Food and the City: An Examination of the Role of Food in Local Neighbouhood Revitalization

by

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AUTHOR'S DECLARATION

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

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

ABSTRACT

The majority of people in North America have lost not only the knowledge of how to successfully sustain themselves from the land but, even more troubling, the basic knowledge of where the food comes from, what real food is, or even what to do with it. It is not only basic knowledge of food that is being lost in the consumer culture; many of the private and public spaces that were central to the social fabric of the city, street, and family are changing and losing their significance. The mass marketing of the consumer lifestyle has led to the disappearance of home gardens, local restaurants, neighbourhood coffee shops, and farmers' markets. It has altered the fine grain of our city, streets, and homes, thereby reducing the social interactions that once created lively streets in the past.

This thesis examines both the historical and current relationship and influence of food in cities, streets and homes in relation to the growing issues of access to fresh whole food and the dispersed city form. In addition, it will investigate how food orientated developments such as Community Food Centers can act as a catalyst for urban revitalization in failing urban cores and provide a resiliency to the economies of the city. The analysis of the influence of food, challenges that midsized cites are facing, and a series of precedents will provide a set guidelines for architects and planners developing urban projects. Three main themes will be explored as a means to revitalization of urban neighbourhood through food: reuse of under used or abandoned land, our cultural connection to food, and the activities and culture that the two create together. These themes will explore the use and cultural significance of kitchens, markets, and restaurants and public space as architectural spaces that create community as a means to better understand what mechanisms of these aspects are the keys to the building of vibrant communities. This concept will be explored through the design of a community food centre in St. Patrick's Ward in Guelph, Ontario.

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DEDICATION

To my parents Annette and Jean-Louis for believing I could do anything.

And to Bob... without you none of this would have been possible, thank you for supporting me all these years.

LIST OF FIGURES

DEFINITIONS:

CFCS - COMMUNITY FOOD CENTERS: local venues where people can learn sustainable practices to grow, process, market, and distribute food.

CSAs - COMMUNITY SHARED AGRICULTURE: a socioeconomic model of agriculture and food distribution. A CSA consists of a community of individuals who pledge support to a farm operation where the growers and consumers share the risks and benefits of food production. CSAs usually consist of a system of weekly delivery or pick-up of vegetables and fruit in a vegetable box scheme, sometimes including dairy products and meat.

FOOD SECURITY: The World Food Summit of 1996 defined food security as existing "when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life". Commonly, the concept of food security is defined as including both physical and economic access to food that meets people's dietary needs as well as their food preferences.

URBAN AGRICULTURE: Urban agriculture is the practice of cultivating, processing and distributing food in, or around (peri-urban), a village, town or city.[1]. Urban agriculture in addition can also involve animal husbandry, aquaculture, agro-forestry and horticulture. These activities also occur in peri-urban areas as well. Urban agriculture is generally practiced for income-earning or food-producing activities though in some communities the main impetus is recreation and relaxation. Urban agriculture contributes to food security and food safety in two ways: first, it increases the amount of food available to people living in cities, and, second, it allows fresh vegetables and fruits and meat products to be made available to urban consumers. A common and efficient form of urban agriculture is the biointensive method. Because urban agriculture promotes energy-saving local food production, urban and peri-urban agriculture are generally seen as sustainable practices.

VERMICOMPOST: the end-product of the breakdown of organic matter by some species of earthworm. Vermicompost is a nutrient-rich, natural fertilizer and soil conditioner. The process of producing vermicompost is called vermicomposting.

Foreword

“Among other things, tending a garden reminds us of our ancient evolutionary bargain with these ingenious domestic species – how cleverly they insinuate themselves into our lives, repaying the care and space we give them with the gift of good food.”

Michael Pollan, In Defence of Food

“Francis Bacon once said that a garden is "the purest of human pleasures; it is the greatest refreshment to the spirits of man, without which buildings and palaces are but gross handiworks."

Francis Bacon, Essays

Images 1-3:
1 Family Kitchen
2 Father in the Cornfield
3 Family Farmhouse
All images by Author


1


2


3

I was raised on a large farm in southeastern Ontario. Both my parents worked in the city but kept some animals and a very large garden on the family farm. My mother learned the art of preserving using the harvest of the half-acre garden, my father cut firewood, made maple syrup, and brought in the hay to feed the small herd of cattle we kept. Each spring we bought two boxes of chicks from the local feed store to rear during the summer and then each fall we had them prepared by a local butcher intended for soups and roasts for the following winter.

They say that the kitchen is the hearth of the home; our large eat-in family kitchen, the centre of our home, was created by my father removing the wall that confined the kitchen as a small room off the living area to create a large open space connected to the living room. To create a more family orientated space, my grandfather redesigned the kitchen to include an island large enough to seat 12 people. Family and friends gathered around this large table in the following years for birthdays, holidays, summer feasts, and even funerals. It was the place that our family ate dinner, prepared holiday meals, did our homework, and canned and froze the summer harvest.

All the events on the farm centred on one theme - food. We would have parties where all the family would bring their most prized dishes and preserves. Every August ended with a large family corn roast. In September the potatoes were dug and stored in the basement in baskets along side the apples gathered from the wild apple trees in the fields. During October the rest of the harvest would be canned and frozen for the coming winter and spring until the garden would begin to produce again. These events catalogued the passing of years and seasons and brought our family together from all over the world. Our farm was the gathering and stopover place. To this day, the memories grown there are often the substance of dinner conversation at family gatherings. Food has always been the central binding tie of my family. It was the highlight of trips around the country

and the world, brought comfort in times of sorrow, and enhanced the joyful times.

Now that I am older and have moved from home long ago, the sharing of food is still an important part of my life. My friends and I all gather at the market on Saturdays to socialize as much as we are there to buy the weeks supply of fresh produce and meats. We go out for dinner to restaurants that have many a multiplicity of fares to catch up and share good food, and we prepare meals together at each other's homes sharing advice and recipes on our favorite meals. Food is a social catalyst; it brings people together, provides a base for many public gatherings, and is often the most obvious expression of emotion and respect in so many cultures. In addition, food is a vital part of the structure of the cities in which we live; good restaurants and markets can change a neighbourhood by adding vitality and security to an area that would otherwise be a mono-culture. My research, as presented herein, looks one way of revitalizing local neighborhoods - through the use of food.

Image 4:
Family Farm Fields
Image by Author

Modern life demands, and is waiting for, a new kind of plan, both for the house and for the city.

Le Corbusier, 1931

Introduction

"If clean drinking water and public sanitation were the main obstacles to social progress in the 19th century city, a healthy diet and access to fresh food for all promises to be one of the hottest issues for the 21st century."

Helen Castle, editorial,
Food + the City

"If the population of a region is weighted too far toward small villages, modern civilization can never emerge; but if the population is weighted too far toward big cites, the earth will go to ruin because the population isn't where it needs to be, to take care of it."

Christopher Alexander,
A Pattern Language.

"The big city is a magnet. It is terribly hard for small towns to stay alive and healthy in the face of central urban growth."

Christopher Alexander,
A Pattern Language.

Image 5 | Image from Food Inc.

In 2007, Michael Pollan asked, in his introduction to his book The Omnivore's Dilemma, "What should we have for dinner?" He then clarified the question with the statement:

> [This book] tries to figure out how such a simple question could have ever gotten so complicated. As a culture we seem to have arrived at a place where whatever native wisdom we may once have possessed about eating has been replaced by confusion and anxiety. Somehow this most elemental of activities – figuring out what to eat – has come to require a remarkable amount of expert help. How did we ever get to a point where we need investigative journals to tell us where our food comes from and nutritionists to determine the dinner menu? (Pollan 2006, 1)

The majority of people in North America have lost not only the knowledge of how to successfully sustain themselves from the land but, even more troubling, the basic knowledge of where the food comes from, what real food is, or even what to do with it (Pollan 2008). It is not only basic knowledge of food that is being lost in the consumer culture; many of the private and public spaces that were central to the social fabric of the city, street, and family are changing and losing their significance (Mehta 2007). The mass marketing of the consumer lifestyle has led to the disappearance of home gardens, local restaurants, neighbourhood coffee shops, and farmers' markets. It has altered the fine grain of our city, streets, and homes, thereby reducing the social interactions that once created lively streets in the past (Mehta 2007).

Consumer culture and industrialized food manufacturing has created a rift between us and the land, the act of eating, and spaces created by these rituals. The production and enjoyment of food is core in our lives and culture. The sharing

of a meal with friends, growing food, or the meeting place of the local market are all discrete social interactions that enhance our lives and social and physical fabric of the city.

> The key word there is 'sharing'. Food is not just something you jam into your mouth and swallow fast to prevent starvation. It is the basis of social interaction. From a baby's first bonding with its own mother, through the milk from her breasts, human beings have used food as a means of keeping family, clan, and community together. In every religion and every culture, around the world, sharing a meal is a necessary social component of important occasions: whether Christmas, Easter, or Iftar, at weddings, baptisms, or wakes, sharing a meal is the key to sharing life. (Pawlick 2006, 218)

We have shared a symbiotic relationship with our food. We have nurtured the flora with love and devotion in return for seeds, fruit, and plants to create modern agriculture. Homes, traditionally based on the production and storage of food, were comprised of root cellars, pantries, and larders—filled by people canning and drying the harvest to sustain them over the winter (Pond 2007). We saved our best achievements in production, consumed with those we loved in festivals and celebrations that marked the seasons and allowed us to rejoice in our successes during the year (Steel 2009).

Critics of our food system have stated that we now obtain all our food from industrialized processes, whether they are from agriculture, food labs, and factories (Pollan 2008; Roberts 2009; Pawlick 2006). However, it has been only recently that people obtained food this way. Even after we began to master mass agriculture, it still predominantly controlled our lives through the production, provision, and consumption of food (Bender 2003). The distance from farm to

"…the very act of eating, the basis of many of our social, family, and spiritual traditions – not to mention the one cheap pleasure that could even rival sex – has for many devolved into an exercise in irritation, confusion, and guilt. In North America, Europe, and even emerging Asia, hundreds of millions of anxious consumers flit from one diet to the next, obsessing over bad carbs and good fats, additives and allergies, worrying over food as if we were hunter-gatherers on some primeval veldt instead of citizens in the wealthiest, most sophisticated cultures in human history. The

very meaning of food is being transformed: food cultures that once treated cooking and eating as central elements in maintaining social structure and tradition are slowly being usurped by a global food culture, where cost and convenience are dominant, the social meal is obsolete, and the art of cooking is fetishized in coffee-table cookbooks and on television shows. On nearly every level, we are reaching the end of what may one day be called the "golden age" of food…"

Paul Roberts,
The End of Food

city that produce could travel before spoiling restricted the physical size of the city. The trade routes and market areas moulded the fabric of the city, creating food districts (Steel 2009). Only in the last century have we seen a large explosion in cities' sizes, partially due to modern transportation methods and cooling technology that allows produce and grains to be transported greater distances into cities' cores without spoilage (Steel 2009). With these advances, cities were able to transport more food than previously and expand their boundaries into the surrounding countryside. The way we have reorganized our cities reflects this change in our social habits and our movement to large-scale, car-oriented retail developments and industrial agriculture.

Large-scale food retail and the introduction of the automobile changed the scale and fabric of the city. It has also changed how we produce, obtain, and consume food. By mid-century, virtually every family had at least one car and access to inexpensive fuel, allowing the ability to travel greater distances to shop and ending the era of the small local shop and restaurant (Kuntsler 1993; Newman 1996). Supermarkets providing both food and services became the predominant venue for shopping, appearing at the edges of the city and causing small-scale shops unable to compete with these big-box stores to go out of business (Steel 2009). The death of the small family food business did not alter only how we buy our food because local shops provided much more than local food security. These shops acted as meeting places and information dispensers, as well as providing income retention and generation within the community. Jane Jacobs discussed the intricate movement of people in the street outside her New York dwelling as a ballet of individual daily activities creating a dance that makes up the life of the street:

> Under the seeming disorder of the old city, wherever the old city is working successfully, is a marvellous order for maintaining the safety

> of the streets and the freedom of the city. It is a complex order. Its essence is intricacy of sidewalk use, bringing with it a constant succession of eyes. This order is all composed of movement and change, and although it is life, not art, we may fancifully call it the art form of the city and liken it to the dance—not to a simple-minded precision dance with everyone kicking up at the same time, twirling in unison and bowing off en masse, but to an intricate ballet in which the individual dancers and ensembles all have distinctive parts which miraculously reinforce each other and compose an orderly whole. The ballet of the good city sidewalk never repeats itself from place to place, and in any once place is always replete with new improvisations. (Jacobs 1961, 50)

Food is part of the urban interactions that Jacobs describes. Without the distribution of small-scale shops, our urban centres fabrics are becoming more monolithic in their uses.

Urban areas are where most of the world's population now reside. For the first time in history, more than half of the world's population—3.3 billion—live in cities (Obaid 2007). The UN report on the state of the world population predicts that much of the increase in population will occur in smaller cities, that is, those with populations of less than 500,000 (Obaid 2007). However, many smaller cities are struggling with under-serviced neighbourhoods and with the question of how to accommodate growth in a sustainable and resilient manner (Rochester 2003). They are unable to provide efficient public transportation, fresh water, and waste disposal due to rising costs in infrastructure (Kunstler 1993). In addition, food security (access to fresh, whole food) has become an issue in many urban centres (Ehrlick et al. 1993). As urban centres spread, they consume the farmland that surrounds them. We are currently using almost 85% of the minimally arable

land in the world (Despommier 2008) and using petroleum-fuelled equipment to spread petroleum-based fertilizers and pesticides to grow large mono-crops that sap the soil of its nutrients and living matter (Pollan 2006; Steel 2009). It is quite possible, given our exponentially growing population, our expanding urban boundaries over prime farmland, and our dwindling supply of oil, that we could soon be facing a food shortage (Steel 2009). In order to discuss how food can play a role in resolving some of these issues, we need to examine three issues affecting smaller cities, called mid-sized cities.

Mid-sized cities, metropolitan areas of 100,000 to 300,000, are facing problems in today's economy. These cities, with their dispersed forms, comprise most of Canada's urban population and are largely the product of the industrial boom in the early 20th century (Filion 2007). However, most studies over the past two decades focused on large cities and rural areas, giving little attention to the mid-sized city (Fulton 2002). The emptying city cores in mid-sized cities have left a plethora of under utilized and sometimes polluted brownfield sites that drain these areas of their vitality and desirability (Widner 1986; Wiley 1998). These issues bring with them a host of other issues, such as loss of employment, rising crime rates, and abandoned properties (Greenberg et al. 2002). Mid-sized cities also face the issue of core area abandonment, leaving cities with poor housing stock, vacant retail buildings, and decaying downtowns. These issues fall into three main areas: loss of equity, failing economies, and dispersed city form. Started by a chain of technological advances in the early 20th century, these issues are some of the greatest challenges that face mid-sized cities today.

Equity

The history of how the population came to live in suburbia rather than the city cores partially explains inequity in the city. Early cities were compact, primarily

pedestrian-centred and the cultural and social centres of the countries. The majority of the population still lived and worked in the countryside (Sjoberg 1955). At the turn of the 19th century, people began moving to city centres for new industrial jobs that promised steady, non-seasonal work (Kunstler 1993). Some cities offered inexpensive or free land to businesses to lure new jobs and tax bases to their areas, usually in manufacturing (Stead 2002). With the influx of people, there came as many detrimental effects as beneficial ones. Issues such as pollution, poor water supply, disease, and waste were rampant problems within the urban core. People began to view the city as polluted, overcrowded, noisy, dirty, and disease-ridden from all the industrial activities and, therefore, a very unhealthy place to live (Howard 1898; Kunstler 1993).

As cities grew in prosperity during the middle of the 20th century, they embraced industry and the automobile. The movement of the people to the suburban areas began. With the flight to the suburbs came a greater reliance on the automobile. Public money that had previously been marked for such projects as libraries, schools, parks, and civic monuments was poured into freeways and roads to accommodate the movement of the personal vehicle to retail stores and the suburbs. In addition, costs for the new infrastructures to service the areas rose steadily (Kunstler 1993). The central areas of the city started to lose inhabitants to suburban developments along the outskirts of the city (Newman 1996). Land was still expensive in the urban core, so the companies followed the people outside of the city in the mid-20th century (Kunstler 1993). All of these factors began to take their toll on cities financially, socially, and environmentally. The expansion of cities consumed farmland that originally fed the cities (Steel 2009).

The suburbs, originally envisioned as an area where mono-ethnic groups of a certain economic class could escape the undesirable aspects of urban life, created a divide in the classes (Kunstler 1993). The middle and upper class

There was nothing like it before in history: a machine that promised liberation from the daily bondage of place. And in a free country like the United States, with the unrestricted right to travel, a vast geographical territory to spread out into, and a national tradition of picking up and moving whenever life at home became intolerable, the automobile came as a blessing. In the early years of motoring, hardly anyone understood the automobile's potential for devastation - not just of the landscape, or the air, but of culture in general. It was assumed that cars would merely serve as wonderfully useful accessories in the human habitat as it then was, that they would make the city a better place, and cure all the troubles of rural life, without altering the arrangement of things in either place. ...

To Americans, it must seem like a senario from a 1950's horror movie: The Day the Earth Caught Fire! To contemplate it in the comfort of an air-conditioned sedan, cruising up Interstate 87, pleasured by iced drinks and packaged snacks, must add the unreality. But the joyride is over. What remains is the question of how we can make the transition to a saner way of living. To do so we will certainly require a transformation of the physical setting for our civilization, a remaking of the places that we live and work.

Kunstler 1999)

Image 6:
Before (top) and after of Boston's West End following the leveling of a section of the city during a phase of urban renewal.

moved to suburbia for spacious living at a lower cost. Cities emptied of the more affluent families and businesses, leaving the cores to lower income people, many who could not afford the new living style of suburbia.

> This is a good place to consider in some detail why the automobile suburb id such a terrible pattern for human ecology. In almost all communities designed since 1950, it is a practical impossibility to go about the ordinary business of living without a car. This at once disables children under the legal driving age, some elderly people, and those who cannot afford the several thousand dollars a year that it costs to keep a car, including monthly payments, insurance, gas, and repairs. This produces two separate classes of citizens: those who can fully use their everyday environment, and those who cannot. (Kunstler 1993, p 114,115)

Without customers or employees to support them, downtowns shops closed and migrated to the suburbs, and as shops and jobs left, they left in their wake other failing small businesses and a dearth of services. With failing urban cores, some believed that urban revitalization and urban renewal could save city cores. Cities began to level large areas of the older parts of towns to make way for modern structures and redevelopment with the hope of attracting new life to the city cores (Widner 1986). The result was a large percentage of vacant land and derelict buildings. This pattern of growth and development in the suburbs has continued to occur to present day, influenced by globalization (Fishman 1991). Food markets followed the exodus and appeared in suburbia as supermarkets while the smaller inner city stores and farmers' markets closed from a lack of patrons.

Failing Economies

Businesses now locate their headquarters in cities but locate most of their operations outside major urban areas in order to reduce costs. Progress in the field of telecommunications has allowed companies to decentralize and redistribute offices to small towns, edge cities, and other countries (Fishman 1991). By moving manufacturing plants out of North America, companies could reduce their operating costs and retain their head offices in the more expensive but better located North American cities (Lorinc 2006). There are now substantially fewer manufacturing jobs in North America, and as a result, the middle-class is now in decline; thus, the gap between the rich and the poor is widening. This lack of a diversified economy due to the boom in manufacturing and cheap consumer goods means that there are very few small businesses anymore and an accompanying lack of employment opportunities because most goods are made outside the country and sold to consumers through big-box retail.

The exodus of the manufacturing sector to less expensive operating locations and industrial parks continues today (Lornic 2006). Hardest hit are mid-sized cities, which often have only one or two main economic bases and they are usually in the manufacturing sectors. Without economic diversity, they are losing their resiliency and are slowly dying (Widner 1986). Larger urban centres do not have this problem. They usually support a diversified economy so that when a particular economic sector suffers there are other bases to support the cities economy. Detroit, even though a large urban centre, is an anomaly. Detroits economy, almost entirely based on the auto-manufacturing sector, failed when the auto sector failed. In this way, Detroit is more like a mid-sized city then a larger urban centre. A lack of a diversified economy reduces a cities ability to be resilient. Using food-orientated developments can enhance a cities ability to

be self-reliant and aid in creating a resilient, diversified economy. In addition, the movement of business to industrial parks outside the cores, even if not out of the country, led to a decline in land value and population in the inner core of many cities. Thus, the combination of the movement of industry and people out of the cores of cities had a devastating effect on the vitality of the city core.

The manufacturing industry had an additional effect on the economy. Retail and housing built on a large scale. Using large supermarkets and big-box retail stores for purchases rather than the smaller local shops has had three major effects on neighbourhoods. The first is the reliance on cars as a mode of transportation, reducing pedestrian street activity, which led to the second issue, the creation of car-oriented developments that discourage pedestrians while increasing traffic and infrastructure maintenance costs. The final impact is that smaller businesses are unable to compete with the “one stop shop” effect and lower prices of bulk buying and effectively are run out of business, leading to single mega-store options and a lack of a diverse and local economy (“10 Reasons to Stop Wal-Mart” 2004). Suburbia and big-box stores have replaced small shops

Image 7 | Abandonment

and diverse neighbourhoods creating a dispersed city form or sprawl.

Dispersed City Form and Abandoned Land

The monolithic pattern of housing development and its companion—single use zoning—have created large pockets of car-oriented, homogeneous developments replacing the more organic pattern of development that created mixed use areas as were seen in cities (Kunstler 1999). Government plans the use of areas within the city, placing similar uses in the same areas, such as primarily residential zones or all industrial zones. These development policies encourage a dispersed pattern of development that costs the cities financially to increase the service areas' infrastructure where areas are too large and too low density for an efficient public transportation system to be a financially viable option (Kunstler 1999; Filion 1995). In addition, these dispersed patterns remove the human contact between residents. Homes or businesses are located apart, discouraging encounters between neighbours due to the need to use a car to travel anywhere (Friedman 2005). Segregation of uses ensures that people doing different activities never encounter each other while working, shopping, or enjoying entertainment. In a time when technology connects us more than ever before, we have never been more alone or more disconnected from our neighbours.

This shift in the economy and living patterns explains how the cores of mid-cities have begun to fail and have a number of abandoned or under-utilized sites. The effects of the abandoned areas in a city are numerous. Many of the city's lands in the central core are now vacant or abandoned. These sites, labelled TOADS, Temporarily Obsolete Abandoned Derelict Sites, (Greenberg et al. 1990) comprise a significant portion of the central core of many mid-sized cities (see Appendix 1). These sites pose redevelopment challenges for many cities and create clusters

of undesirable effects around them. Many TOADS, used for unofficial personal solid waste disposal, can look more like landfill sites, causing the area residents to view the sites as ownerless and abandoned, thus showing no respect for the sites (Greenberg et al. 1990). The abandoned buildings located on these properties often become places for squatters, causing such health and safety issues as indoor fires and drug use. Due to the toxic nature of the processes that occurred at some of these manufacturing sites, some are still toxic today, largely due to poor storage and containment as well as the dumping of waste directly into the site (Greenberg et al. 1990). All of these factors can cause city officials to ignore sites until these issues begin to directly affect residents or businesses in the area, resulting in complaints to the city (Greenberg et al. 1990). Many studies done on successful revitalization and reorganization of urban areas suggest plans that have proved to be effective in large cities. However, other studies have shown that these plans do not scale down for successful use on smaller urban areas (Filion and Bunting 1993). Therefore, we need new approaches that address current urban needs, abandoned land, and food security in order to create resilient communities.

The issues of equity, economy, and sprawl are common across mid-sized cities. The movement of the population from the cores of the city to the suburbs has placed the emphasis on the car as the main force driving development patterns with big-box stores dominating the landscape. Not built on a human scale, this landscape can cause a disconnect between people and the natural environment as well as among the members of a community.

By using food as a guide, we can create criteria for changing zoning regulations, allowing broader use within existing city residential zones and encouraging education and community support for food-related enterprises. Design criteria from studies on mid-sized cities are virtually impossible to find because research

on the dynamics and challenges of these cities is extremely limited. For that reason, we examine other sources on city building and earlier research on food in order to create design criteria to revitalize city centres and create denser urban areas. In a post-industrial era, a re-examination of supply methods, self-sufficiency, and importing trends could point to cities becoming self-reliant rather than importing food from far away and leaving residents to search for white-collar and blue-collar employment to pay for it. Such a plan could signal the rebirth of the tailor, baker, butcher, and market garden farmer.

This thesis examines both the historical and current influence of food on cities, streets, and homes in relation to the growing issues of access to fresh whole food and the form of the dispersed city. In addition, it will investigate how food oriented developments such as community food centres can act as catalysts for urban revitalization in failing urban cores and provide resilience to the economies of the cities. The analysis of the influence of food, challenges that mid-sized cites are facing, and a series of precedents will provide a set of guidelines for architects and planners developing urban projects.

Chapter 2 examines the historical relation of food to the home, street, and city. This exploration of the changing spatial plan of homes over the past century will illustrate our changing relationship with food. In addition, Chapter 2 discusses the commodification of food and the impact it has had on our health and society. It also provides an analysis of how the movement of food to, from, and through the city has shaped the layout of our streets. A final, larger scale look at the impact of food related interactions on community show how food plays a significant role in our social interactions within the city.

Using the historical review of food and its influence on the urban fabric as a starting point, Chapter 3 outlines design criteria determined through precedents

to illustrate principles that serve as a guide to developing appropriate design interventions for mid-sized cities toward urban revitalization and resiliency.

Chapter 4 applies the design criteria, using an historical neighbourhood, St. Patrick's Ward, in Guelph, Ontario, which is a typical mid-sized city to propose an intervention on a currently under-used brownfield site utilizing the history outlined in Chapter 2 and the precedents discussed in Chapter 3.

