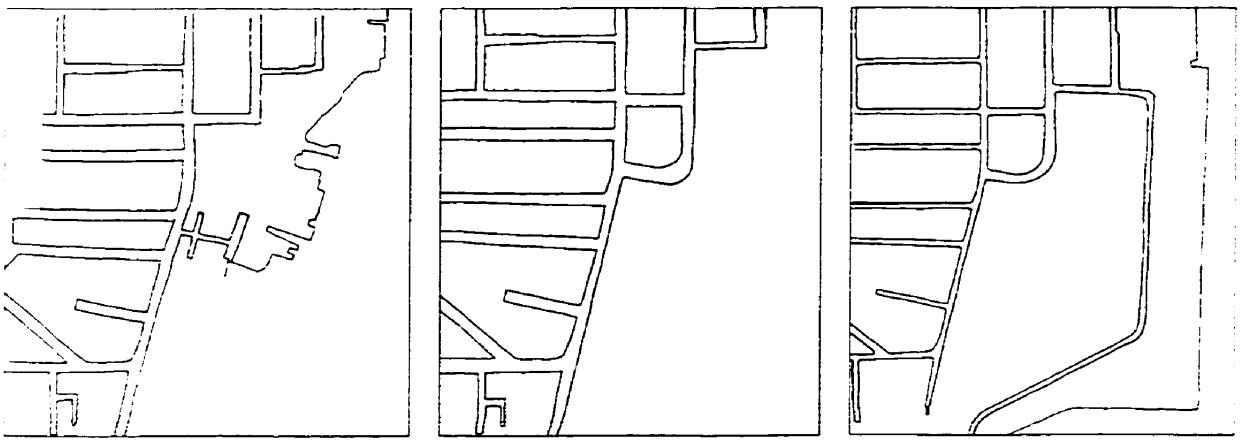
In theory, morphological analysis is not tied to any one sociological or geographic unit of the city. However, it was decided that to achieve the objectives of the project, the morphological analysis would be focused within the study area. As such, its location in the overall analysis falls between the community and neighbourhood scales, in effect, providing a bridge between the two. The sets of diagrams tracing the evolution of the place cover the years 1878, 1965 and 1998 and detail the following (see page 36):

- Figure-ground diagrams;
- Lot subdivision patterns and changes;
- Circulation network pattern; and

DIAGRAMS 8 - 10 Figure-ground drawings 1878 1965 1998



DIAGRAMS 11 - 13: Lot Subdivision Patterns 1878 1965 1998



DIAGRAMS 14-16 Circulation Network 1878 1965 1998

Neighbourhood

The neighbourhood scale of analysis builds upon the preceding work by focusing on those aspects unique to the area. While they incorporate elements of the topographic features and building use, they further expand the information on the area by including:

- Permeability - both vehicular and pedestrian;
- General uses including neighbourhood niches;
- Neighbourhood evolution;
- Street and built form massing sections;
- Visual Realm conceptual model; and
- Photographic documentation of the existing fabric (see page 22)

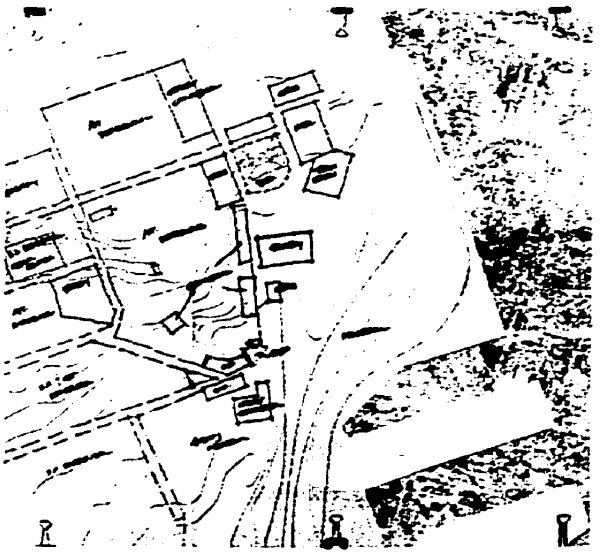


FIGURE 23 General Neighbourhood Uses

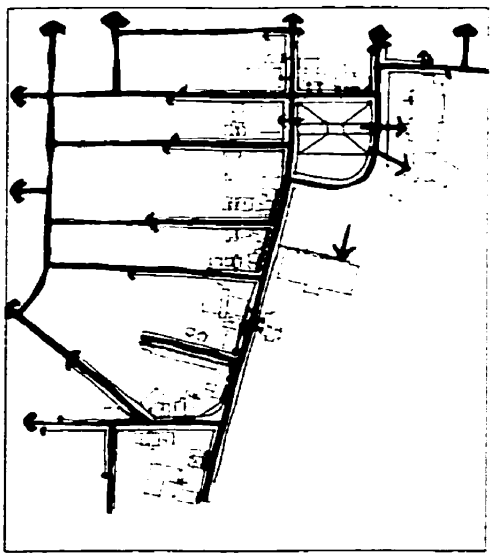


DIAGRAM 17: Permeability

FIGURE 24. Neighbourhood Evolution

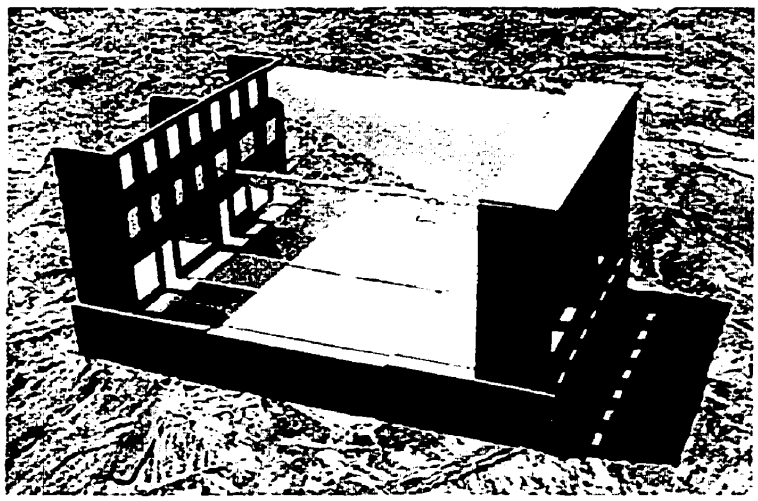
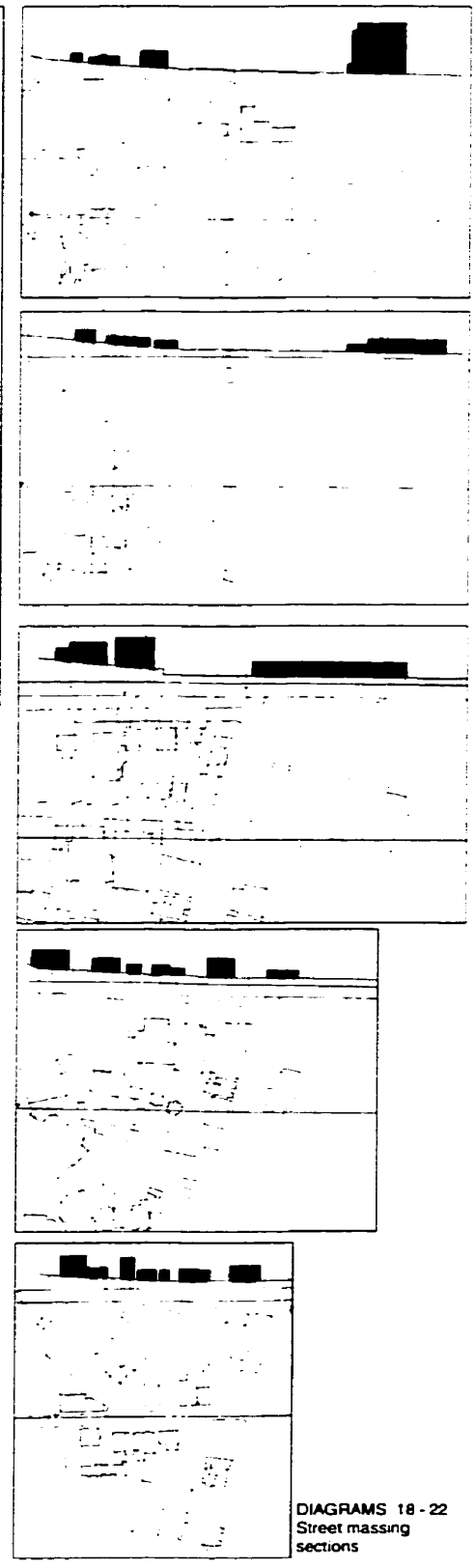


FIGURE 25. Visual Realm Conceptual Model

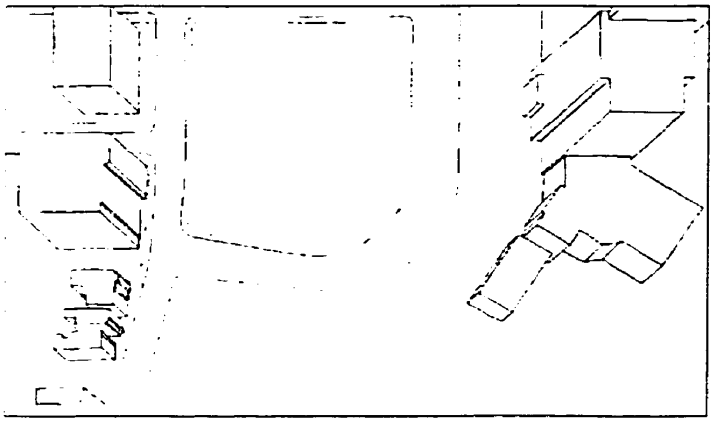


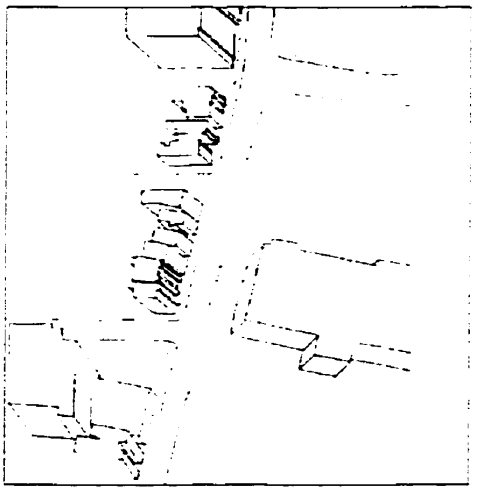
DIAGRAMS 18 - 22
Street massing sections

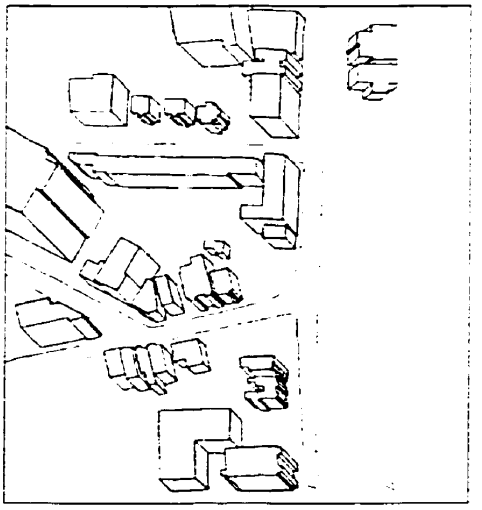
Streetscape

This final scale of analysis is intended to provide the most detailed level of information, identifying the environmental factors at play, the specific conditions and arrangement of the form and spaces and the physical structure of the street. It is from this scale of analysis that discussion of the theoretical boundaries of the planning profession will begin within the overall context of the traditional approach to urban planning. As well, the information obtained will enable the investigation of the relationship(s) between the public and private realms, connecting to the final phase of the project. Elements included at this scale involve:

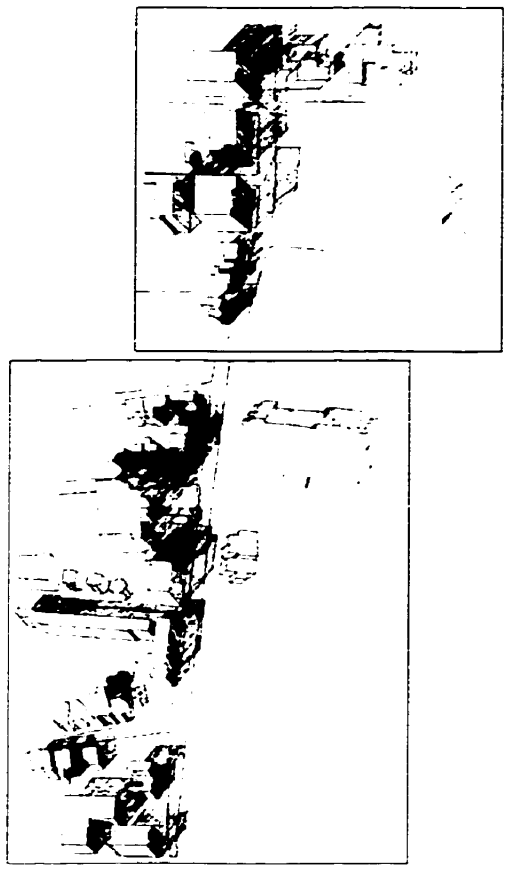
- Spatial Enclosure (built form versus spatial voids);
- Building massing conveyed through axonometric projection;
- Shadow casts for the Spring Equinox;
- Street proportion measurements;
- Pedestrian realm;
- Vehicular realm; and
- Transparency.



