

**CONNECTING PAST, PRESENT, AND FUTURE:
AN URBAN DESIGN STRATEGY FOR DOWNTOWN
ST. JOHN'S, NEWFOUNDLAND**

by

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A thesis submitted to the
Faculty of Architecture
in partial fulfilment of the requirements
for the degree of

MASTER OF ARCHITECTURE (FIRST PROFESSIONAL)

Major subject: Architecture

DALHOUSIE UNIVERSITY - DALTECH

Halifax, Nova Scotia

1998



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0-612-39690-8

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ABSTRACT

St. John's is a very old city with few old buildings, therefore it is difficult to gauge its age through its architecture. The city was razed by fire three times in the nineteenth century. The worst was the Great Fire of 1892, destroying two-thirds of the city. The residents of St. John's were relentless and kept rebuilding on the old street lines of years before, despite the city council's attempts to straighten and widen them. The streets, lanes, and paths that were preserved result in a complex system, creating one of the more unique cities in the country.¹ The topography was another factor in dictating street layout: with such a steep rocky slope it was not easy to build nor flatten the hill.

Urban morphology is the study of a city's plan, streets, and land subdivision to aid in an understanding of how the city developed. This morphological study can be used to inform an urban development. By knowing where we came from we can determine where we may go. Since the street patterns of downtown St. John's have changed very little it is interesting how the lanes and paths worked to create a complete system. A complex system of many streets connected by small lanes resulted in many levels of choice, adding character to the city through streets which manoeuvre and wind about irregular blocks.

The development pursued in this thesis is a redevelopment of an area that was cleared during the 1960s slum clearance movement. It is based on the morphological analysis of the area. The author considered the 1920s to be the desirable model of density and complexity. The driving force behind the design was a redevelopment of the laneway system. The development is a mixed use area with housing, commercial, and office space.

ACKNOWLEDGEMENTS

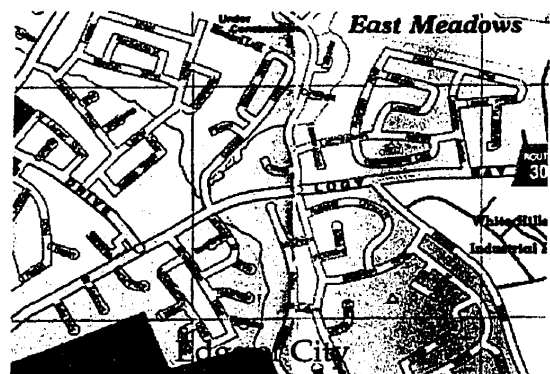
I wish to thank everyone who helped me in obtaining the information I required for this thesis: my mother, who ran around the city of St. John's taking pictures and gathering information from city hall; the city hall archives for their help in getting the maps I needed, and even sending them to me free of charge; Bev Sandalack, who guided me into a direction that resulted in a much clearer idea of what Urban Design really is; and to my father and the rest of my family and friends, who encouraged me to keep going. Thank you all.

INTRODUCTION

Over the past 50 years St. John's has moved from a vibrant, dense, and active city to a suburban sprawl that is based on the automobile. The result is a city whose inhabitants are dependent upon the car to obtain the necessities of life. This has created a city full of holes, especially in the downtown core. The holes are usually parking lots that are constantly getting larger. Many local residents are proud of the character of their streets and do not wish to see suburban sprawl and high rises destroy it.

One way to combat this is to increase the overall density in the downtown area. An increase in the urban housing, office, and retail developments can increase the use of the downtown area, and decrease the dependence on the automobile. The downtown region requires a density that is conducive to row housing, low-rise office and apartment buildings. The familiar form of doors opening onto the street, bay windows, wood trim, commercial buildings with large shop windows, and buildings forming the edge of the street rather than yards or fences is what many people look for when they go downtown. A new development utilising these familiar forms is the answer to filling the holes in the core. Familiarity can be achieved without being nostalgic:

There is, however, a world of difference between borrowing and imitating, with the former bearing all the attributes of a creative act and the latter presenting all the characteristics of a fail-safe attitude, one that no architect can ever condone.²



The most important element in downtown St. John's is the street system. The "messy" system of streets, lanes and paths throughout the core adds choice and variety to the city. It is here that this thesis takes its starting point.

QUESTION

Can a morphological study of the downtown streets of St. John's aid in the revitalisation and intensification of the city?

HISTORY OF ST. JOHN'S

Located on the east coast of the Avalon Peninsula and discovered around 1500, St. John's harbour was an immediate attraction due to its shelter from the tough Atlantic waters and its proximity to Europe. England, France, Portugal, and Spain all used it as a port of call for their fishing industries. Even though England laid claim to St. John's in 1583, no form of government existed for a long time. The harbour and city was run by the first English captain to get into port at the beginning of each fishing season.

Throughout the years St. John's was attacked by many who wished to claim it as their own for a fishing base. The first attack was by the Basques in 1555; the English retook the city but it was lost to the Dutch in 1665. The last battle for the city was won by the English, who took it from the French in 1762 by coming overland from Torbay, a community north of the city.³

While it was in British hands, English laws made it illegal to settle in St. John's, though many did. In England it was considered a fishing station for exploitation by the West Country merchants and the 20,000 transient fishermen in their employ, and not as a

suitable place for settlement.⁴ There was even a strong business presence as early as the mid 1500s, with iron foundering and ships' chandleries in operation at the time of Cartier (1534-1542).⁵ 1605 is the earliest proven permanent settlement in St. John's.⁶ By 1780 settlement was tolerated though officially it was still illegal, and as late as 1801, any building that was considered to be an impediment to the fishery was torn down.⁷

Settlers continued to move into the village, and by 1675 there were 185 people, with 249 in 1677. By the 1700s St. John's moved from a village to a town, and with more development came more settlement. By the mid 1700s some of the ships rooms (areas put aside for the construction of structures to be used strictly for fish processing) began to fall into disuse and the settlers took this opportunity to build in the one area that was always forbidden and strictly enforced. The early 1800s saw the formal abolition of the ships rooms and the granting of land to the settlers. However, the 19th century was one of the worst in the city's history: from 1816 to 1892 there were 24 major fires. The Great Fire of 1846 destroyed three-quarters of the town and killed seven. The second Great Fire occurred in 1892, when over 2000 dwellings were lost (two-thirds of the city) and 12 000 people were left homeless. The fires travelled so well because almost the entire city was built of wood and the streets were so narrow.

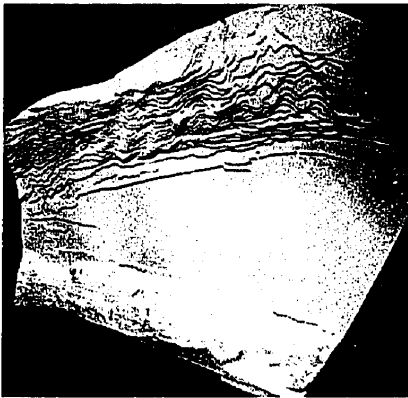


The city continued to grow slowly. A population of approximately 30,000 in 1888 expanded to 101,000 by 1996. Including the outlying areas raises the population to over 175,000.⁸



HOW THE CITY GREW

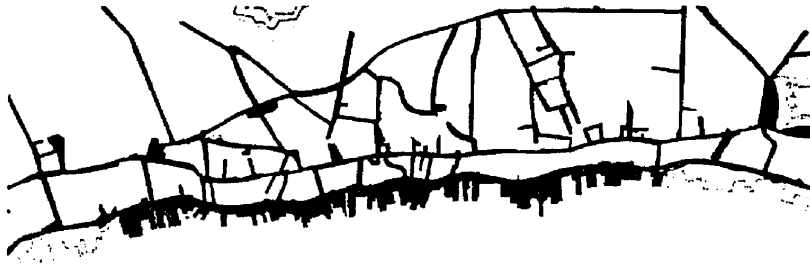
The law against settlement was not the only deterrent; there were French and pirate invasions, and destruction by transient fishermen.⁹ As well, the topography of the city is quite steep, with a slope of 1:12.¹⁰ Some of the first "townies" were quite ingenious and built their homes on wheels so they could easily move them to avoid the law.¹¹ Wood was used because it was cheaper to rebuild and warmer in winter.¹² The buildings that were constructed were built where they could cling to the cliffs.



The development of the city was restricted to the north side, the south side was too steep for convenient building. The north side grades are still difficult...this has cramped the city from the beginning. Building land has been scarce, resulting in high land values and the custom of placing buildings as compactly as possible on the land. This practice was also encouraged in the old days by the difficulties in obtaining title to land as a result of the policy of the controllers of the fisheries to prevent permanent settlement in Newfoundland.¹³

The flattest area was near the water on the west end of the city, but that was reserved for the ships rooms. Since fishing was the primary reason anyone came to the city, it was

vital that the fishing industry had as much waterfront property as possible in order to accommodate their catch.

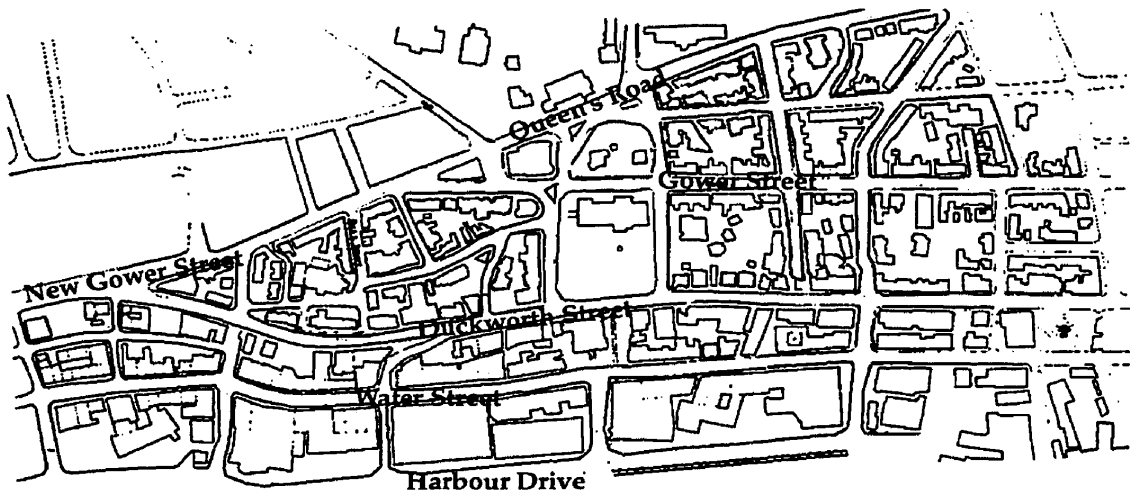


Sacrosanct ships rooms prevented the development of streets so St. John's grew in a disorderly manner with houses scattered all over the hill side.¹⁴

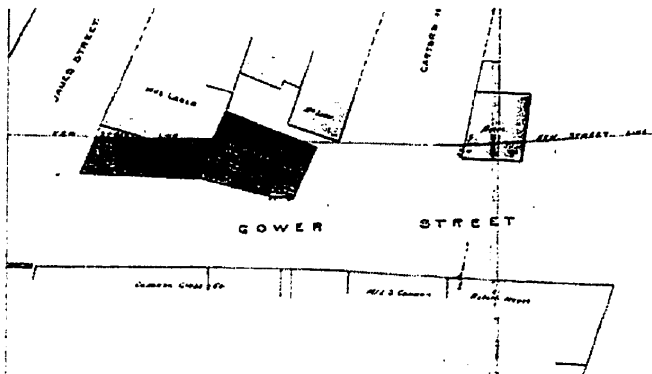
The topography, the fact that many of the settlers took what land they could where they could, and the fact that the city was never really founded, resulted in St. John's growing in an ad hoc manner not unlike mediaeval towns in Europe.

The main streets of the city run west to east, parallel to the water's edge, while the cross streets are short and staggered. Many of the streets began as "pedestrian paths made directly up the bank from the water without regard to grade."¹⁵ Some of these old foot paths remain today, though they have now been paved with stones or steps. The paths and laneways that connect the higher streets are the most interesting aspect of the city.