Chapter 5 summarizes the research and how it informed the design application and suggests possible future explorations in the areas of private/public support in addition to possible barriers and further economic exploration. It also discusses the implications for architects because architects are involved in many types of development projects, and staying abreast of current issues facing our cities is crucial for architects.

Context: History of the City and Food

"As I ate the oysters with their strong taste of the sea and their faint metallic taste that the cold white wine washed away, leaving only the sea taste and the succulent texture, and as I drank their cold liquid from each shell and washed it down with the crisp taste of the wine, I lost the empty feeling and began to be happy and to make plans."

Ernest Hemingway, A Moveable Feast

“In Paris today millions of pounds of bread are sold daily, made during the previous night by those strange, half-naked beings one glimpses through cellar windows, whose wild-seeming cries floating out of those depths always makes a painful impression. In the morning, one sees these pale men, still white with flour, carrying a loaf under one arm, going off to rest and gather new strength to renew their hard and useful labor when night comes again. I have always highly esteemed the brave and humble workers who labor all night to produce those soft but crusty loaves that look more like cake than bread.”

Alexandre Dumas (1802-1870)

The domestic architecture and cities reflect changes in how society produces, acquires, and consumes food. These changes are apparent in the plans of our homes, the urban fabric, and social interactions in the public realm. The average modern kitchen has shrunk and then grown again, although less used than in the past; furthermore, there are no root cellars because refrigerators replaced them. Pantries, once used to store dry goods, preserves, and kitchenware, are now a small cupboard to store random miscellaneous items and possibly some canned goods (Ward 1999). The home garden is rare and even more so the knowledge of how to store and prepare the harvest received from it. Most of these functions, replaced by the convenience of the supermarket, are examples of how modern mass production has changed our relationship with food. To understand the food needs of a city, we must first examine the history of the organization and design impacts of food on the home and its relation to the city.

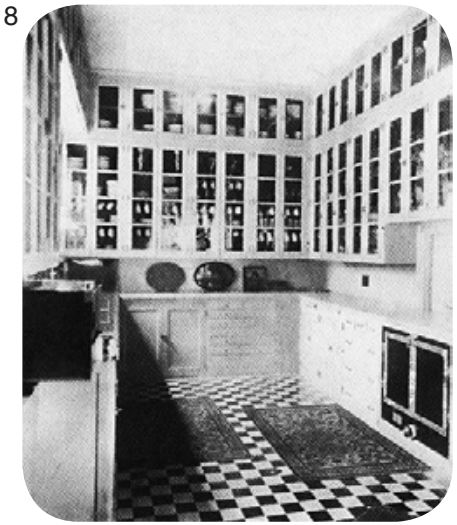
Food in the Home: What We Eat

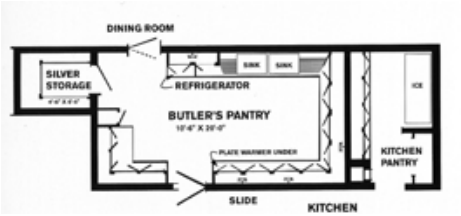
Domestic architecture has gone through several revolutions over the millennia. Food and activities involved with its production and consumption, has dictated the plans of our homes. The hearth is both a philosophical and geographical centre of a home, as illustrated through the etymology of the word hearth. In Latin, the word for hearth is focus (Online Etymology Dictionary 2001). The hearth, as a symbolic concept of the home, represents what home means to people: warmth, food, and shelter. The form of the hearth in the home has come full circle over the last two centuries in North America. (images 5-7). Early settlers' homes were often one large room with the fire at the centre in the forms of a large, open fireplace, surrounded by the food preparation, eating, and sleeping areas (Ward 1999). The storage areas were often root cellars, and north-facing pantries, used for their naturally cool temperatures and moist environments, to helped preserve food (Ward 1999). Large kitchens close to the garden facilitated both gathering the harvest and returning any waste as compost to the garden (Ward 1999). Given that

the kitchen was central to the life of the family, it was also the social space. Some homes had smaller kitchens reserved for use during the cold winter months within the main home and an outdoor summer kitchen used during warmer weather to avoid heating the house. These early arrangements were built until the early 20th century, when industrialization and technology would lessen the time needed to obtain adequate supplies of food and create new means of storage (Cromley 1996).

Early simple homes (image 12) also had large areas devoted to the processing and storage of food, such as summer kitchens, larders, and root cellars. All of these rooms were located outside the home, so the family spent many hours working outside. Each of these areas served a specific purpose with specific qualities to serve its function. Summer kitchens (image 9), used during the hottest months, kept smells and heat out of the main house. They were often lean-to additions attached to the rear of the house, with large ovens and work areas to process the summers' harvest. The pantry (image 11), a cool dry environment that kept preserves and dry goods, was another shed-like structure attached to the north side of the home (Pond 2007). The root cellar (image 10) is one of the better-known storage systems used. There were two main methods used in the construction of cellars: A cellar could be a room dug out of the earth with a single access at grade outside of the home, or it could be a structure built on grade and then buried on three sides to insulate it. Both of these designs work on the same premise: that the earth will keep an interior volume at a constant temperature and humidity. These storage rooms, kept near enough to the home to be easily accessible, were often just past the kitchen garden. Such storage and work areas were also present in the homes of the wealthy, but those homes had more specialized rooms removed from the public rooms and private living areas of the home. Some of the common utilities included butlers' pantries (image 8) for storing and washing dishes, pantries for food storage, and laundry areas, all located off the kitchen. These areas were the precursors of the most common features of kitchen areas today; however, technology has compacted the area significantly into one room (Ward 1999).

8





9

10

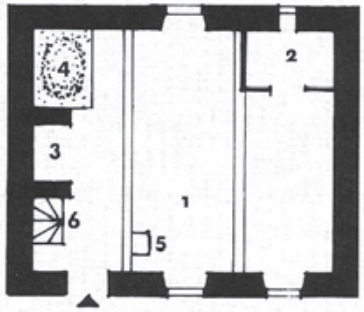
11

Images:
8 Butler's pantry: image + plan
9 Summer kitchen
10 Root Cellar 1937
11 Country Pantry

As the wealth of cities increased, segregation of the social classes began. Homes of the wealthy (image 13) developed separate kitchens, dining areas, and leisure areas where the family lived and entertained while the servants invisibly worked to run the household (Ward 1999). However, as the economy changed, so did the living and working arrangements of the home. The movement of the food axis from the formal and separate to the informal and joined represents a change in society and economics. Most did not have servants to run their households for them and needed to create spaces that served multiple functions and allowed for people to gather. There was a desire to create a kitchen work area not hidden at the back of the home and separated from the rest of the house (Cromley 1996).

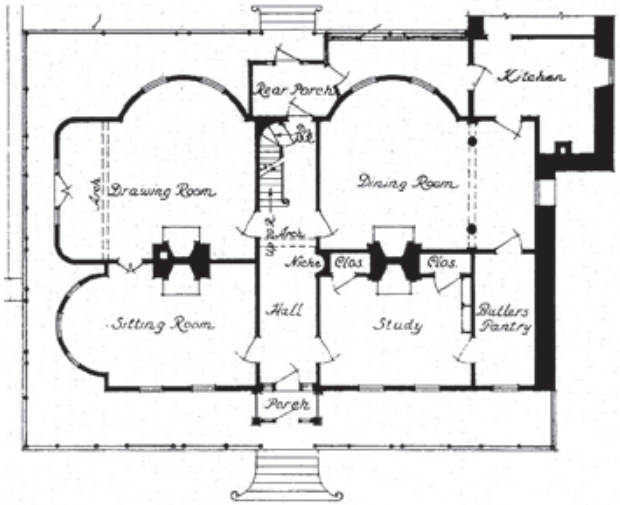
As women made the transition into the workforce in the 1960s and 1970s, the kitchen was planned more for efficiency and serving pre-prepared meals (image 14), so as a result, it became smaller and more focused on reheating and serving prepared foods rather than cooking (Ward 1999). At this same time, the dining room also joined the kitchen and living areas as opposed to being a separate area for formal dining and entertaining. The kitchen, no longer separated from the back of the home, now melded with the living area so that the woman of the household could watch over the family and socialize with guests while preparing the meal (Ward 1999). These changes are readily apparent in kitchens designed from the 1970s on. In the 1980s, with a greater percentage of both marriage partners working, kitchens became smaller, and the microwave became the prevalent method of preparing meals. Today, as people are spending more time indoors and less outside or in public areas, kitchens are again becoming large, multi-purpose areas joined to living rooms. Filled with many timesaving devices and appliances, today's kitchen might resemble a space station to anyone unfamiliar with modern kitchenware (Ward 1999).

The change in living styles from formal to casual has reorganized the house plan, reverting



1 living space
2 dairy storage
3 fireplace
4 bread oven
5 water well
6 stairs to attic

The double lines are ceiling beams. Curtains may have been hung from them to divide interior spaces.



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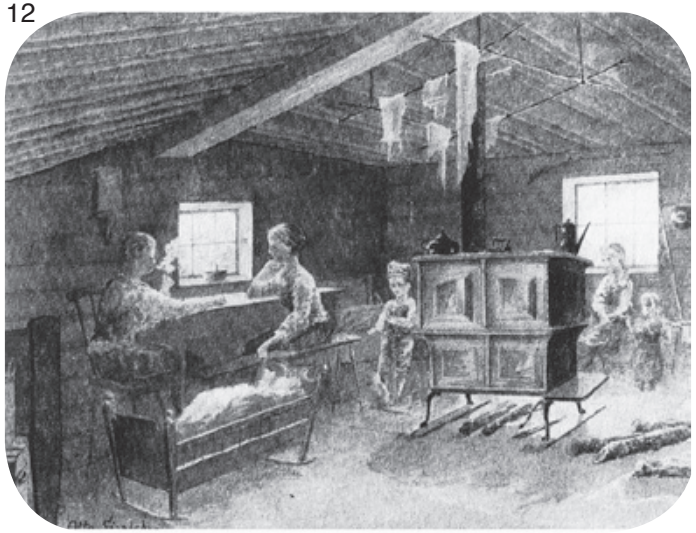

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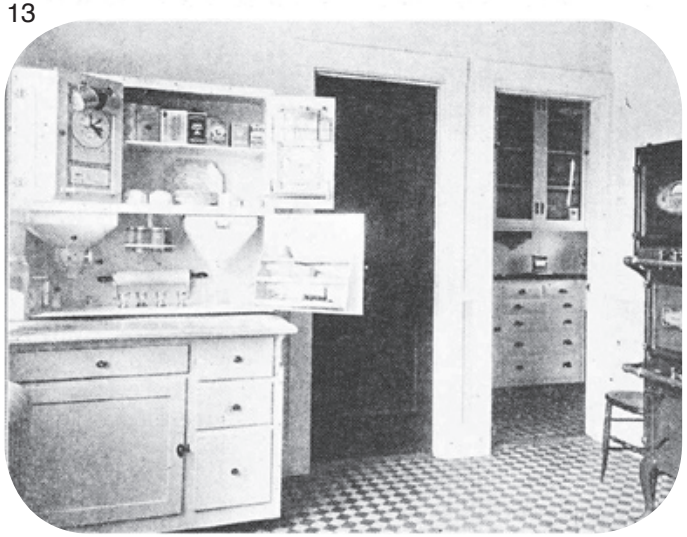
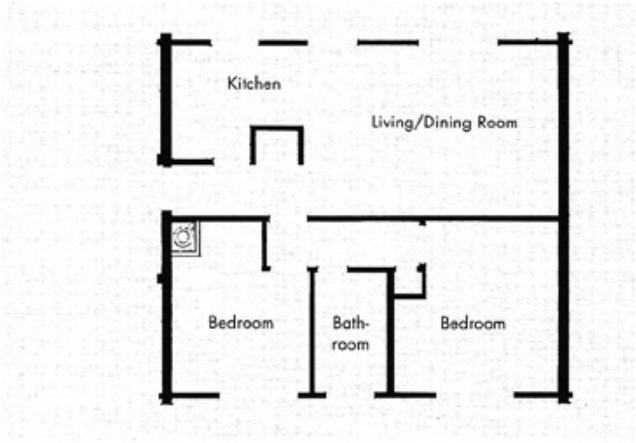




14

Image pairs left to right:
12 One Room Home: Quebec, 1690
13 Mansion: Halifax, early 19th century
14 Apartment: Winnipeg, 1961-1962

it to one similar to the early settlement home design; collective spaces for relaxing, eating, and preparing food are becoming popular again (Cromley 1996). Great rooms and large eat-in kitchens have become the centre hub of the home in many of today's new homes. However, in reality, very little food preparation is done in kitchens now. Food bought throughout the week is often pre-prepared, packaged food and take-out meals because many people believe they do not have the time to prepare a meal nor the knowledge to make meals, even though their workspace has the equivalent ability of a small commercial kitchen (Pollan 2008).

This trend of eating convenience foods in the form of a wide variety of pre-prepared foods is having an impact on our health. Since the 1980s, obesity and related diseases, such as diabetes and heart disease, have been on the rise (Roberts 2008). More children are obese than ever before. In 2001, the US Surgeon General reported that obesity was causing more than 300,000 premature deaths a year (Roberts 2008). Health advocates blame processed food full of fat, salt, calories, sweeteners, and chemicals for the increase in obesity and related health issues (Roberts 2008). In the 1940s, a new style of eating out changed the face of fast food in North America. A small restaurant run by two brothers, called McDonalds, dispensed food with its carhops, limited its menu, and changed its kitchen into an assembly line—the first of its kind. The drive-thru would arrive in 1975 (www.mcdonalds.ca). The convenience of getting food and travelling appealed to us, and we have continued to eat and drive ever since. With a new wave of rapid service restaurants serving the county, people began to eat out as a convenience (Roberts 2008). Now meals are "taken out," as people run from one daily event to another. Eating has become less about the enjoyment of food and company and more about simple sustenance. These pre-prepared meals are high in fats and sweeteners but low in nutrition (Pollan 2008).

However, the situation is not hopeless. A few studies and some anecdotal evidence show that many of these issues can be reversed through a healthy diet, including lots of whole

foods and foods that are low in fat, sugar, and sodium. In 1982, Kerin O'Dea persuaded a group of ten middle-aged Aborigines in Derby, Australia, to return to the hunter gatherer diet that they had left some years before to discern whether the western diet they had adopted was the cause of their weight gain and health problems. The Aborigines were all suffering from "Metabolic Syndrome" or "Syndrome X", a disorder implicated in the development of type II diabetes, obesity, hypertension, heart disease, and possibly certain cancers. The group returned to their homelands far from town and lived solely on foods that they hunted and gathered themselves for seven weeks. After seven weeks in the bush, all members of the experiment had lost weight (around 17 pounds each), and O'Dea concluded, after blood tests, that all of the metabolic abnormalities of type II diabetes were reversed. Furthermore, obesity has become such an issue in the United States that there is now a television game show that pits people against one another in a battle to lose the most weight. Aside from the obvious implications that the size of the issue has become a part of reality television pop culture, a few people on the show,

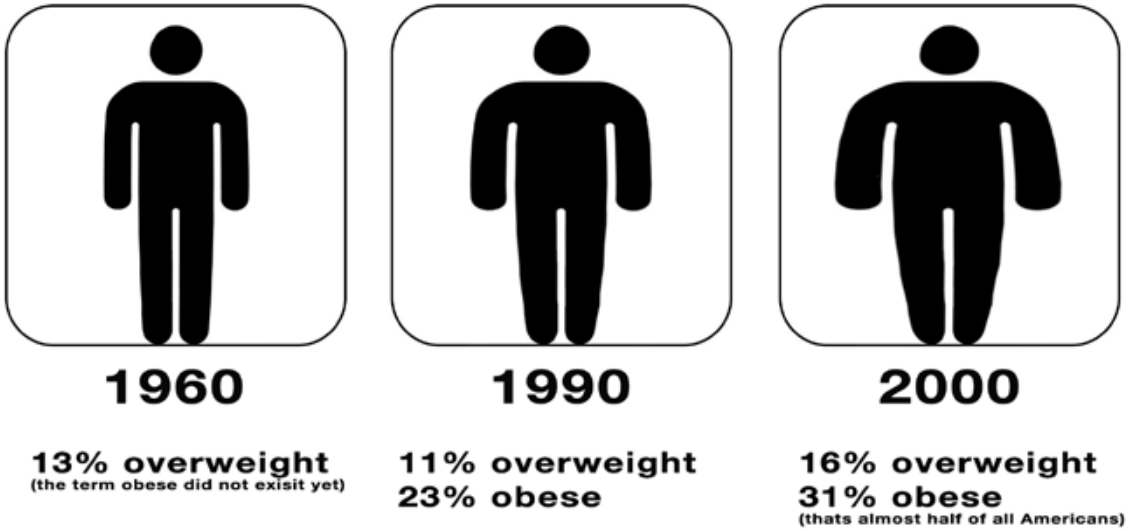


Image 15:
Increasing obesity problem in North America

after reducing their size to a healthy weight, were cured of many of the afore mentioned illnesses. If such a short time on a traditional diet could reverse some of the problems of a North American diet, why is it so hard for us to change our ways?

Several factors work against us. We have become a busy society. We spend hours at the gym and entertaining ourselves with games and television; we enrol our children in extracurricular activities; and both partners work longer hours than in the previous century. All of this busy-ness means that we feel we have less time to devote to cooking and shopping for food than ever before. Society has also bought into food science as the ultimate source for knowledge of understanding how we should eat. We obsess about calories, fat, and nutrient values in the food we eat. Even though we try to eat things that are supposed to be healthy for us, packaged foods that are supposed to be better for us than traditional whole foods lure us away from traditional whole foods. We are the least healthy that we have been in a long time. North American society has embraced the commodification of food and is now seeing the result of artificial low-cost food. We can trace the changing role of food in our lives through the changes that have occurred in our homes, both inside and out.

The relocation of the hearth to the centre of the home, in the kitchen, and our new interest in eating better may be indications that families could be ready to return to a more healthy food-focused culture. If designers and the cultural leaders are willing to lead the way through design and development, we may be able to recreate a food culture in some of the failing towns and cities where a loss of industry and jobs resulted in a depressed economic state. Using this knowledge, we could create a basis for altering the home to create a more holistic living space arrangement, using the way we interact with food to increase family involvement in the growing, preparing, and cooking of food.


667km
on hoof
32km
by cart
TODAY:4000km
50% lost to spoilage
482km
by boat
16km
by cart

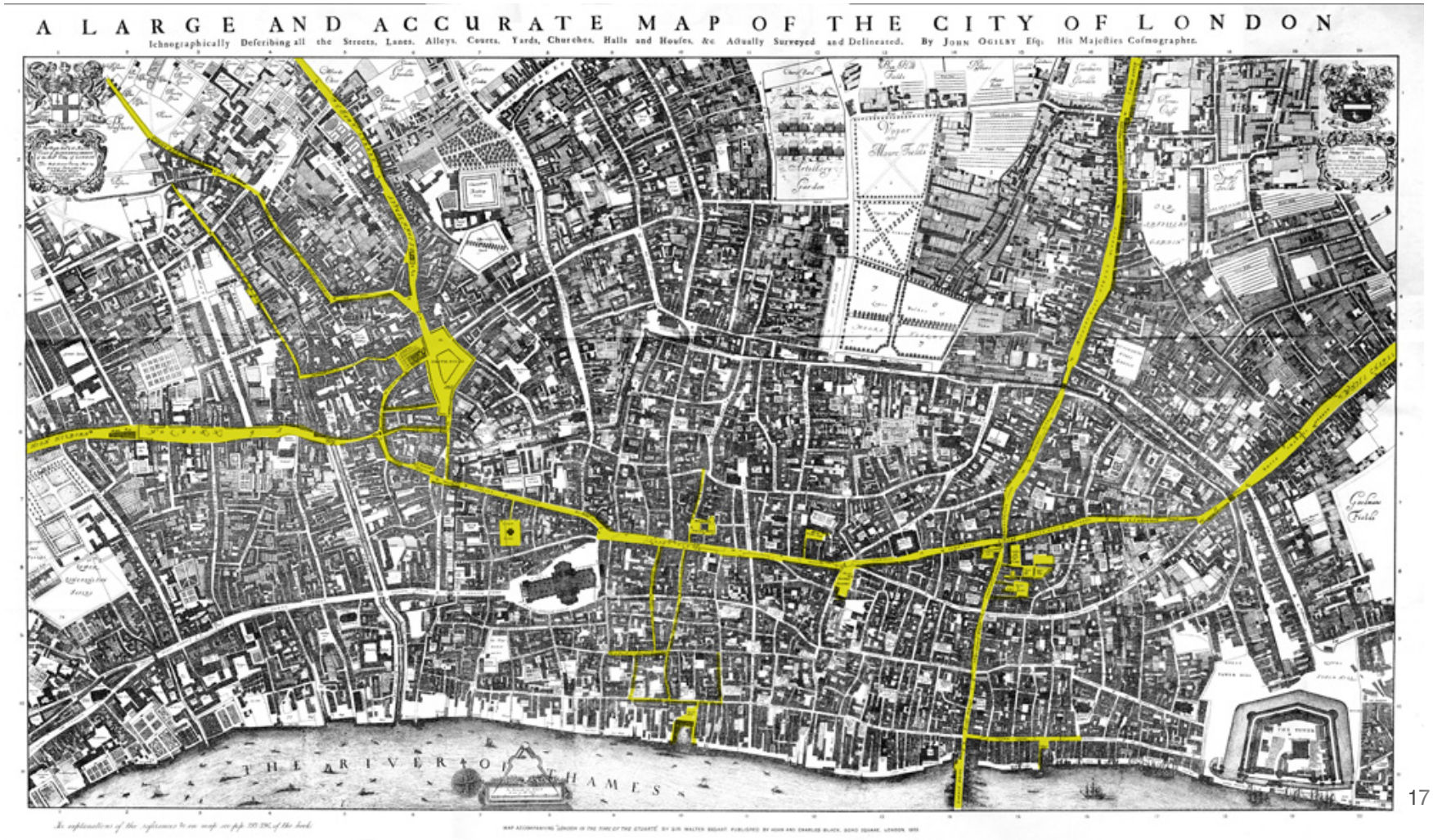
16

Food in the Street: Where We Work

Food in the city streets has many typologies: merchants, gardens, restaurants, and cafes. These amenities typically enhance the streetscape and vitality of a community and shape the way cities grow over the centuries. They also play a vital role in creating food security within urban communities (Mehta 2007). Transportation of food through the city has determined the main streets of the city by creating trade routes and shopping districts — quarters within the neighbourhoods for dining, selling, growing, and storing food. A closer examination of the relationship between food and the street shows how some city streets came to exist in the form they have today and how, with the advent of the car, we have moved away from small scale-retail and disconnected ourselves from land and food.

Early cities were pedestrian based and, therefore, compact, with many services such as shops and restaurants located within a short walking distance of any home. Each area had to have its own supply lines such as butchers, sundry stores, and the like within a reasonable distance from the homes. Some of the supplies, such as milk and vegetables, came from within the city itself because they could not be transported great distances without spoilage. As Steel puts it, food is “seasonal, squashable, bruisable, unpredictable, irregular” (Steel 2009, 63). The goods that came from outside the city were often grains, meat, and fresh produce. Driving livestock, raised the farthest distance from the city, into the slaughterhouses within the city was practical and avoided spoilage during transport because live animals do not need to be refrigerated. Farmers carted other goods, such as grains and produce, from farms into town, split them up, and distributed the goods throughout the city to local shops as quickly as possible. The practical distance for moving goods by cart in a single day was determined by the amount of time before spoilage occurred. For most goods, the average distance was 32 kilometres; for products such as milk, the distance was very short, and so dairies were located within the city making the available milk as fresh as possible, but even then, milk

Image 16:
Maximum distance for food transportation in the previous century and today.


A LARGE AND ACCURATE MAP OF THE CITY OF LONDON
Ichnographically Describing all the Streets, Lanes, Alleys, Courts, Yards, Churches, Halls and Houses, &c Actually Surveyed and Delineated. By JOHN OGILBY Esq. His Majesties Cosmographer.
THE RIVER OF THAMES

17

18

Images 17 + 18:
17: Reproduction of Map in Hungry City
Shaded areas represent food markets and supply routes.
18: Food Imported to Rome

went sour quite frequently (Steel 2009).

Food spoilage was one of the main restrictions of the size of the city and resulted in an unintentional green belt around the city. River cities had an advantage. Goods moved faster on water, so food could be moved from longer distances, allowing water-adjacent cities to grow larger than their land-locked counterparts. It would be incorrect to assume that it is only recently that food has been transported great distances to feed cities. One only has to think of ancient Rome to understand that cities have always had to consume food from outside their city limits to support themselves (Image 9). Cities have always had to move goods from outside inward. Since the movement of food to within the city was paramount to its survival, it is understandable that so much of the form of the city developed from this movement of food. The need to transport goods throughout the city for distribution created much of the urban fabric we see today (Steel 2009).