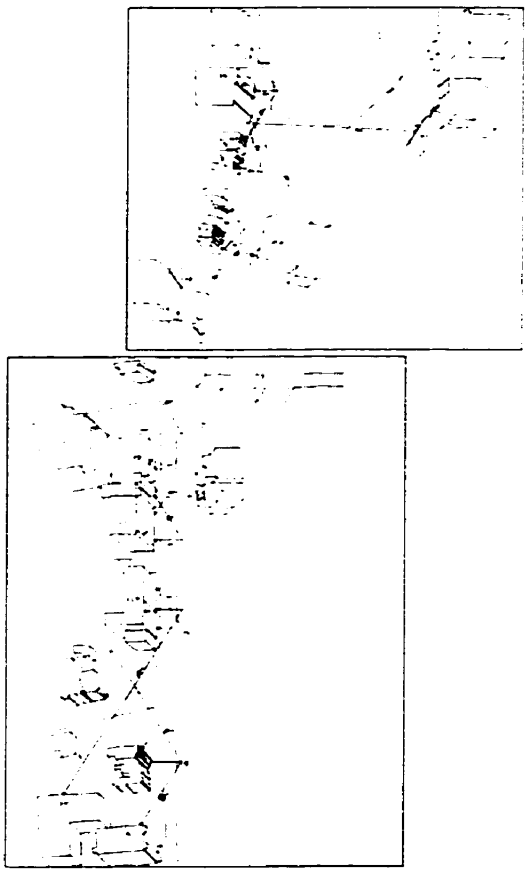




DIAGRAMS 23 - 25 Building Massing Axonometric Projections



DIAGRAMS 26 - 27: Shadow Casts, Spring Equinox



DIAGRAMS 28 - 29: Street Proportion Measurements

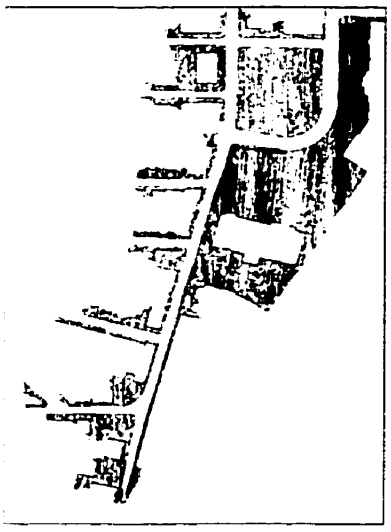


DIAGRAM 30: Pedestrian Realm

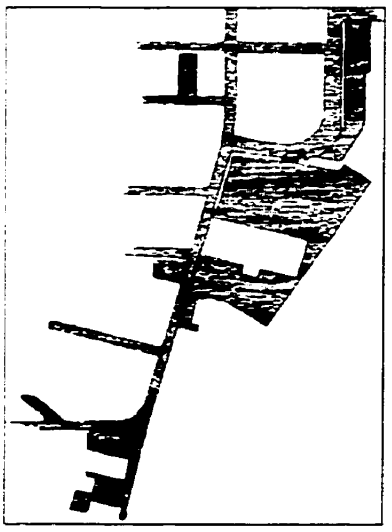


DIAGRAM 31: Vehicular Realm

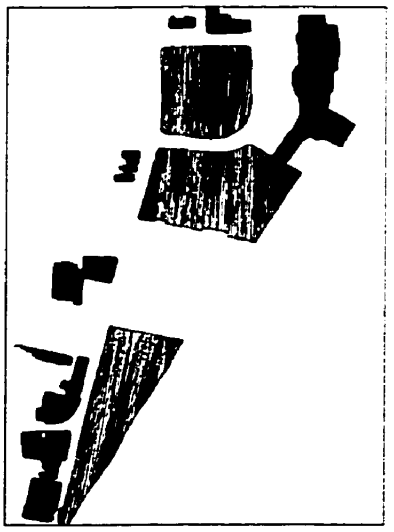


DIAGRAM 32: Spatial Enclosure

While there is a degree of overlap between the categories regarding the potential diagrams in each, the intent behind the list was to first identify the types of diagrams and components of the urban fabric to analyze. As discussed earlier, building upon the information gathered at each of the scales of analysis will provide a more complete picture of the urban structure of the larger area.

To obtain a deeper understanding of the 'visual realm' and concept of transparency, schematic models were built. The 'visual realm' model acknowledges the relationships that exist between the street or ground plane and the different storey's of a building. While the model is a simple representation of these relationships, it includes elements of neighbourhood uses, permeability and street proportion. As a result, it sits between the neighbourhood and streetscape categories, providing an excellent example of the difficulties associated with disecting the urban environment.

Building from that conceptual exploration, the transparency model focuses on a small portion of the existing built form. It indicates the varying degrees and conditions, which are possible within otherwise similar built form.

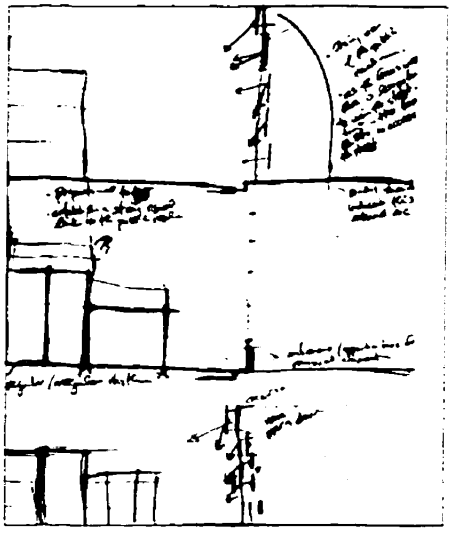
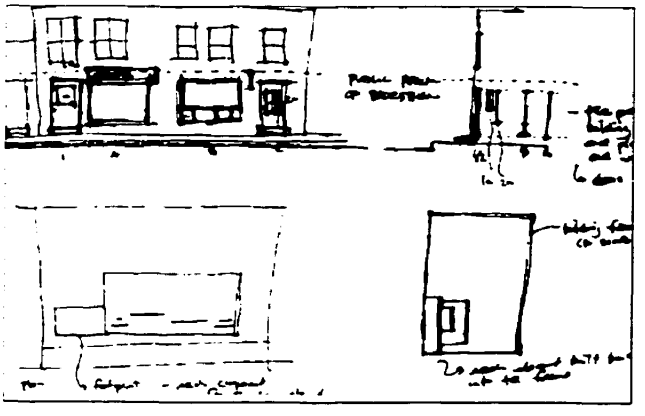
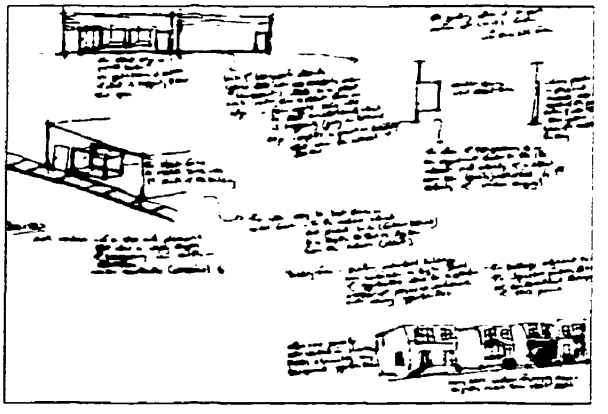


FIGURE 26: Transparency Model





DIAGRAMS 33 - 35: Transparency Concepts

Section Seven - Interpretation

Obtaining an understanding of the relationships and qualities of the study area cannot be accomplished without the re-integration of the information from each analysis category. Interpreting this information as a complete package will highlight unique qualities and lessons of the area and provide a solid base from which to address the physical structure of the street.

A critical evaluation and interpretation of the information will work toward achieving the objective of understanding the street in a new way. As well, it will help to prepare for a further discussion regarding the roles and responsibilities of the Profession.

Approaching the representation and communication of technical information in a non-technical or traditional way enables a new perspective to be taken when observing and discussing the qualities of the street. This also aids the project in achieving another of the objectives of addressing the grey area that exists between planning and architecture in a manner that is not part of our traditional vocabulary.

Adopting the perspective of Morrish and Brown (1994), that planning is often too concerned with technical terminology, interpretation of the analysis information identified a number of interesting 'types' of information. First, many of the diagrams identify what a person, be they pedestrian or driver, see as they move along the street. Without determining if the qualities are positive or negative, these types of qualities can be grouped into a category entitled *Vision*. Second, another package of diagrams identifies where an individual can go, and can be thought of as *Movement*. Lastly, there are a number of approaches that address the way in which a person feels while they are on the street, or in the spaces created by the surrounding built form. These diagrams have been grouped into a package referred to as *Perception*.

Removing the qualities of scale and time from these category 'definitions', stitches the information together in a way that is more representative of the urban fabric. It also serves to identify lessons about the composition and qualities that contribute to the vitalitity of the public realm.

VISION: *WHAT YOU SEE.*

When traveling along any street, whether on foot or in a vehicle, a person is presented with those components of the fabric that have the greatest visual impact. These components combine in ways unique to the mode of transportation as well as to the senses of the individual. The analysis diagrams incorporated into this category are:

- Street character;
- Dominating elements;
- Topographic model;
- Building massing and open spaces; and
- Transparency model and diagrams.

Two descriptive terms, which address the quality of the edges of a street, have been derived from the literature review and analysis diagrams.

> *Street-wall*: refers to a blank surface, non-porous or permeable that does not provide any visual clues as to the activities or use within the structure.
>
> *Street-face*: enables an individual to perceive, understand or readily interpret what the primary function/use of the interior space is.

The first interpretation lesson would then be:

- **Planners should be encouraging, enabling and ensuring the creation of street faces, not street walls.**

In addition, there should be a range of visual clues presented to an individual, denoting the characteristics of the place. Often considered to be secondary or supportive elements, these components highlight the street in relation to its surrounding environment. Providing the opportunity for landmarks to be created - at either the local

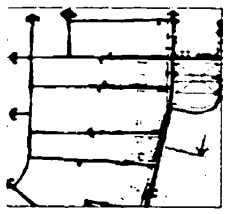
or community scale - is integral to the creation of an unique place. Therefore, a second lesson within this category would be:

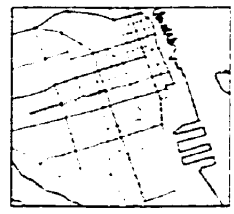
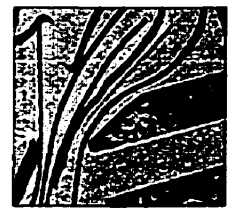
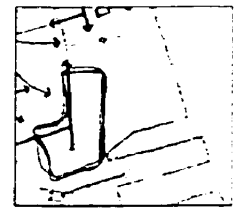
- **Visual interest and focal points are necessary to create a defined sense of place.**

MOVEMENT: *WHERE YOU CAN GO*

Closely related to the visual impressions of the street is the recognition of the various paths that can be traveled. While there may be certain visual elements that dominate the street, understanding the various opportunities and directions of movement is read at the ground plane. Whether seeking the most direct route through, the most leisurely path along, or an opportunity to move out of the public realm, a person must be able to assess the choices and understand their location in relation to the surrounding environment. The analysis diagrams associated with this category are:

- Permeability;
- Neighbourhood uses;
- Topography:
- Circulation hierarchy; and
- Legibility.



Within this category, the concept of legibility is paramount. In describing the idea behind this term, an interpretation can be taken from Beverly Sandalack's *Urban Structure: Halifax* (1998). She states that legibility refers to the ease with which parts of the environments can be recognized, through their location, shape, colour or arrangement, and organized into a coherent mental pattern. Drawing from this, the first Movement lesson is:

- **There must be a degree of legibility inherent in the street**

(vehicular and pedestrian pathways and routes) which is supported by elements such as (unique) built form, building massing and placement, land use, topographic features and other accessory elements.

The southern portion of Barrington does not provide a clear sense as to where the streets and sidewalks are taking you - either directionally or locationally within the neighbourhood. Since the street pattern or topography cannot change, other elements - uses, form and furniture must be developed to increase the legibility of the area and improve the individual's reading of the street.

The area does not possess supporting elements in a number as to contribute to its overall legibility. Components such as street naming and numbering, street width hierarchy, scale and massing relationships, vernacular style and building placement do not provide the visual clues they could (or should) to make this part of the city particularly legible. Accessory items such as street furniture (distinguishable light standards, benches, garbage receptacles or street flags) are not present either.