As the city began to grow, more and more buildings were built along Water and Duckworth Streets. The majority of these were commercial: the water side of Water Street was covered in fish flakes while the uphill side had the shops. The more buildings that were built, the less room there was to bypass them. It came to a point where the paths were being maintained only by going beneath the buildings or fish flakes. Soon Gower Street and Queen's Road appeared above the Upper Path, extending the reach of the settlement up the hill.



It is very difficult to determine in many areas which came first: the lanes or the buildings. As time went on, the city tried to straighten the street system. The big push for this came after the first major fires in 1816 and 1817. Some of the destroyed areas were widened and some of the curves were taken out. The great fire of 1846 resulted in a huge amount of destruction and the city took this opportunity to further widen and straighten the streets. Prior to this fire, some areas of Water Street were as narrow as fifteen feet, and prior to 1816 it was as narrow as six feet. There was now a new set of regulations, including the introduction of new, wider cross streets as fire breaks. At the intersections all buildings had to be constructed of masonry, and the preference was to rebuild as much of the city as possible out of stone. However, not all these regulations



were carried out, nor were they carried out to their full potential. Some of the buildings on Water Street were still built of wood, and Duckworth Street was rebuilt entirely in wood. Not everyone would give up portions of their

property, so some of the buildings were rebuilt in the same places, resulting in the same narrow streets as before. After the fire of 1892 the city again ordered the streets widened and straightened, and again many people afraid of losing property kept to the old street lines. As a result, the city still has much of the historic street pattern remaining.

Because of the steepness of the hill, ways were found to flatten it and accommodate more buildings and streets.

The Harbour has been reduced in size in favour of land roads and buildings, by 1883 the north shore was pushed out nearly 100 yards... they blasted the north hill and used it as fill.¹⁶

Then, from 1956 to 1964 the harbour was filled in drastically again, when the finger piers were removed and Harbour Drive and the new mega-wharf were constructed. Recently, the city has begun to reroute and widen some of the traditional streets. Since 1985 St. John's has twice widened the west end of Water Street, shortened cross streets, and rerouted Barter's Hill, closing off the old end of the street and creating a multitude of dead end streets.

CITY BUILDINGS

The architecture of St. John's is very similar to many Atlantic colonial cities, such as Saint John and Halifax. The commercial and public buildings are of stone and the residential buildings are mostly wooden. The way the city grew resulted in a delineation of uses: for the most part, residential areas were above Duckworth Street, the heavy commercial areas were along Water and Duckworth Streets, and the public buildings tended to be on Duckworth Street.¹⁷

Would St. John's architecture be different if the fires of 1817 and 1846 hadn't destroyed most of the city?

Rather than rebuild what was there, many of the builders took designs from other cities such as Dublin and London, thought to be better and newer. The housing stock of the 1840s had high roofs, wood shingles, stone chimneys and fireplaces; if there were dormers, they often faced the back yard. After the 1892 fire the houses became flat-roofed with centre brick chimneys.

Another common style is the Southcott, named after a very prominent builder of the 1800s; this is a vernacular variation of the Mansard style. The commercial buildings along Water and Duckworth Streets were constructed almost entirely of stone. Their ground floors had large shop windows and many of the main entrances were recessed, giving a great sense of entry, and the facades were decorated with wood and stone trim.



Up until the 1930s the most common form of housing was the row house. However, after World War II and Confederation in 1949, row housing was put aside for a more favourable type: the detached house.¹⁸ People wanted



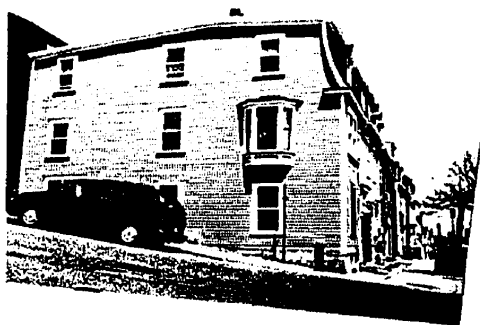
to have their own piece of property, the little bungalow and the white picket fence. Greater access to automobiles allowed easier access from the outlying areas by those who wanted a bungalow and fence in the suburbs. This trend is still continuing, to the point that the city is almost entirely a collection of suburbs.

Even though the area was almost entirely rebuilt in 1892, the city still retains most of the same street character of years before. The way the street system has changed or remained the same says something about how people move through the city. The city is very human in scale, with buildings forming a rigid line along the streets, giving a true sense of place. If the holes are patched and the city reconnected, the city will remain intact for a long time to come.

URBAN MORPHOLOGY

Urban morphology is the study of urban form over time. Morphology studies both the physical elements and the spatial structure. Physical elements include the lot sizes, streets, buildings, and open spaces, while the spatial structure involves land use and patterns of activity. An idea I agree with is that design is done in the present within the context of the past and possible future. One can design only for today because one does not know what tomorrow will bring. In order to offer some sort of continuity and stability to a city, one must design with a knowledge of the past; it is the past that forms our character and the character of the city in which we live. Using urban morphology as a basis for urban design is not being nostalgic; it involves taking the historic ideals and precedents that worked and reintroducing them into the fabric of the city.

It is not the mere accumulation of borrowed features that achieves a successful relationship of old to new. The greatest chance of success comes from a combination of efforts - a healthy respect for the site, careful analysis of the existing building or group of buildings, accurate determination of their essential characteristics and the weaving of this data into an uncompromisingly contemporary design concept.¹⁹



CHARACTER OF THE CITY

Many people talk of the character of the streets of St. John's, with houses clinging to the hill in the residential neighbourhoods, following the slope as they step down to the water. The majority of

homes in the downtown core are wooden row houses, tightly lining the streets. In some neighbourhoods it is common to see bay windows overhanging the sidewalks and laneways, claiming air space. In almost every downtown neighbourhood the street is seen as a regulating standard. The buildings front directly onto the street, and no one breaks the line. Some blocks have houses stepping back slightly to allow for porches, but again the main house line is always maintained. As for the houses themselves, the most outstanding and memorable characteristic is the vibrant colours: blue, red, green, pink, purple, and the occasional white one. Other features of the houses include "elaborate Victorian entrances...turned wooden posts and wooden decorations on gables and eaves."²⁰



One observation I made during my initial study of the city was the fact that there appeared to be pockets of activity, separated from each other by the holes in the fabric. Some attempt has been made to connect these areas. The city has tried to beautify some

of the lanes and alleys, and some of the holes have been turned into pseudo-parks. Some of these areas have steps, fountains, flowers, and trees. The alleys tend to be paved with brick, although some streets and alleys have been partially blocked by decks put up by bars and clubs. Services such as grocery stores and pharmacies are non-existent in the downtown core. Pedestrian access is another major problem. The waterfront is designed for vehicles and ships; the tourist area of the waterfront is simply a large paved dock with a historic boat tied alongside.

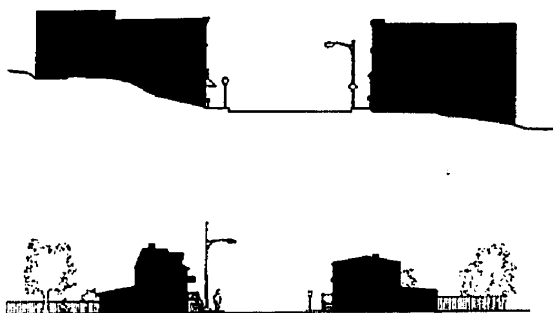


IMPORTANCE OF LANEWAYS

To many, it is the curbs that create the edge of the street, but in fact it is the vertical elements such as buildings, trees and fences that form the true edges. The ratio of street width to



building height makes a big difference in how one experiences the street. As the buildings get taller, the street can get wider while still maintaining the same amount of enclosure. It is when a street is wide and the buildings small that discomfort settles in; one can feel lost in a sea of asphalt. A wide street can be made much more intimate with the addition of large trees along the edge or in a boulevard. The converse is also true: a narrow path or lane with tall buildings may feel cavernous, especially if the buildings are so tall that you cannot see the sky. The edge condition is often the defining element of a street versus a lane or a path. Another defining element is the threshold: how it



meets another thoroughfare. A lane often crosses a depression in the curb and sidewalk of a street, and pedestrian paths often appear between buildings, with very little to announce the entrance other than a quick change in ground cover.

There are two distinctive categories of laneways: pedestrian and vehicular. Some lanes could possibly be considered a combination of both. Within these categories there are other divisions. Some pedestrian paths are long, straight, and used strictly to get from one street to another. Other pedestrian paths tend to curve, allowing for spaces to stop and rest, or they have shops, bars, etc. fronting onto them. There are pedestrian paths that work their way under buildings and into residential courtyards. Many vehicular laneways are only wide enough for one car and tend to have less variety. Some of these lanes have been turned into one-way streets and others have been blocked to vehicular traffic entirely. Some, such as the pedestrian path, travel beneath buildings to gain access into courtyards. Because of the geography of the city, some buildings are reached via very small lanes. Only the lane and a retaining wall separate the buildings from a huge drop to the street below. Then there is the traditional back alley, where the lane is just used as a service access for the buildings along it.





Laneways, footpaths, etc. result in a more complex and messy street system that is less conducive to cars than to pedestrians. This complexity offers more choice with fewer dead ends, and it creates a character that is lost in the new suburban sprawl. Smaller blocks encourage pedestrian use, while large blocks are designed for vehicular use. Large blocks with fast streets are not going to disappear anytime soon, nor will cities cease from building more because people today will not give up their vehicles. However, there are many who cannot afford, nor wish to use, a personal car. It is these people that benefit the most from a revitalised downtown core, where one can live, work, go to school, play, and obtain all the necessities of life without having to rely on vehicles.



The complexities of laneways are difficult to describe and more difficult to create. The most successful laneways are developed from necessity. The difficulty in planning lanes or paths can be seen in almost every city.

Many times a designer has laid out a system of paved paths, but a series of dirt trails is often made by those who wish to take the most direct path. The more interesting paths that have been developed over time include those that do not take you directly to the destination but wind around obstacles in the way.

“Winding or interrupted streets make pedestrian movements more interesting.

Additionally [they]...reduce wind resistance.”²¹

Public open space and paths can be considered key nodes and means of connecting various neighbourhoods. The system of pedestrian paths throughout the residential areas of the city actually connect to create a network that takes one from the top of the hill to the waterfront. By maintaining these paths and reintroducing new ones where the old ones have been destroyed, it may be possible to encourage people to leave their cars at home. The paths and laneways are not for the strict use of pedestrians; by having small lanes for cars, it is possible to reduce the speed of vehicles and allow for more parking and access to new and old buildings. This "essence of urbanism has been sterilised by holistic planning modules."²²

DESIGN:

A Mixed-use Proposal for the Barter's Hill Area

BASIC DESIGN PARAMETERS/PRINCIPLES

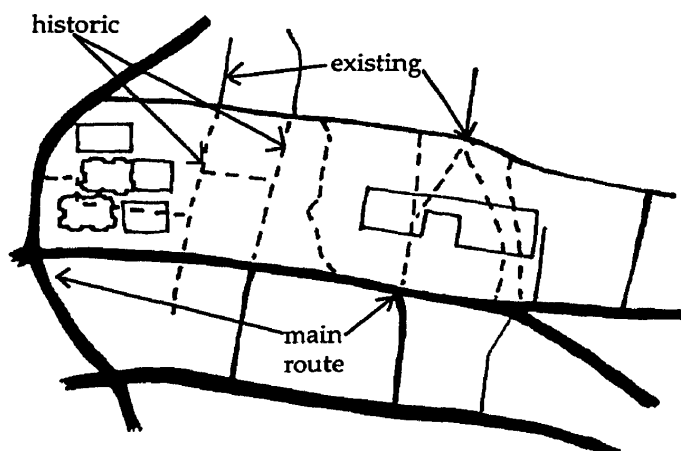
Animated streets allow for 24-hour living in the city. To make a place safe you must occupy it, and when there are no people watching the streets, how can people feel safe?