In her book Hungry City, Caroline Steel shows how the streets in London, England, were the arteries of the city for the inhabitants and commodities that shaped the urban fabric we see today. The movement of supplies created routes and areas loaded with markets and shops (Image 8). These routes define the main streets. After distribution methods changed from cart to rail, then to truck, the location of shops and industry moved from the city centre to the periphery, and the main streets began to lose their commercial assets, thus creating abandoned areas within the city core (Steel 2009). While initially it was more convenient for goods to be moved into the centre of the city by cart, the advent of rail and automobile changed the form of transport for all the goods that were moved. It was more cost effective for industry and business to establish a location on the outside of town next to rail lines and highways. At the same time in North America, a migration from farm to city was occurring. From the 1950s until the 1980s, nearly fifty percent of the farming community population left their homesteads and settled in urban areas, abandoning their farms due to an inability to “keep up” with corporations’ larger and more profitable operations in the market place without going into massive debt (Pawlick

2006). The result is large corporate farms supplying large corporate supermarkets at a low cost to the urban consumer, which is growing every day. What happens to all the employment from small local stores supplied by the small family farms? Steel notes that, in Britain, local shops are closing at a rate of 2,000 per year, and some predict that there will be none left by the year 2050 (Steel 2009). She believes that supermarkets are not compatible with cities at all, if the cities are compact, explaining:

> A study carried out by the Department of Environment, Transport and the Regions (DETR) in 1998 found that a new superstore built on the edge of a town could reduce the market share for a city-centre food shop by as much as 75%. A subsequent report by the New Economics Foundation (NEF) entitled Ghost Town Britain showed how even a small reduction in business in the high street was enough to start killing shops off, eventually reaching a "tipping point" when the old town centre was no longer viable: "Once the downtown starts to shut down, people who preferred to shop there have no choice but to switch to the supermarket. What begins as a seemingly harmless ripple becomes a powerful and destructive wave." (Steel 2009, 113)

The urban fabric of many older cities in North America illustrates the influence of food on the form of the city. Previously, it took many people to supply a city with food, from small-scale market farmers within the urban core to the vendors that connected people to their food (Steel 2009). Now we have industrially produced food sold by large conglomerate corporations through big-box stores run by corporations controlling food from farm to table (Pollan 2009; Pawlick 2006; Roberts 2008). Distribution of food to urban areas is more complex today. It has a farther distance to travel from farm to store and arrives in large quantities. To keep supermarkets fully stocked with "fresh" food constant deliveries are required to the store. This has created a large network of trucking routes, distribution centres, and mega-farms (Steel 2009). Without small shops and direct

access to farms, we are solely reliant on the food industry to supply our cities. These large-scale distribution chains contribute to the expansion of our cities geography.

The widening of our cities has widened our waistlines as well. We no longer stroll to the neighbourhood coffee shop or pop down to the local grocer to pick up a few fresh items for dinner (Pollan 2008). The problem stems largely from convenience. Cars take us places, fast food restaurants to provide quick and tasty (if not healthy) meals in cars, and grocery stores with shelves full of pre-prepared meals that can be fully cooked in minutes in the microwave lead to a life of convenience resulting in little exercise and eating high fat and calorie processed food, available in abundance (Roberts 2009). As most of these activities occur in our personal vehicles, our sidewalks and neighbourhoods are devoid of pedestrians. To create lively streets, a heterogeneous arrangement of uses located throughout the area is needed to supply a variety of attractions and needs for the local residents as well as those willing to travel to experience a new place (Jabareen; Mehta 2007). For most of the last century, planning consisted of setting out schemes that segregated uses in cities according to perceived appropriate adjacencies, such as industrial uses away from residential areas (Kunstler 1993). This isolation of functions created stagnant areas, lacking a convergence of uses that play a vital role in creating active and vibrant streets (Jacobs 1961). Purely residential zones in cities and suburbs are prime examples. Most people are only in the neighbourhood during evening hours and remain in their homes during those hours, and during the day while people are at work and school, the streets are barren (Kunstler, 1993).

The movement to large-scale, self-service, bulk shopping has reduced the number of small shops and, as a result, removed jobs from the economy (Pothukuchi 2005). It has also removed the transactions associated with food from our city streets, reducing street activity and causing the loss of public space (Steel 2009). Introducing uses such as markets and restaurants to these areas could increase street life and activity in a vicinity and create the types of streets that people are likely to inhabit.


Carnes
Vacuno-Cerdo
Pollos
DULCE
CIRUELAS
150 KG


COLIFLOR
$30
PIMIENTOS
EN
$1500


FUJI
250
ELEGIR
$ 350
EL KILO

19

Food in the Community: Where We Meet

Food plays a social role in communities. It is often the central focus of public celebrations and is customarily present as a highlight to festivals and events. Food creates social arenas and enhances social events. Markets and high streets were often the only open public spaces in cities and, therefore, doubled as ceremonial spaces, political spaces, and places of entertainment (Steel 2009).

For much of human history, the market has traditionally been the arena for the trade of food. Until the late 20th century, food purchases made from markets located in the centres of neighbourhoods comprised almost all our food purchases (Espardy 2002; Steel 2009). This district, populated by visitors and customers on a daily basis, would be the central zone for other merchants to open shops, eateries, and services. The Agora in Ancient Greece or the Forum in Rome exemplifies how the market creates a meeting place that carries an air of chaos over the everyday transactions that architects often forget are the basis of what makes a space alive (Steel 2009). According to Steel:

> Food is always getting overlooked this way, not the least by architects trained to think of space as something defined by bricks and mortar rather than by human actions. But space is also created by habit: the pitching of stalls in the same place day after day, multiple lifetimes of deals and nods, conversations and exchanges. [A] map from the 18th century [of Padua's market] shows how the positions of the stalls for sea fish would change from summer to winter, a reminder that the use of the space, like the food it sold, changed with the seasons. Such spaces may be ephemeral, but they are no less powerful for that. They remind us that it is often the way in which spaces are inhabited that matters most, not just the physical boundaries that appear to define them. (Steel 2009, 123)

Image 19:
Market stalls in Chile:
photos by Angelica Nef


20

These markets are living-spaces, places that allow people to create personal and community interactions with an energized atmosphere of activity. The Agora in Athens illustrates this concept perfectly, amongst the various areas set aside for the vending of specific products were great orators like Socrates, people out to see other people, and the site where Athenians gathered to vote on matters of state (Steel 2009). The replacement of the market by the supermarket has changed the way we interact as a society. Although both supplied food, the supermarket, held solely in the hands of corporations, serves no civic role (Steel 2009).

> Supermarkets might bring welcome cash to struggling local authorities, but the "urban regeneration" they offer is really urban destruction. Supermarkets are changing the social and physical texture of cities, and with it the very nature of urbanity. Traditional city centres support a dense patina of individual shops, trades, and businesses: the sort of mixed-use grain described by Jane Jacobs and plagiarized by Victor Gruen. Streets are the building blocks of cities, providing something the supermarkets can never provide: a common space with which people identify, in which they have a stake. Above all, streets are shared spaces: in both use and ownership, they form the basis of the urban public realm (Steel 2009, 145).

Supermarkets create another void that is not always readily apparent to most of us. Even though we have reached a time when food is more plentiful and readily available than ever before, food security is becoming an issue in modern society, many people are unable to afford or have a lack of access to fresh and healthy food (Brown and Carter 2003). Many areas have only convenience stores that have no fresh whole food and are quite expensive. This problem leads to many residents of low-income areas eating either fast food or processed food from convenience stores: such areas are referred to as food desserts (Pothukuchi 2005; Steel 2009). Both city-organized and community-based programs can help fill the void by providing access to healthy, reasonably priced food in

Image 20:
Trajens Market in the Forum, Rome, Italy: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1st & 3rd SATURDAYS 9 to 1
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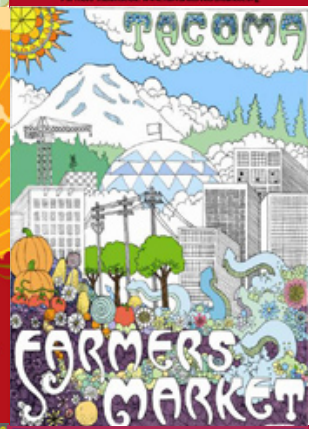
HARVARD, MASSACHUSETTS
Come for the FOOD
Come for the MUSIC
Come for the VIBE


PHILMONT
MAIN ST.
FARMER'S MARKET
SUNDAYS, JUNE 28 TO OCTOBER 18
EVERY SUNDAY 10 AM TO 1PM
CORNER OF MAIN ST. AND ELM ST.


TACOMA
FARMERS MARKET


FARMERS' MARKET | MARCHÉ des FERMIERS
MRCHé MRKT FRMRs
MCGILL | 3BARES
CHAQUE MARDI
EVERY TUES
SEPT+OCT
11th-17th
mcgillfarmersmarket.blogspot.com
mcgillfarmersmarket@gmail.com
McGill
SSMU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FARMERS MARKET
2008
MEET THE PRODUCER!
EAT LOCAL
THURSDAYS
3pm TO 8pm
May through September
In Historic Downtown Snohomish
ON CEDAR STREET BETWEEN 1ST & PEARL

lower income neighbourhoods through markets and community garden programs (Short et al. 1995). One example of such a market is the East New York Farms community markets and gardens in Brooklyn, New York. Created as a community and municipal response to a lack of fresh produce in the area, local residents, in conjunction with the Pratt Centre for Community Development, saw the food grown in their 65 community gardens as a viable source for trade and sale in community markets. The city encouraged this movement and helped create a source of fresh food for the area. The markets and gardens of the area have become fixtures in this community, providing fresh food that was previously inaccessible, local income to the area residents, and opportunities for youth (eastnewyorkfarms.org).

Farmers' markets create social environments that foster connections between community members, allow for an urban public space, and support local food producers and the survival of the small local farm by creating a venue for marketing fresh, local produce (Brown and Carter 2003; Pawlick 2006). Farmers' markets provide an opportunity for urban people to reconnect with the land and the farmers who work it. Such markets are on the rise both in numbers and in size; in fact, from 1994 to 2002, the number of farmers' markets in the United States rose 79% (Pawlick 2006). In addition to acting as a liaison between rural and urban communities, there is a more practical advantage provided—a reliable source of fresh affordable healthy food. The choices at the local supermarkets are restricted to a few varieties of each product, and the prices are higher than what farmers would sell for at a farmers' market (Shakow 1981). Supermarkets provide processed foods at artificially low costs; in fact, most processed foods cost less per calorie than natural healthy foods (Roberts 2008). Supermarkets are full of these foods; almost the entire centre aisles of the stores are devoted to processed foods while the outer walls are the only ones that really hold whole foods (Pollan 2008). Processed foods, in the supermarket and fast food restaurants, are less expensive because the large food conglomerations and the government subsidize farmers in the United States (Roberts 2008). We are now able to buy more processed food for a lesser price than

Images 21 + 22:
21 Right: Farmers Market Posters from various cities.
22 Left: Hearts and Hands Community Garden

a smaller amount of healthy food. These opportunities create a situation in which we pick the least expensive and convenient choice, but the choice that is the least healthy for us. In addition, these venues do not offer a public social venue that would help create community cohesion. Instead, they are environments that foster individual, impersonalized interactions.

Food markets offer significant benefits to communities by providing economies that are more resilient and food security. The city benefits through the maintenance of open public space that generates taxes and biodiversity, can reuse waste from both the site and the city, and provides jobs to those who may otherwise have trouble finding employment (Brown and Carter 2003). In the coming years, as oil supplies decrease, long distance transportation and industrialized agriculture will become cost prohibitive (Pollan 2008). Urban farming to supply urban markets can help our cities prepare for this future by using both vacant land and rooftops for growing substantial amounts of food.

23

24

> Recent studies by the National Research Council of Canada have shown that if just 6 percent of Toronto's rooftops were greened (equivalent to just 1 percent of Toronto's land area), the city would reduce its greenhouse gas emissions by 2.18 tonnes per year. Food production on those rooftops would reduce the amount of transportation in and out of the city, further decreasing emissions and create $5.5 million worth of locally produced fruits and vegetables. (Brown and Carter 2003)

Urban farming, in conjunction with markets and interest in local food, is indicative of a change in our culture, and by urging cities to promote urban agriculture and urban food markets, we can secure a more resilient and healthy future for our cities.

Our lifestyles, public interactions, and eating rituals have changed over the last century: the kitchen, once removed as the hearth of the home and relegated to obscurity, is once again playing the role of hearth. The evolution of cities' relationship with food has also altered the fabric of our streets and buildings. Once a large focus of street life, food moved to the periphery of the urban areas, into sanitized supermarkets and chain restaurants, leaving the streets and cores of the city to struggle and fail. The same revolution has occurred in the role of food in the community. The loss of markets within the city has removed us from our understanding and access to food while decreasing economic security and diminishing the public realm. Gardens and markets within the city strengthen community bonds and boost the economic strength of a neighbourhood. Without this enlivening force, many areas have lost significant vitality in their street life and the base of stores and services that provide economic resilience. The influences of the evolving relationship with food, seen in the challenges that mid-sized cities are facing, cause us to look for past examples in order to plan resilient cities, using our relationship with food as a guide.

Images 23 + 24:
23: Chinatown Toronto, Ontario
24: Market in Chile

3

Design Principles: Strategies + Precedents

"The homogeneous and undifferentiated character of modern cities kills all variety of life styles and arrests the growth of individual character."

Christopher Alexander, A Pattern Language

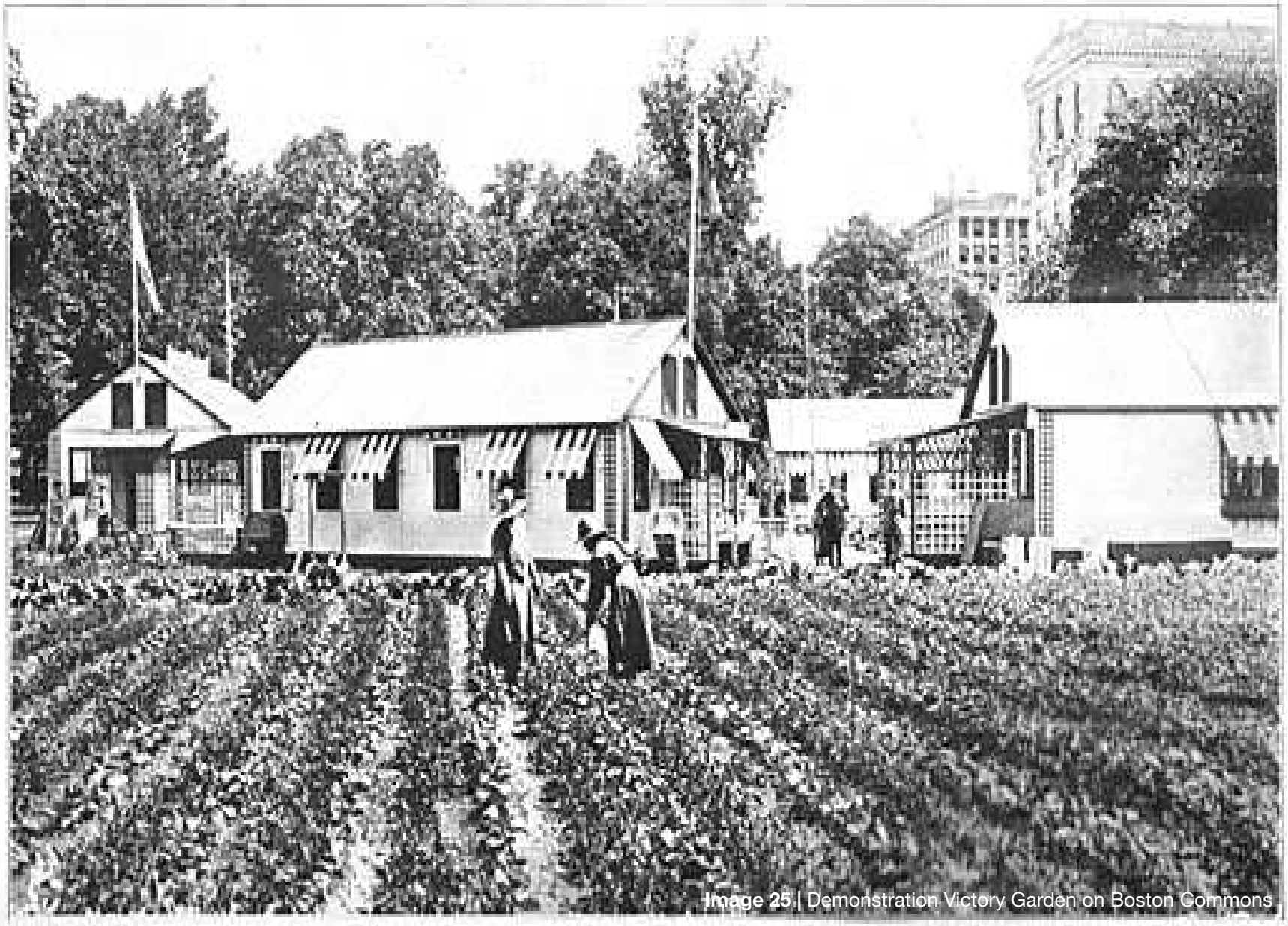


Image 25 | Demonstration Victory Garden on Boston Commons

Throughout human history, a variety of examples of urban food projects and urban planning or design initiatives have made an impact on both the lifestyle and form of the city, even if only temporary. These precedents are available to demonstrate the social connections, economic values, and necessity of having a diverse and stable food economy throughout a city as well as a vibrant and livable community. A quick examination of some of these past responses to necessity shows that many of the themes and proposals made in this proposal have support and precedent.

War Gardens

In a proclamation, President Woodrow Wilson said to Americans,

> Let me suggest, also, that every one who creates or cultivates a garden helps and helps greatly, to solve the problem of the feeding of the nations - and that every housewife who practices strict economy puts herself in the ranks of those who serve the nation. This is the time for America to correct her unpardonable fault of wastefulness and extravagance.
>
> Proclamation to the American People on April 15, 1917

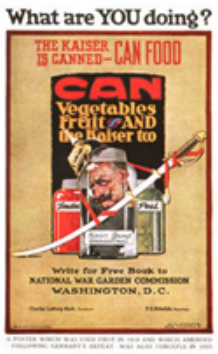
War and Victory gardens started as a plea from the government of the US during WWI and WWII. They wanted the citizens who remained at home to come to the aid of the troops and the rest of the world by growing and canning as much food as possible. The campaign was launched by the War Garden Commission. Propaganda reached the people of the United States through mail, posters, newspapers, pamphlets, and radio. A constant barrage of encouragement, instruction, and demonstration mounted on the public created astonishing and beautiful results (Pack 1919).

1000 pounds of food
40 x 40 plot

Beets–25 bunches
Carrots–2 pecks
Radishes–15 bunches
Rutabaga–64
Early peas–32 quarts (pods)
Potatoes–7 pecks
Cabbage–20 heads
Cauliflower–14 heads
Tomatoes–6 baskets
Bunch beans–2-1/2 pecks
Telephone peas–40 quarts (pods)
Peppers–9 dozen

Cucumbers–100
Celery–450 stalks
Rhubarb–10 bunches
Scallions–12 bunches
Parsley–used freely
Dried beans for winter use–20 quarts
Peaches, from two trees - 7 baskets
Lettuce–equivalent of 60 heads
Horseradish–all desired
Onion sets–3 quarts
Onions dried–1/2 bushel
Pole beans–108 quarts

26



27

People used vacant lots, yards, golf courses, public parks, schoolyards, rail yards, window boxes and other containers to grow vegetables for private consumption and public sharing, for example, in New York City 186 000 vacant lots were used as community victory gardens. During the first year of the endeavour, there were approximately three million war gardens (Pack 1919). To preserve the food grown in these impromptu gardens, the commission promoted the use of canning and dehydration to allow food to be stored and shipped overseas to the troops (Pack 1919). Gardens also provided a positive psychological benefit through both creating a connection to the land and through beautification of surroundings. The New York Times gardening writer F.F. Rockwell wrote:

> Now, if ever in our lives, we will need the mental and psychological tonic which work with plants and close touch with soil never fail to bring. Everyone knows what flowers will do for a sick ward in a hospital. For a sick world they do no less. This has been amply in war-ravaged land abroad, where gardening has proved to be one of the most practical aids to general morale. (Miller 2003, p)

These war gardens illustrate that though the use of vacant and under used land we can produce a significant amount of food. They also show that by creating natural elements in our urban areas we can beautify the areas and create community interaction through support and small economies. Local food production can bolster economies and improve access to fresh produce in areas that are both bereft of economic promise and access to healthy food. War gardens are a precedent for community gardens and small scale urban farming in yards. Gardens promote community involvement, additional income, and food security to the communities that surround them.

Images 26 + 27:
26: Typical Yield of a 1918 City Victory Garden
27: Posters Promoting War Gardens

Image 28 | Campo di Fiore, Rome Italy

Food Districts

As long as we have lived in cities, specific districts dedicated to sales of different types goods have existed. Areas for working and for play were always available, however, these areas often involved food. Usually presenting a wide variety of shops, markets, and restaurants, they create a multiuse area within the city that serves a single purpose in multiples ways. These streets and squares have existed as integral parts of the city for a very long time; one of the more famous districts is the Campo di Fiori in Rome, Italy. This square hosts a mix of uses but is almost completely centred on food. The interior of the square itself is packed with rows of tables laden with fruits, vegetables, meat, and cheeses. Along the perimeter of the square restaurants, permanent shops, and cafes occupy the ground floor of the low-rise buildings. The market operates from early morning until mid-afternoon at which point the tables are taken down, stored until the next day and the vendors go home. Food districts have traditionally been more than just an area to either get food or go out dining. They are the social quarters of the city, where people meet, discuss, and listen to other people. (Frank 2005) Markets are traditionally areas for discussing politics and news. Historical records have shown that these activities were prevalent in both the Agora in Ancient Greece and the Forum in Rome. These food driven public spaces have declined in cities over the last century and been replaced by private spaces in car-orientated districts. There are very few public food spaces left. The recent up serge in markets have created a lost connection with both our fellow city dwellers and those that provide the food we eat.

Successful food quarters share a few common design qualities. The most important design element of these areas is the series of configured outdoor rooms built on a human scale with well defined edges and places for people to pause and sit. In addition, they usually have mixed use on the ground plane with medium to high residential density located above. These areas also usually have easily accessible streets and paths for bikers and pedestrians as well as close

"TRANSPLANT THE CITY", Fallen Fruit, 2006,
40" x 60" giclee archival print

Image 29 | Art from Fallen Fruit Show

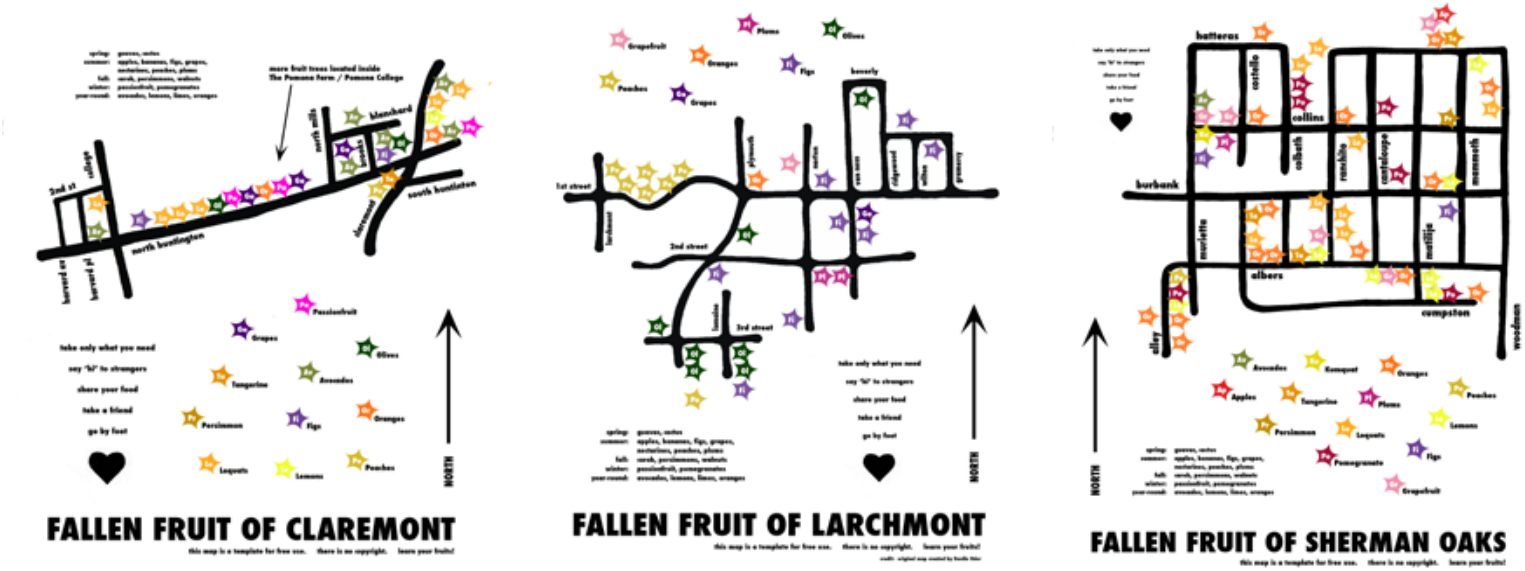
points of access to public transportation. The food quarter contains an array of different businesses including cafes, bars, markets, restaurants, productive landscapes and gardens, community food centres and gardens, as well as related businesses and shops (Parham 2005).

All of these design criteria create opportunities for social interactions, small scale economies, and residents that will create a lively atmosphere during the whole day. these characteristics create a desirable successful neighbourhood capable of supporting its residents and attracting visitors.

Urban Food Projects

More communities now recognise food security is a serious issue. Many urban areas and communities started to institute public programs to fill the voids left by large-scale commercial development in lower income areas. A few have gathered so much attention they have expanded into organizations that serve broad sections of surrounding communities. Some programs are as simple as community garden plots that allow residents to grow their own fresh produce and some of the programs have grown to a large scale.

An example of a successful urban food project is the East New York Farms program. The project began as a small network of markets that allow local community gardeners and micro-entrepreneurs to sell their produce to their communities. The project began as a response to a lack of fresh produce in the area. Started in 1995 by a coalition of five agencies as a planning initiative to address local community problems such as increased employment, increased neighbourhood safety, better education, and recreational facilities the project lead to the organization of vacant lots for gardening, the establishment of weekly farmers markets, and youth internships in urban agriculture (Hung 2004). Since its inception in 1998, the role of the organization has expanded from a simple sales medium to a centre for education and collaboration in the areas that it



services. Over the past decade, the market has generated more then $630,000 in income for local gardeners and local farmers and produced more then 60,000 pounds of fresh food within the city and offered paid internships to almost 100 people (East New York Farmers Market Celebrates 10 Years 2008).