To address this situation, a second lesson can be drawn, which holds:

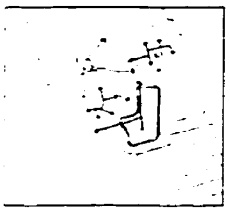
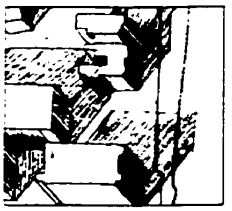
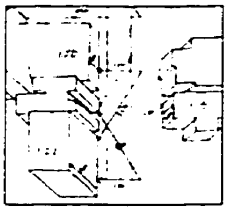
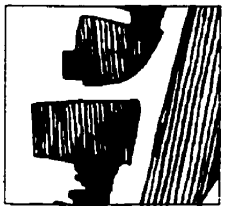
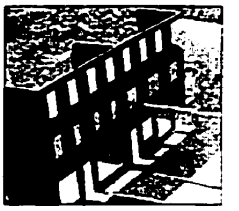
- **The legibility of a street within its larger context of a neighbourhood or community should be enhanced by all new development.**

These components should not only enable movement or passage to occur, they should also encourage it. Destination points through and within the neighbourhood or along the street should entice and encourage users to travel to the area (if not a neighbourhood resident or employee) taking advantage of the services and facilities it has to offer. To accomplish this end, there must be an array of 'attractions' - be they park spaces, daily needs, specialty retail or services or employment locations. As well, pathways must be clear and legible, denoted as much by their visual qualities (trees, street furniture, signage) as by the built form that creates the streetscape and frames the public realm.

PERCEPTION: *HOW YOU FEEL*

How you feel when you are on a street depends on a number of factors. Understanding where you are in relation to the surrounding environment and your destination location, what components of the fabric have the most visual impact, what the environmental conditions (sun, shade, wind) are like and the proportions (width and height) of the streetscape all combine to contribute to the perception of the place. The package of diagrams that constitute this category include:

- Legibility;
- Shadow casts;
- Street proportion measurements;
- Spatial enclosure (building massing v. spaces);
- Built form massing sections; and
- Visual realm conceptual model.

The first lesson that can be taken from this information is:

- **Environmental influences combine with qualitative components (proportion and spatial enclosure) to determine the level of comfort one feels while on the street.**

While the proportions of a street and/or the enclosure of a space may be pleasing or comfortable, they do not play the only role in an individual's perception of the neighbourhood or street. As such, a second Perception lesson can be identified.

- **Elements such as natural surveillance, street signs (commercial and civic), street lights, lamp post flags, plants, paving materials and other items provide visual clues and contribute to the perception, understanding and level of comfort of the street.**

While these categories have been used to describe the conditions existing within the study area, they in turn, cannot easily be divorced from one another. For example, a number of the components from the *vision* category play a large role in enticing movement along the street - providing an interesting and visually pleasing pathway for an individual to travel. Similarly, a person's *perception* of the street or neighbourhood is influenced by their comfort while on the street (due to building size and placement) as well as the clues that are provided indicating the directions of *movement* through and out of the neighbourhood based on the street pattern.

What these descriptive groups do provide, is a clear sence that there are a plethora of relationships and influences within the urban landscape. They cross geographic scales and incorporate physical and perceptive qualities to establish the unique personality of the street.

Part Three - Response

To be successful and achieve the goals and objectives of the project, the ideas, information and concepts discovered in the previous two Parts must be utilized. In doing so, the opportunity exists to fulfill the purpose and answer the thesis question.

Thus far, the work presented has focused in two areas - theoretical investigation and site specific analysis. This Part of the thesis will marry these two components and provide examples of how the issues specific to south Barrington Street may be addressed. An urban design framework and public realm guidelines will be devised, setting the parameters for the physical design phase of the project. Incorporated in this approach will be the communication of ideas and guidelines in a manner that is more connected to the design professions in order to show the spatial qualities and conditions planning policy can take. Finally, direction will be provided regarding ways in which the culture of the Profession could evolve.

Section Eight- Guiding Policy

Connecting written policy with physical design in a stage that is often not considered during the formulation or approval process. This situation is as critical as eliminating physical design from the Profession.

Most urban policy will have a physical impact on the urban landscape, whether through built or unbuilt form. It is the street and public realm where the greatest impact occurs. Therefore, it is essential for practitioners and students to recognize this relationship and to bring an understanding of the spatial relationships into the policy formulation process.

Urban Design Framework

Building from the lessons identified in the preceding Part, it is necessary to take a step back from the specific site attributes in order to consider a number of these

components on a more generalized level. In this way, they can help define a framework which has a more universal application to other parts of the urban environment and within the professional culture.

- *Professional Context* - City-building (as discussed) to be the guiding principle for planning.

- *Responsiveness* - Responsive to the history, culture, ecology, functionality, topography, and context of the neighbourhood or community.

- *Relationships* - Encouraging and strengthening beneficial relationships between *spaces* and *places* ; the public and private realms; built form and open spaces; neighbourhoods and the community; residential and non-residential uses; and pedestrian and vehicular pathways.

- *Legibility* - The creation of new *places* within the context of the neighbourhood and which strengthen linkages to other *places* ; and provide clues to the surrounding urban environment including pedestrian and vehicular pathways, uses, service areas.

- *Diversity* and *Identity* - Diversity in the mix of uses, facilities, scale, places, visual amenities and streetscape elements (furniture, trees, etc.) which acknowledge the historic evolution of the neighbourhood strengthening or re-establishing its identity within the context of the larger community.

This framework accomplishes several objectives at once. First, it defines an envelope within which the practice of urban design can be understood and achieved. They are general to enable them to become part of our vocabulary, drawing on the strengths of our profession and establishing points of connection to our allied professions. Second, they provide direction for evaluating and investigating the urban landscape and its constituent elements. They address and acknowledge the individuality of *places* and require a methodological approach unique to each urban environment. Third, they acknowledge the existence of a variety of spatial and structural relationships that require the support, assistance and co-operation of

other professions. Fourth, they identify the need for connections between and through communities, knitting diverse neighbourhoods together into an urban fabric. Finally, they speak to the organization and types of forms created, stressing the necessity for the cultural, professional and spatial relationships outlined.

Public Realm Guidelines

In order for physical design to have a place in the culture of the planning profession, it must be focused within an area that is beneficial to both the profession and the city. It must assume a place in the design of urban environments that draws from our sister professions. It must also build on the history, strengths and diversity of the profession, while expanding our envelope of professional practice.

The design of the public realm is the place where we as planners have much to offer. This realm is the grey area that exists between planning, the design professions and development industry, with none being sufficiently adept at its design. Our history and educational system include study of this territory, one that is not adequately addressed by any other profession. In practice, we create policies and guidelines regarding much of what has been discussed in this thesis. However, for the most part, we no longer connect policy to form in a way that recognizes and understands the various physical manifestations that can occur.

Two of the primary objectives of this project can be addressed by this issue. The design of the public realm begins to bridge the gap that exists between planning and the physical design professions, while at the same time expanding our professional boundaries and responsibilities. In the context of city building, we must reintroduce physical design into our culture and formal education system, in order to function effectively and responsibly. This is not to say, however, that all planners must be proficient and interested in the design of the public realm. On the contrary, one of our greatest strengths is our diversity and ability to address a plethora of concerns regarding the urban, suburban, rural and natural environments. However, we have lost much of our ability to effectively understand and communicate ideas in a visual way, thereby decreasing our effectiveness and credibility.

To address these issues and to connect this theoretical discussion to the form and structure

of south Barrington Street, five public realm design guidelines have been formulated. They incorporate the preceding work and set the stage for a physical design program for a specific portion of the street. In this way, the four main issues identified at the beginning of the project can be addressed and communicated in a manner that provides a solution for the decay of the urban form along south Barrington.

- *Street Proportion* - Necessary in establishing urban form that creates a proportionally comfortable public realm. Ideal proportions range between 1:2 and 1:4 street width to building height. The street-face should also be supported by associated elements which contribute to the safety and comfort of the street.

- *Permeability* - New form must create a *street-face* not a *street-wall.* Pedestrians and passers-by should have an indication (visual clues) as to the activities or services available. Increasing the level of transparency along the length of the street will contribute to its safety and sense of place.

- *Context* - New development - either built form or urban park space - should recognize and incorporate historic building forms, materials and placement, without parody. With each new development, a new layer of history should be added to the street, in a way that positively contributes to its evolution.

- *Visual Focus* - A strong series of focal points should be established along the street, providing clues as to location, pathways, uses and activities. Building upon the existing qualities and evolution of this portion of Barrington Street, elements that identify it as a unique area within the city are encouraged.

- *Environmental Considerations* - Inclusion of components which address the environmental situations along the street are necessary. Items that mitigate negative situations (wind, noise) and that strengthen or enhance comfortable places are essential to the overall quality and character of the street.

These five guidelines form the parameters within which the following design exercise has been completed. For this purpose and in relation to the scope of the thesis, one area that had the most obvious and greatest opportunity for intervention was chosen.

Section Nine- Design Application

Throughout the course of this project, the qualities, components and relationships within the public realm have been discussed. Determining an appropriate design program that addresses the unique characteristics and evolution of south Barrington Street has the design of this realm at heart. This phase has a number of sub-phases, each of which play a vital role in achieving the objectives of the thesis and of producing an educated and sensitive design option. These sub-phases can be most clearly described as *foundation*, *edge formation* and *spatial evolution*.

- *Foundation* - refers to the new arrangement of building lots;
- *Edge formation* - addresses the component qualities new built form should contain; and
- *Spatial evolution* considers the change from the public to the private realm.

Located at the southern end of the street, the focus site is an area of land which contained no active landuse. At the beginning of the project, it was completely vacant, but through the process has been reduced by the construction of a food-service establishment. This provided an interesting opportunity for the design stage to address and respond to this new built form. It also serves to highlight how the new approach, boundaries and responsibility, contrast with the typical process and form of development.

The methodology of this project has itself been centered around the design process (of the physical environment). With each successive theoretical investigation, analysis diagram or conceptual exploration, the design component has been influenced. Approaching a planning study in a non-traditional way has allowed a large degree of freedom in the types of influences explored and in the way they developed. Working in primarily a visual way has also identified a number of interesting ideas which might not otherwise have been discovered. While the process itself was organic, an attempt has been made to document and describe it in a somewhat linear manner.

Often, the process of design is not documented. Instead it is the final product which is described, displayed and discussed. In taking a non-traditional approach, the explanation

and documentation of the process is as important as the final product. The following pages attempt to describe this process, its influences and conceptual explorations, relying more heavily on the graphic communication of those ideas than on their written explanation.

Foundation

This sub-phase may best be presented in three stages. First was the *discovery* stage, where qualities of the existing street and built form organization were identified. From here, relationships began to build between the built and unbuilt places, circulation pathways and chosen 'site'. Opportunities were noted and constraints investigated. Figures 27 through 30 represent this stage, each building upon the last in a way that quickly became focused into three zones. It was at this point that ideas regarding lot size, pattern and relationships were introduced, as well as street proportion and building massing considerations.

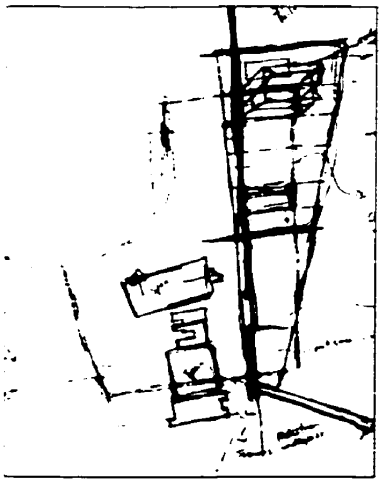


FIGURE 27: Design Layer One

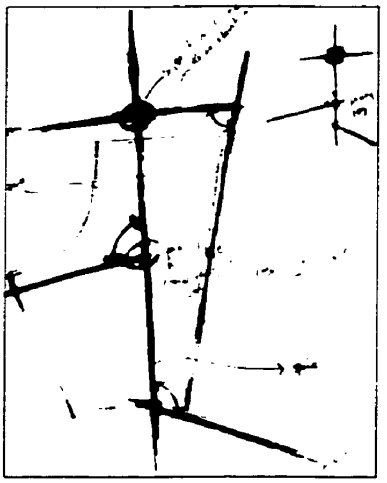


FIGURE 28: Design Layer Two

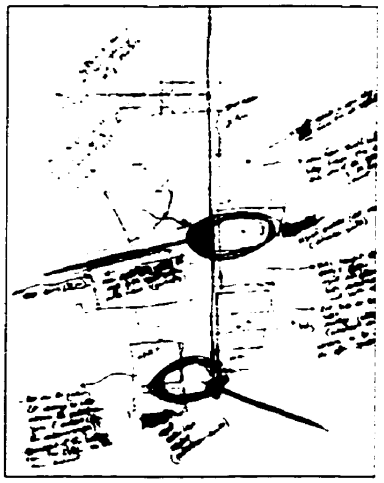


FIGURE 29: Design Layer Three

The second stage can be represented as the *design* stage. Relationships, constraints, opportunities, context, spatial organization and built form qualities were assessed collectively in determining the form the new street-face would take. Street proportion calculations were completed to help determine building placement, massing and height, in order to balance and support existing urban places and voids. The unique characteristics of the circulation system was introduced, with substantial thought given metaphorically about the location functioning as an elbow joint or hinge. The change from the commercial focus

(main use) of Barrington Street to the residential focus of Inglis Street is represented by the two components of the human arm. The upper arm - the lifting part, is associated with Barrington Street, while the lower arm - the twisting part, represents Inglis Street. As each component is part of the complete arm, so are the predominant uses of the two streets part of the neighbourhood qualities. Where the change occurs - at the joint - is the location where the design work has been focused. Figures 31 through 34 represent this development.