The modern city dweller is forced to create a social life on personal, controllable territory instead of engaging in a communal existence centered around the street. As a consequence individual attitudes toward the use of urban space have been radically altered.²³

A city needs people to live, play, and work in an area to help it survive. One of the first steps toward revitalisation is to bring people into the area to live. Then they need to be encouraged to stay. People need a place to socialize, either formally or informally. This would include institutions such as grocers, parks, sidewalks, benches, social clubs, restaurants, cafes, shops, theatres, cinemas, and laundromats.

Without the provision of semi-public space and facilities around which informal networks might develop, families have retreated into the internal structures of their apartments and do not have social support, protection and informal social control.²⁴

While designing this project, there were specific points to keep at hand. The most important was the density and character of the 1922 street pattern. Once a study of the street and laneway system was compared to that of the present day, a pattern of complexity emerged. This pattern was overlaid onto a map of 1995 St. John's, resulting in the decision to reinstate a couple of streets.



Street variety is important in order to develop a sense of place. When all the streets look the same it is difficult to get your bearings. Streets include small pedestrian paths, small access lanes, midsize streets, and main streets. Block sizes of the

1920s tended to be small and irregular. The irregular blocks were reinforced by the irregular buildings contained within them. These buildings turned odd corners, and often treated each corner with a special element. These oddities were contained throughout the block; if a building turned around a path it usually meant that the path was there first.

Another important feature is the type of block. Perimeter blocks allow for interior courtyards, parking areas, and even a secondary level of development. Commercial blocks tend to be more densely built, with taller, more massive buildings. The corners of blocks were important locations, reinforcing a change in direction. In residential areas the corner house had windows on the side, and sometimes bay windows that floated over the sidewalk. The corner buildings with shops tended to have corner doorways with overhanging floors above. Sometimes a corner building appears to have two facades, emphasising its importance on both streets.

Some of the qualities to maintain within the development include:

- Variety, in both building stock and streets: it is the spice of life.

- Clarity; a hierarchy of building and street allows one to understand upon sight what is important, what is private, and what is public.
- Engagement; one's interaction with the street and the surroundings is important.
- Scale; it is important to be conscious of the ratio of width to height; the wider the street, the greater the massing it takes to define it.
- Permeability, defining path enclosure, and allowing breaks for new paths.
- Materiality; materials contribute to character. In St. John's, wood is for residential and stone is for commercial. The materiality goes beyond familiarity; it can enhance the sensory experiences; light plays on elements, inviting animation.
- Claiming space, how people personalise their piece of the world. Giving people the opportunity to personalise allows for greater variety.

Through historical street maps I have surmised that the complexity and density of the patterns of streets and lanes from 1922 are the most appealing. The area I chose to study in detail, to test the theories of the thesis, is the site between the city hall and the office towers and parking lots of the Delta Hotel and Convention Centre. After the fire of 1892 a huge number of temporary homes were built in this area; unfortunately, they were not high quality but were occupied for almost 70 years. It was a very dense and complex





area of housing and businesses that was torn down in a move of slum clearance. The original premise was to construct a large office tower in the area, but the development fell through once the land was cleared. The Delta Corporation proposed a hotel and convention centre in the area. Rather than using the cleared land they cleared more, destroying another three blocks of housing. The city decided to reroute one of the streets to allow for better access to the hotel, causing more destruction of the housing and the ruin of many streets.

The final project is a mixed use development to allow for the variety required to make the area interesting and to promote a more self-sufficient community. This results in "large urban areas being broken down into smaller areas with the long term potential for sustainable development."²⁵ Though it may be self-sufficient, the development must connect to the immediate area as well as to the city as a whole. Uses on the site must be compatible with those around it, or there is a probability of failure.

In order to maintain the qualities mentioned earlier it is important to realize how people interact with the street. This interaction depends on how close they are to the street, what enters/exits the street, and what types of buildings face the street and their

setbacks. A nearness to the street is created when the ground floor of the building is used for living rather than parking a car.

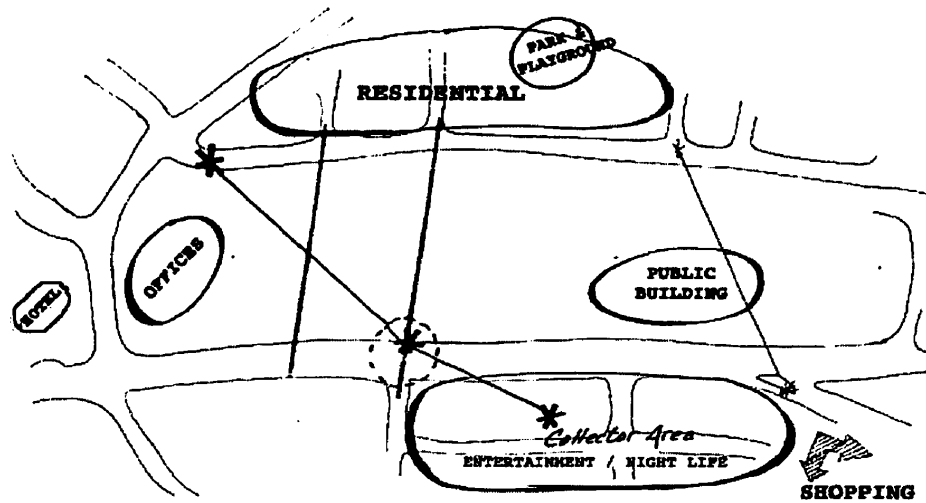
Visual complexity keeps the eye moving. Allowing for different materials and different elevations, both in height and in composition, improves the legibility of the area. As well, transparency at the edges is beneficial: the more doorways and openings, the better, or perhaps something to take your interest from the blank walls to what is beyond, e.g. trees overhanging backyard fences.

The most basic act in urban landscape design should be to establish the spatial framework...prior to the design of individual buildings...[to] accommodate a diversity of building styles and forms. It should also express the rule of scale and character for making coherent visible connections between new and old uses, buildings and activities.²⁶



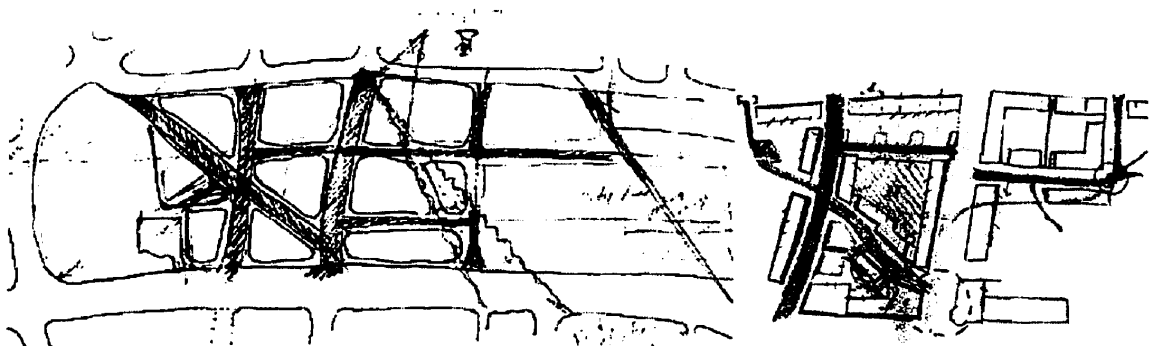
PROGRAM

The site is bounded to the north by a large residential section of mostly single family homes. To the east is the city hall, to the west is the Delta Hotel and Conference Centre,

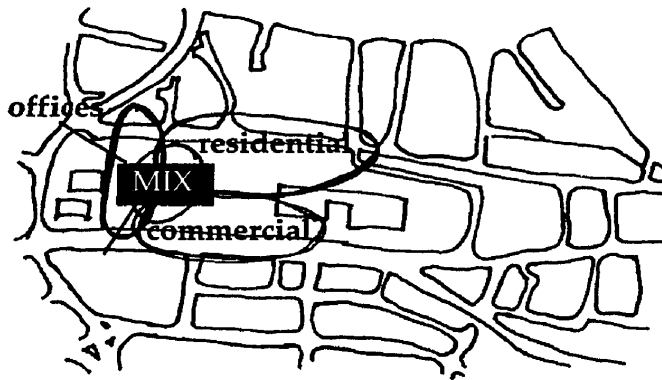


and to the south are the bars and restaurants of George and Duckworth streets, leading to the commercial area of Water Street. My proposal is formed by the redevelopment of the laneway system. This laneway system is used to define major points of movement: I have brought back two of the historic streets that went from above the site to the waterfront. These two streets break the site into three large blocks. The next move was to make these blocks a manageable size for development.

Connecting the entrances to the site was the next step. The northwest entrance connected to the collector area, which I defined as the George Street area, was the most probable path to develop. This resulted in a cross lane that begins as a pedestrian path, then a back lane turning into a secondary shopping and office street that connects to the



reintroduced Barter's Hill just above New Gower Street at a major node: the beginning of the Trans-Canada Highway. This node is important and must be defined as such. Lane #2 is a reinforcement of a dirt path that exists at the moment, from the old Barter's Hill to the city hall. Lane #1 from Stephen Street to Barter's Hill was introduced to reduce the size of the block. It is a back alley that gives access to the backyards of the houses above and the backs of the shops below.

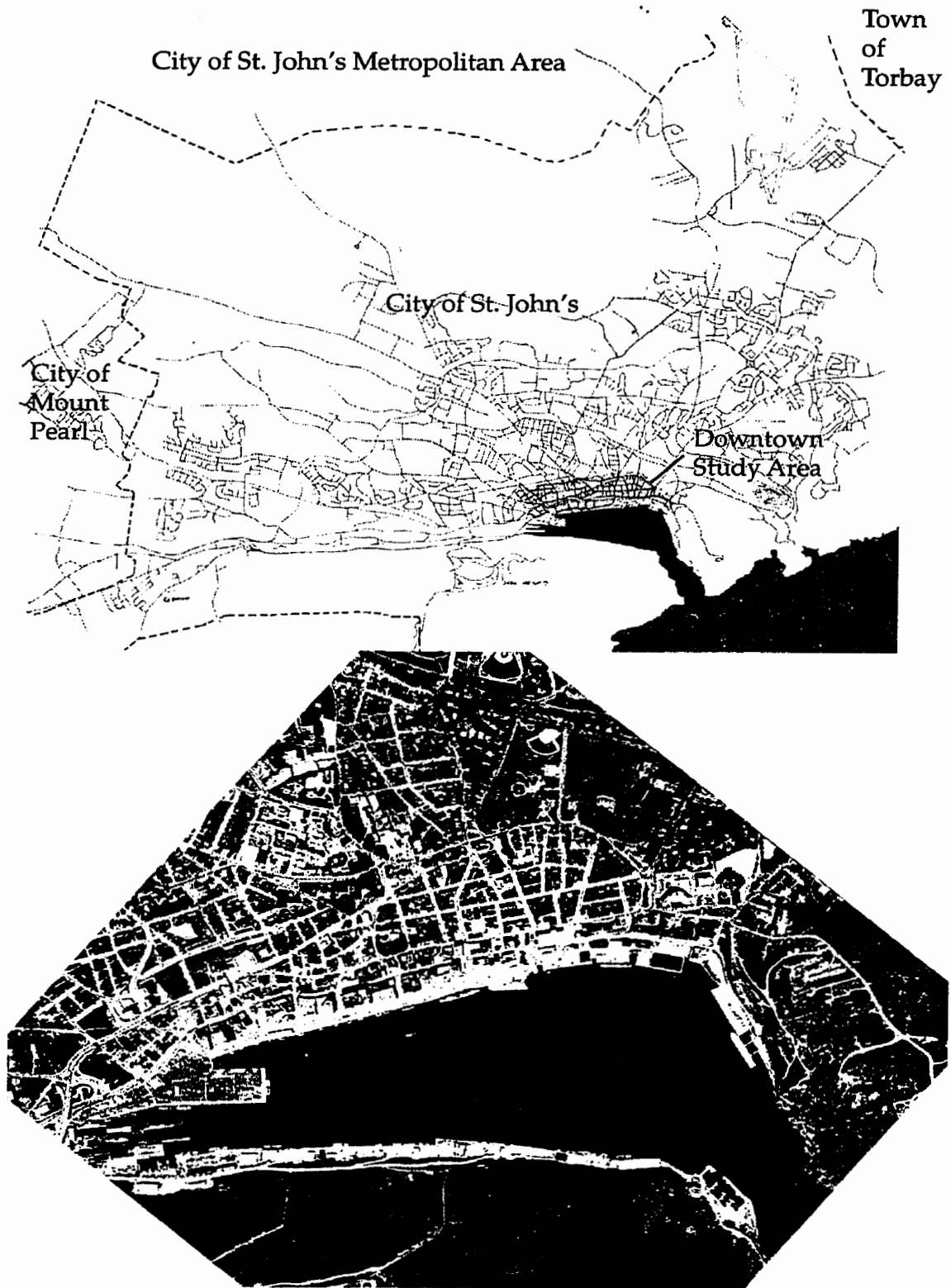


The north side of the site is dedicated to single family homes, while the south side is mostly commercial, with shops below and offices above. The in-between streets mix the uses but are more dedicated at the ends. For

example, the end of Stephen Street is a series of apartment houses to the north and offices and shops to the south. The only restriction that is placed on the buildings results from the site: because of the hill, the buildings step down, causing roof lines to vary and floor heights to stagger. In the centre block I have introduced a low-rise parking garage for the shops and offices. This garage is placed inside a perimeter block with commercial buildings on three sides. The surrounding buildings clip onto the side, allowing for windows on the back of the buildings on the upper floors. The garage does not fill the entire site; some space is left to allow for trees on the north side, and this will help frame the alley.