Fallen Fruit is another example of a food project that has expanded from its local beginnings. David Burns, Matias Viegener, and Austin Young started Fallen Fruit as an activist art project to map the fruit trees available for public harvest in the streets, sidewalks, and parking lots of their neighbourhood. Public fruit is defined as any tree or overhanging fruit laden branch on public property and the organization encourages members to map the fruits locations, harvest otherwise wastes fruit, and share the harvest with the community. The project has spread to other areas surrounding Los Angeles and the founders are encouraging citizens in other areas to submit maps indicating public fruit for harvesting in their communities.

Image 30:
Neighbourhood Maps of Street fruit locations

> We encourage everyone to harvest, plant and sample public fruit, which is what we call all fruit on or overhanging public spaces such as sidewalks, streets or parking lots.
> We believe fruit is a resource that should be commonly shared, like shells from the beach or mushrooms from the forest. Fallen Fruit has moved from mapping to planning fruit parks in under-utilized areas. Our goal is to get people thinking about the life and vitality of our neighborhoods and to consider how we can change the dynamic of our cities and common values. (http://fallenfruit.org/whatisfallenfruit.html)

Utilizing public space for community food projects increases access to fresh food the residents of an area as well as providing possible new areas for growth and development in the economy. Public food projects also strengthen community bonds and increase awareness of neighbors situations.

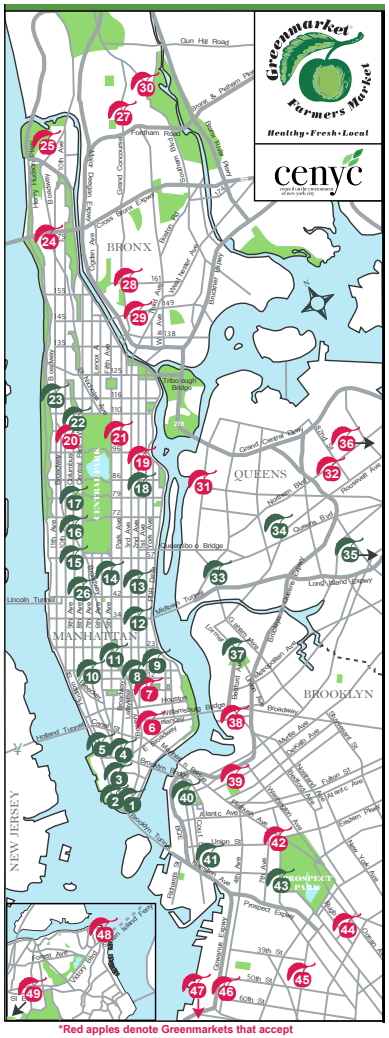
Markets

Farmer's markets, once a staple of urban living for access to food products, had almost fallen into oblivion in North America. However, in the past few years the United States has seen a 111% increase in the number of urban farmers markets (Pawlick 2006). Farmer's markets fill several needs within the community, although the patrons often do not realize the extent of the impact of the market unless there was an obvious void before, such as the case in East New York.

Farmers' market produce is often locally grown on smaller, less industrialized farms. People argue farmers' markets allow farmers to pick produce at the peak of flavour, preserve the nutritional content of fresh produce, and since locally grown produce does not travel as far to get to your table, the difference in mileage saves fossil fuels (Pollan 2008; Pawlick 2006). In addition, farmers' markets often feature produce grown naturally or organically, meats that are raised humanely on pasture, handmade farmstead cheeses, eggs and poultry from free-range


Union Square Market
MARKET INFORMATION
77th Street Market
Rockefeller Center Market
Tribeca Market

Image 31



32

*Red apples denote Greenmarkets that accept Food Stamps/EBT July - November

Images 31 + 32:
31 Opposite: Greenmarket Farmers Markets
32 Above: Greenmarket Locations NY, NY
48 locations in Manhattan + Boroughs

fowl, as well as heirloom produce and heritage breeds of meat and fowl.

In North America, farmer's markets are often located large open spaces located indoors, covered areas, outside often in combinations of the three. They usually run once or two times a week and some are seasonal. These spaces attract large crowds and along with colourful vendor stalls creating animated social environments. vendors in the markets usually provide a variety of fresh and pre-prepared products such as cheeses and breads at varying prices. Although these elements make markets immediately recognizable on site they do not show some of the more beneficial aspects of these open commercial districts.

Markets help farmers stay in business as well as preserve natural resources. Wholesale prices that farmers get for produce are often very low, sometimes near, or even below the cost of production (Pollan 2006). Farmers who sell direct to the public without going through a middleman get a better price and create a connection to urban dwellers that can increase understanding and knowledge of the process required to produce food (Shakow 1981). This increased knowledge of farming practices can help increase public support for the preservation of farmland and reducing pesticide and fertilizer use, which is important for protecting the health of the environment and water supply (Pollan 2008). According to the American Farmland Trust, sustainable and managed farms conserve soil and clean water and provide a habitat for wildlife (Farmland Protection 2009). Moreover, modern farmers' markets help maintain important social ties, linking rural and urban populations and even close neighbors in mutually rewarding exchange (www.farmersmarkets.net).

In addition to the environmental benefits and economic benefits to markets, many social gains are inherent in markets. Markets have traditionally been the heart of the city or town; like the Agora in Athens, they have acted as a social meeting place, ceremonial spaces, and a zone for disseminating news, ideas, and a forum for political discourse (Thompson 1954). This type of open and


y Paquita
521
TOCINERIA


Rovellons
SANISIMOS
5,99
KILO €
Aguacates
1,99

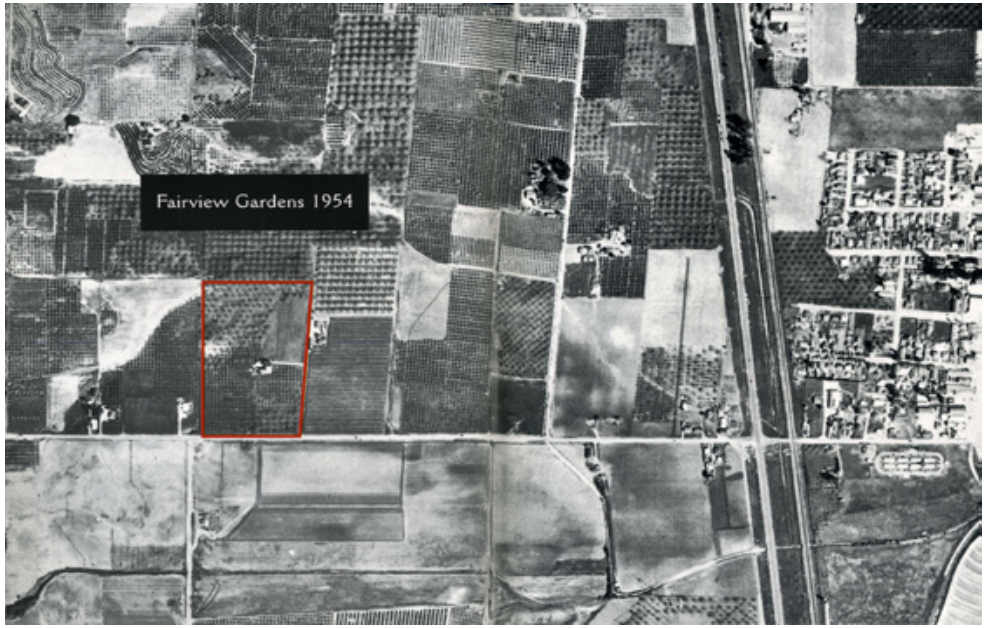
highly public space is a necessity to create a cohesive bond between citizens and foster a sense of community rather then a focus on the individual. Some of these aspects can be seen in smaller communities at the local bar, café, or store. People know and talk to each other, exchange ideas and assistance.

A more significant aspect, although often overlooked when planning for residential areas, is the concern for food security. Many inner city ares of low socioeconomic status are bereft of access to fresh, healthy, reasonably priced food (Beaulac 2009). Smaller markets located frequently within the less advantaged areas, supplied by urban farming with quality healthy food can provide a good alternative to processed food for residents (Short 2007).

These examples illustrate several ways that food can be an economic stabilizer, a community builder, and bring vitality to deteriorating neighborhoods. War gardens illustrate the ability of cities to provide food for themselves and the capacity for the citizens' top pull together to provide for themselves and those around them. The essence of the war garden movement found in some community projects started recently such as farmer's markets and the Fallen Fruit project can provide significant benefits to the communities they exist in such as creating a conduit for strengthening human connections and food for those who might not be able to afford fresh produce and healthy food. Markets provide many of the same benefits as community food projects. In addition to community benefit, markets provide economic strengthening and opportunities for individuals to both provide for themselves and benefits from the work of others through fresh food, products, and services.

Images 33:
Indoor Market stalls in Chile:

PRECEDENTS

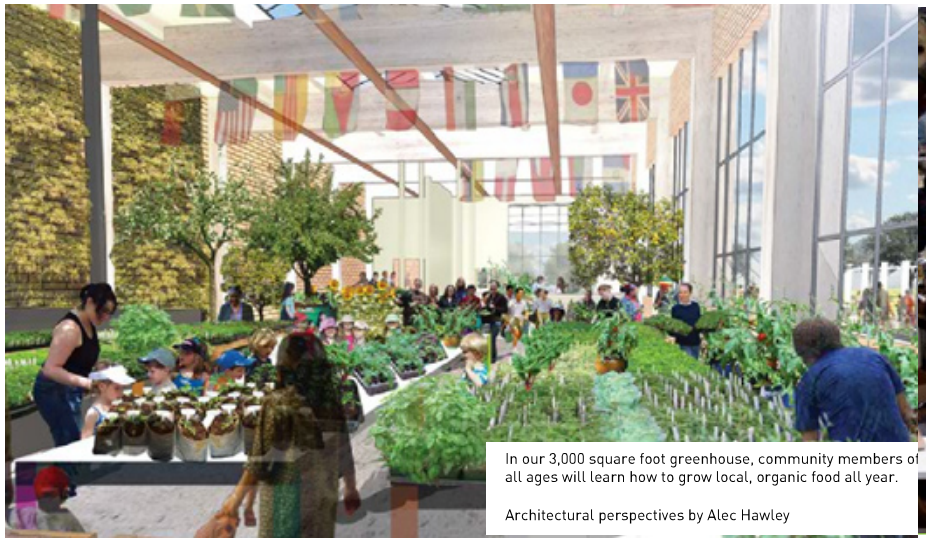


Fairview Gardens

Fairview Gardens is a 12 acre site situated in the Goleta Valley and has some of the richest topsoil in California, almost 30 feet deep in some locations (Ableman 1998). The original farm was established in 1895 by the Hollister family on Chumash Indian land. The farm, originally comprised primarily of orchards, now produces a hundred different fruits and vegetables that supply 500 families that reside around the farm as well as providing community benefits such as cooking and gardening classes, workshops, farm festivals, tours, lectures, apprenticeships, and outreach and consultation to schools and communities nationwide (Ableman 1998).

The site, now completely surrounded by suburban development, is an active and vital part of the community. This farm demonstrates that an urban farm can be profitable and intrinsic in community building as well as providing reasonably priced local food source. The farm provides employment for 20 people and offers educational opportunities and has established the Centre for Urban Agriculture that acts as a not-for-profit to preserve and operate Fairview Gardens, providing fresh chemical free produce to local residents, demonstrate that sustainable urban local farming is viable (The Center for Urban Agriculture at Fairview Gardens 2009). In 1994, the farm up for sale with the current and then farm manager, Michael Ableman, having first rights to purchase the farm. Unable to raise the money for the acquisition a community group formed to buy the farm in trust for the community. The farm is now a protected assist for the area and provides many dividends to the community through its education and produce.

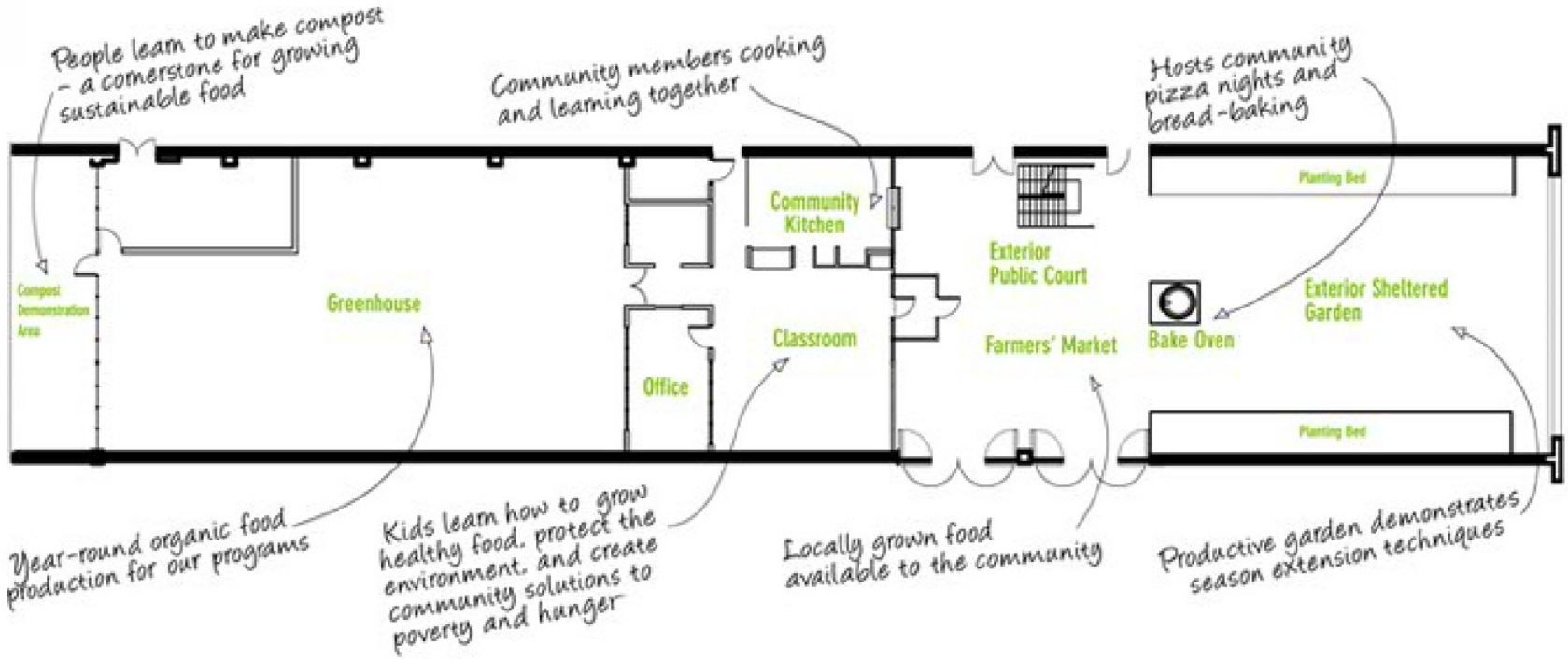
Images 34:
Left: Fairview Gardens Aerial
Right: Fairview Gardens Land



In our 3,000 square foot greenhouse, community members of all ages will learn how to grow local, organic food all year.

Architectural perspectives by Alec Hawley

Almost 1,000 eager market goers attended our first Green Barn Market on November 22nd.



The Stop's Green Barn

The Green Barn is a 10,000 square foot sustainable food production and education centre located in the Wychwood streetcar barns at Christie and St. Clair in Toronto, Ontario. The Stop Community Food Centre started the initiative with the intention of creating a community food centre that would provide the local residents with locally grown food, a markets selling local reasonably priced produce year round, and an education centre that "engages people to grow, eat, learn about, celebrate and advocate for healthy local food (The Stop 2009). The Green Barn is comprised of a year-round greenhouse, sheltered garden, bake oven, compost demonstration project, community kitchen, and classroom.

The project, located an abandoned brownfield site, beautifies the area by renovating a derelict building and incorporating green space in to an old industrial site. The educational and commercial aspects of the program provide social learning experiences for the residents creating a strong community based on mutual endeavors and provide careers paths to youth that might not thought of normally in an urban setting. The inclusion of a market creates a social zone where people can meet both their neighbors and the people who produce their food as well as providing a space that neighborhood producers could use to retail their products as well.

This project is the precedent for the proposed development in St. Patrick's Ward.

Image 35:
Bottom: Greenbarn Plan
Top Left: Top Greenbarn rendering
Top Right: Greenbarn Farmers Market

The Gardens

The Gardens is an inner city redevelopment of what was once a botanical garden site in Richmond, British Columbia. The 22.5 acre site was purchased by a development company and they have been working on several levels from hosting community workshops to allow the residents of the area to participate in design to working with the municipal government to address issues such as traffic re-routing and enhancing public transportation access to the main skytrain lines from the site to create a comprehensive development that both fosters economic opportunities and is partially self-sustainable (Gateway to Richmond 2009). The site, in its current design stage, is comprised of a large mixed use development with a focus on the natural environment, community building, and sustainable building practices. It includes 550 housing units, a farmers market, community gardens along with garden plots for on site restaurants to grow their own food and botanical gardens. Half of the site (12 acres) is contained within the Agricultural Land Reserve which restricts non-agricultural uses and encourages farming in British Colombia and will comprise the agricultural/botanical portion of the site. With the combination of agricultural use, community areas, and commercial space the site promises to be a mixed use urban garden that provides for its residents and encourages self sufficiency within an urban environment. It also incorporates environmental and social responsibility in the design to encourage better living for people and the environment.

Image 36:
Top: Richmond Gardens Housing and Landscape Plan
Bottom: Rendering of Richmond Gardens Main Street

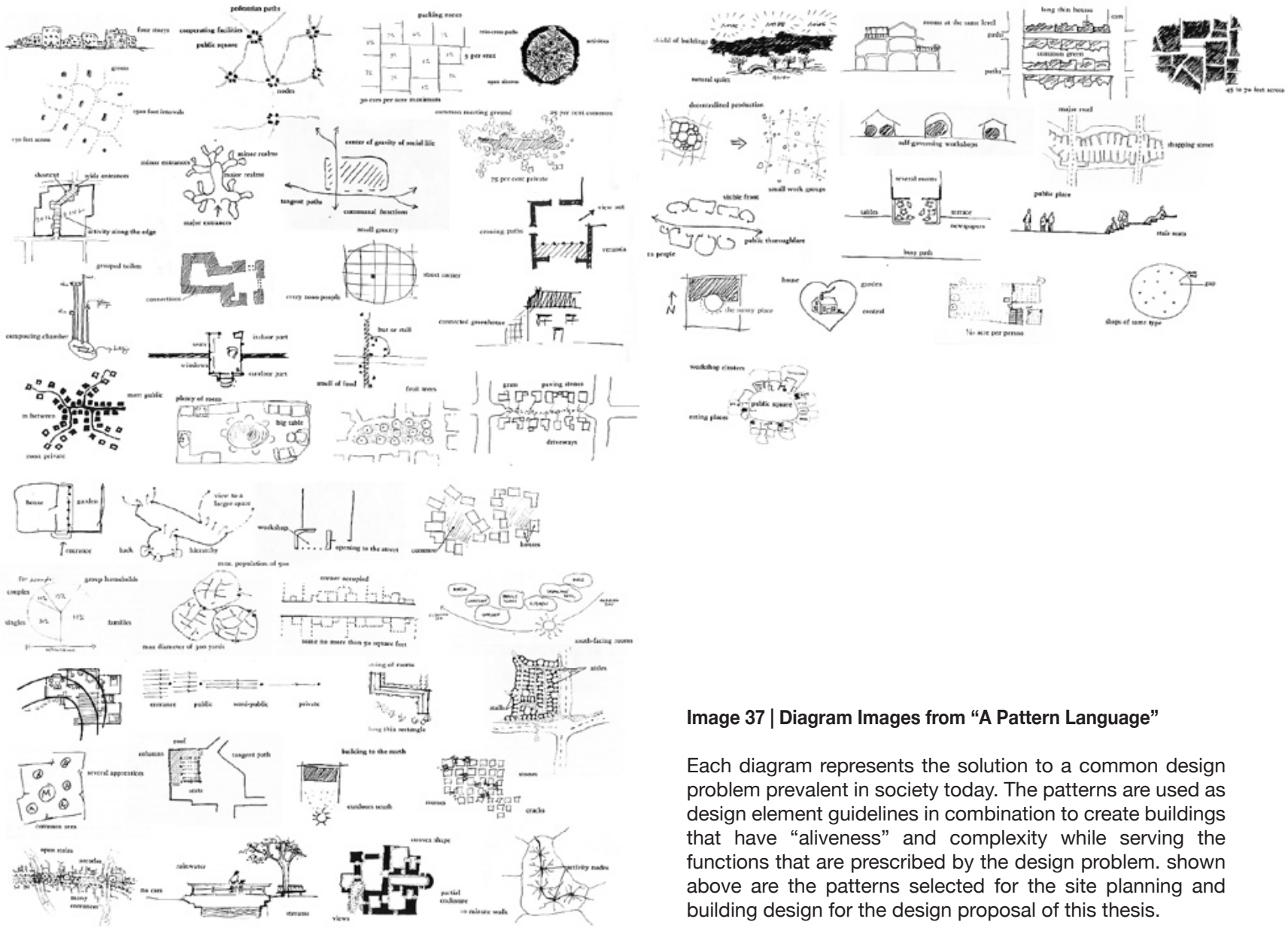


Image 37 | Diagram Images from “A Pattern Language”

Each diagram represents the solution to a common design problem prevalent in society today. The patterns are used as design element guidelines in combination to create buildings that have “aliveness” and complexity while serving the functions that are prescribed by the design problem. shown above are the patterns selected for the site planning and building design for the design proposal of this thesis.

Pattern Language, Seaside, + Portland

Christopher Alexander has looked back at the methods and relationships that are present in some of our most successful and well-loved communities and buildings to discover what it is that makes them what they are. Alexander suggests that we have come to view our surrounds and buildings as objects with no relationship to one another. He argues that our entire built environment needs to have relationships and that design needs to examine these relationships and follow the universal patterns that create good spaces - from something as large as the relationships between town and country or as small as the cracks between the paving stones in our yards. In his book, “A Pattern Language” he lays out 253 patterns that address problems that have occurred in our society’s built environment and the patterns that provide solutions to these issues. He stipulates that by using the patterns we can create a better built environments that have “aliveness” and create positive environments for human existence.

Another trio of people working towards developing better build environments are Robert Davis, Andres Duany, and Elizabeth Plater-Zyberk, the group responsible for the development Seaside, Florida. Davis, who had previously been working in the field of developing subsidized housing and then residential developments in Florida, had become disillusioned and disgruntled with the way cities and neighborhoods were developed. When he inherited an 80-acre parcel of land on the Florida coast he decided to run an experiment of massive proportions – to build a coherent community from scratch in the style of northern Florida building traditions. He enlisted the help or Duany and Plater-Zyberk and began drafting a master plan in 1982. The plan based on a neo-classical grid, incorporates a commercial district, a grand boulevard, blocks of housing intersected by alleys and footpaths, mixed housing types, and civic building and public spaces located throughout the city for the residents enjoyment. The real feat of the planning of Seaside was not that the town itself was successful, it is the zoning regulations developed during the process that are able to help other cities in

Image 38 + 39:
38 Aerial view of the town of Seaside
39 Images of Seaside

Image 39

shifting planning practices that were so valuable. Rather then creating zoning based on use Davis, Duany, and Plater-Zyberk set out a set of guidelines that are very much a form based zoning which they named Traditional Neighborhood Development (TND). The group packaged together their guidelines, good old fashioned urban planning, and made then available to any city to use. Their firm is now continually busy with work and Davis travels all over the country giving lectures and working with towns to aid them in their planning efforts.