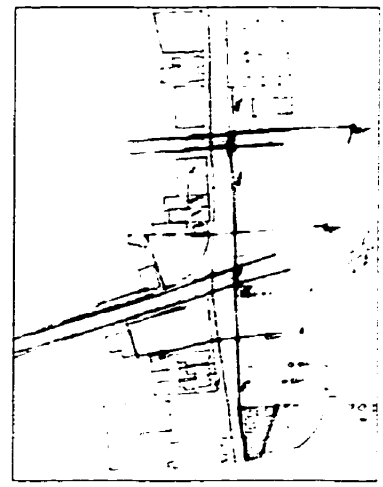


FIGURE 30: Desigh Layer Four

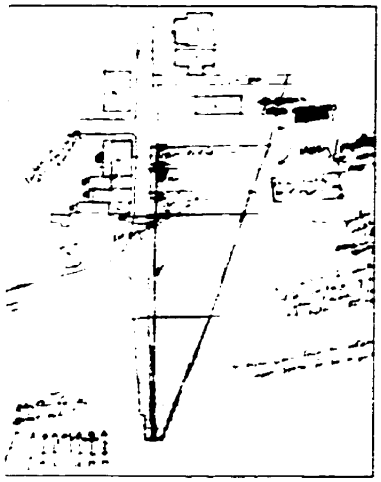


FIGURE 31: Design Layer Five

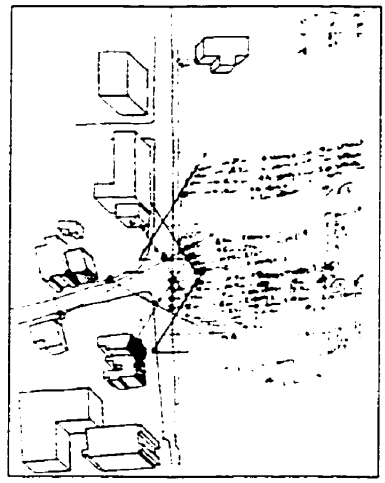


FIGURE 32: Proportion Calculations

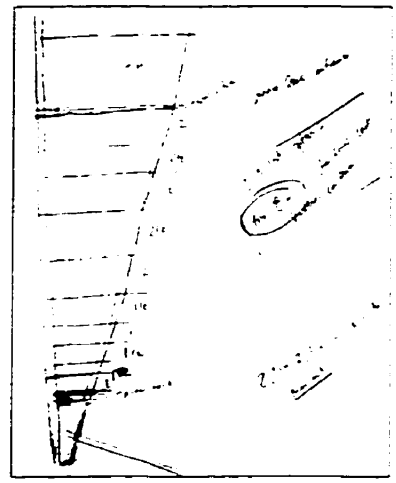


FIGURE 33: Design Layer Seven

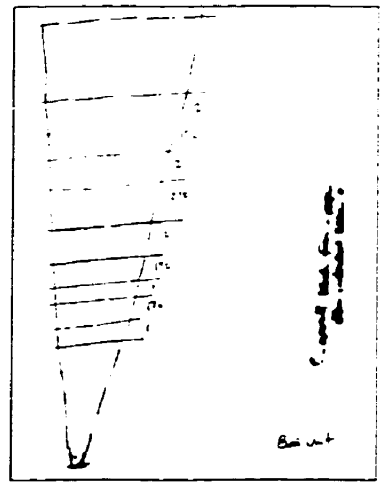


FIGURE 34: Design Layer Eight

The third stage of the design process can be entitled *resolution*. Once decisions were made regarding the spatial and contextual relationships desired, effort was then put into finding a way (or ways) to make them work. Resolving lot size and rhythm questions in relation to the context of the surrounding neighbourhood's existing form and evolution was among the most challenging. As the building blocks of our built landscape, achieving an arrangement that would define the street edge, enable the creation of a street-face, acknowledge the history of the neighbourhood and provide a variety of architectural and use opportunities was crucial. While the final program is the result of all the preceding work, figures 35through 40 represent this segment most clearly.

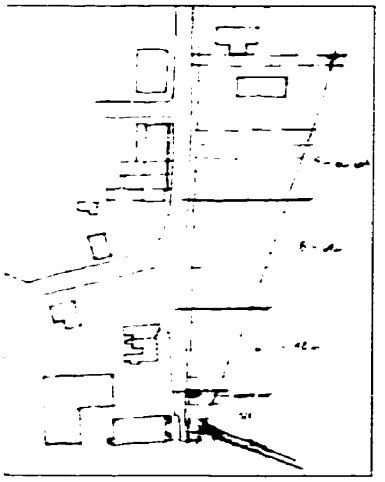


FIGURE 35: Design Layer Nine

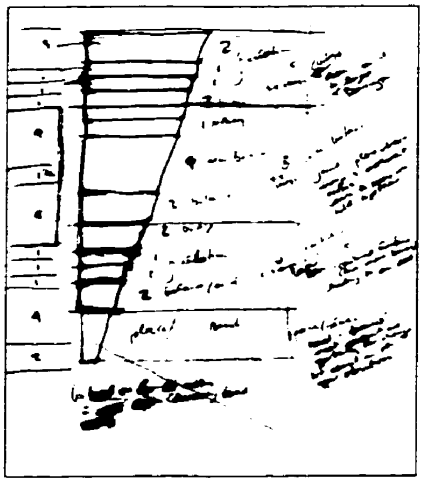


FIGURE 36: Design Layer 10a

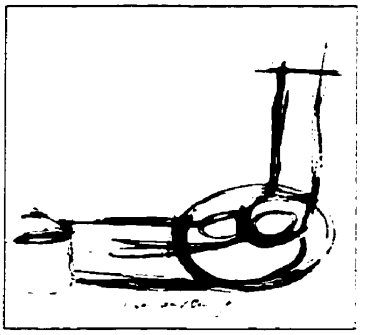


FIGURE 37: Design Layer 10b

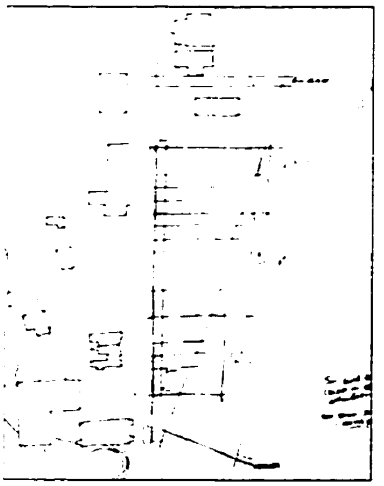


FIGURE 38: Design Layer 11

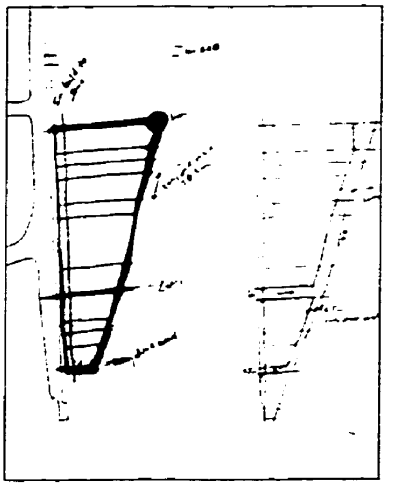


FIGURE 39: Design Layer 12

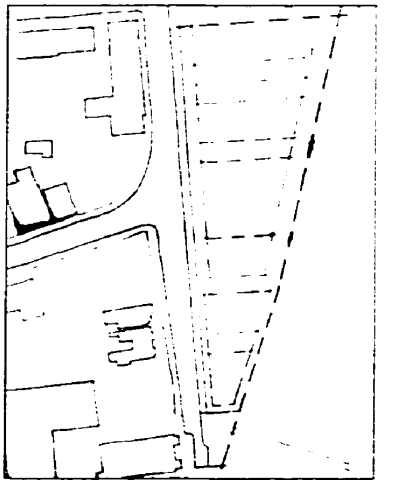
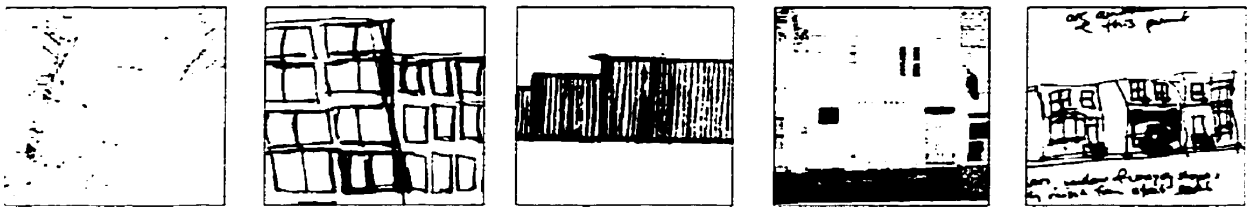


FIGURE 40: Final Lot Design

Edge Formation

The formation of a new *street-face* is essential to the creation of a public realm that positively reinforces and supports the character of the surrounding neighbourhood. With the decay of the built form along the studied section of Barrington Street, the public realm has deteriorated accordingly. To repair both, requires attention to both. To successfully establish a new edge for this realm will require a blending of many of the components discussed and analyzed previously. Attention must be paid to the relationships between building height and location, to the components of transparency and permeability, the amount of visual stimulation (focal points and information) and the type and placement of environmental support elements. Underlying these items is the need to encourage new edge form who's personality is harmonious with the evolution and context of the neighbourhood.



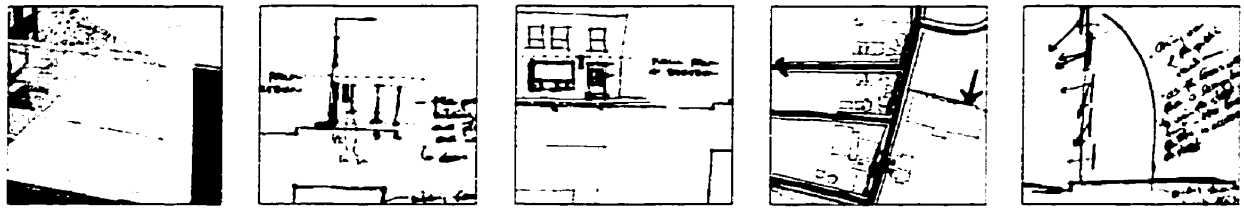
Inherent within these components and qualities is the possibility (or necessity) for natural surveillance to occur. Physical comfort is the cornerstone of a successful public realm, with personal safety and security being a large part of that sensation. Investigation into this idea is represented by the series of diagrammatic sketches and model which describe the different relationships private space can have with the street, and the degrees to which the physical components of built form (doors and windows) contribute.

Successful streets and public realms have in them a flexibility at their edges, which allow the form to accept new uses without difficulty. This is an important consideration for the creation of a *street-face*. The street must be able to evolve and adapt to new situations and social concerns, and to a degree, communicate its history to the community.

Spatial Evolution

The transition from one space to another is not simply a matter of walking through a doorway or opening. Often, the public realm encroaches into the interior spaces of its edge form, creating a modulating street-face that has a strong relationship with the components of transparency, permeability and legibility.

The transition from the public to private realm is important to the vitality and success of the street. How that transition occurs is an important consideration for urban planners for a number of reasons. First, it speaks to the physical components of the form and spaces that occur a long a street. While the professions of architecture and landscape architecture are entrusted with its physical and aesthetic design, the planning profession must ensure



that the street connects to its surrounding neighbourhood and community. Providing strong linkages between important *urban places* is an important aspect of planning the urban environment. Second, the permeability and transitional qualities of a street are associated with the uses and activities that occur within the built form. The organization of uses within a neighbourhood and community has long been the responsibility of the planning profession. While changes in technology and economic factors are blurring traditional means of landuse arrangements, this activity is still very much a part of the city-building approach. Co-ordinating activities which draw economic and social strength from each other draws from the academic breadth of the profession. As such, it remains a integral part of our professional culture.

Section Ten - Professional Responsibility

In taking the position that the guiding principle for the planning profession should be one of city-building, a number of current practices and approaches must change. However this change is not of the nature of a major shift in focus or practice. It redirects our role to that of managers and facilitators in the evolution of the city, incorporating both the built and natural environments. It also shifts the perspective that we are participants in many fields but experts in none, to one that addresses planners as the expert managers in the evolution of the city. This stance places the profession in a position to oversee the economic, cultural and societal evolution of our communities, with a new emphasis on the physical design and arrangement of the built form and *urban places* that constitute the structure of the city.

To instigate a change in professional perspective requires assuming new roles and responsibilities, in turn providing considerable opportunity for professional growth. However, we must critically evaluate our existing culture and structures to assess the best places for this change to begin.

This final section of the thesis will incorporate the discussion regarding the current culture and educational structure from Part One, with the lessons and observations of Part Two and the guiding policy of this Part. Bringing these threads of investigation together provides a threashold from which to recommend change.

While this is the final portion of the project, the recommendations open the door for further discussion and evaluation within and by the Profession. A critical review of our culture and practice would serve to strengthen the Profession, further developing a theoretical basis for action.