The building types used in the development are not developed to any architectural detail. It was decided to focus on the basics. However, it may be noted that the houses placed on the site were based on the layout of the basic downtown house of the area. A

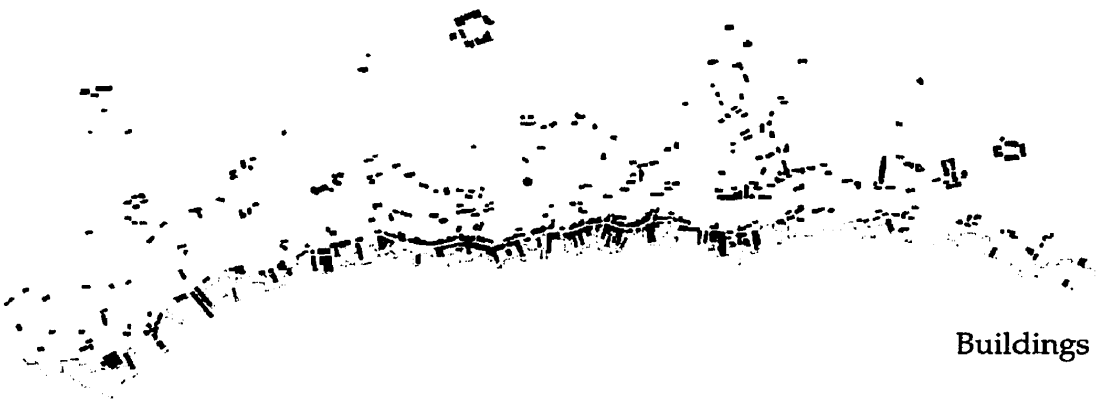
single house ranges in width from six to eight metres, with a depth of eight to ten metres. This is the size of the “core” house, to which many additions of various sizes and shapes were added for back kitchens and extra bedrooms as the family grew.²⁷ This idea is not common today, but if the city planners would allow it, this would enable more young families to purchase a house in the area and then let it grow with them. Planning regulations in the 1980s stated that any semi-detached house must have a frontage of ten metres and a maximum of 30% lot coverage.²⁸ These regulations do not allow for the density that can be achieved comfortably in the downtown area.



1806



Streets



Buildings



Lot divisions

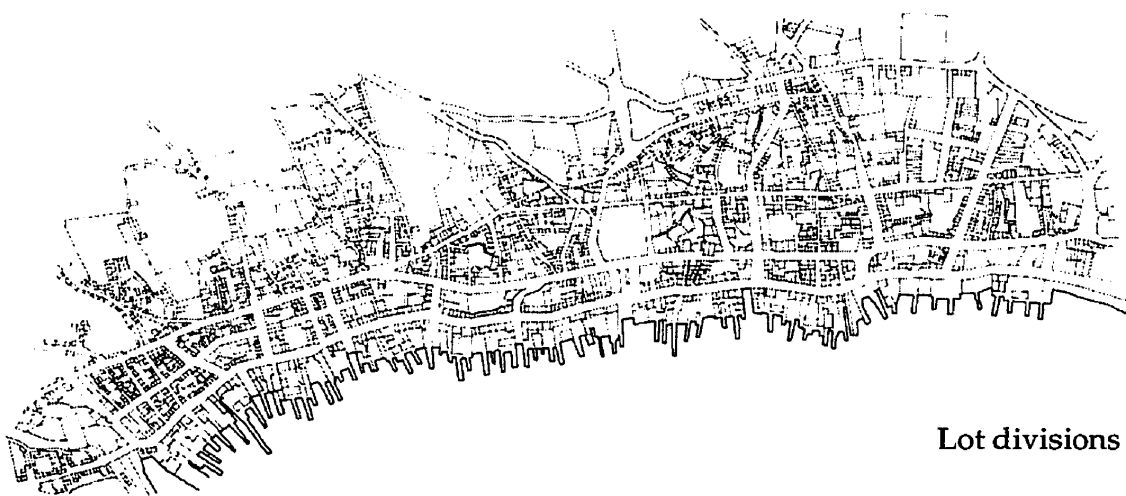
1849



Streets



Buildings



Lot divisions

1922



Streets



Buildings



Lot divisions

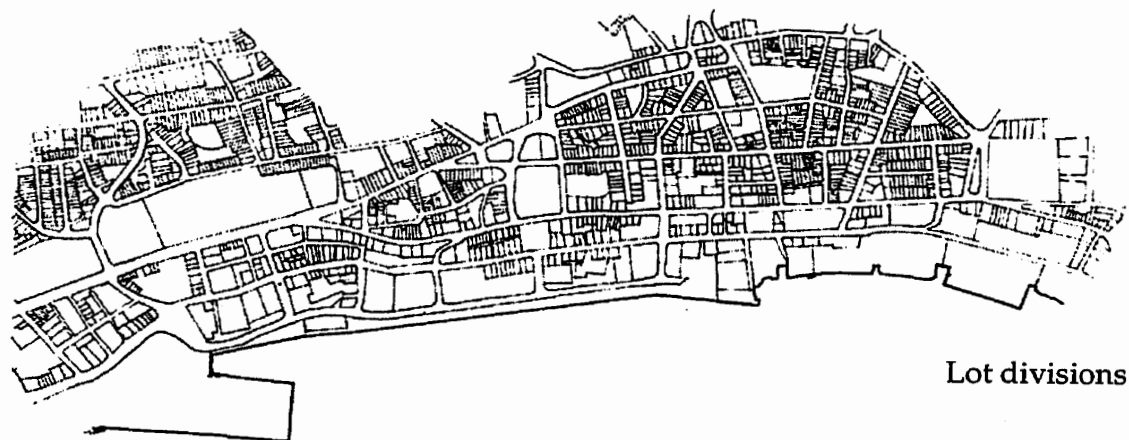
1995



Streets



Buildings



Lot divisions

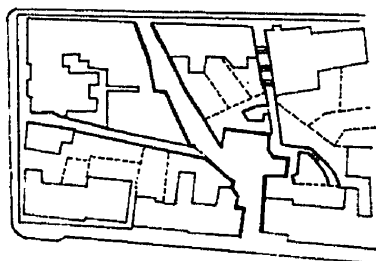
TAXONOMY OF STREETS

Residential Courtyard Lane:

- Located on residential blocks, with buildings on four sides.
- Narrow, often paved, and can be used by either pedestrians or vehicles.
- Courtyard may contain parking, play areas, and outbuildings.
- Sometimes the entrance into the courtyard is through a gated entry under one of the houses.
- Not for general public use.

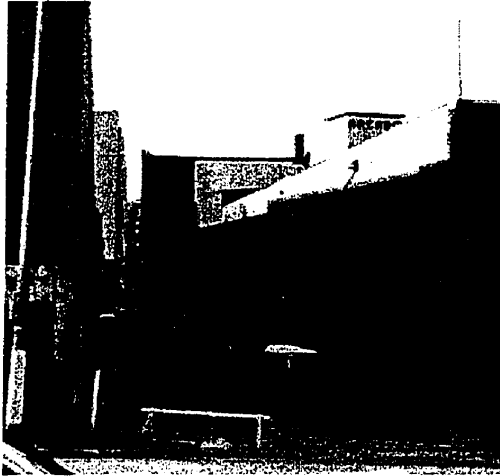


The lane runs between the houses as an access into the back areas of the property. Fences and buildings are used to define the lane, which may have led originally to a secondary building that would contain a small home business such as a carpentry shop or a blacksmith. Now some of these buildings are garages or have even been converted into small homes. The courtyard itself is often used for parking.

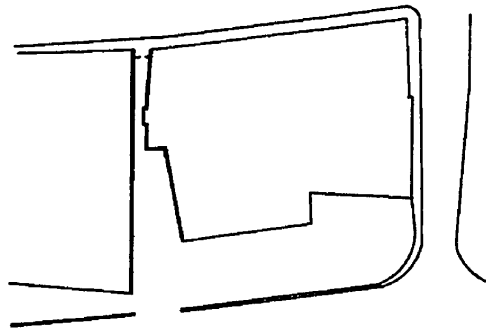


Commercial Lane: "Back Alley"

- Narrow, paved up to the buildings.
- Mainly for vehicular access.
- Buildings back onto it.
- Used mainly for access to services or to another area (as a short cut).



Alley between two shops on Water Street, viewed from Harbour Drive. This alley is used solely for access to services. The Water Street entrance has been blocked to vehicular traffic, allowing only pedestrians to enter, although many do not.

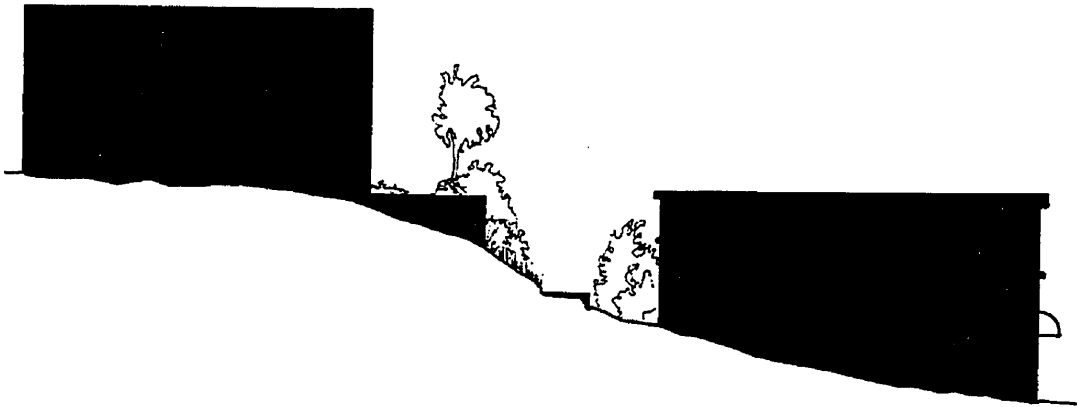
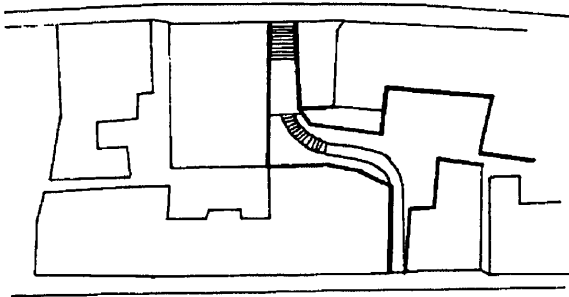


Walking Path:

- Access from one main street to another, up or down the hill.
- Often a set of stairs, continuous or broken by landings.
- Often a narrow, straight run.