The last method may seem like the simplest methods but can be one of the most difficult choices for a city to make – greenbelts. Portland, Oregon and Vancouver, British Columbia are examples of cities with greenbelts in different stages of the process. In the 1970's, Portland was sprawling out of its city limits like most other cities in North America. However, Portland reacted to the issue in a very different way – they made a choice to stop the sprawl dead in its tracks and lay down a Urban Growth Boundary. (UGB). They then began to use the money they saved from not expanding infrastructure costs and reinvested it in public parkland, public transportation, waste management, and downtown parking management. The result was a highly diversified and highly desired location to live in a compact city. This move caught the attention of Canadian leaders and soon many were being to follow suit. One of the first was Vancouver in the 1990. It started with a strategic plan to centre urban growth on specific urbanized nodes rather then allowing continued sprawl into the lower mainland. The city followed this initiative a few years later by creating the Livable Region Strategic plan that established urban growth boundaries, a green zone, watershed protection, and targets for high-density in-fill developments. The result was compact, high density, mixed use development serviced by efficient, affordable public transit. It also encouraged the reuse of urban brownfield sites and the creation of pedestrian friendly environments that have been lacking in so many of our post-war cities.

design principles

fabric	Massing should be on a human scale, buildings under eight stories are appropriate. Density should be medium to high to allow enough population to animate the streets.
authenticity	Developments should utilize the history of the site to create authentic environments. Celebrating past successes in the area allows people an intimate connection with the space.
food security	Creating access to local food production and food knowledge dissemination creates areas that are self-sufficient for fresh food purchasing and production.
scattered work	Designing live work development and implementing mixed-used zoning creates diverse environments encouraging social interaction and stable economies
public areas	Public space that encourages social interactions with private residential zones surrounding. These space create “third places”, social zones that create community cohesiveness.
sustainability/ social responsibility	community food projects encourage social responsibility through resident involvement, awareness of social and environmental issues.

precedent	source	design response
Seaside Florida, the Gardens, Portland Oregon, Vancouver BC	Mehta, Vikas **Lively Streets,** Kunstler, James Howard. **The Geography of Nowhere,**	dense site development, public units at grade, max 5 stories, open public streets and connecting squares
Campo di Fiore, St. Patrick's Ward, Historical Farmers Markets	food + the city **Food for the City, Food in the City. Architectural Design Vol. 75** Stead, Hillary. Guelph: A Peoples Heritage 1827-2002	reuse of historic buildings, materials consistent with area, site is located in the original heart of St. Patrick's Ward
War Gardens, Fariview Gardens, The Stop Community Food Center	Pack, Charles Lathrop. **War Gardens Victorious** Ableman, Micheal. **On Good Land**	market gardens, market, greenhouses, food education centre, community garden space, exhibition garden, personal garden spaces, roof gardens
East New York Farms, The Gardens, Original Commercial Uses and Services in St. Patrick's Ward	Alexander, Christopher. **A Pattern Language** Friedman, Avi. **Room For Thought.**	office space, live work spaces, shophomes on and off site, mixed-use zoning to allow small shops throughout the neighborhood
The Gardens, Seaside Florida, The Stop Community Food Center	Steel, Carolyn. **Hungry City: How Food Shapes Our Lives** Frank, Karen A. **The Space of Food. Architectural Design Vol 72**	market, squares, indoor street, community food center, gardens, shops, restaurants
Fallen Fruit, Portland Oregon, War Gardens, Community Gardens, Community Markets, CSAs	fallen fruit **fallenfruit.org**, Bunting, Trudi et al. **Density, Size, Dispersion**, Kaufman, Jerome + Bailkey, Martin. **Farming Inside the Cities Through Entreprenurial Urban Agriculture**	grey water capture, compost, carbon + toxin sequestration (tress), raised beds, food education, access to healthy food

4

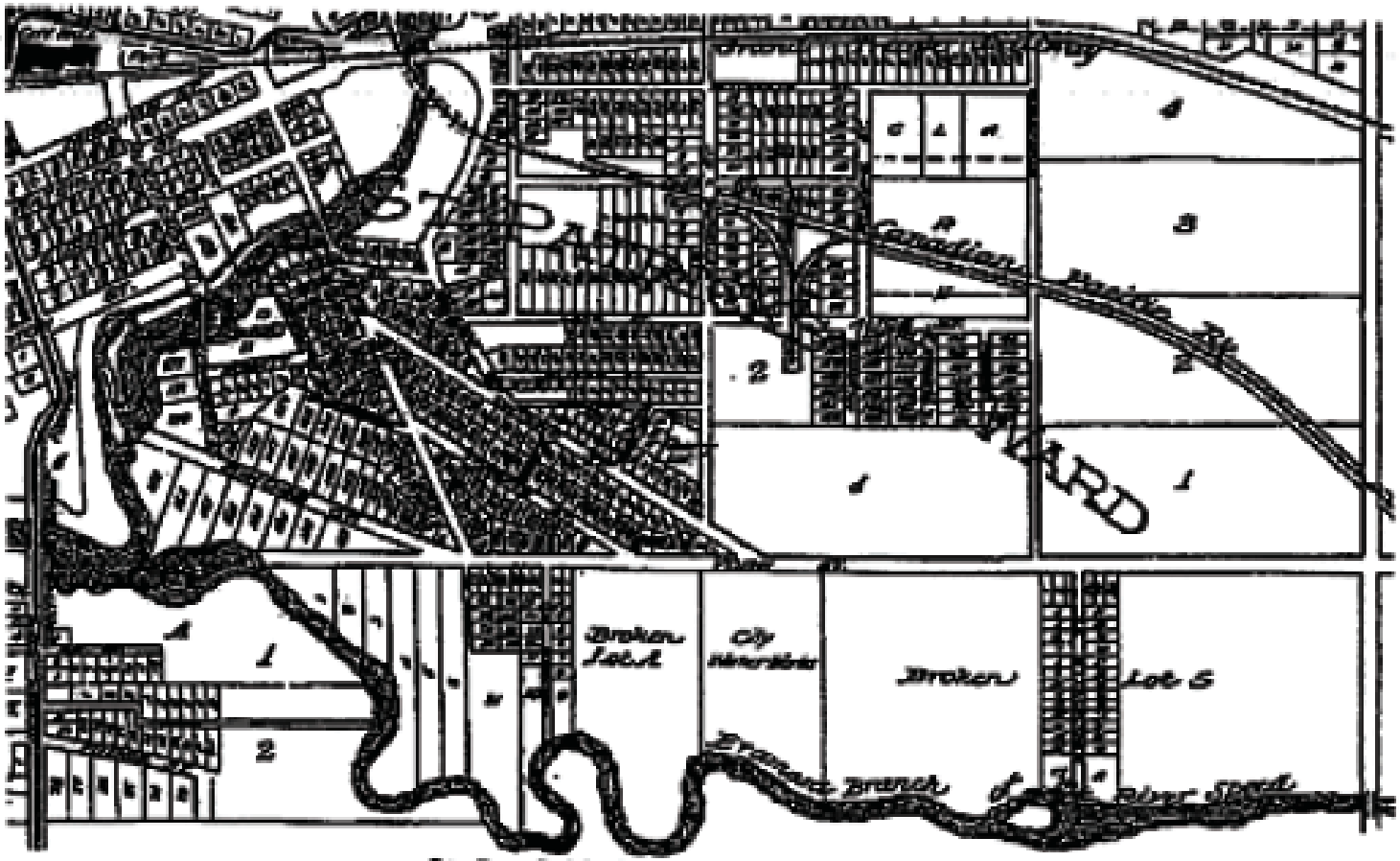
Design Proposal: Site Context and History St. Patrick's Ward Guelph, Ontario

"The land which is best for agriculture happens to be the best for building too. But it is limited- and once destroyed, it cannot be regained for centuries. In the last few years, suburban growth has been spreading over all land, agricultural or not. It eats up this limited resource and, worse still, destroys the possibility of farming close to cities once and for all."

Christopher Alexander, A Pattern Language

"I have always been into gardening. I love the work. I also believe that he who controls your breadbasket controls your destiny...I think one of the things we overlook is that if we have a garden, or we have a farm, or we're raising food, we need to go a little further and express that we're not just raising food, we're raising people. Everything starts with food...Life...Everything"

Abu Tabib



St. Patrick's Ward Street Map (1906)
(Source: County of Wellington, 1972)

Image 40

SITE CONTEXT + HISTORY

The original town of Guelph, designed by John Galt in 1827, was created to be an instant town that would attract surrounding farmers to trade in the city creating an economic hub for the area. His plan was successful and the city continued to grow. By the 20th century, the city encouraged industry to locate in the city by offering free industrial land and unlimited free utilities in St. Patrick's Ward. A private owner, James Walter Lyon, donated industrial lands for development to industries for free to attract them to the area. He then sold 25' wide lots to the workers from the factories (Stead 2002). The land deal was immensely successful and the area was soon densely populated. The area allotted for the industrial development was located across the river from the main downtown core, bounded on three sides by river and hill effectively disconnecting the community from the main city. The residents of the area were mostly immigrants from Europe that settled in the area to work in the factories and resulted in a vibrant mixed use self-sustained community (Stead 2002). The area had small market shops and gardens with great swathes of worker housing creating a very dense fabric of single-family dwellings and shops. At its peak population, the area in all probability contained thousands of people. By 1950's, the city began to locate the industry to the outside of town and created new "industrial parks" rimming the city with factories. Industry moved out and the people followed and settled in suburbia. Some businesses remained in St. Patrick's Ward but nearly enough to support the populations need for employment. Shops failed and the area of St. Patrick's ward slowly decayed.

As the area emptied of industry and service, the city began rezoning all the lands to residential, preventing a mixed-use area from redeveloping. Real estate values are now significantly lower then in the rest of the city. This is symptomatic of a large issue that most midsized cities share; an emptying central core with a scarcity of services, amenities, and activity. The general low-income status of a majority of the residents brings problems that are often seen in other low-income neighborhoods; poverty, violence, vandalism, and theft. In addition, the lack of service and amenity forces the residents to travel out of the area to obtain food, goods and services. All of these attributes contribute to a lack redevelopment and public or private investment in the area.

Image 41:
St. Patrick's Ward 1964

Possibly the main barrier to redevelopment is the perceived toxicity of the sites of abandoned industry. The lands granted to companies in the early part of the century have held many businesses, some of them involving land contaminating industries such as steel foundries and rubber manufacturers. A few companies abandoned their land while others have clauses in their sales contracts stating the use of the land must remain industrial, both methods to avoid clean up costs. However, for this to happen both the city and the community would have to pressure private business to take responsibility for the sites or take initiative in starting programs to encourage development companies to use the land.

St. Patrick's Ward is one of the oldest neighborhoods in Guelph. The downtown and surrounding area was mostly built around the turn of the century. Many of the structures, both industrial and residential, are on the cities heritage list. These buildings create a fine-grained, dense urban fabric of turn of the century factory buildings, older residential buildings, and small in-home family stores. Almost all the lots in St. Patrick's Ward have a 25-foot road frontage with a long lot depth. The majority of the homes fill the lot frontage with a small driveway located to the side of the building. This has lead to a solid streetscape: homes built close to the sidewalk with large backyards penetrating deep into the large blocks. The homes themselves are usually simple brick homes with small floor plans. There are no buildings over four stories, including the factories. Almost all of the industrial uses have left the area leaving some of the structures converted into small scale business or residential. A few of the industries, such as Owens Corning, are still in operation and provide employment for both residents of the area and the surrounding city.

The site chosen for intervention is one of the original industrial sites in the area, 120 Huron Street. The site is a 6.81-acre parcel with three buildings located on the property. The three buildings consist of the original 5-storey factory, a single story shed, and the two storey shipping building, now offices. In total, the buildings have 13 155 sm of usable floor space. The site, currently owned by Chemtura Group, is operating as a research facility. Originally the building was occupied by the Northern Rubber Co. which opened in 1920 and ceased production in 1941 . The plant has since changed hands several times, bought

first by Uniroyal Inc. and then bought out by various other chemical companies in the years following. Due to the nature of the business run on the site the city has declared the site a brownfield and zoned it special office/residential. Due to its relatively short run as a functioning factory and the use of natural rubber as a product, the use of bio-mediation, soil removal, raised beds, and capping will remediate the site for habitation.

The site currently falls into the category of a TOAD (Temporarily Obsolete Abandoned Derelict site, see appendix 1). The site now is almost completely unused and is in a slight state of disrepair. Vandalism on the building is common as are broken windows and occasional break-ins. The current owners, which its American parent company has declared bankruptcy, is selling the site. Little interest has been shown in the past two years it has been on the market. Some discussions have been initiated by a development group of turning the factory into artists lofts, however, little was mentioned about the reminder of the site (Guelph Mercury 2009).

The site is situated at the crossroads of Alice Street and Huron Street at the centre of St. Patrick's Ward. Previously located at these cross streets were two small grocery stores, a butcher, a shoe repair, the local Catholic Church, and the local elementary school. The church and the school are still present. Choosing this central neighborhood site for intervention provides an opportunity to recreate a small core for the area that includes

Images:
42 Right: St. George's Square - 1951
43 Left: St. George's Square - 1970
Guelph, Ontario
Note the removal of the corner buildings.


42


43

social, environmental, food self-reliance, and economic benefits for St. Patrick's Ward. The large lot and variety of buildings located on the site encourage a mixed use development. Given St. Patrick's Ward need for intervention to rehabilitate many of the industrial sites and increase access to food and services, its proximity to downtown Guelph and the historical nature of the area makes the site ideal for use as a prototype development.

Images:
44 + 45 International Malleable Iron Company (IMIco) early 20th century
46 St. Patrick's Ward 1960's


STEELE BROS.
(GUELPH) LTD
COILED & FORMED WIRE SPRINGS

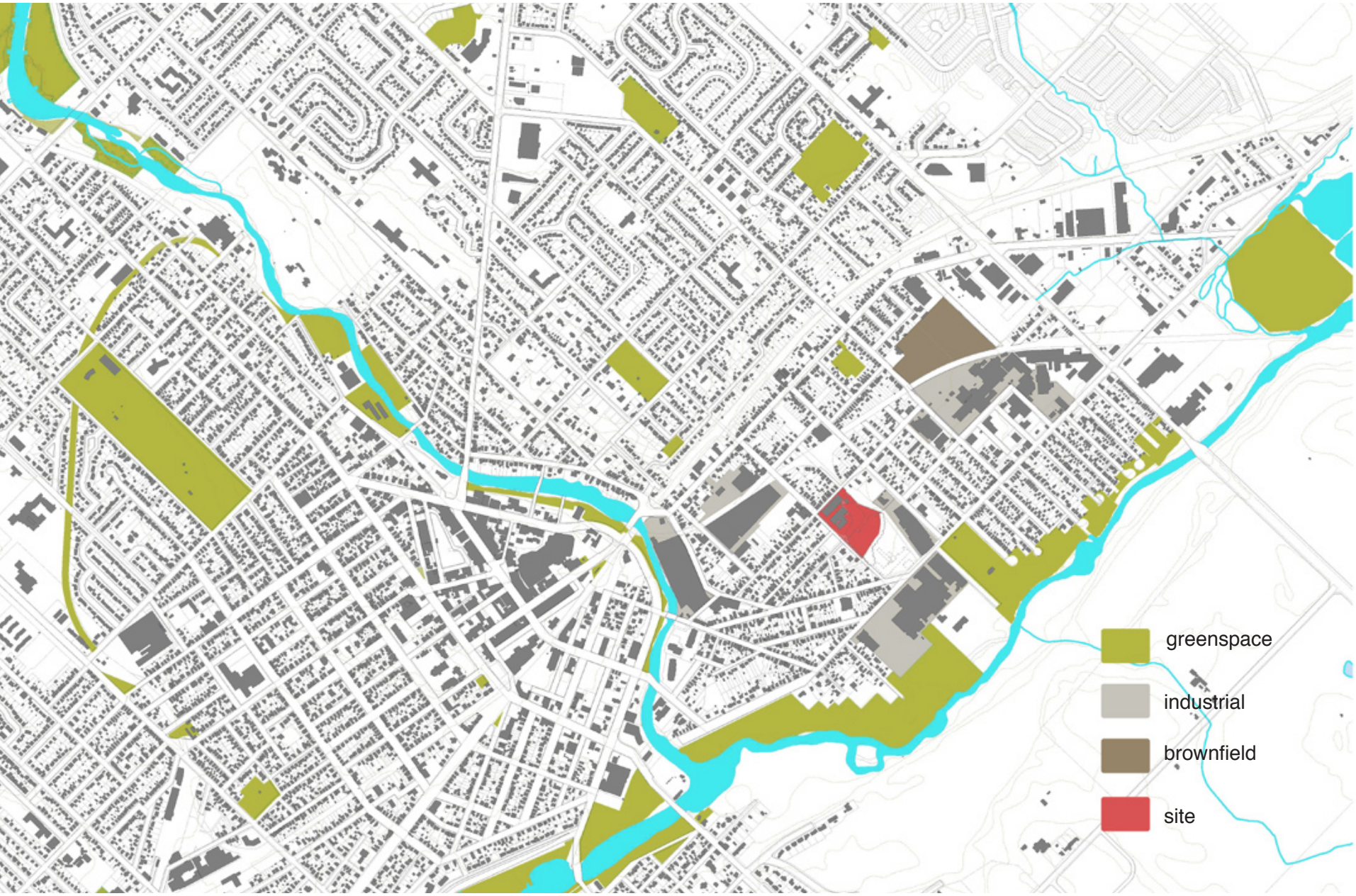

NEEVE STREET
GROCERY
S.E. WIGGINS


ROB'S
VARIETY

Images:
47 Images of old stores and industry in St. Patrick's Ward.
Images by author.

Image 47 | Land use mapping

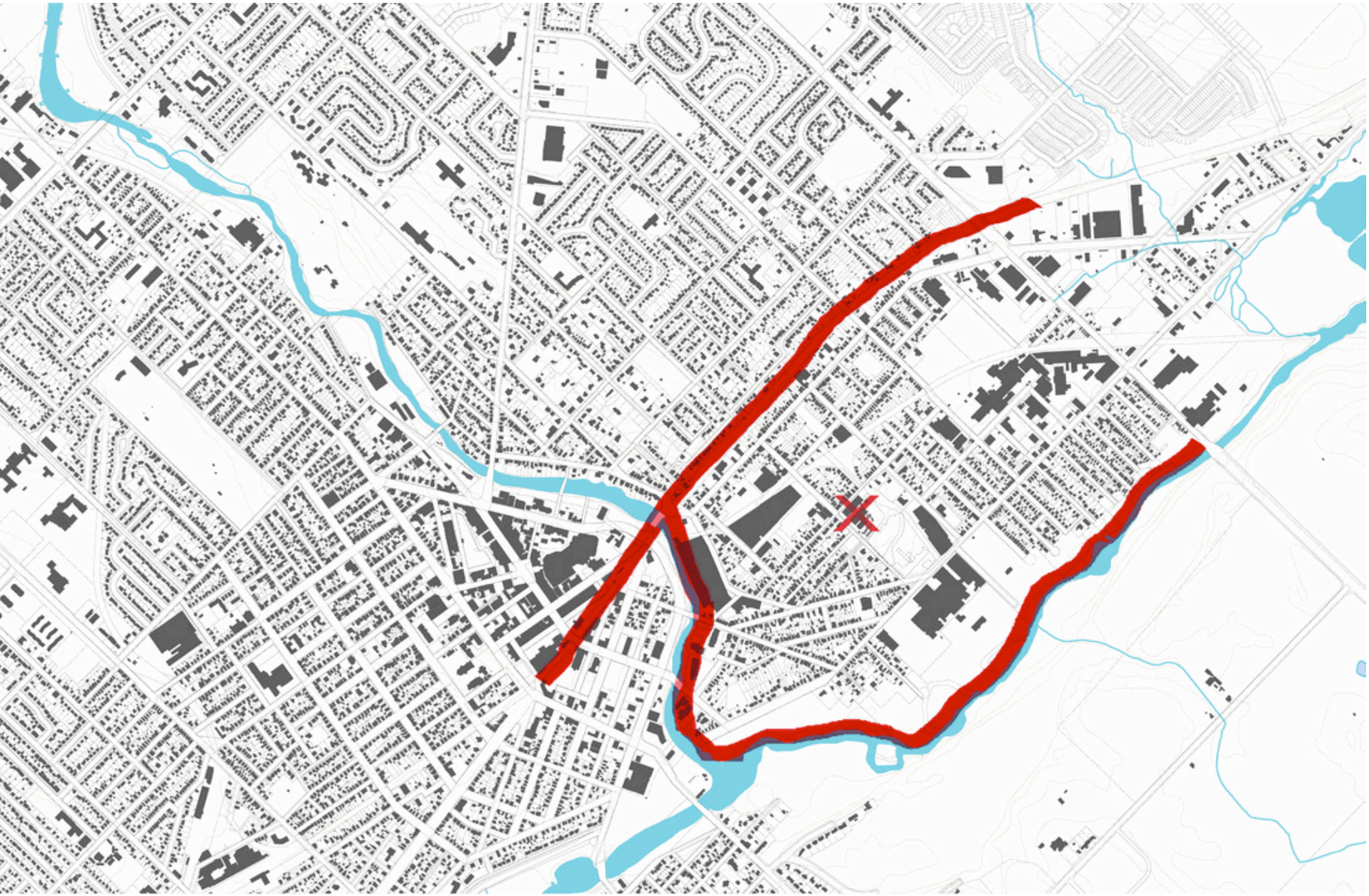
MAPPING



Barriers

St. Patrick's Ward is surrounded by physical barriers on three side. To the north there is a steep hill with a Canadian National rail line running across it dividing the neighbourhood from the residential area above on the hill. The east and southern boundaries of the area are bordered by the Speed and Eramosa Rivers. There are two vehicular bridges connecting the area to downtown and one pedestrian bridge that connects two of the city's largest parks.

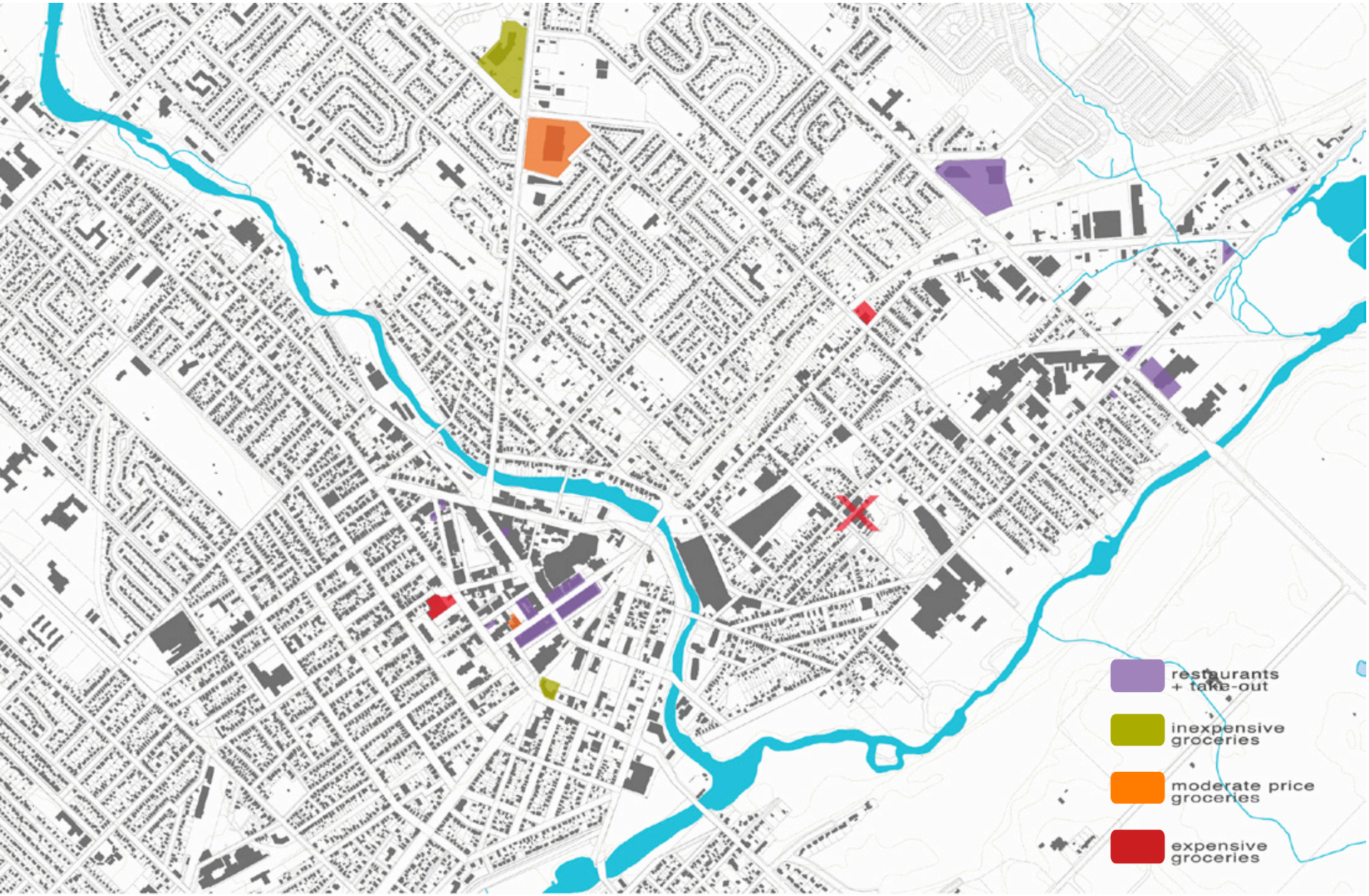
Image 49 | Barriers



Food Desert

Although St. Patrick's Ward was once a self sufficient neighbourhood boasting many services, gardens, and stores it is now basically a food desert. Despite its close proximity to downtown there are no stores or restaurants within less then 6 blocks, a vehicle is practically a necessity to acquire food.

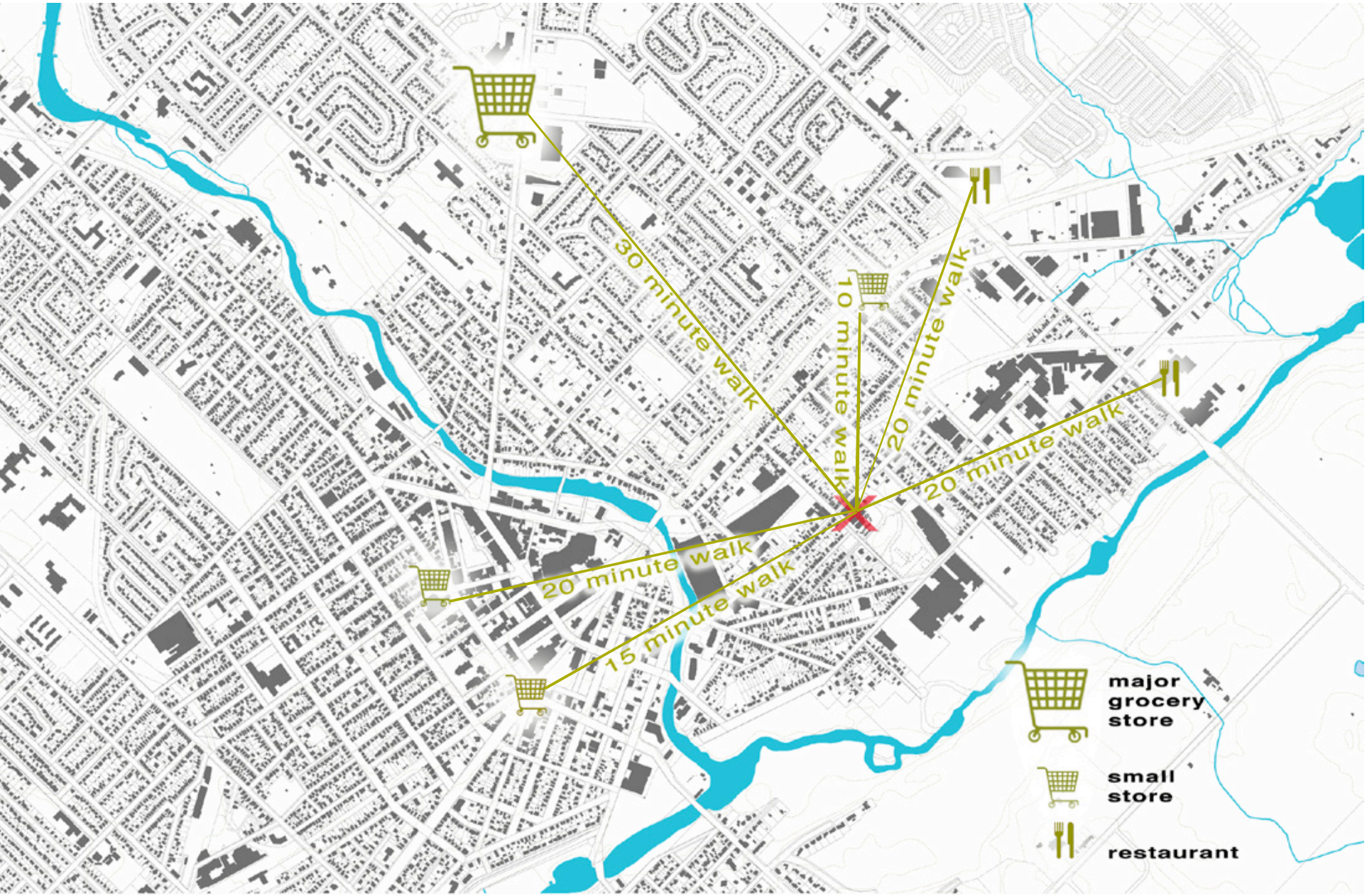
Image 50 | Food Deserts


restaurants
+ take-out
inexpensive
groceries
moderate price
groceries
expensive
groceries

Food Locations

There is little access to reasonably priced food within the neighbourhood. The last remaining small grocer is a Italian speciality shop within a ten minute walk from the centre of the area. The next closest shops are a minimum of a 20 minute walk with a large supermarket within a half hour walk.