This thesis has investigated, both theoretically and practically, where and how change can occur. In questioning the role of the Planner in the design and evolution of the built environment, several methods have been utilized to find an answer. They have addressed process, expanding boundaries and professional relationships in an approach that is also somewhat unique. The approach itself offers clues as to how the profession can begin to

change and grow into the principles of city-building. Analyzing the spatial qualities of the existing built form along south Barrington Street in a design-oriented manner, highlighted a number of interesting relationships and perspectives which may not have been discovered through a policy-based approach. Identifying and interpreting the analysis in the manner presented became the basis from which the rest of the project grew. It utilized our traditional professional vocabulary in ways which were open to new observations and relationships, merging with the ideas and observations regarding *space*, *urban design* and the creation of *urban places* to produce the urban design framework outlined above.

This final section of the project will identify the ways in which our profession can begin to evolve toward the direction of city-building, focusing on the original objectives of the thesis. To reiterate, those objectives are:

- To find a new way of understanding an urban space or street;
- To address the 'grey' area the exists between planning and architecture/landscape architecture; and
- To expand the boundaries or envelope of the profession by re-introducing physical design into the culture of the profession.

Addressing these three objectives successfully will bring the project to the point where the stated thesis question: "What is the role of the Planner in the design and evolution of the built environment?" can be answered.

To do so, the discussion will be grouped into the three main categories of Communication, Envelope and Professional Culture, tying together the threads of thought and discussion that have flowed through this thesis.

Communication

Without successful communication techniques, the best ideas and solutions can be lost. A strong verbal presentation of new policies and guidelines to community groups and municipal councils is often as important as their written form. To this end, we are well educated and proficient. The diversity of our professional character has created a vocabulary we can

draw from to explain and address a wide range of issues, potentials and directions. However, what has been lost has been a proficiency to communicate our ideas visually.

One of the objectives of the thesis was to find a new way of understanding a street. To do so, meant an approach that drew upon our historic roots in developing a range of ideas using simple graphic tools. The communication of these ideas visually was crucial in coming to a recognition and understanding of a number of spatial relationships which currently exist along south Barrington Street. Incorporating items such as topographic and building massing models, drawings and models into the investigation of the concepts of transparency and spatial transition, and photographs and renderings of the existing and potential qualities of the public realm display the thesis work in a way which is simple and direct. Used in a supporting role, they allow individual consideration and thought during a formal verbal presentation. The following pages display these tools and show the way in which they were organized to help convey the findings of the work.