Scanlon's Lane, a small lane connecting Duckworth Street to Water Street. This is an old lane that has been positively identified on maps of the 1840s. Scanlon's Lane winds amongst the commercial buildings, creating some very interesting spaces. The only problem with this lane currently is that it is so run down and overgrown that it is disturbing to walk there alone.

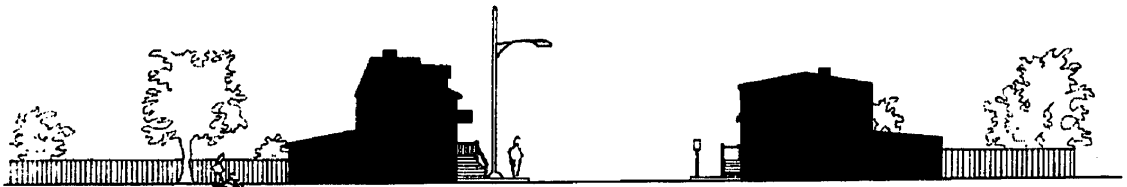
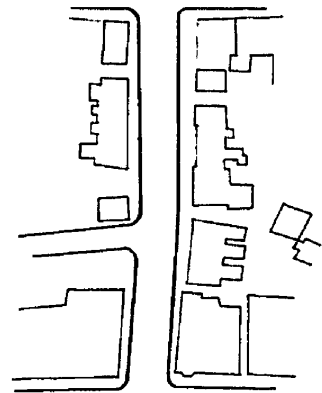


Residential Street:

- Faced on both sides by housing.
- Usually narrower than a commercial street.



Pilots Hill is a short street that heads towards the water. It is a good example of how the houses follow the slope of the hill.

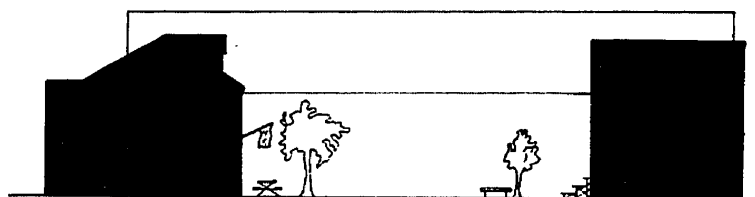
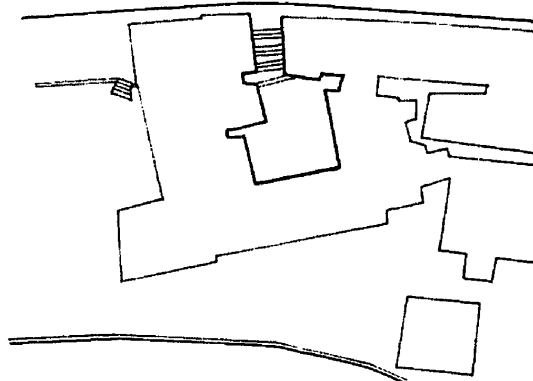


Commercial Courtyard:

- An open area next to a commercial building.
- Some have laneways extending into them; others were once a laneway.
- Originally surrounded by other buildings.
- Recent additions are often open to the street.



Passage between two commercial buildings on Water Street to allow access into the courtyard of the Murry Premises. The Murry Premises are a collection of 19th century fish merchant buildings. In the 1970s and 1980s they were redeveloped for retail and office uses, with intimate spaces often used in the summer months for performances and outdoor cafes.

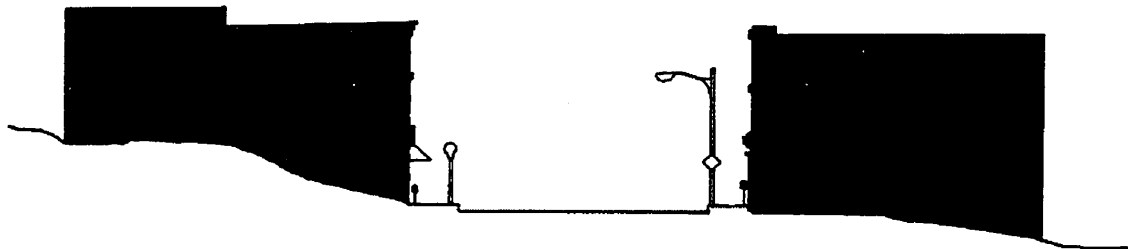
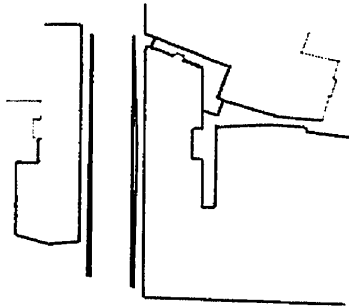


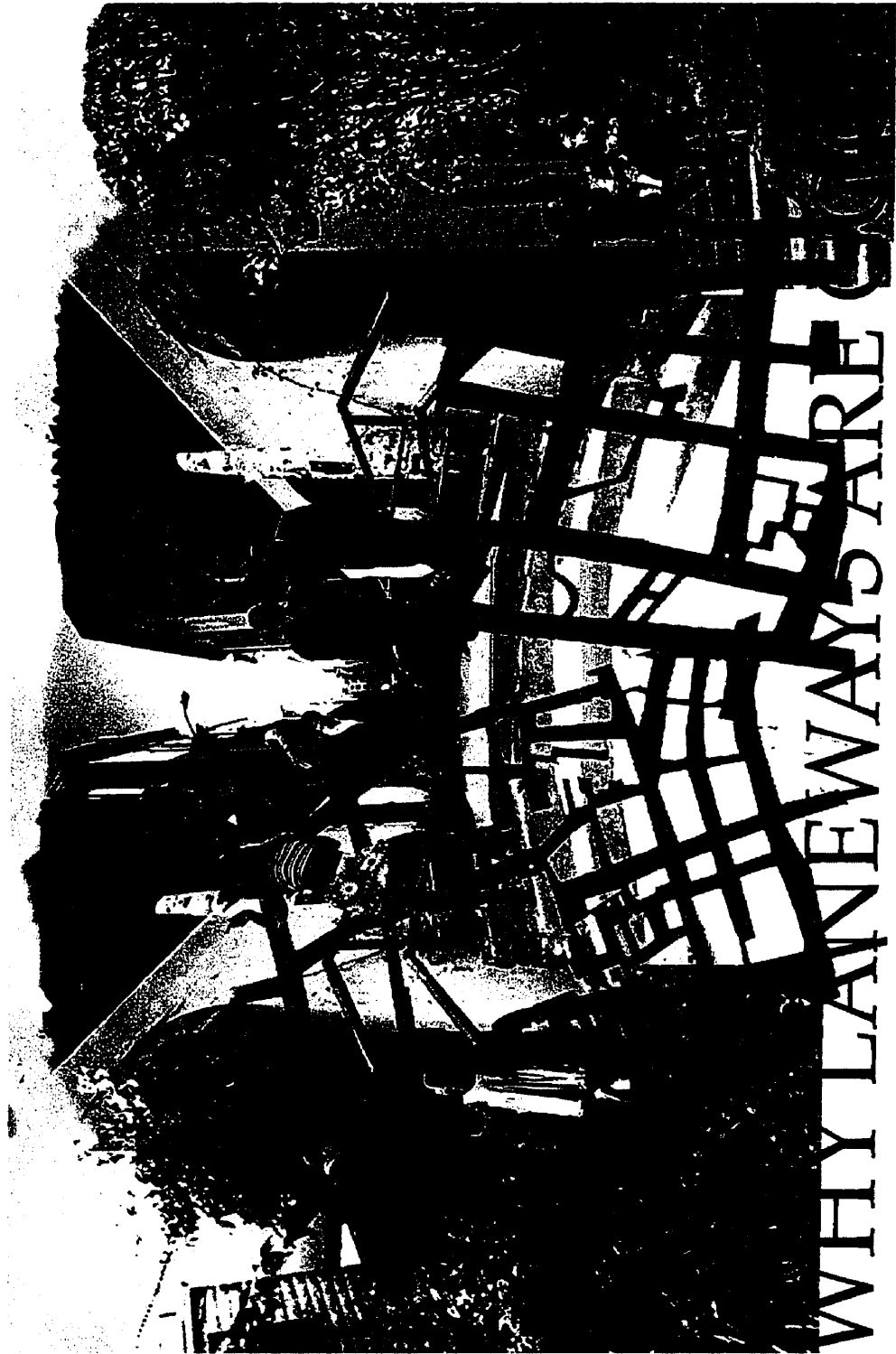
Commercial Street:

- Faced on both sides by commercial buildings, normally retail.
- Wide enough to allow parking on both sides as well as two way traffic

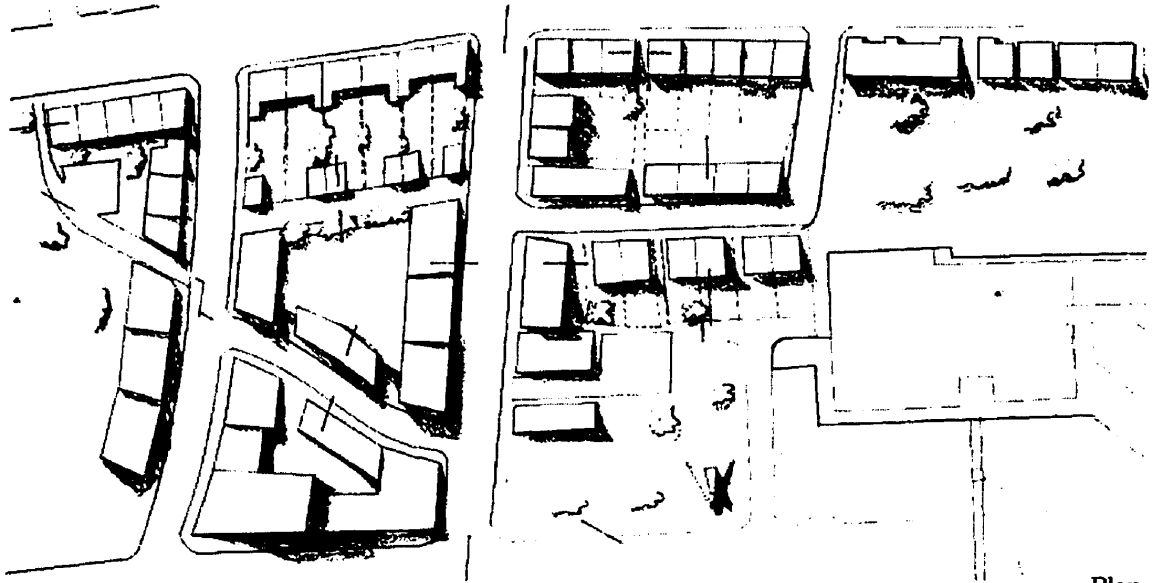


Water Street is the main commercial street in the downtown area. It is considered to be the oldest commercial street in North America, having had fish merchants and clothiers along the path since the mid 1500s.