Image 51 | Food Locations


30 minute walk
10 minute walk
20 minute walk
20 minute walk
20 minute walk
15 minute walk
major grocery store
small store
restaurant

Heritage Structures

St. Patrick's Ward is one of the oldest neighborhoods in Guelph and has almost 200 structures listed on the cities heritage inventory. This area has a wealth of residential and industrial historical buildings. These building create a richly detailed dense urban fabric that illustrates the industrial history of the area and age of the city.

Image 52 | Heritage Structures


heritage structures
scale 1:10 000

Vacant Land

Despite the density of St. Patrick's Ward, there remains a significant amount of available land in the forms of large long residential lots, under utilized industrial land, and parking lots. A significant portion of these lands could be used to produce food and build business for servicing the area as well as small parks and public areas for gathering.

Image 53 | Vacant Land


vacant land
scale 1:10 000

Transportation Lines

The neighbourhood is surrounded by transportation routes on all sides by both personal vehicular traffic and public transportation The two main streets through St. Patrick's Ward cross in front of the site making it easily accessible and visible.

Image 54 | Transportation Lines


bus stops
main traffic routes
lighter colour indicates lighter traffic
local rail lines
Guelph Junction Railway
national rail lines
Canadian National Railway
scale 1:10 000

Image 55 I Site along Huron Street

Design Proposal: 120 Huron Street St. Patrick's Ward Guelph Ontario

Communities have traditionally grown around the needs and activities of the people living in the area. Many of today's communities are planned by cities and developers rather then the organic growth of neighborhoods through their actual requirements and desires. The loosening of zoning and planning regulations in our cities could allow a more holistic and natural development of our neighborhoods that include amenity, beauty, and stainability through the integration of gastronomic functions in our homes and public realm.

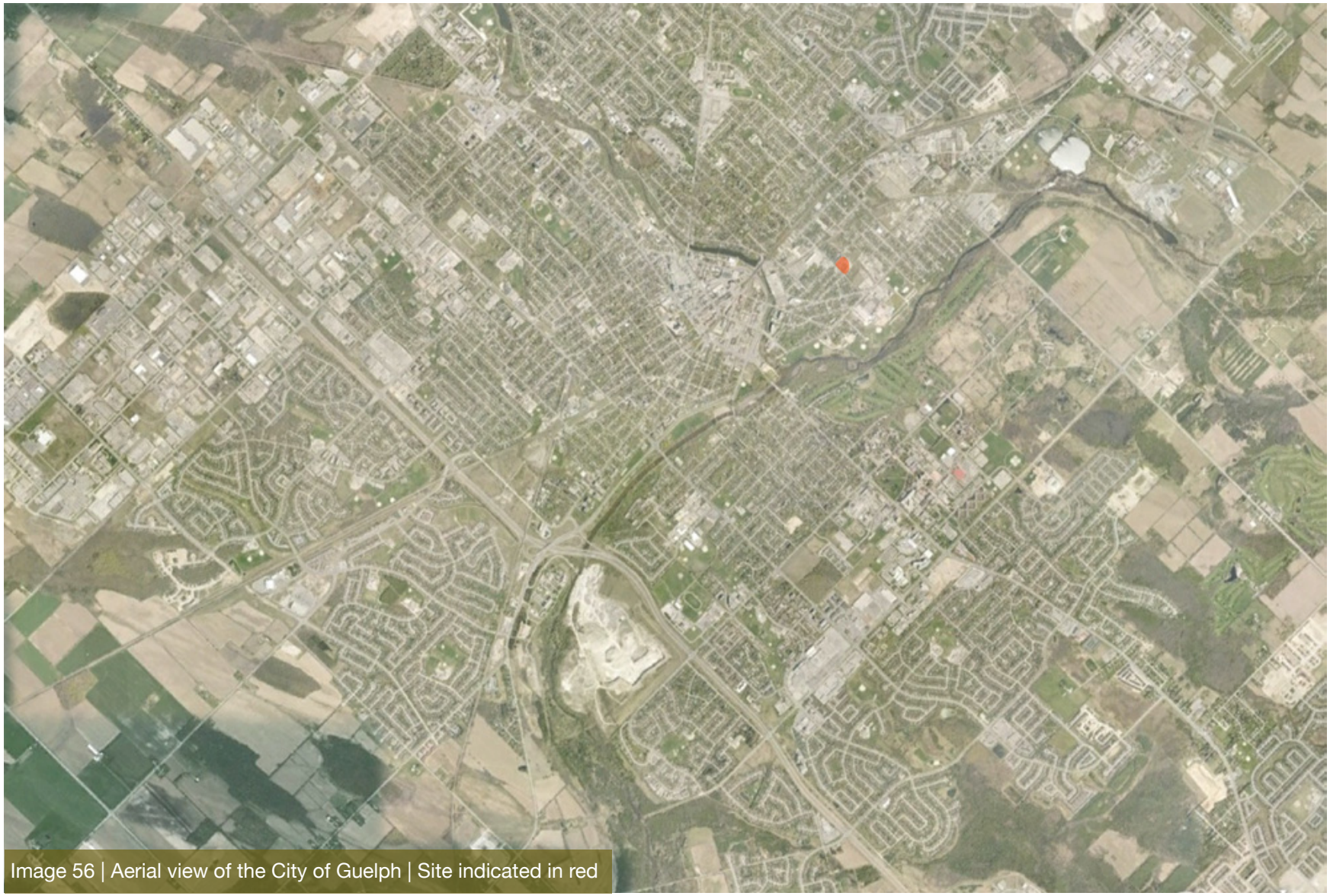


Image 56 | Aerial view of the City of Guelph | Site indicated in red

Image 57 | Aerial view the site | Site boundary indicated by red dashed line.

Image 58 l site plan l scale 1 : 1000

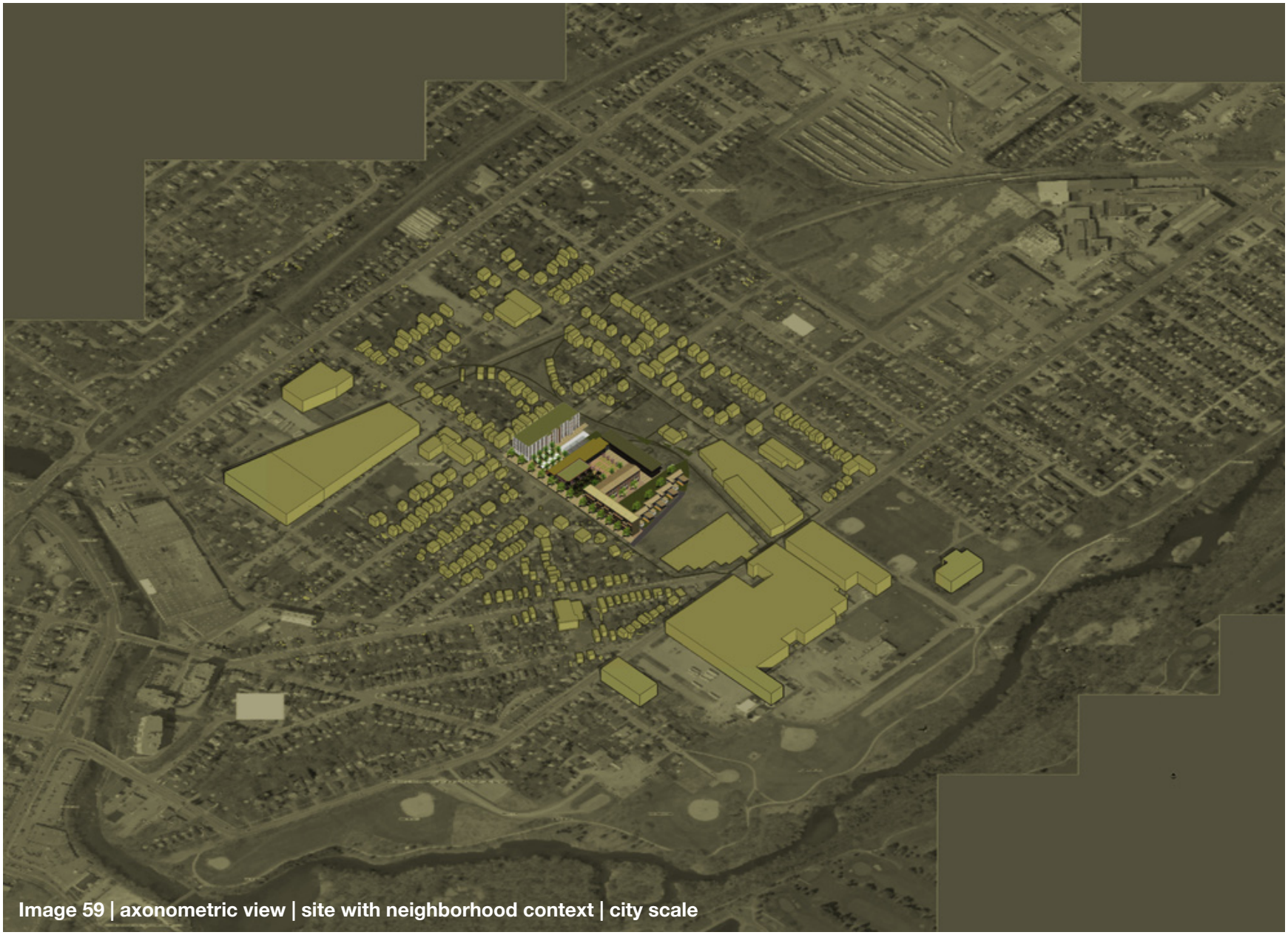


Image 59 | axonometric view | site with neighborhood context | city scale

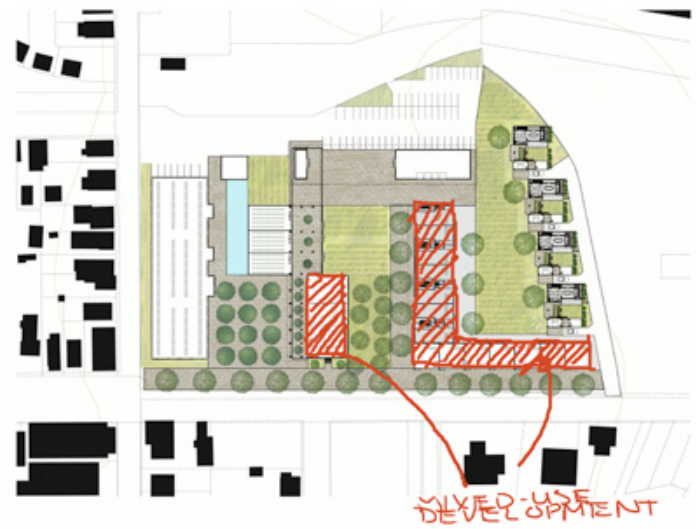
Image 60 | axonometric view | site with neighborhood context | street scale

59

Image 61 | aerial perspective view | looking northeast

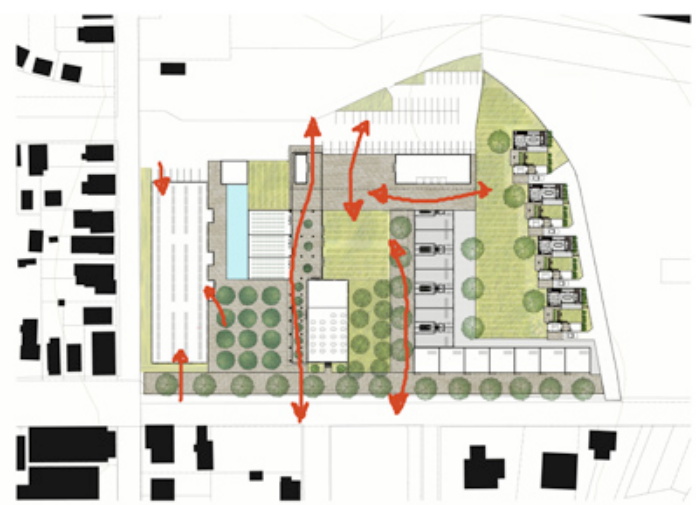
Image 62 | aerial perspective view | looking southwest

public squares and paths



mixed-use developments

main garden spaces



circulation paths

Site | Design

The proposal for this site includes the reuse of the existing factory building and office building at 120 Huron Street while using a significant portion of the site for new development. The site is designed to be a self sufficient site that has the capacity to provide access to fresh food for residents of the site, the community, and educate the surrounding community. All the buildings on the site have either production or consumption components to them and are designed to work in a cyclic nature of producing food and returning compost waste into the site.

The most visible public building on the site is the market located in the existing factory. The ground floor is dedicated to a permanent market with an adjacent courtyard to the east of the building. This would allow expansion of the market to the outdoors for the summer months.

Next to the outdoor market is the existing office building. The office building houses a restaurant on the ground level, opening to the market side through the enclosed street. Offices located on the second floor are for the administration staff for the site and other uses, such as doctors offices or a community clinic.

The other half of the site, currently undeveloped contains live/work spaces that encourage small scale businesses and services to serve the area. The greenhouses, garden homes, and condos produce food for the market, shops, and restaurants and provide business spaces for other services.

The community food centre located on the north side of the site provides an entrance to the area from the parking in the rear and houses class rooms, teaching kitchens, and community space. Adjacent to the food centre on the west side is

Image 63 | Site Diagrams

an experimental garden. To the south of the building are exhibition gardens for educating the community in growing food. It is locates in a public courtyard that can be used for celebrations and public events. North of the courtyard, through the enclosed public street, are three connected greenhouses for teaching and for community use to grow produce in winter. Connecting the food centre, the greenhouses, and the offices is a enclosed public street running the width of the site doubling as an indoor event space and winter garden.

The rail line that runs through the area is used solely by the Guelph Junction Railway, which is a small city owned rail line shunt that moves car for industry around the city from the major CN rail lines. The cars pass through the area at slowly and are not disruptive. Development of parks and trails along the line could serve a recreation and social use within the neighborhood. In addition, the city currently runs dinner tours on the train line several times a year. The site could become a destination along the tour.

This site if redeveloped would provide a large boost in residential development, business, service, and community space as well providing a significant increase in taxes for the city. The location of the site at the main crossroad within St. Patrick's Ward could create a community centre for the area.

Image 64 | Production Diagrams

PRODUCTION SPACES

The site contains various areas that are related to the production, processing and distribution of food. The market garden, greenhouses, and exhibition garden are the production zones on the site that feed the storage house beneath the community food centre and the market located in the old factory. They also provide food and supplied to the restaurant and retail stores on the site.

CONSUMPTION SPACES

The production spaces the areas of food consumption on the site as well as the compost area that recycles the waste from the site back to the soil. The main consumption spaces are the restaurant and the retail stores.

SITE RECYCLING

The nature of growing produce and raising livestock can be self sustaining. The waste created by the plants, food, and animals can be used to enrich the soil through vermicomposting to prepare it for return to the gardens (see definitions). In addition, the grey water from the site and captured rain water will be stored in the cistern below the pond next to the greenhouses to provide irrigation. The site will also be able to take in and process some of the compost waste from the city, however it is unlikely the facility will be able to handle all of the city's waste.

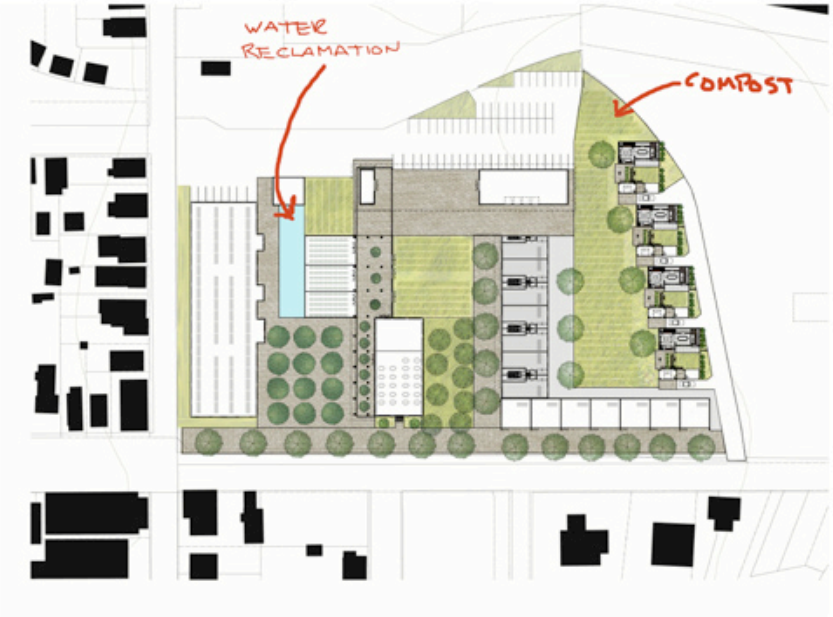


Image 65 | Site Recycling

Image 65 | Site Recycling

SITE ECONOMICS | City and Site

This diagram illustrates the economics and benefits of the site. Three groups receive economic and social benefits; the community, the city, and farmers from the surrounding area. The community receives business opportunities on the site through site grown food sales and value added products, such as preserves and baked goods. These sales to the community and the city generate income. The social benefits of the site include increased community social connections and educational and vocational opportunities through the gardens, classrooms, restaurant, and market on the site.. The community benefits from the redevelopment of a derelict urban site which raises property values and increases desirability for the neighbourhood, which again benefits the city through taxes.

The city benefits from increased property taxes, better economic diversity, solid waste and water recycling (reducing the cost of water and waste treatment for the city), and increased self-reliance in food. The waste and water from the city in turn helps the site reduce reliance on outside compost.
The need for supplies for the sites businesses for products it can not produce on its own, such as grain, brings business to farmers. Through supply and the market, local farmers can gain directs access to urban markets. The site can gain a small revenue from leasing market stalls or shops to the farmers.

Cost analysis of buildings and taxes is located in Appendix 2.

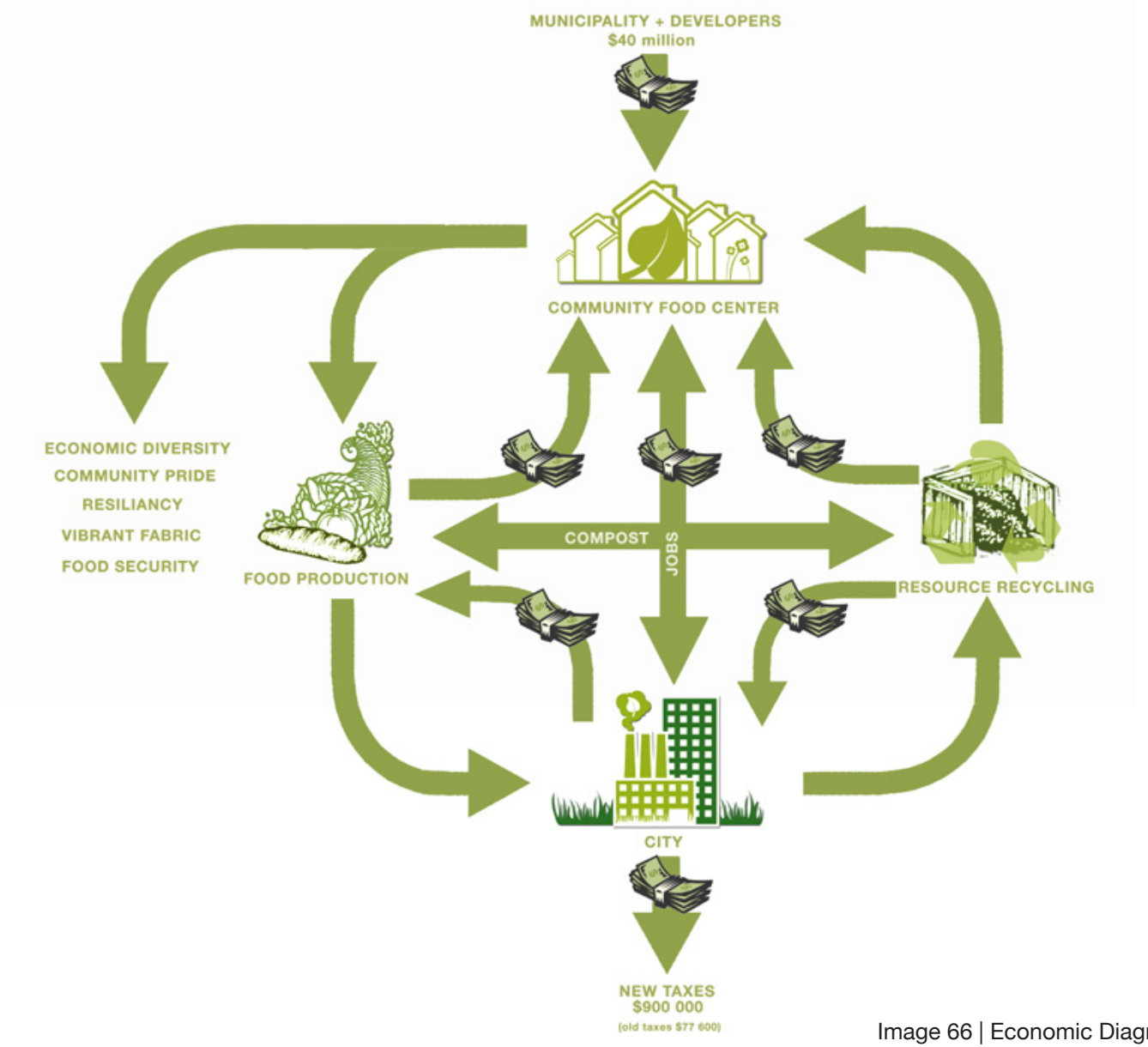


Image 66 | Economic Diagram

GROUND PLANE | Production Spaces

Virtually all of the ground plane of the site is public space used for the production and consumption of food or public space. The open pathways and squares provide festival spaces and the gardens are either for production purposes or educational purposes open to the public. By including gardens and public meeting spaces it encourages the use of the site as the central community space of St. Patrick's Ward as well as creating an educational resource and food basket for the community.