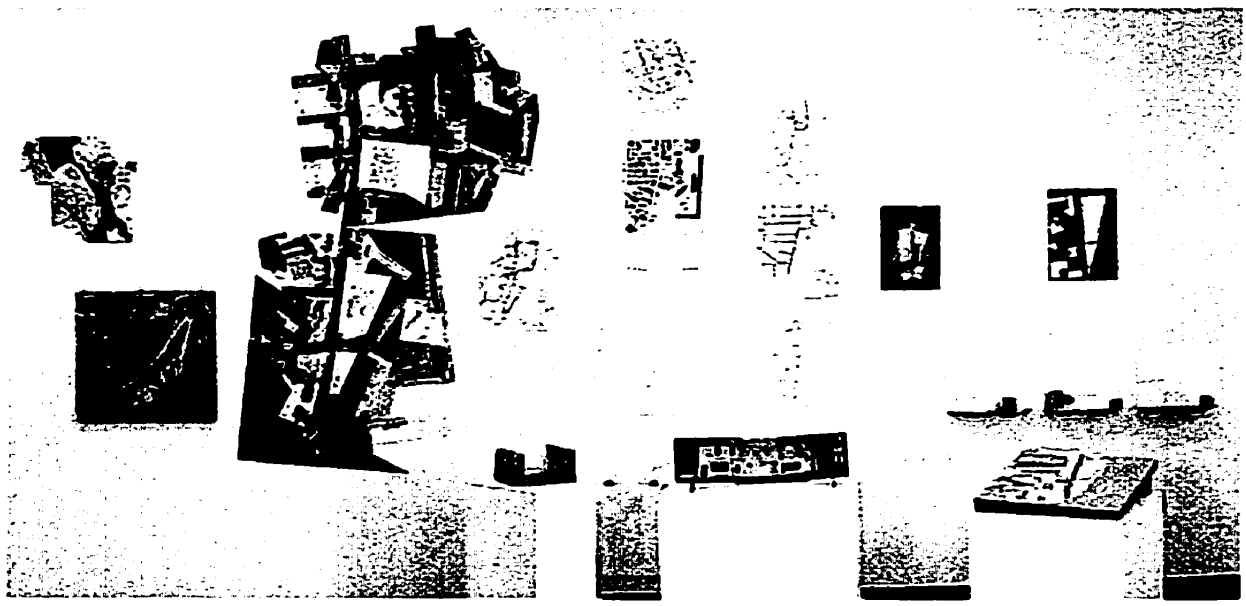


FIGURE 41: Presentation Display

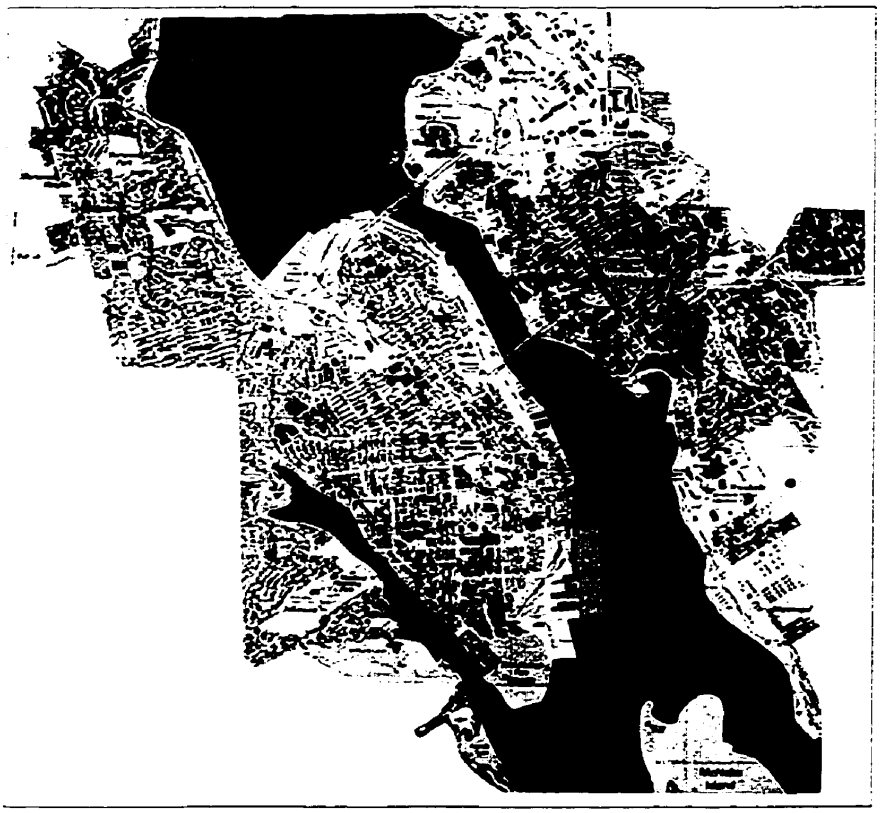


FIGURE 42: Site Context Map

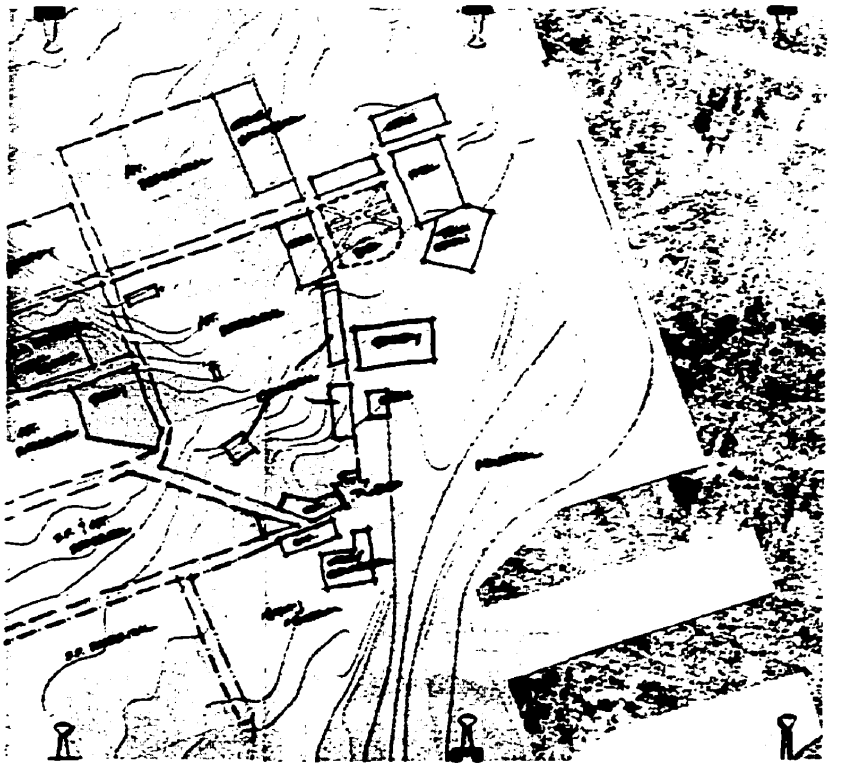


FIGURE 43: Neighbourhood Uses / Topography Model

FIGURE 44: Neighbourhood Evolution

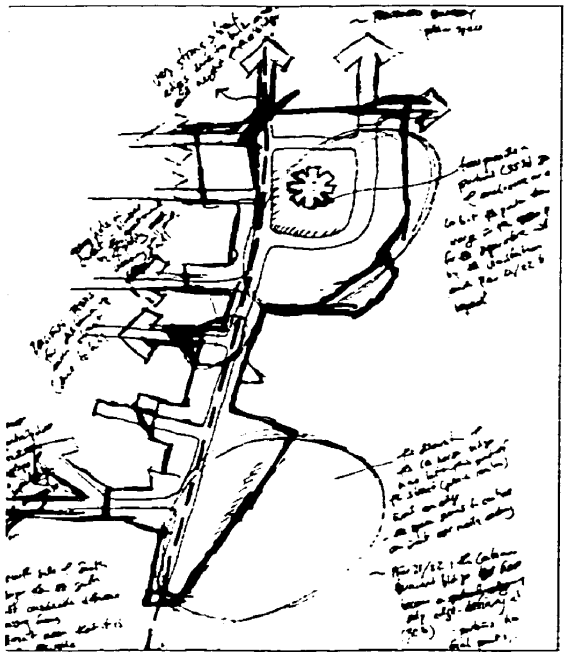


FIGURE 45: Preliminary Investigation Diagram Example

ANALYSIS DIAGRAMS

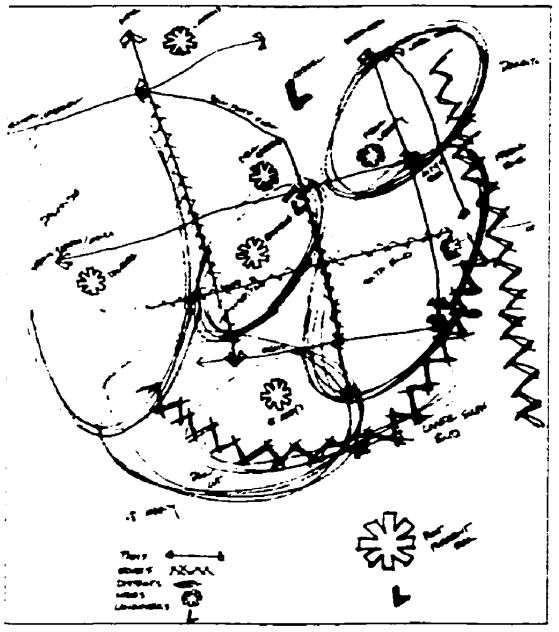


FIGURE 46: Community Analysis Diagram Example

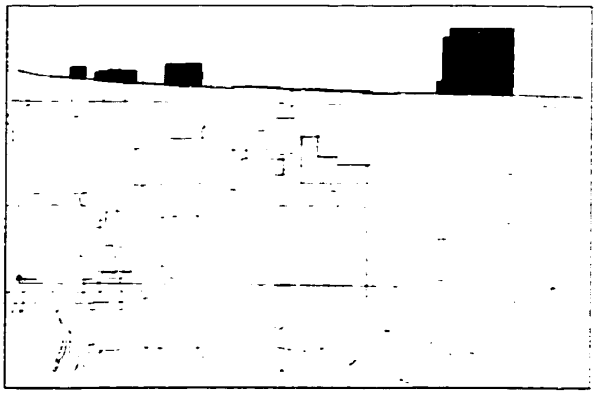


FIGURE 47: Neighbourhood Analysis Diagram Example

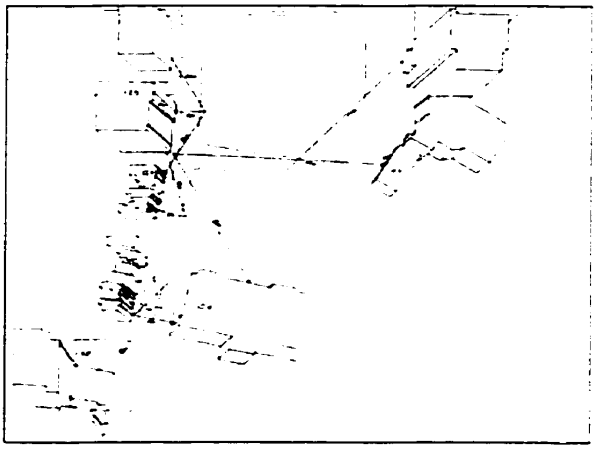


FIGURE 48: Streetscape Analysis Diagram Example

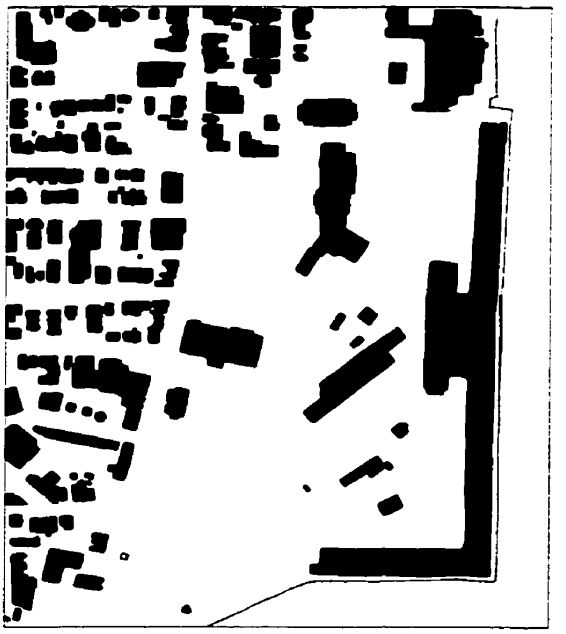


FIGURE 49: Morphology Diagram Example

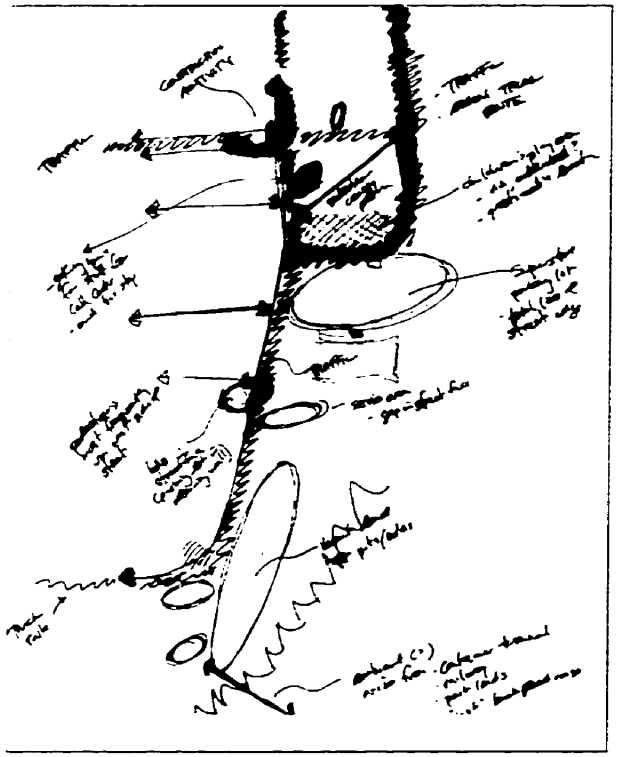


FIGURE 50: *Vision* Diagram Example

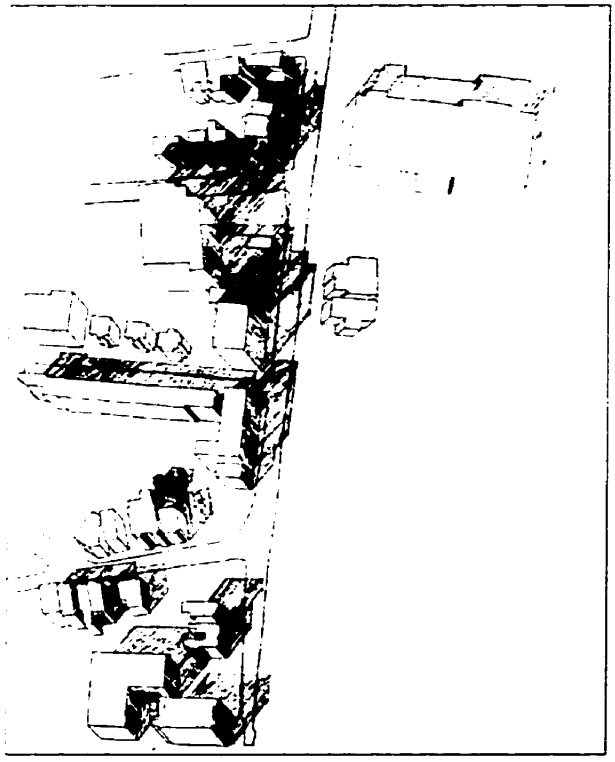


FIGURE 52: *Perception* Diagram Example

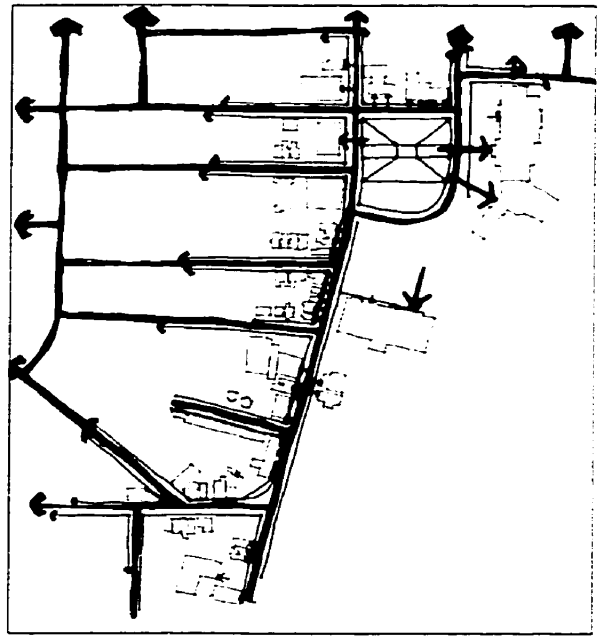


FIGURE 51: *Movement* Diagram Example

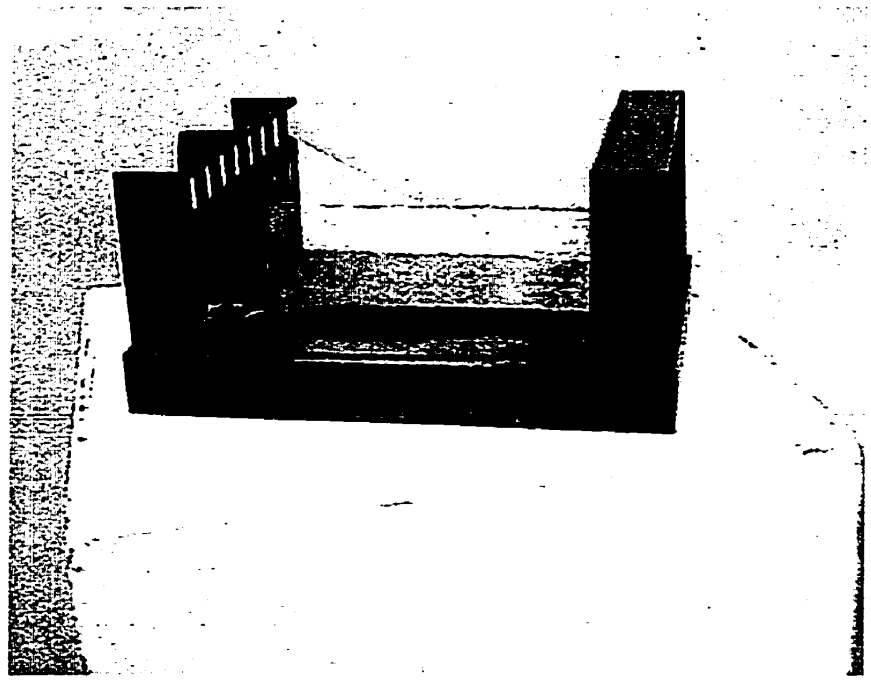


FIGURE 53: Visual Realm Conceptual Model

FIGURE 54: Transparency Model

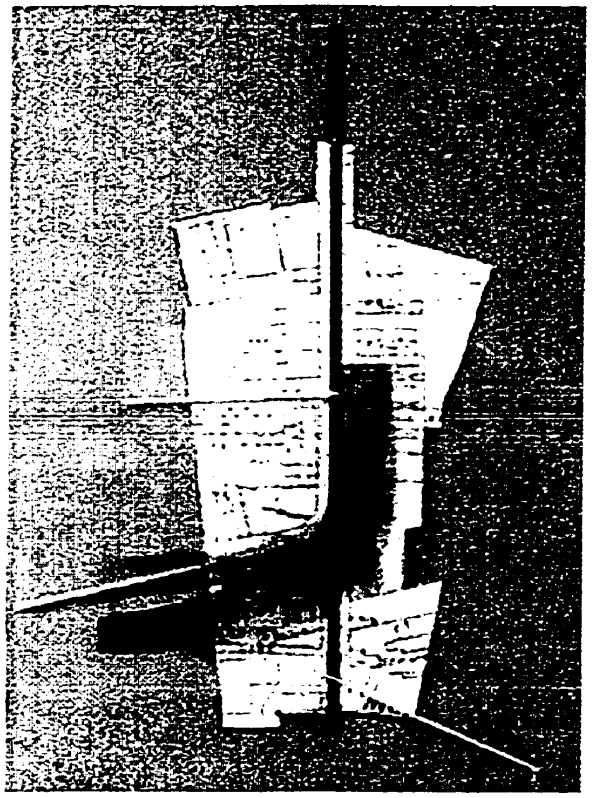


FIGURE 55: Elbow/ Hinge Model

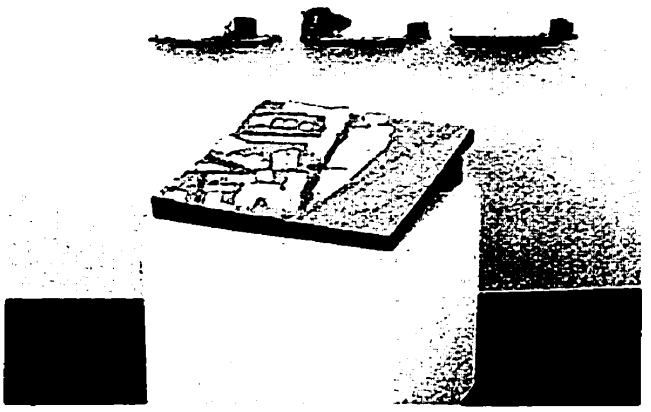


FIGURE 56: Design Phase Display

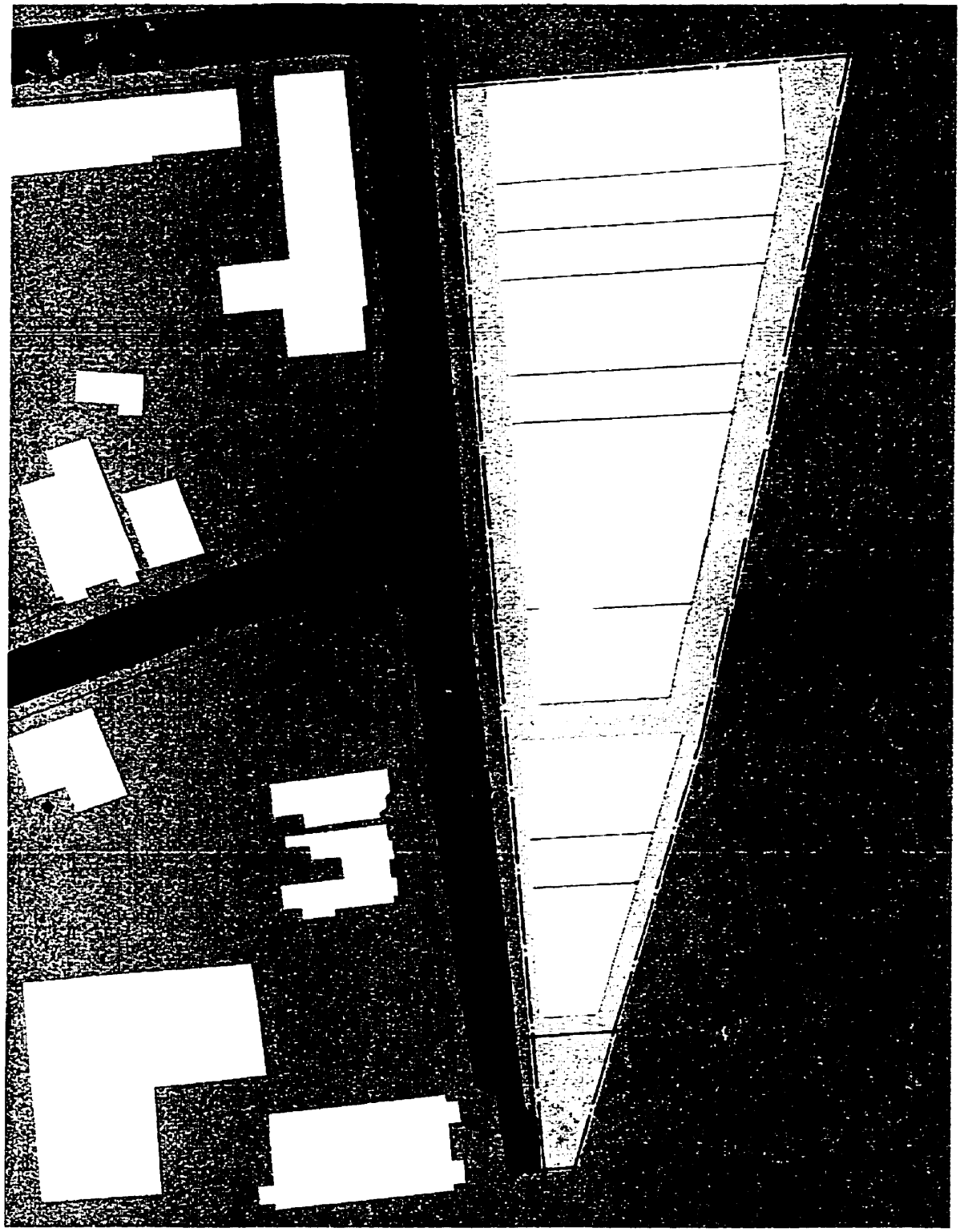


FIGURE 57: Final Lot Design Plan

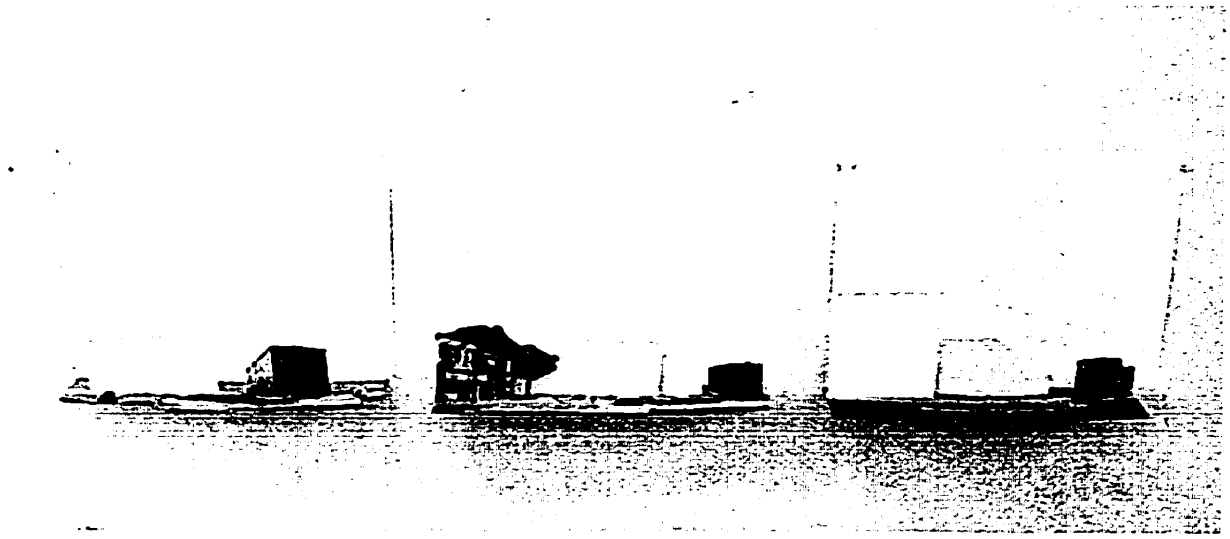


FIGURE 58: Public Realm Perspective Models Display

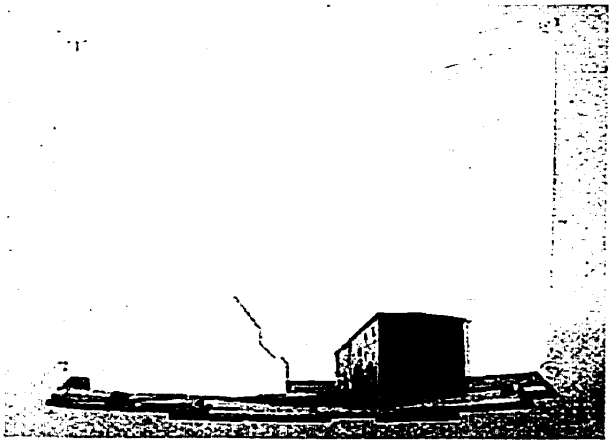


FIGURE 59: View south on Barrington Street

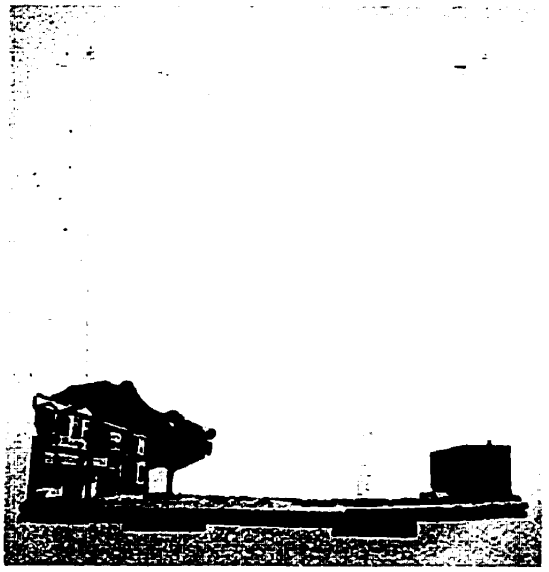


FIGURE 60: View east on Inglis Street

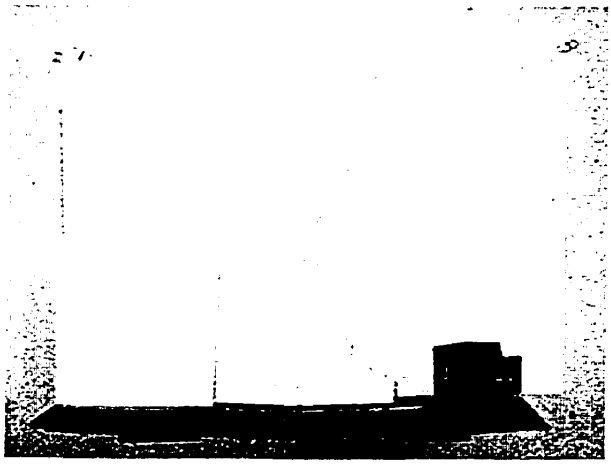


FIGURE 61: View south from Barrington and Inglis Streets intersection

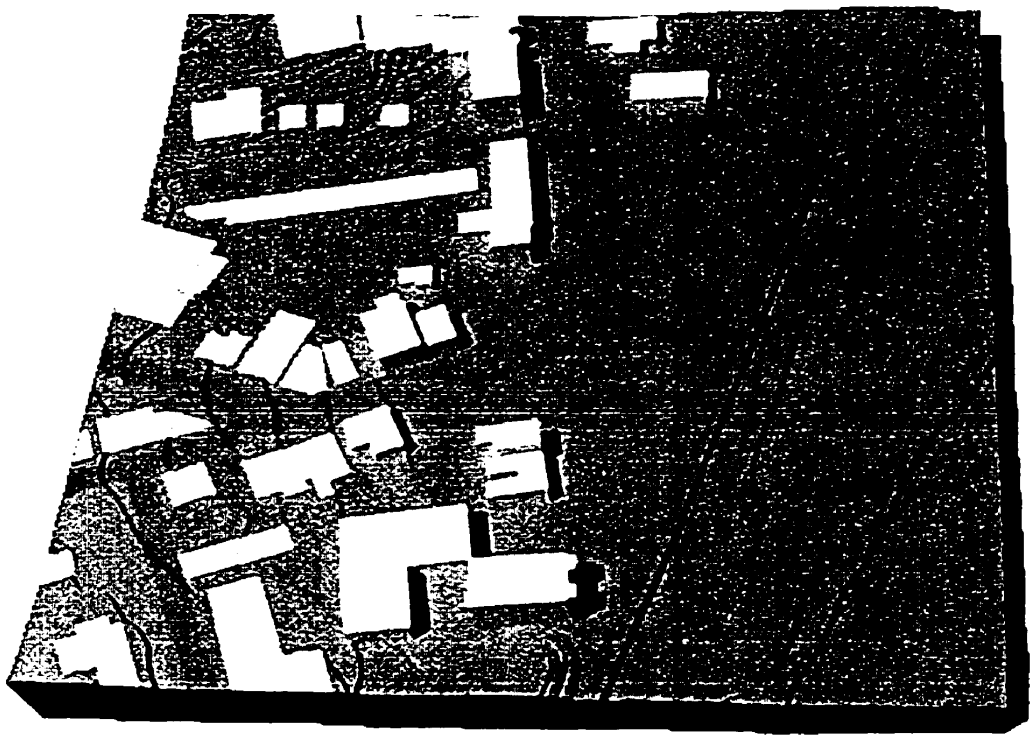


FIGURE 62: Existing Site Condition

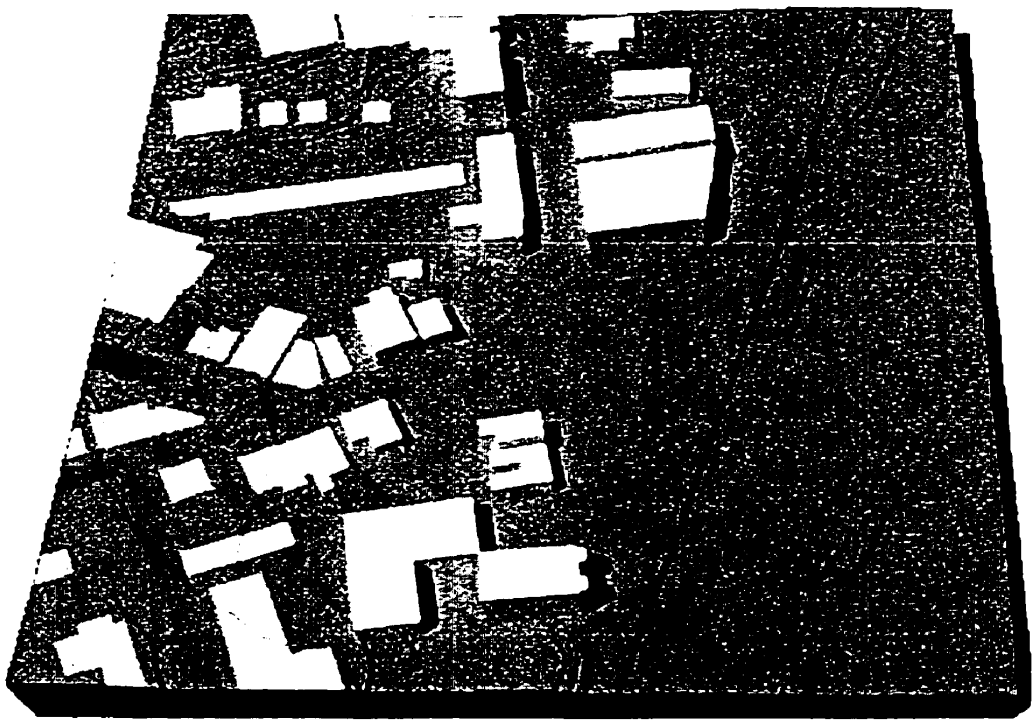


FIGURE 63: First Stage Massing Proposal

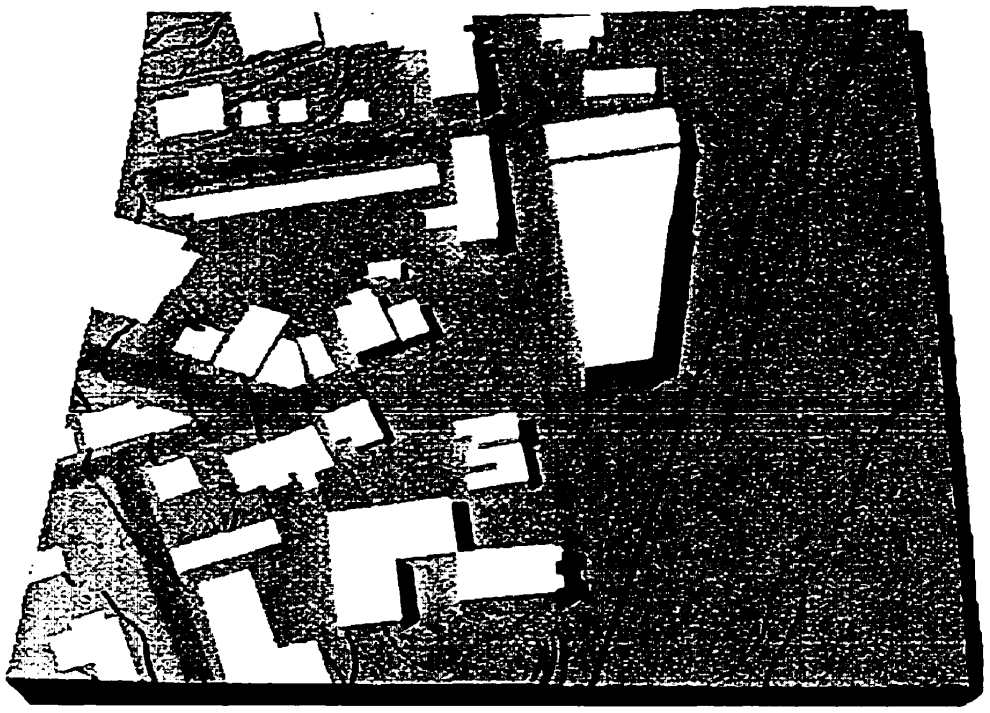


FIGURE 64: Second Stage Massing Proposal

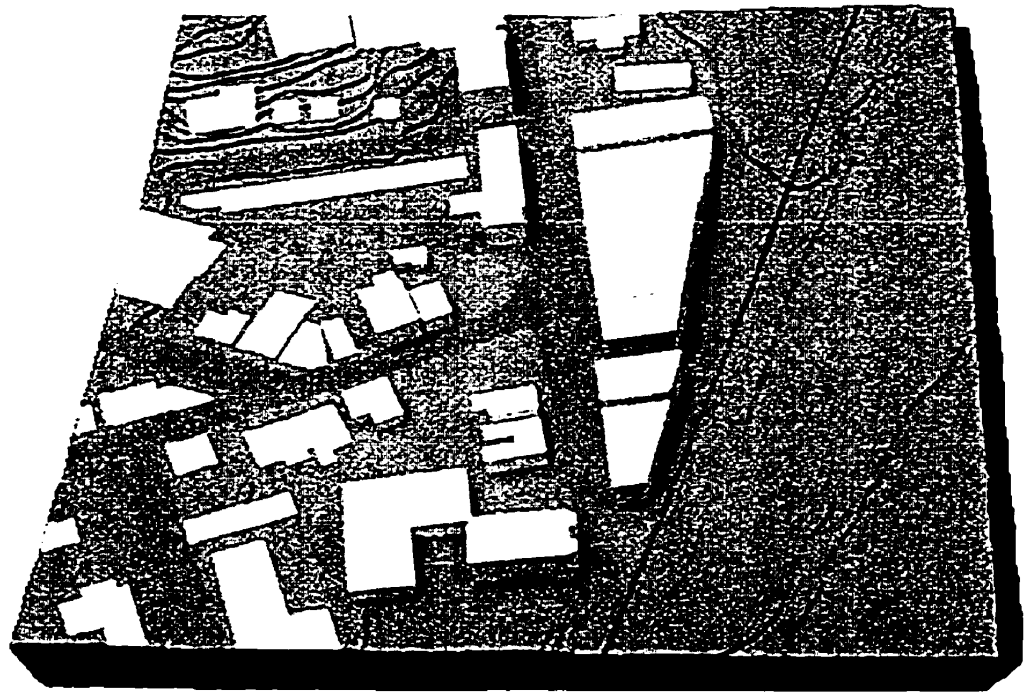


FIGURE 65: Final Stage Massing Proposal

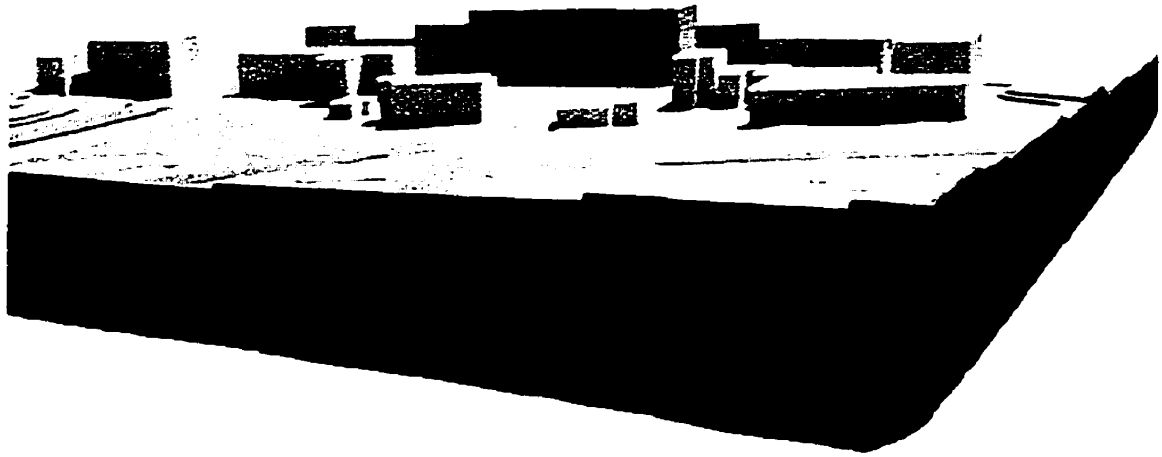


FIGURE 66: View east

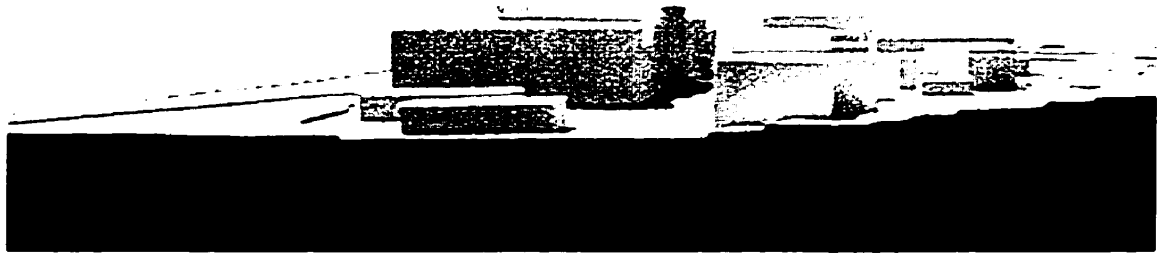


FIGURE 67: View south

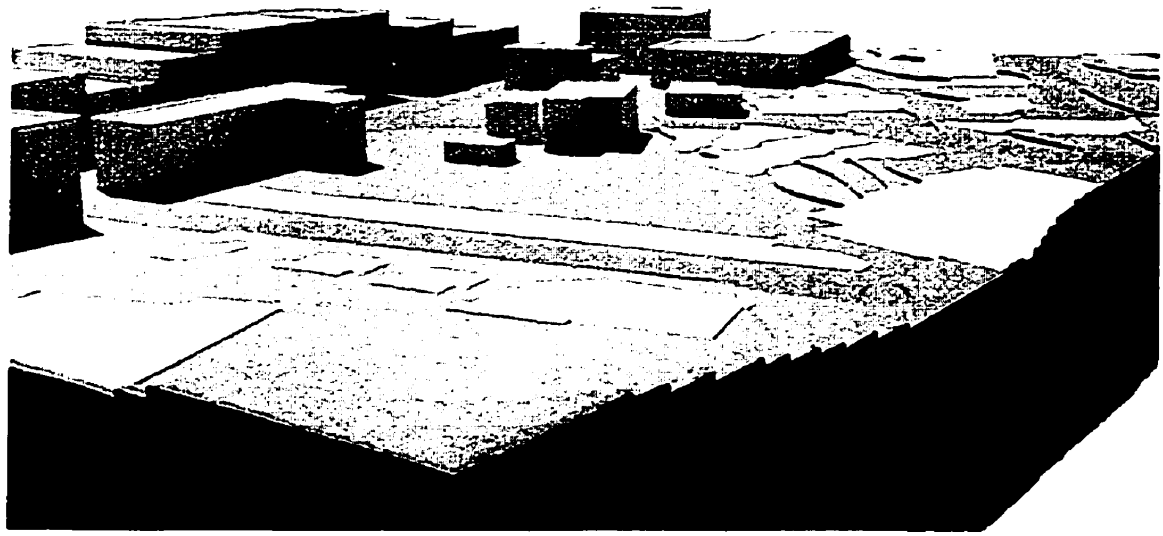


FIGURE 68: View southeast

Envelope

Another key objective of the thesis was to expand the envelope of the profession by re-introducing physical design back into our culture. While not producing a definitive solution, this thesis has provided examples as to how this objective could be accomplished, why it is important and how far the envelope should be pushed. Key to these points is a professional acceptance of the ideals of planning as city-building. Viewed in this perspective, we cannot effectively fulfill our role without incorporating the design of the spatial elements and qualities of the urban environment.

It is important to note, once again, that embracing urban design into our professional culture does not mean we must all be or become architects or landscape architects. Rather, we must bring our long-range and comprehensive view of the evolution of the urban environment into the discussion. Establishing the framework within which creative design can occur is our paramount role. To accomplish this, however, requires a better understanding of the spatial relationships and results that can occur from our written policies.