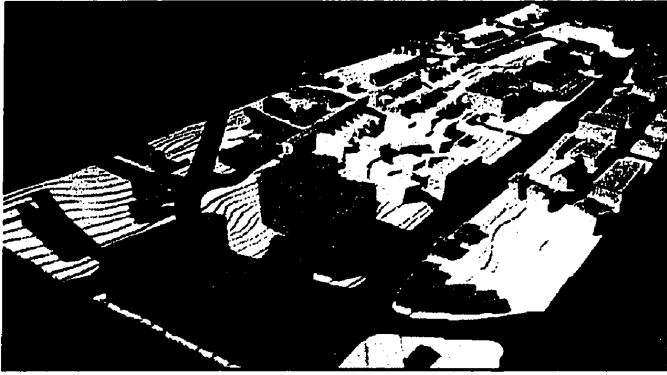




WHY LAINEWAYS ARE

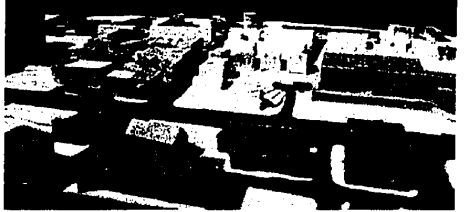
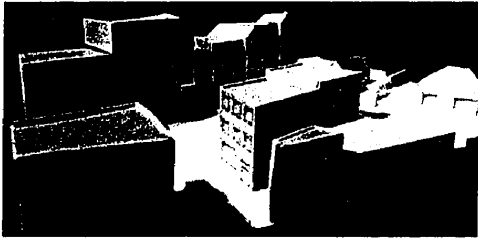


Plan



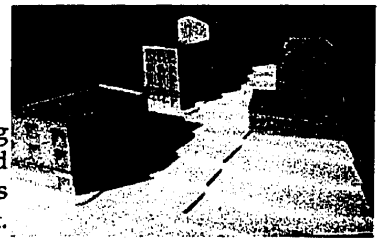
Site Model

Model showing intersection of Cross Street and Stephen Street



Close-up of development on site

Model showing intersection of Old Barter's Hill and Cross Street.



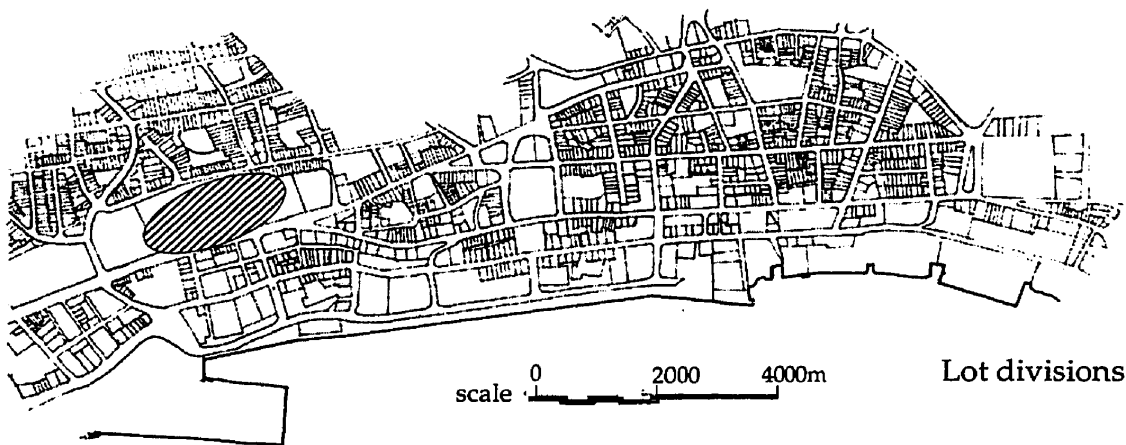
1995



Streets



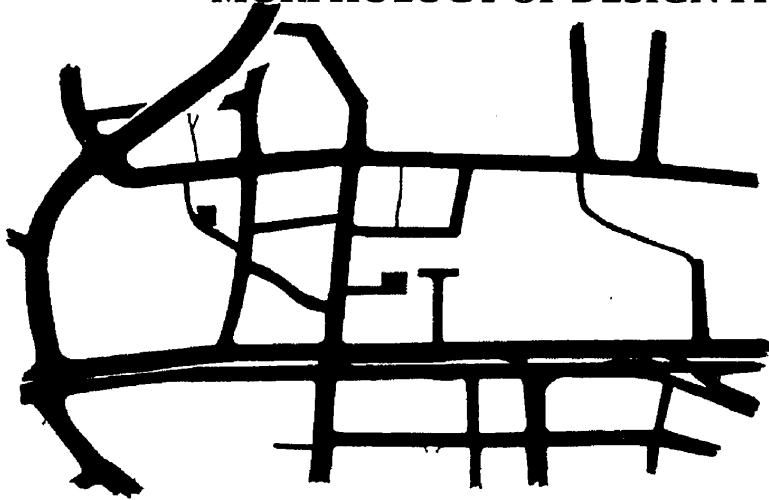
Buildings



Lot divisions

scale 0 2000 4000m

MORPHOLOGY OF DESIGN PROPOSAL



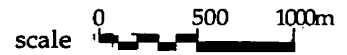
Streets

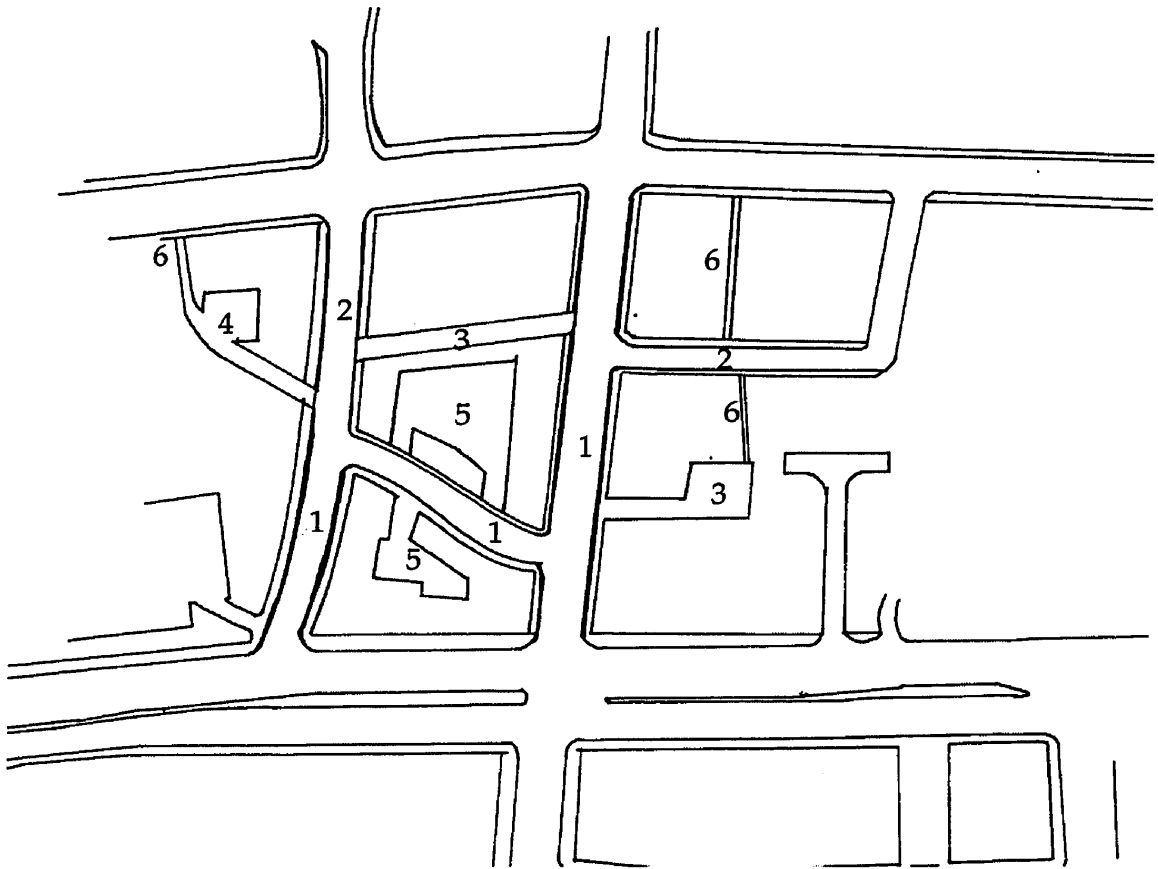


Buildings



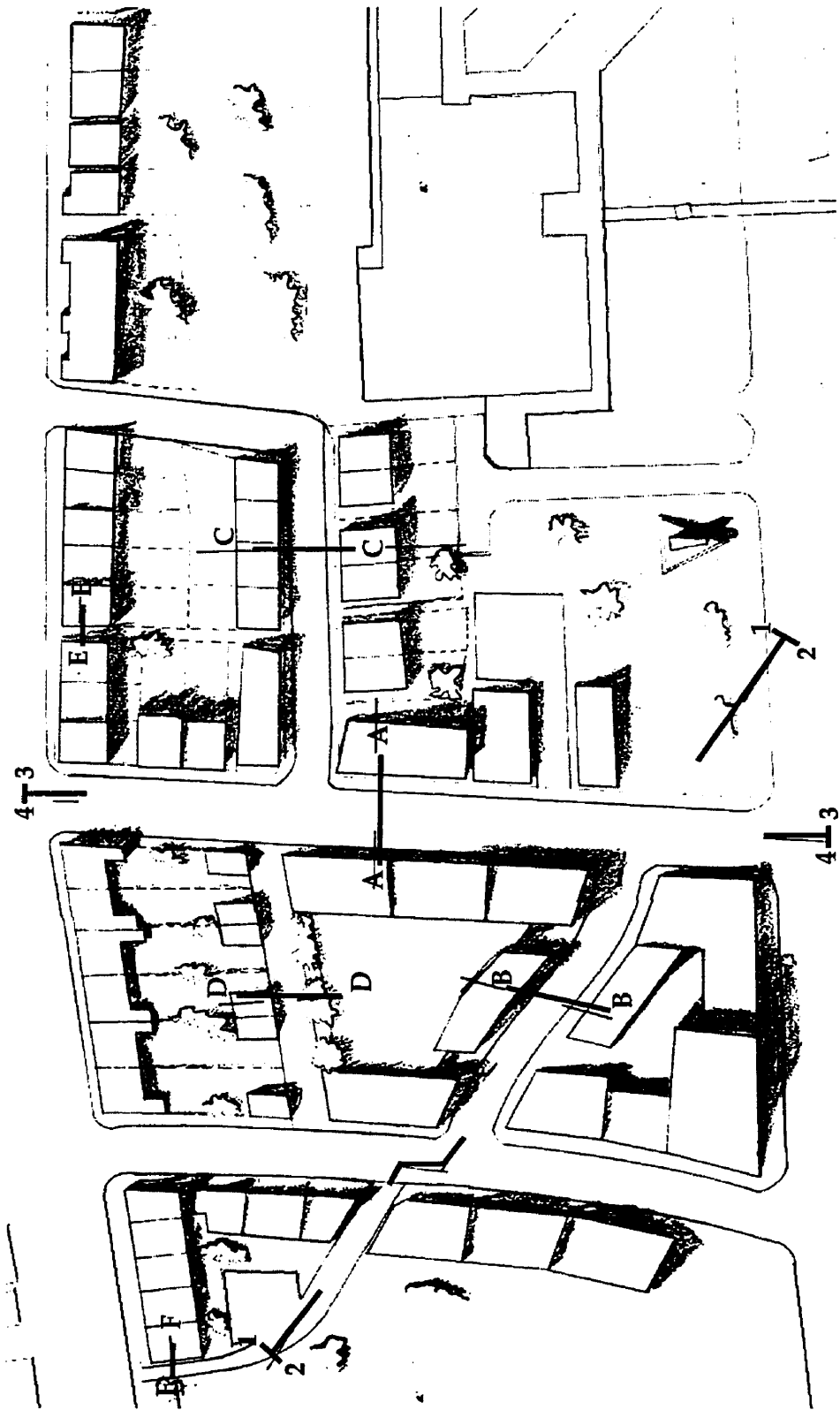
Lot Divisions



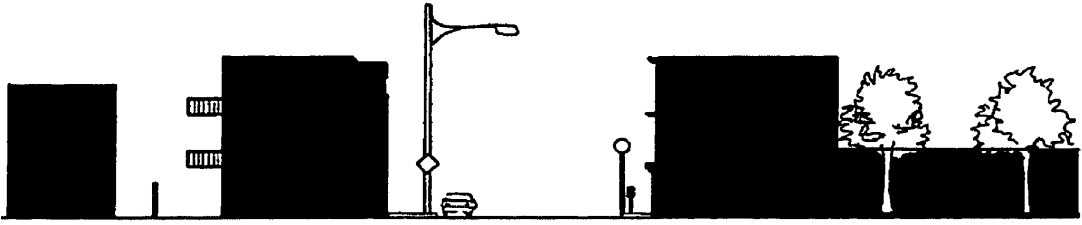


1. Commercial Street
2. Residential Street
3. Commercial Lane, "Back Alley"
4. Residential Courtyard Lane
5. Commercial Courtyard
6. Walking Path