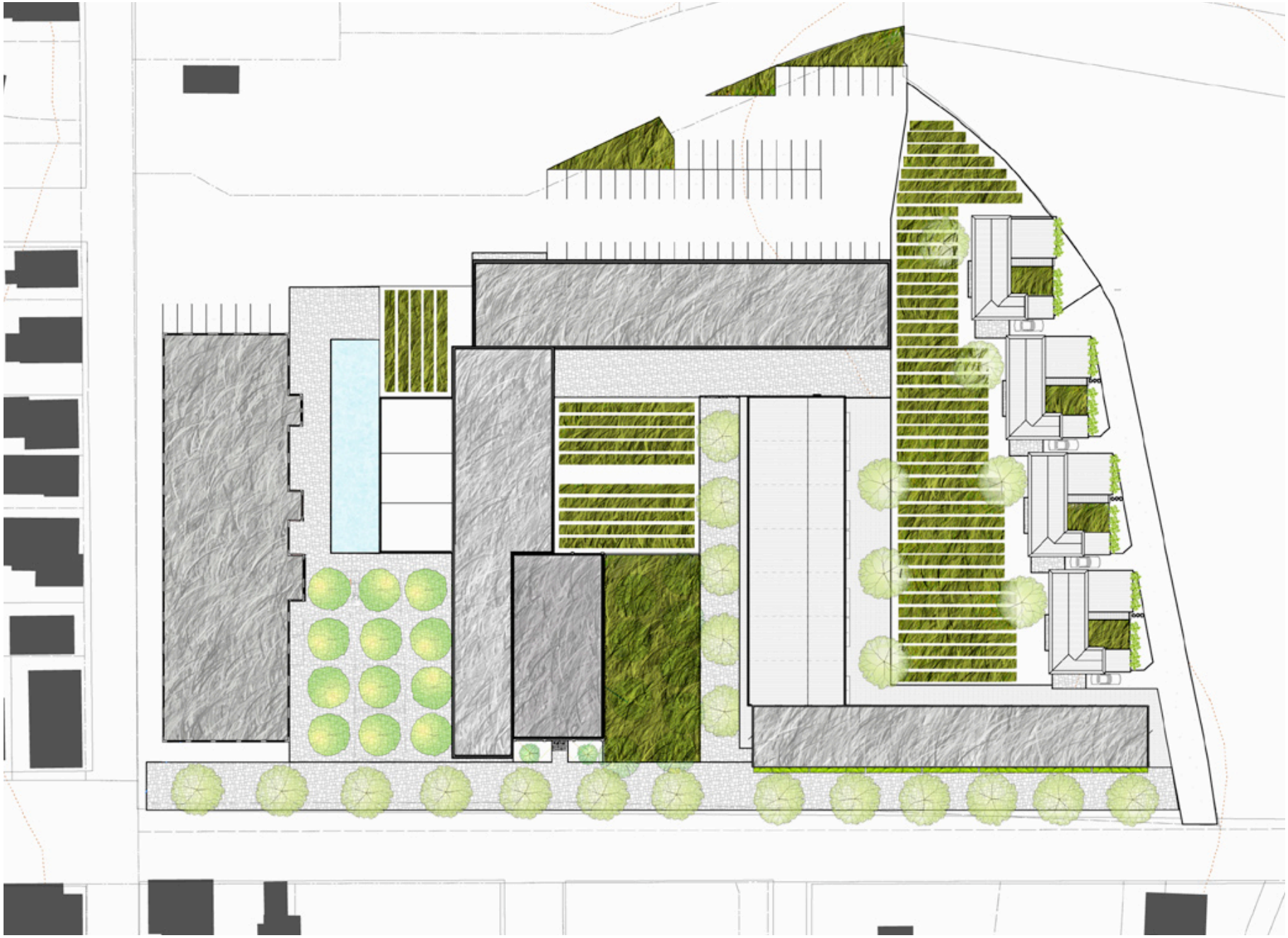


Image 67 I Site Plan I Scale 1 : 1000

ROOF PLANE | Community Gardens

All the roofs of the buildings are planted green roofs, except for the shophomes and the garden homes. This sustainable design allows the use of the roofs as resident and community gardens. The roof of the converted factory and condo building provides growing space for the residents of the building. The roof of the community building and the covered street is community garden space.

Image 68 I Site Plan I Scale 1 : 1000

ZONING

Cities today attempt to regulate use and building type within their city limits through planning and zoning. St. Patrick's Ward current zoning is predominantly residential with a few major sites retaining their industrial zoning. The area, previously predominantly mixed use, enjoyed many shops and services for the area. Recently the city has rezoned a few of the older underutilized industrial sites to special residential that include office use. If the zoning changed to a form based zoning combined with a heritage plan, it could allow the introduction of small-scale business and retail to the area. For example, on single building lots the structures could be restricted by form rules such a building height of a minimum of 20' and a maximum of 30' to match the current housing and building heights of the area. In addition, these lots could further stipulate parking location, such as under the house or beside it with no garage in the front of the dwelling. One last specification could be a maximum setback of 10' from the sidewalk, maintaining the streetscape of façades that is already prevalent in this area. Multi-unit dwellings could the same setbacks and parking regulations, however, the height restrictions could be changed to match the industrial buildings of the area. The addition of a requirement for the building occupy much of the lot frontage, would create a continuous street fabric.

Another notable zoning change that should be encouraged is the development of service and amenity along Elizabeth Street (northern most street of the ward), Huron Street, and to a lesser extent Alice Street.. As this street is accessible from the neighborhood to the north it would benefit both communities by providing for both residential areas. It should also be noted that this street is a main access route to highway 7, which leads out of town. A significant amount of vehicular traffic is present as well as one of two transit lines around the area. In order to encourage more development, a from use based zoning to form based zoning could encourage more business along this street. residential located above the businesses would also encourage street life past business hours. By using form

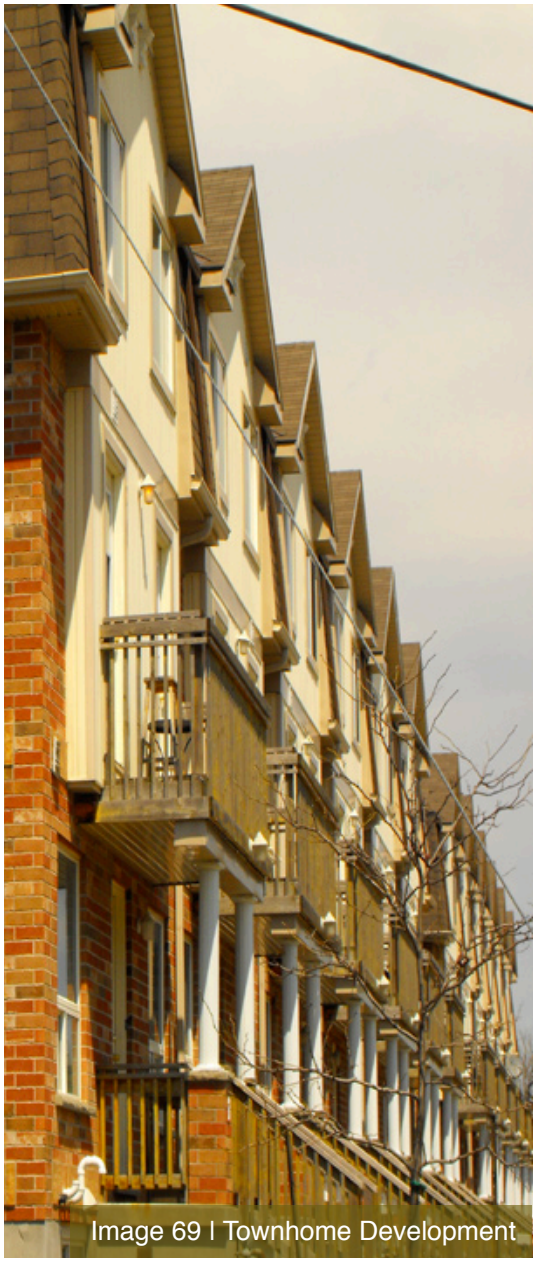


Image 69 I Townhome Development

based planning the scale and character of the neighbourhood could be maintained while allowing for a greater diversity of uses benefiting the community.

The adaptation of a heritage plan for the area would be able to further protect the form of the neighbourhood and help to maintain many of the heritage residential structures that exist in the area as a few of the industrial heritage structures. There are currently over 200 structures listed on the city's heritage inventory located in the ward and over ninety percent of the homes built in the area were built prior to 1929. Many of the areas industrial buildings are also from the same era as the homes and offer great potential for redevelopment while maintaining the industrial character of the area. One of the old mills has already been redeveloped into condos. While this has benefited the area, a more mixed-use development might have been more successful.

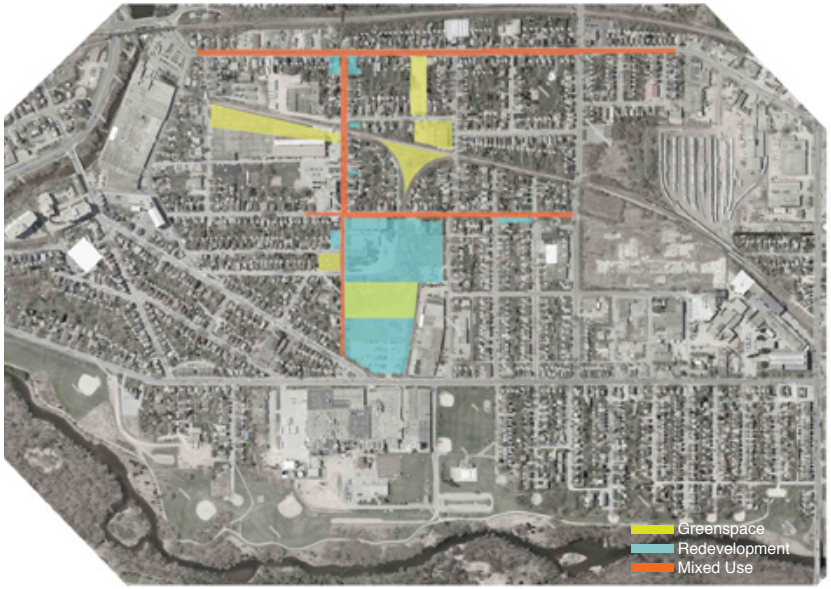
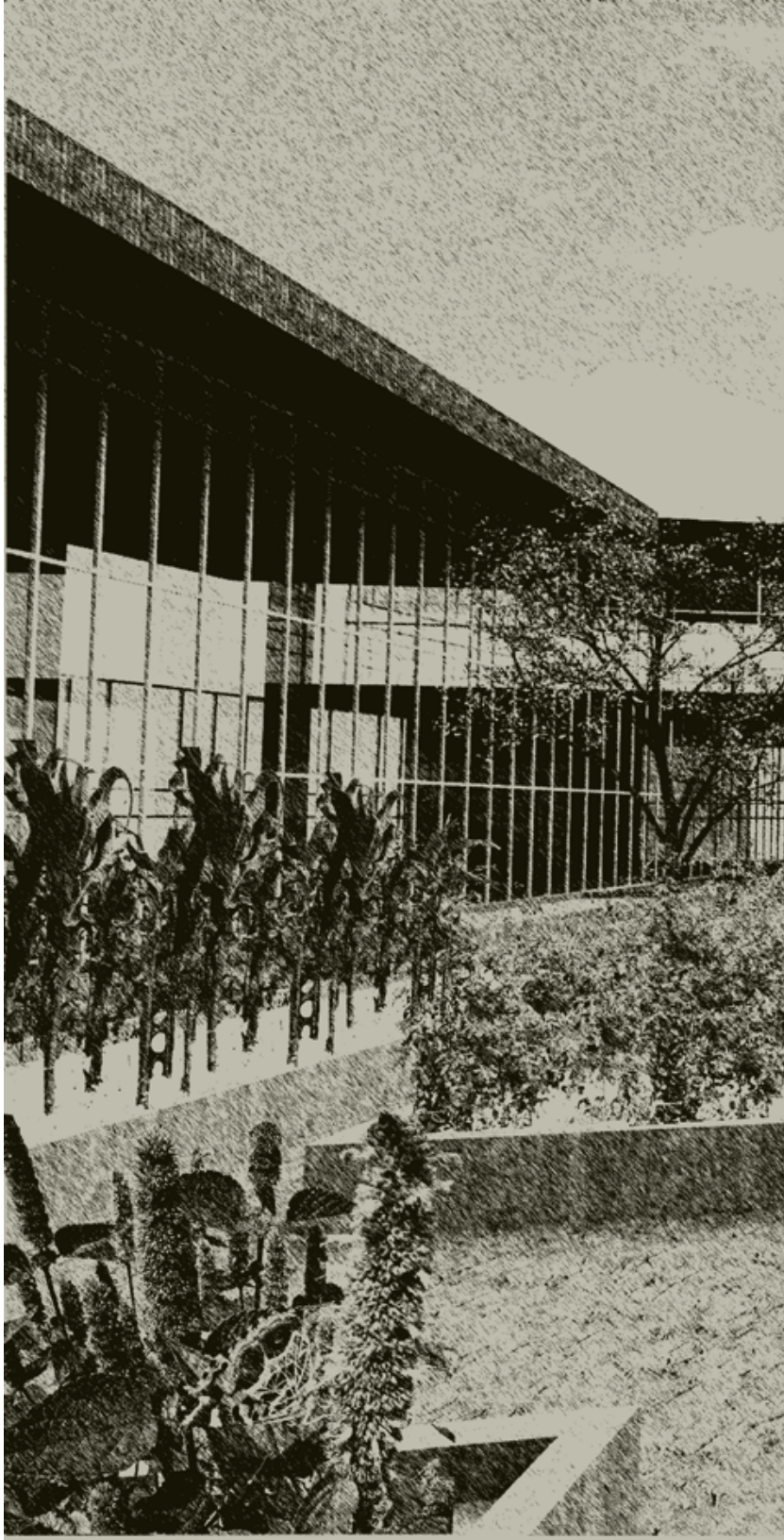


Image 70 I Site Plan I Rezoned

VISUALIZATION

It is time for the architectural and urban design planning professionals to support and enhance the city's multiple functions as dining room, market, and farm. The modernist tenets, which too often posited a segmented and sterile city where dining and shopping were hidden in interior spaces and where growing occurred in distant locations, need to be replaced by the encouragement, through planning and design, of a true mixing of land uses that incorporates places (and ways) for growing and selling local produce as well as for consuming it. Open space need not always be interpreted as space exclusively for leisure.

Karen A. Frank



GARDEN CONDO | Facade along Huron Street

Design Principles:

Dense development
Public units at grade
5 storey maximum
Open public street
Personal garden
Roof garden
Live/work space
Mixed-use

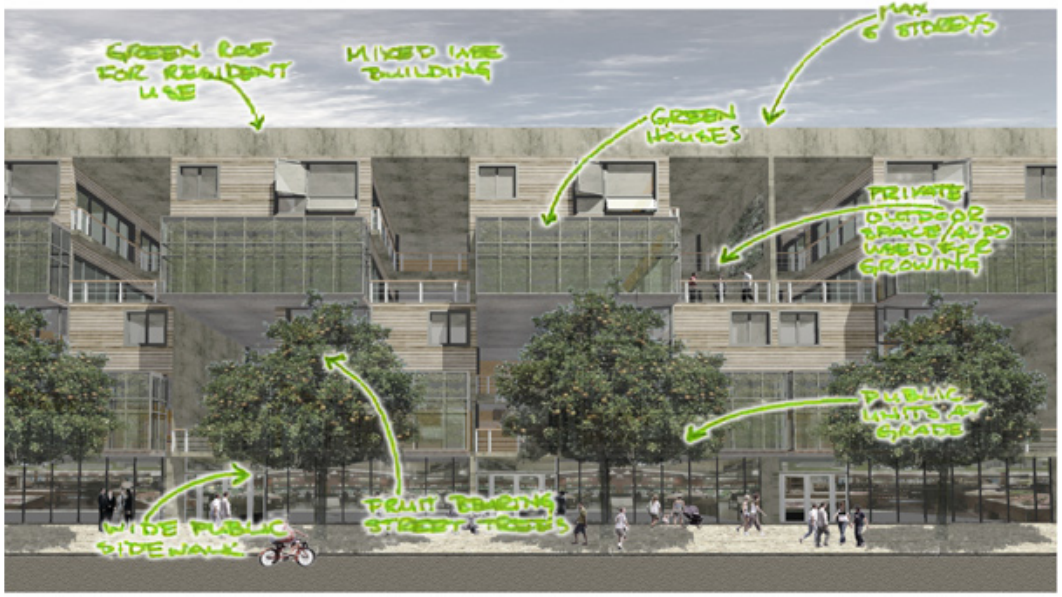


Image 72 | Garden Condos

GARDEN HOME | Market Garden Area

Design Principles:

5 storey maximum
Connecting squares
Open public street
Market garden
Community gardens
Personal Garden
Live/work space
Grey water use
Compost use

Image 73 | Market Garden

LOCAL MARKET | Outdoor Market Space along Huron Street

Design Principles:

5 storey maximum
Open public street
Connecting squares
Market
Mixed-use
Grey water collection
Compost collection
Raised beds

Image 74 | Market

SHOP HOMES | Facade along Pedestrian Street

Design Principles:

Dense development
Public units at grade
5 storey maximum
Open public street
Consistent materials
Office space
Live/work space
Mixed-use
Grey water collection
Compost collection

Image 75 | Shophomes

EXHIBITION GARDEN | Facing the Community Food Center

Design Principles:

5 storey maximum
Connecting squares
Open public street
Roof Garden
Community gardens
Office space
Live/work space
Mixed-use
Raised beds
Grey water collection
Compost collection

Image 76 | Exhibition Garden

INDOOR STREET | Connecting the Office/Restaurant Building, Greenhouses, and Community Food Center

Design Principles:

Public units at grade
5 storey maximum
Connecting squares
Open public street
Consistent materials
Roof Garden
Community gardens
Office space
Mixed-use
Grey water collection
Compost collection

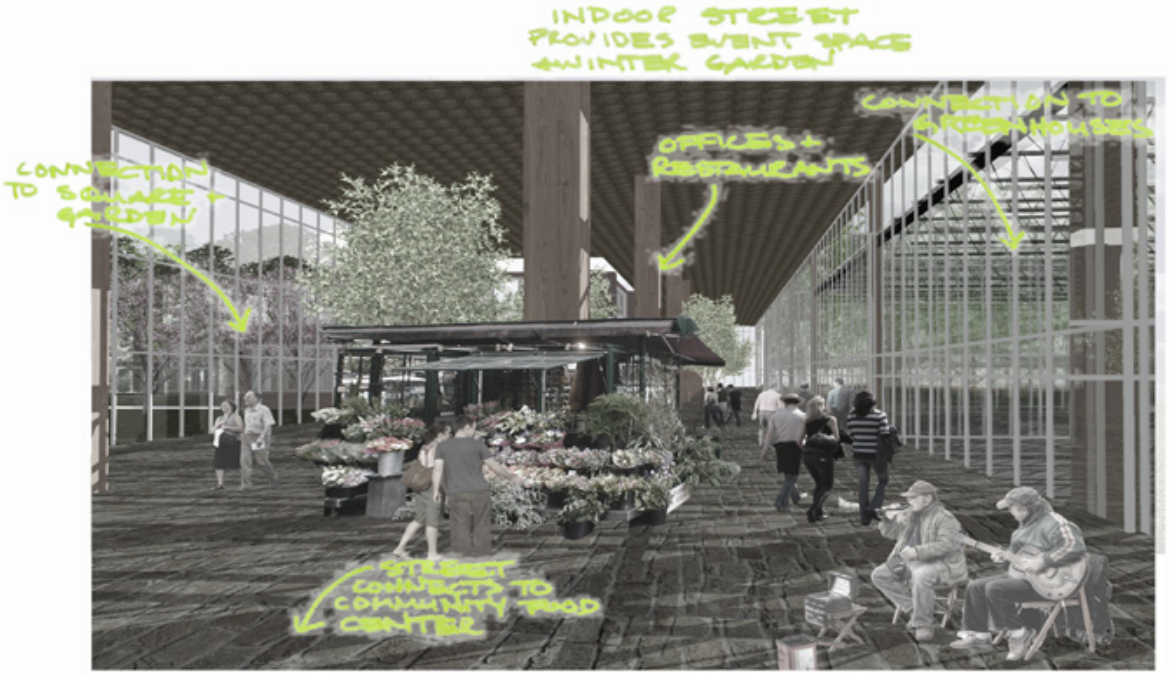


Image 77 | Indoor Street

GARDEN HOME | Courtyard Garden

Design Principles:

5 storey maximum
Market garden
Personal garden
Live/work space
Grey water collection/use
Compost collection/use

Image 78 | Courtyard Garden

GARDEN HOME | Kitchen and Dining Areas

Design Principles:

5 storey maximum
Market garden
Personal garden
Live/work space
Grey water collection/use
Compost collection/use

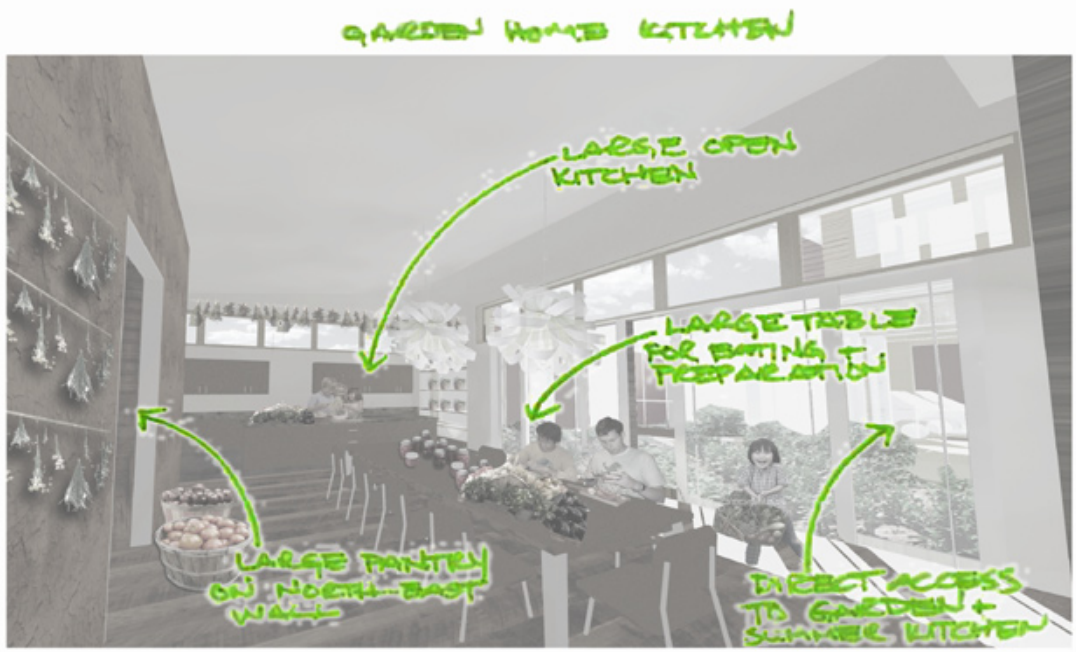


Image 79 | Garden Home

Image 80 I Shophome I neighbouhood insertion

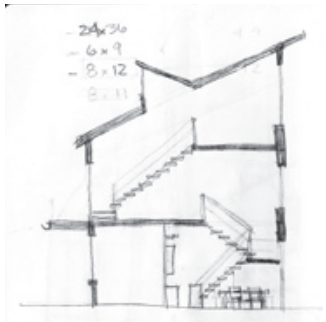
SHOP HOMES

The area surrounding the site was once a vibrant and self-sufficient community. Over the years as the style of shopping changed, the small businesses serving the communities began to close down. These shifts in economic patterns lead to a lack of services and a decrease in an economic base for many areas in mid-sized cities. One solution to bring both economic opportunities and service to the area and creating a lively street environment the reintroduction of integrated house and business throughout the area and the site is the integration of an old typology of home. This particular form, which is an integration of business and home, called the Shophome, is based on the older form of housing/store found throughout the area. These homes would have a shop/studio/store located at grade with two or three floors of living space above. There are two main forms that would be present within the area, one would be located on the pedestrian street on the site and the other located on the standard housing sites that are run down or vacant in the neighbourhood.

The home located throughout the neighbourhood, based on the current residential form, has a side driveway, a small garage, with the main face of the building being open to the public as a storefront. This would allow for the integration of many small businesses into the area or home offices. The grade access allows people to open storefronts for their businesses or if the small set back filled with garden then it can be a more private office space or studio. The floor plate size of the building gives 600 square feet of space for the user's purposes. The building can be inserted on any of the 25' wide lots in the area.

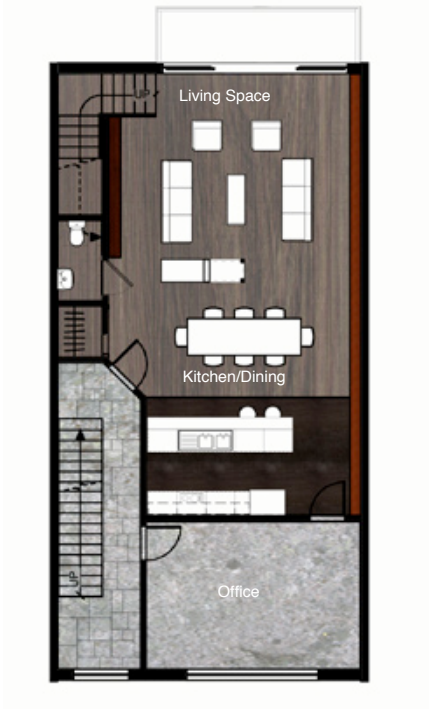
The shophomes located on the site have a higher density then the units located throughout the area. A shop located at grade continues the public realm level on the site. The second level of the unit has an office and the living area of the first unit and the third floor has the bedrooms for the first unit and the living area

for the second residential unit with a loft space containing the bedrooms above. These units allow the public realm to be continual at grade while contributing to the density of the area and therefore increasing activity in the streets and community areas. The prototype of combining a public work space and residential in one live work unit has proven effective over time and in modern settings in creating lively communities and in providing jobs and services. The mixed-use nature of these units provide production spaces that are located close to the retailers market spaces. This also allows the clients of the producers a connection to the producers allowing them to see where their purchases come from.



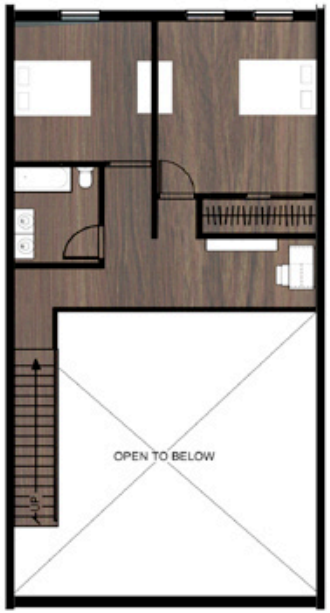
shophome - early process sketch

shophome - main floor
scale: 1:200



shophome - 2nd floor
scale: 1:200

shophome - 3rd floor
scale 1:200



shophome - 4nd floor
scale: 1:200

Image 81

Image 82 I longitudinal section I shophome

GARDEN HOMES + GARDEN CONDOS

The concentration of building the “perfect” family home in the suburbs has cost our cities in more then financial and infrastructure costs. These developments create insular spaces that discourage social interactions within the communities touted in the glossy brochures promoting them as the new and best place to live (Kuntsler 1993). Homes that provision people with sustenance in the forms of social fulfilment and biological nurturing rather then developers bottom lines could change development patterns of neighbourhoods and how we interact as families within our homes and the surrounding of communities. A focus on the preparation, enjoyment, and storage of food would create homes with a definitive hearth focused around the kitchen and outdoor spaces creating community bonds through shared activity and space. Illustrated on the site are two interventions: the garden home and the garden condo.