The design phase of the project speaks to this point, showing the means by which a development framework for south Barrington Street was developed. Drawing as heavily from the analysis of the street as from the literature review segment, the design work focused on the creation of a public realm which would include qualities that would make it successful. The establishment of a new lot arrangement, street proportion requirements (building placement, height and massing), locations for *urban places* to develop and an indication of the required supporting elements achieves combine to achieve this goal.

Professional Culture

Perhaps the most important goal of this thesis was to provide an example as to how the culture of the planning profession could evolve. Discussion surrounding this point has been presented under the "Question" part of this project, addressing items of *current practice*, *educational environment* and *roles and responsibilities* of the profession. Much of the direction of the thesis was taken from this part, as well as from personal experience and education in planning. Critically evaluating our educational structure and

professional practice responsibilities has lead to a number of conclusions which warrant presentation. It is believed that this type of evaluation can only serve to make the profession stronger by addressing those areas which are of concern, both to the author and within the larger 'academic' discussion. These conclusions can be summarized into Education and Practice, each serving to identify opportunities where the grey area that exists between planning and the physical design professions can be reduced.

Education:

- Planning curricula should be re-evaluated and include the opportunity for in-depth study of the principles and concepts of urban design, within an environment that allows practical application through studio-based course work.

- Co-operative and inter-disciplinary opportunities for theoretical discussion and practical application must be included. To accomplish this, planning schools should be located within a larger academic unit that includes the disciplines of architecture and landscape architecture, and have well developed relationships with the environmental, sociological and economic components of the institution.

- Practical education should be supported by required professional experience and have strong connections to the larger Profession.

These educational conclusions are connected to the practice of Planning by establishing a system which develops professional values and ethics, as well as expanding the range of experience prior to engaging in practice.

Practice:

- The primary role of the urban planner should be as "city-builder" incorporating

and encouraging the participation from allied professions, civic organizations and public participants, while taking a leadership role in the management of the players and direction of the process.

- The structure of municipal planning units should include incorporate the long-term vision and practical application of the growth and development of the city.

- Decision-making authority regarding the technical approvals of development proposals should be returned to the Planners and not left in the mandate of planning technicians or development officers.