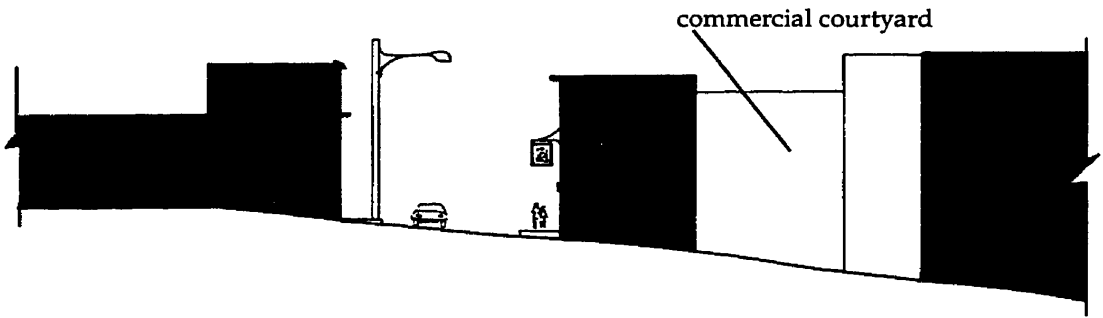
Site drawing showing street taxonomy



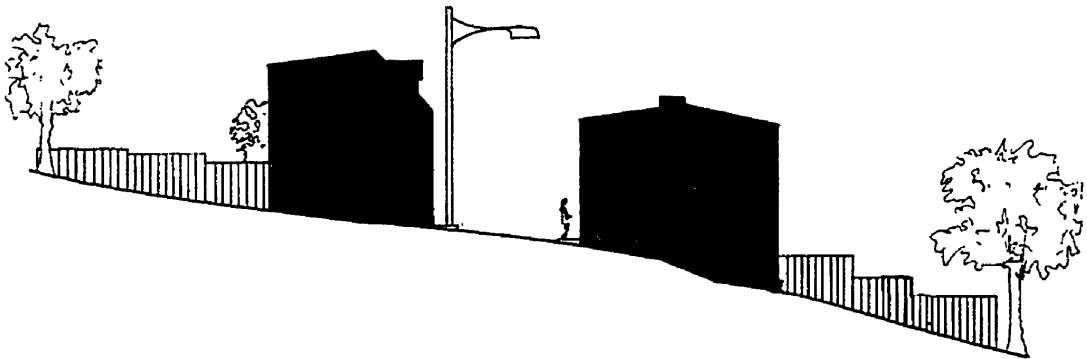
Location of street sections



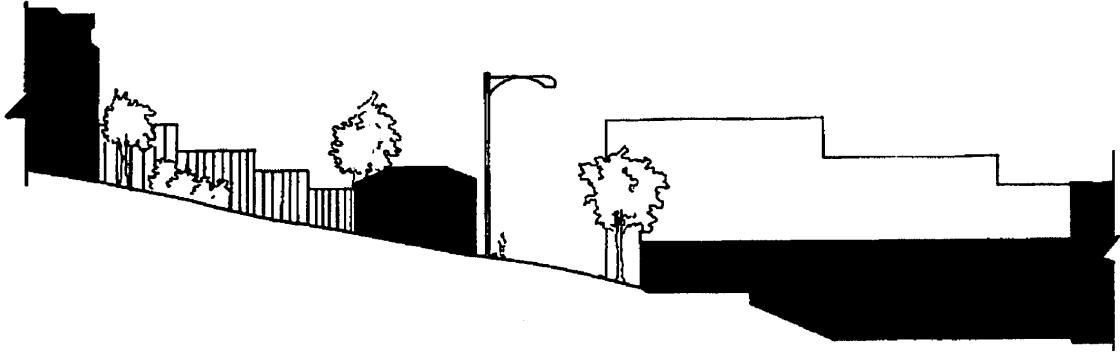
A-A Section through commercial street



B-B Section through secondary commercial street, showing commercial courtyard



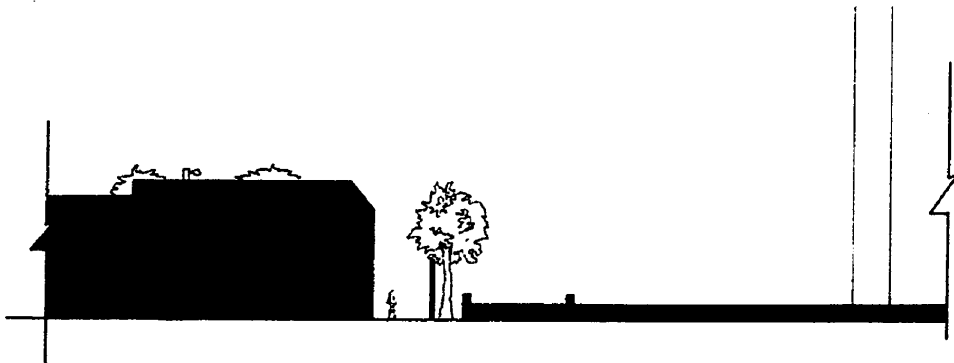
C-C Section through residential street



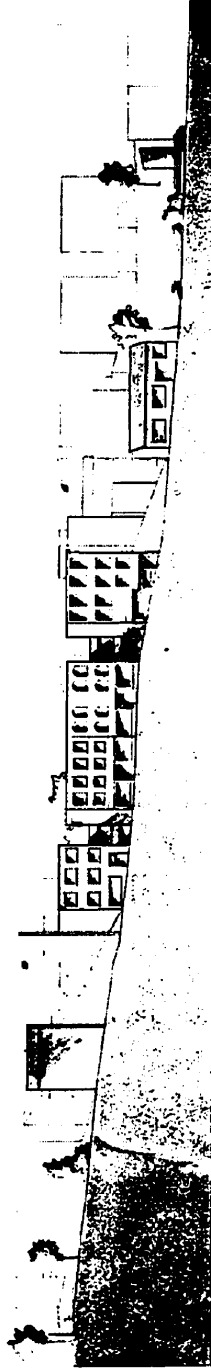
D-D Section through back alley



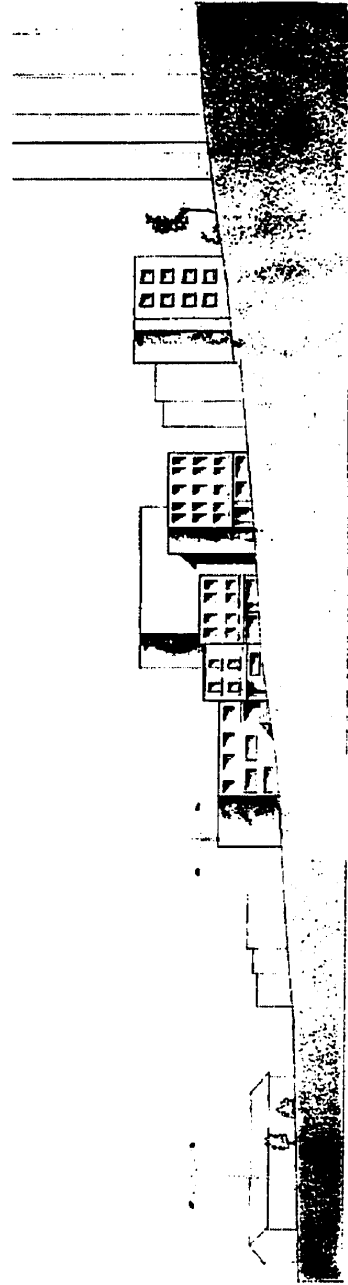
E-E Section through walking path



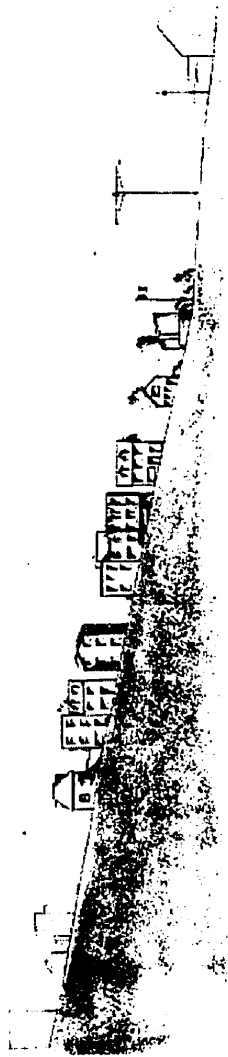
F-F Section through residential courtyard lane (pedestrian end)



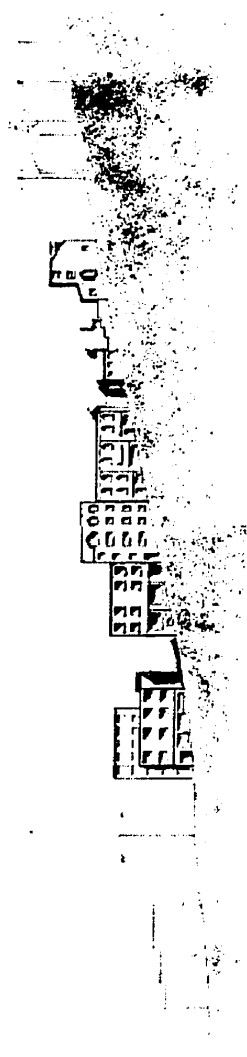
1-1 Cross Street, north elevation



2-2 Cross Street, south elevation



3-3 Old Barter's Hill, east elevation



4-4 Old Barter's Hill, west elevation

SUMMARY

The redevelopment of a downtown area, resulting in an intensification of the fabric, can aid in the area's revitalization. By focusing on the street pattern of St. John's it was possible to see how large holes in the fabric could be refilled with a density and complexity conducive to the area. Introducing many levels of street types and utilizing their characteristics can result in a development that is full of choices and yet is still understandable. This thesis could head in various directions from here: one could take the ideas as presented and develop the site; the individual buildings could be designed to a more architectural detail level; or one could take these ideas and determine what is the minimal amount that could be done to prevent city hall from developing the block as a mega-building, making a move that takes a stand against the "clear it all out" ideas of the city council.

NOTES

1. A. J. Diamond, *City of St. John's: Proposed Central Area Development Guidelines* (Toronto, 1980), 9.
2. Quoted in Roger Trancik, *Finding Lost Space: Theories of Urban Design* (New York: Van Nostrand Reinhold Co., 1986), 60.
3. [http:// www.city.st-johns.nf.ca](http://www.city.st-johns.nf.ca) (May 1998).
4. Harold Horwood, *Historic Newfoundland* (Toronto: Oxford University Press, 1986), ii.
5. Horwood, *Historic Newfoundland*, ii.
6. Paul O'Neil, *The Oldest City: The Story of St. John's, Newfoundland* (Ontario: Web Offset Publications Ltd, 1975), 40.
7. Michael P. Murphy, *Pathways Through Yesterday* (St. John's: Town Crier Publishing Co. Ltd., 1976), 13.
8. <http://www.city.st-johns.nf.ca> (May 1998).
9. Burt Sheppard and Associates, *St John's Heritage Conservation Area Study* (St. John's: Heritage Canada and the Newfoundland Historic Trust, 1976), 8.
10. Robert Mellin, *A City of Towns: Alternatives for the Planning and Design of Housing in St. John's, Newfoundland* (St. John's: Canadian Mortgage and Housing Corporation, 1995), 20.
11. O'Neil, *The Oldest City*, 45.
12. *Ibid.*, 46.
13. John Bland, *Report on the City of St. John's, Newfoundland* (St. John's: Commission on Town Planning, City of St. John's, 1946), 2.
14. O'Neil, *The Oldest City*, 46.
15. Bland, *Report on the City of St. John's*, 3.
16. Less Harding, *Historic St. John's; The City of Legends* (St. John's: Jefferson Press, 1993), 2.
17. Mellin, *A City of Towns*, 20.