The garden home, designed as a single family dwelling, is organized around the private garden located in the courtyard and the hearth of the home - the kitchen. The kitchen opens directly onto the garden space generating a direct interaction between the family and the production space outside. The visual connection beneath the upper floor to the community production space provides a semi-private link to the market garden located between the shophomes and the single family dwellings. The houses are located close together but organized to provide privacy to each family but still encourage social interactions through proximity. Each home has a larger garden space in the market garden for greater production of food for sale in the market located on the site, to trade within the community, or supply local restaurants. These homes, designed and located on the site to take advantage of natural sunlight both within the home and the courtyards, are sunlit in the living areas of the home and shaded in the storage rooms. These zones storage of the food grown on site are located in the northeast side of the home and the basement as pantries and cold cellar respectively. The kitchen is large and open to a expanded dining area that can double as additional work space. What would typically be the garage is a summer kitchen for processing the food from the

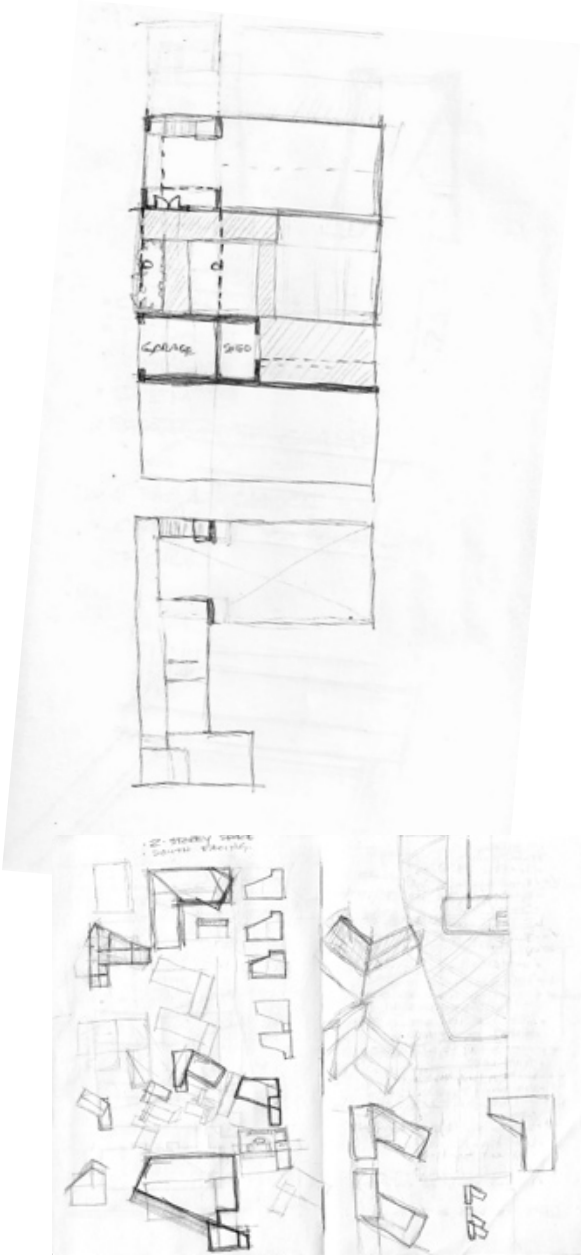


Image 83 I gardenhome I early process sketches

gardenhome I main floor
Scale: 1:150

gardenhome I 2nd floor
scale: 1:150

Image 84 I Plans I Gardenhome

Images | 85
Left image pairs: Top - Summer Shadows
Bottom - Winter Shadows
Right image pairs: Top - Hearth area in Red, Food areas in Green.
Bottom - Private areas in Green with Public Zones in Orange.

harvest and short-term storage. Attached to the summer kitchen are a potting shed for tool and supply storage and a greenhouse for starting seedlings and early and late season growing.

Bordering the southwest side of the larger community garden area is a five-storey multi-unit dwelling that houses condos equipped for small-scale food production. The units have generous kitchens with open plans and a greenhouse as the primary window into the space. The kitchen and dining area act as the central hub to the unit and allow for processing, cooking, and the enjoyment of food. Along the partition wall between units there is ample storage for foods and tools. This space creates an environment that fosters social interaction, cooking, and self-provided food provision. The greenhouse is the face of the unit seen from the street and creates a vibrant and live facade to the building as well as allowing the public to see people working in the greenhouse windows. This greenhouse could house small vegetable plants, herbs, or other plants for sale in the markets or products for the shops. Adjacent to the living area and the greenhouse is a large outdoor space that provides a space for working, dining and summer plant growing. All the spaces in the unit open into this outdoor area allowing a constant connection with the outdoors.

Both of these units illustrate a more practical and useful connection to food through production, consumption, and social interactions with the community.

Image 86 I Gardencondos I early process sketch

gardencondo - main floor
Scale: 1:150

gardencondo - second floor
Scale: 1:150

gardencondo - unit elevation

Image 87 I Plans I Gardencondo

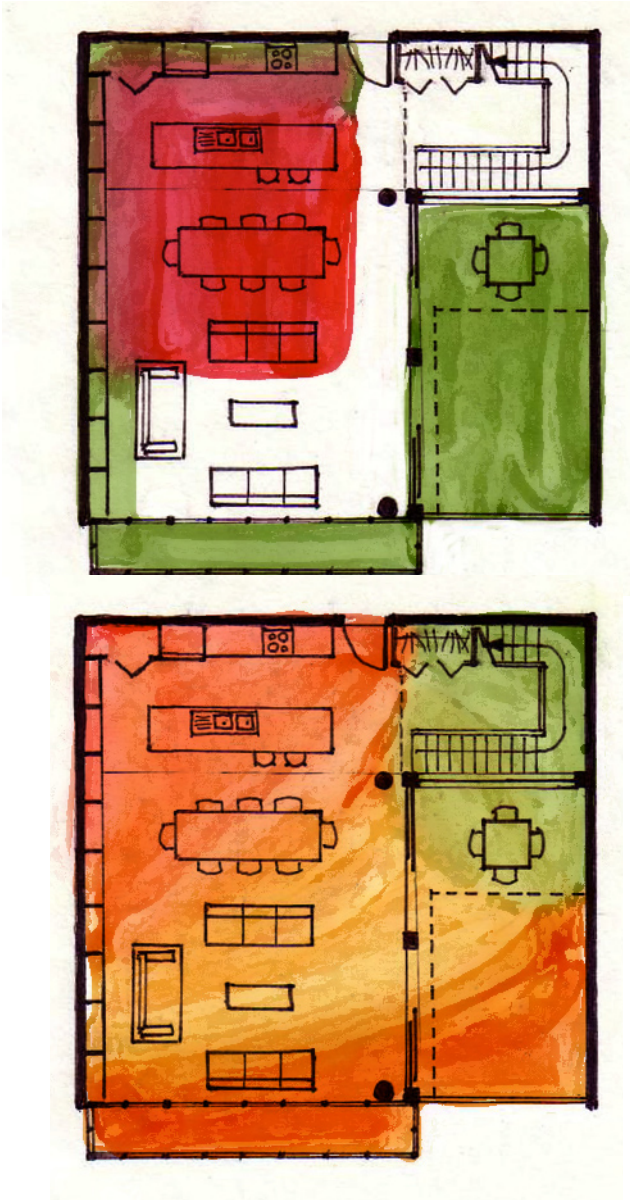


Image 88:
Left image pairs: Top - Summer Shadows
Bottom - Winter Shadows
Right image pairs: Top - Hearth area in Red,
Food areas in Green.
Bottom - Private areas in
Green with Public Zones
in Orange.

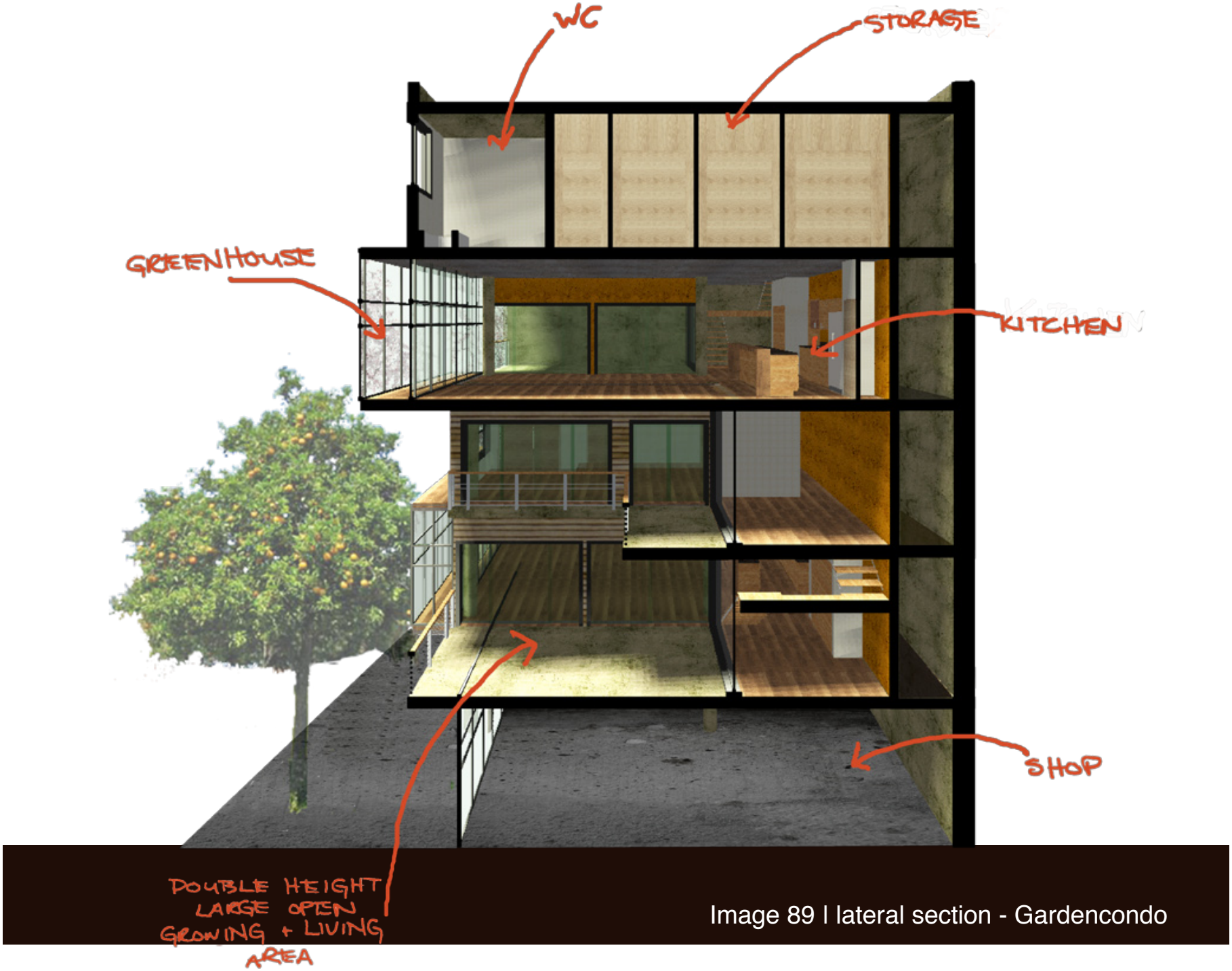


Image 89 I lateral section - Gardencondo

Image 90 I longitudinal section I Gardencondo

Image 91 I Streetscape along Huron Street - design proposal

5

Conclusion

The influence of food is evident in the architecture and fabric of our cities and homes. Carolyn Steel put it best:

> Whatever size and shape of the city we live in, we can use food as a means of inhabiting it better. We can choose what food to buy, how we buy it and from whom; decide whether to cook or are cooked for what we eat and when; with whom we eat and what we waste. All of these things affect the places we live, from their physical appearance down to their social marrow. . . . Food has always shaped our lives, and it always will. (Steel 2009, 321,324)

Our early communities, linked with the consumption and production of food, provided inherent food knowledge, resilient economies, and shared public space. The production and sharing of meals, through necessity of food provision and preservation by the individual, designated the kitchen as the hearth of the home. The general design of the family home changed from an open plan layout of the settler homes, with storage sheds and processing outbuildings, to the more formal Victorian plans, with pantries, larders, and butler pantries. Versions of these functions, reflected in our homes today through technological advances such as refrigerators and microwaves that allow longer preservation of food and faster cooking times, remove direct interaction and understanding of food. Reheating and bring home meals prepared by factories is more common than cooking, and the acceptance of manufactured convenience food has had a detrimental effect on the health of our population. North Americans today are fatter and have more diseases related to diet today than ever before. The change in dietary preferences and food acquisition is also reflected on the scale of the city.

The production, transportation, and consumption of food moulded city streets, creating food districts around the trade routes used to supply stores and markets. Food interactions within the early cities supported a plethora of businesses and provided a shared space that fostered the public realm. Early cities were restricted

in size by the distance produce and meat could be transported before spoiling. The need to get food as quickly as possible to the centre of the cities meant that shops and market areas located along the transportation routes through the cities created main streets and gastronomic districts. However, as technology advanced, so did the boundaries of the cities. People were able to transport goods from much farther distances because of new preservation methods and refrigeration. Along with new technology came the industrial revolution and the beginning of larger scale industry within the city cores. Our city fabric adapted to reflect this change in our consumption habits and our relationship to food. For example, people are much more mobile in cities today due to the automobile. Retailers now cater to the car. There are fewer small, individually owned cafes and restaurants located in downtowns and neighbourhoods, and people spend most of their time driving to locations rather than walking. The distance to travel in order to acquire food has increased with the advent of supermarkets, and these trips, now taken in cars, replace walking to the local market or store. This change has resulted in less economic diversity, reduced street vitality, and loss of the public realm. Without pedestrian traffic, smaller stores in city cores, which do better if there is street traffic nearby, cannot compete with the supermarkets located in suburbia. Choosing the car for transportation and relegating food to supermarkets has transformed the streets, economy, and public realm.

When starting research into the issues of urban development and the influence of food two years ago, I found it difficult to find resources: most information came through small local gardening movements and popular culture. As I finish my exploration, there is not a day that passes without some discussion of food security and urban agriculture in the media or the academic world. With the interest in the Slow Food Movement and the 100-mile diet, as well as growing concern over the safety of our food, it was only a matter of time before North American society would want to bring food closer to home in order to exercise more control over what is eaten, which means growing food in cities. However, the general population's knowledge of how to produce food is severely lacking:

how to produce and prepare it and the social implications of industrialized production and consumption. The loss of connection to basic producing and processing is becoming apparent in food choices. With failing urban cores and the management of urban sprawl becoming pressing issues, it appears that cities may be willing to support urban farming as well as education programs to support it.

We can use past examples of urban food projects and successful urban developments as guides for developing community food centres that provide community services and food while fostering small-scale economies and public shared space. In addition, cities may be able to revitalize failing urban areas successfully. Such projects as war gardens, public food projects, gastronomic districts, and markets all provide shared public space, food security, economic resilience, and community support. The design proposal in St. Patrick's Ward uses the precedents in Chapter 3 and the needs described in Chapter 2 for vibrant city spaces to address the issues of economy and sprawl that cities are facing today through the development of a community food centre on an underutilized site near the downtown of Guelph, Ontario. Using the design precedents as guidelines, the intervention for the site provides varying degrees of public and private space, commercial and residential buildings, and community spaces that will provide the surrounding neighbourhood with food, education, services, and social spaces. The design includes several components from individual family homes to a community centre focused on food and food education. It includes live-work spaces and a market to allow for sale of products raised by the residents of the site, surrounding community, and surrounding farms. The addition of community garden space and public squares cultivates community involvement through education programs, public events, and local shopping. The type of development proposed is an integration of old design parameters with new mixed space, designed to meet a new challenge in today's cities: a lack of food security and resilience. These issues are prevalent today and will continue as oil shortages and growing urban boundaries continue. Architects

and urban planners will need to be proactive to help guide developers and city officials through a redefinition of the way we live in urban environments in order to ensure that we can meet the needs of generations to come. Professionals in these fields will need to devise solutions that are not only practical and efficient but also beautiful and engaging so that the projects will integrate easily into common building practice.

Considerations for these developments vary depending on the body of people involved. Planning departments should first consider live-work arrangements, small-scale retail, and public space to create mixed-use neighbourhoods rather than single-use zoning areas and use these guidelines as a basis for organizing new developments in older established neighbourhoods. There also should be space that encourages access to fresh, whole foods, accessible in both proximity and price, through smaller local stores, markets, and community gardens. Last, developers and planners should pay close attention to the massing and public space of new projects as well as reuse of old buildings to ensure maintenance of the character and feel of the neighbourhood, especially in areas with historical significance. There should also be space for public use that is both pleasing and functionally located in small pockets throughout the area.

Architects have the potential to play a significant role in developments to achieve these goals. While architects are cannot single-handedly change the way we build cities, they are intimately involved with city planning and urban design in almost all stages of public and private design. Being educated about the influence of their designs on the fabric and life of the city and knowledgeable in the design of beautiful and functional environments, they have the opportunity to create meaningful and lasting spaces. Thus, the first role of the architect is ensuring that the designs of specific elements integrate into the existing fabric and that they are functional and beautiful. During the design phase, the architect has the opportunity to ensure that all environmental functions on the site are included for waste and water processing and to ensure the inclusion of community functions.

The architect also has a unique opportunity in helping to foster the creation of a larger civic body that is more inclusive of parties that would prove beneficial in the development of food-centred projects. Although some cities have development panels, such as Vancouver's urban design panel, comprised of architects and planners that evaluate and review new developments to shape the urban realm, it would be favourable to include a wider scope of experts in these discussions. Having urban farmers, nutritionists, and community members actively participate on these panels would bring new ideas and support to these dialogues. The new members knowledge would assist in creating the design principles for these types of projects, disseminate to, and receive knowledge from other cities and communities. In the role of advocate and guide, the panel guides and educates the developer and city officials concerning the purposes of the design elements in creating viable communities to ensure that future public policy can incorporate these factors. By working in conjunction with cities and communities architects can aid and advocate for self-reliant communities through food.

This thesis examines one possible design solution for a specific site. Applying these principles to other sites in other cities requires further examination of economic factors, community food centres, and urban revitalization of mid-sized cities. Having a more detailed analysis of the structure and systems of mid-sized cities would be beneficial in creating a more precise picture of the specific challenges and existing approaches to revitalization. In addition, further examination of effects of community food centres on the social responsibility of a community and how they affect the public realm would provide a tool to be used as a selling point in encouraging cities to take on public projects and change zoning regulations in residential districts. Finally, an examination of community food centres and their impact on the economy of the community is now possible because there are a few centres in North America (e.g., the Stop Community Food Centre in Toronto). A feasibility study to determine a cost and benefit scheme and a further in-depth examination of the economics of these types of developments and their effect on the local economy would prove

beneficial in gathering support from city councils as well as showing developers that there is possible profit in developing civic-oriented projects.

Examining the relationship between food and the city has shown how something as simple as food can change and influence the way we live our lives. “You are what you eat” is really the exact adage for our society today. Supplying our bodies with over-processed, oil saturated, food from distance locales, we are paying the price in our personal health, social relationships, and public spaces. Examining how we relate to food reflects how we treat the rest of our surroundings and society—with a lack of respect and forethought. this thesis encourages cities to look to new developments that create spaces with a meaningful connection between urbanites, the land, and the food it provides. This connection could bring life to under-used and abandoned spaces to create greater resilience in urban communities.

APPENDIX 1

Sites, labeled TOADS, Temporarily Obsolete Abandoned Derelict Sites, (Greenberg et al. 1990) comprise a significant portion of the central core of many mid-sized cities. These old industrial lands usually fall into one of three categories. The first type is a non-toxic site, such as warehouses or textile mills that have fallen into disuse but are easily reusable. The second is abandoned industrial land type, such as steel mills or tanneries, could be toxic and make land undesirable for reuse. Lastly, the sites could just be undeveloped land that is hard to build up due to shape or size or may be next to undesirable land and, although poses no real barriers to development, is unlikely to get developed when there is less expensive, expansive land on the outside of the city. These TOADS can also be in two other categories of undesired sites, LULUs, locally undesired land use, and NIMBYs, not in my back yard. LULUs are sites such as land fills or industrial use and NIMBYs are often uses that people are not necessarily against but just do not want them close to them, like half way houses or storage facilities. (Greenberg et al. 1990)

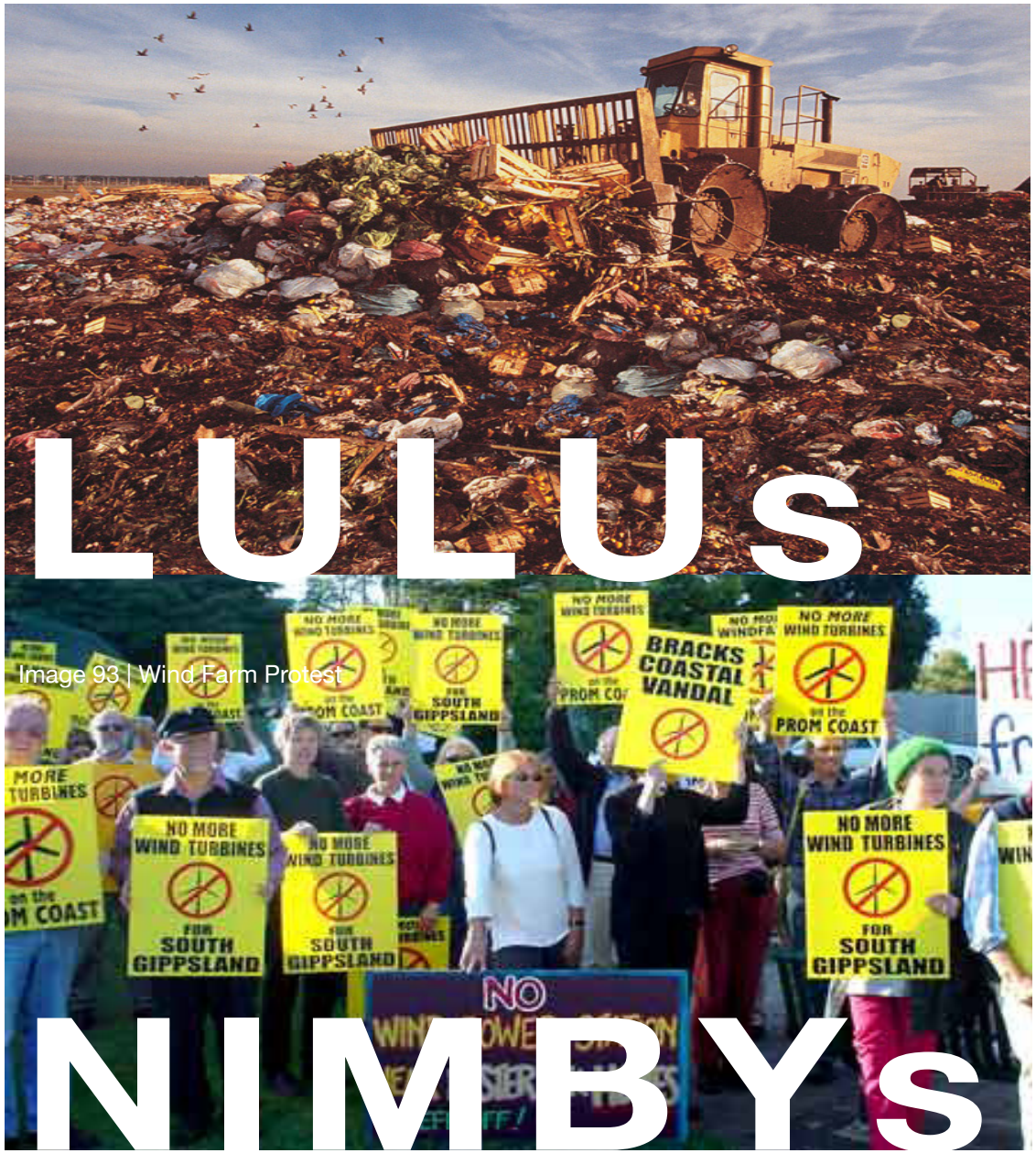


Image 93 | Wind Farm Protest

Image 94 | Abandoned Auto Repair Shop

TOADs

APPENDIX 2

Site Cost Analysis

BUILDING	USE	AREA m2	COST per m2	COST	GREENROOF COST
CFC		1425	$ 2,500.00	$ 3,562,500.00	$ 285,000.00
OFFICE		1140	$ 2,000.00	$ 2,280,000.00	$ 228,000.00
GREENHOUSES		518	$ 1,000.00	$ 518,000.00	-
GARDENCONDO	retail	695	$ 2,000.00	$ 1,390,000.00	$ 139,000.00
	residential	2780	$ 2,500.00	$ 6,950,000.00	-
GARDENHOME		1176	$ 2,000.00	$ 2,352,000.00	-
SHOPHOME	retail	953	$ 2,000.00	$ 1,906,000.00	$ 190,600.00
	residential	2383	$ 2,500.00	$ 5,957,500.00	-
FACTORY	market	1805	$ 2,500.00	$ 4,512,500.00	$ 361,000.00
	residential	5415	$ 1,500.00	$ 8,122,500.00	-
GARDEN AREA		1067	$ 500.00	$ 533,500.00	-
WALKWAYS		5700	$ 200.00	$ 1,140,000.00	-
ROADS + PARKING		3993	$ 50.00	$ 199,650.00	-
	TOTAL	29050		$ 39,424,150.00	$ 1,203,600.00

	TOTAL SITE COST		$ 40,627,750.00
Property tax	Multi-residential	$ 23,382,000.00	$ 522,257.31
	Commercial	$ 14,169,000.00	$ 369,759.04
	Farm	$ 533,500.00	$ 1,657.58
			$ 893,673.93
Current Taxes	Asking price	$ 1,700,000.00	$ 77,591.71

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