- The responsibilities of the profession should include the creation of *urban places* and a public realm which improve the quality of neighbourhoods and communities through the practice of urban design.

ANSWER

To answer the thesis question, the role of the Planner in the design and evolution of the built environment is both that of 'city-builder' and of urban designer. Incorporating the often divergent interests at play in the growth of the urban environment requires us to fill the role of manager and negotiator. Our professional history has developed in a manner as to provide a macro view of the built environment, understanding the history, structure and component parts that link it together into a community. Taking this new perspective as 'city-builder' incorporates all those elements and interests at play, and draws on our diverse professional origins and evolution.

As urban designer, we are able to investigate, analyze and interpret the physical and sociological components of a neighbourhood or street, providing suggestions for the direction of future growth. Focusing on the design of the public realm enables the creation of a framework for development that lessens the 'grey' area of responsibility, while not attempting to design the architecture of the *place*. Strengthening those locations within the urban fabric which possess unique qualities and characteristics, establishes our role as designers of *urban places*.

As a result, we have a responsibility to both the construction of the urban landscape and the management of its growth which is essential to the creation of an urban environment that enhances the quality of life of its residents.

Through the course of this project, discovery's were made which can be attributed to the methodological approach and theoretical investigation. In particular, they include:

The recognition of the differences between a *street-face* and *street-wall*;

the varying degrees of transparency which can exist along a street;

the relationship between the public realm and visual connection to different storey's of a building; and

the role of proportion in the creation of the public realm.

Discovery's were also made regarding the evolution of a neighbourhood and its potential future form. The new building envelopes proposed in the Design Application phase, drew from both the historic lot configuration and built form history of the neighbourhood. The result was not a mimicing of the past, but a new layer to add to its history. Incorporating the concepts of *transparency*, *street-face* and 'ideal' proportion into the design help to re-establish the public realm along that portion of Barrington Street. Ultimately, the proposed street-face and public realm create a terminus for Barrington Street, while strengthening the connections to Inglis Street and the surrounding urban landscape of the South End.

The chosen approach and analysis methodology were key to the success of the design application and to the conclusions reached. The degree of understanding and observation would not otherwise have been possible.

However, these conclusions are not an end-point. Rather, they open the door for further discussion and study into the ways in which the Planning profession as a whole can become more responsive to the evolution of the urban environment.

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