18. Bland, *Report on the City of St. John's*, 3.
19. Trancik, *Finding Lost Space*, 60.
20. Horwood, *Historic Newfoundland*, iii.
21. Jan Gehl, *Life Between Buildings: Using Public Space* (New York: Van Nostrand Reinhold Company, 1980), 143.
22. Trancik, *Finding Lost Space*, 12.
23. *Ibid.*, 10.
24. Norman Heimstra and Leslie McFarling, *Environmental Psychology*. (Monterey: Brooks/Cole Publishing, 1974), 449.
25. Mellin, *A City of Towns*, 178.
26. Trancik, *Finding Lost Space*, 19.
27. Mellin, *A City of Towns*, 32.
28. Diamond, *City of St. John's*, 7.

APPENDIX

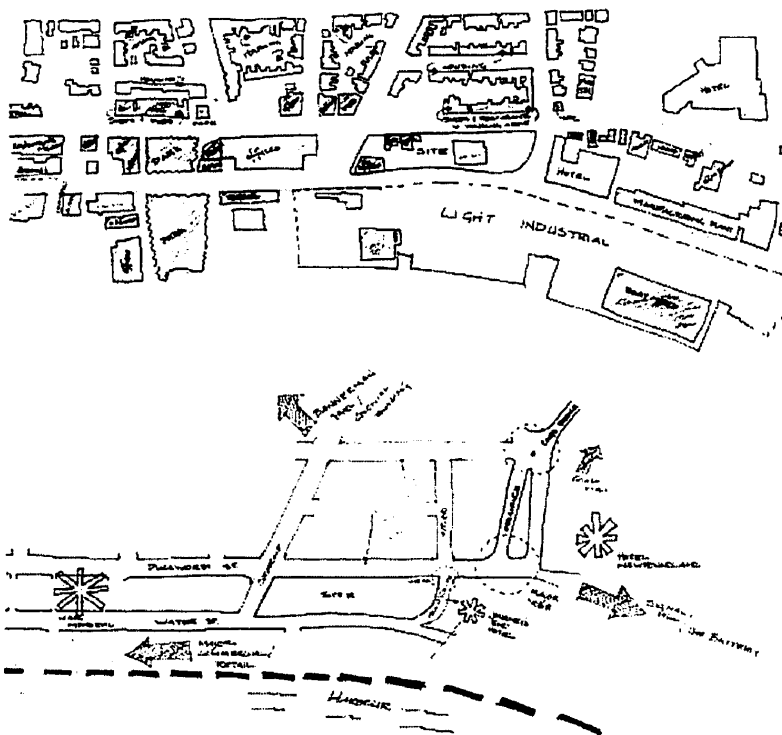
East End Test Case

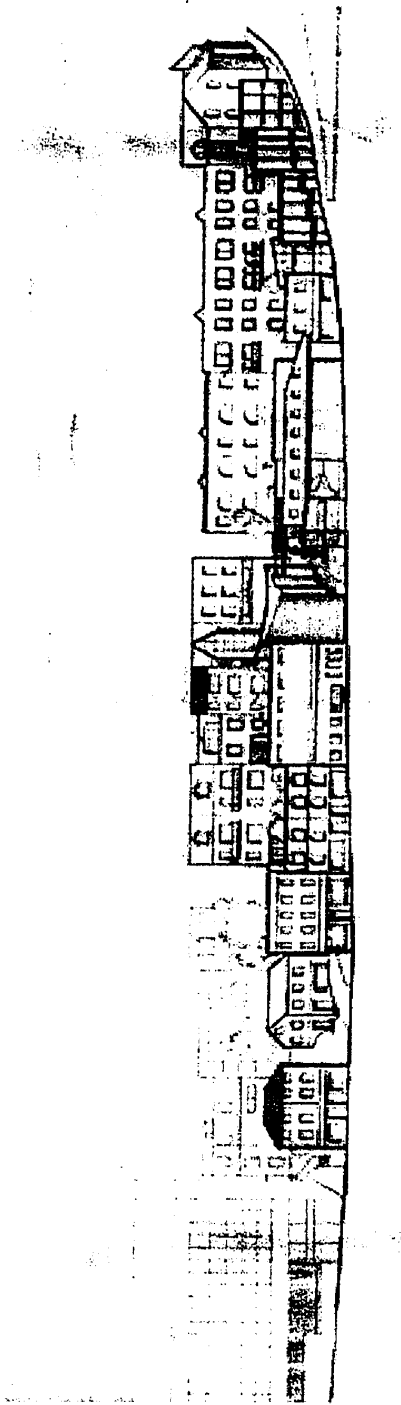
This is an average-sized site in the east end of the city, at the intersection of Water Street, Hill O'Chips, Cougnaught and Duckworth. Currently on the site is a service station, which is empty except for the gas pumps, an old abandoned building, a small office tower, and two small commercial buildings containing a bank and a computer retail store. The site is at the junction of the downtown area and the historic Signal Hill and Battery areas. To the east of the site are two of the largest hotels, the Battery and The Hotel Newfoundland, and just across Hill O'Chips is the new Journey's End Hotel, a modestly priced hotel. To the west is the main shopping district, the war memorial and, of course, George Street, as well as the majority of the offices that are located in the downtown. Since most of this site is vacant, it is a bit desolate-looking along the Water

Street side.

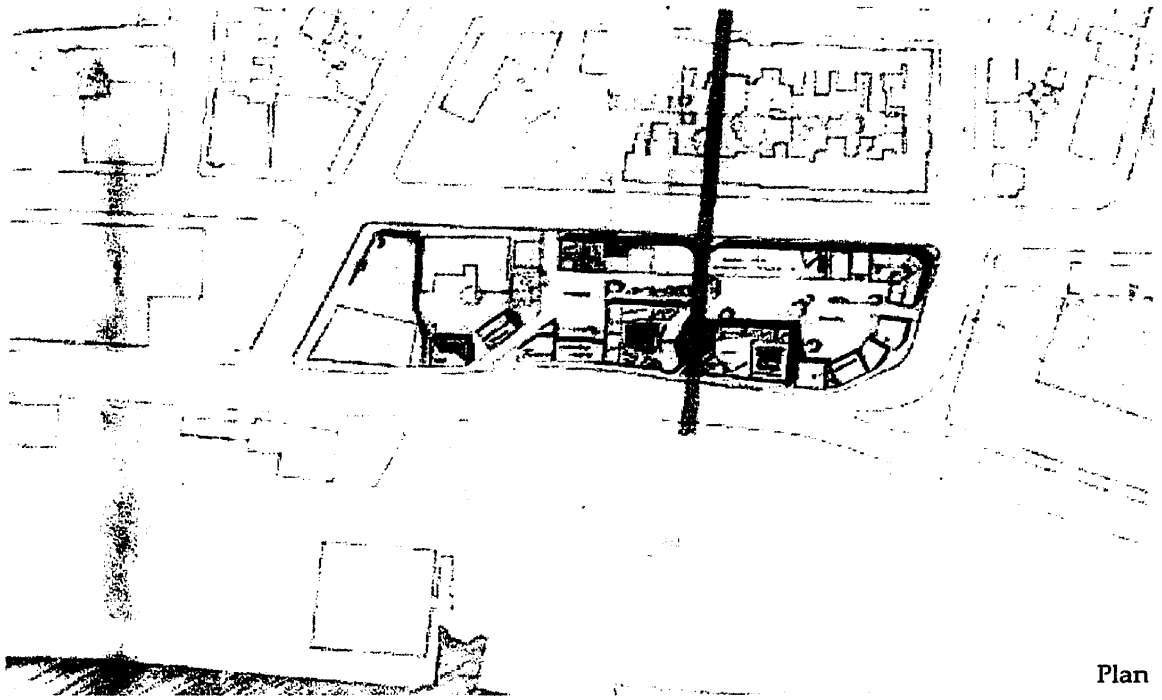
Unfortunately it faces the salt storage area along the waterfront, but there is one advantage: the slope of the area allows an almost entirely unobstructed view over the salt mounds.

The program for this site was mixed use, focusing on entertainment elements. The edge

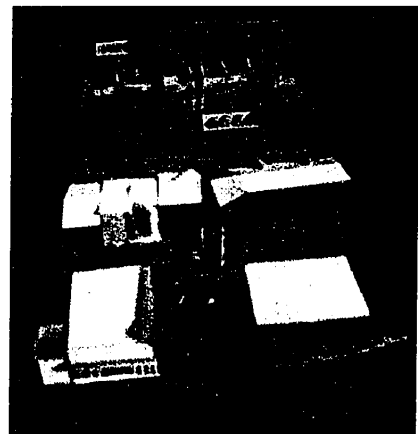
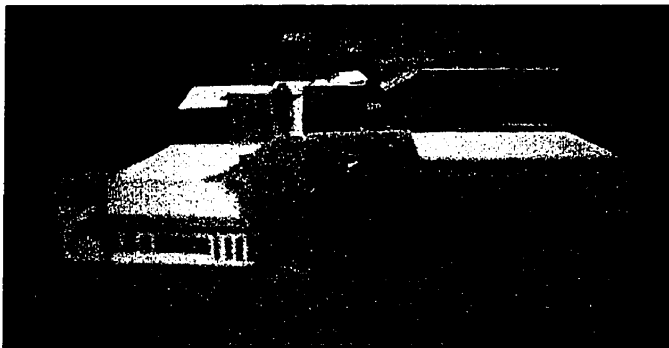




facing Duckworth repeats the fabric across the street: tightly knit buildings with small shops on the ground floor and living quarters above. There is a break in the row on both sides, to allow for a pedestrian path. On the redeveloped block, the buildings turn slightly, giving one notice that the path exists, unlike the historic one across the street. The new path leads over the hill to two small theatres, a movie house and a stage theatre. These two are connected via an outdoor lobby which can be partially viewed from the path entrance off Duckworth Street. On either side of the theatres are support buildings for the industry. To the west are costume shops, set construction and storage areas, rehearsal rooms, classrooms and offices. These are connected to the west side of the stage theatre. To the east is a multimedia library. It steps down Hill O'Chips, creating a building with multiple floor levels and interesting spaces to read, browse, view, and surf. There is a courtyard behind the library, whose entrance is echoed in that of the hotel across the street. There is one more entrance into the block, off Water Street. This lane leads into the back of the mixed use buildings on Duckworth, allowing for more parking and access to both the commercial buildings and the theatres.



Plan



Model showing walking path through site.

REFERENCES

- Bland, John. *Report on the City of St. John's, Newfoundland*. St. John's: Commission on Town Planning, City of St. John's, 1946.
- Diamond, A.J. *City of St. John's: Proposed Central Area Development Guidelines*. Toronto, 1980.
- Gehl, Jan. *Life Between Buildings: Using Public Space*. New York: Van Nostrand Reinhold Company, 1980.
- Harding, Less. *Historic St. John's; The City of Legends*. St. John's: Jefferson Press, 1993.
- Heimstra, Norman, and Leslie McFarling. *Environmental Psychology*. Monterey: Brooks/Cole Publishing, 1974.
- Horwood, Harold. *Historic Newfoundland*. Toronto: Oxford University Press, 1986.
- Mellin, Robert. *A City of Towns: Alternatives for the Planning and Design of Housing in St. John's, Newfoundland*. St. John's: Canadian Mortgage and Housing Corporation, 1995.
- Murphy, Michael P. *Pathways Through Yesterday*. St. John's: Town Crier Publishing Co. Ltd., 1976.
- O'Neil, Paul. *The Oldest City: The Story of St. John's, Newfoundland*. Ontario: Web Offset Publications Ltd, 1975.
- Sheppard, Burt, and Associates. *St John's Heritage Conservation Area Study*. St. John's: Heritage Canada and the Newfoundland Historic Trust, 1976.
- Trancik, Roger. *Finding Lost Space: Theories of Urban Design*. New York: Van Nostrand Reinhold Co., 1986.
- <http://www.city.st-johns.nf.ca> (May 1998).