Moving Towards Food Sovereignty

Creating a Connected, Fair and Sustainable Food System in Winnipeg Through Productive Urban Landscapes

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A Practicum submitted to the Faculty of Graduate Studies of
The University of Manitoba
In partial fulfilment of the requirements of the degree of

MASTER OF LANDSCAPE ARCHITECTURE

Department of Landscape Architecture
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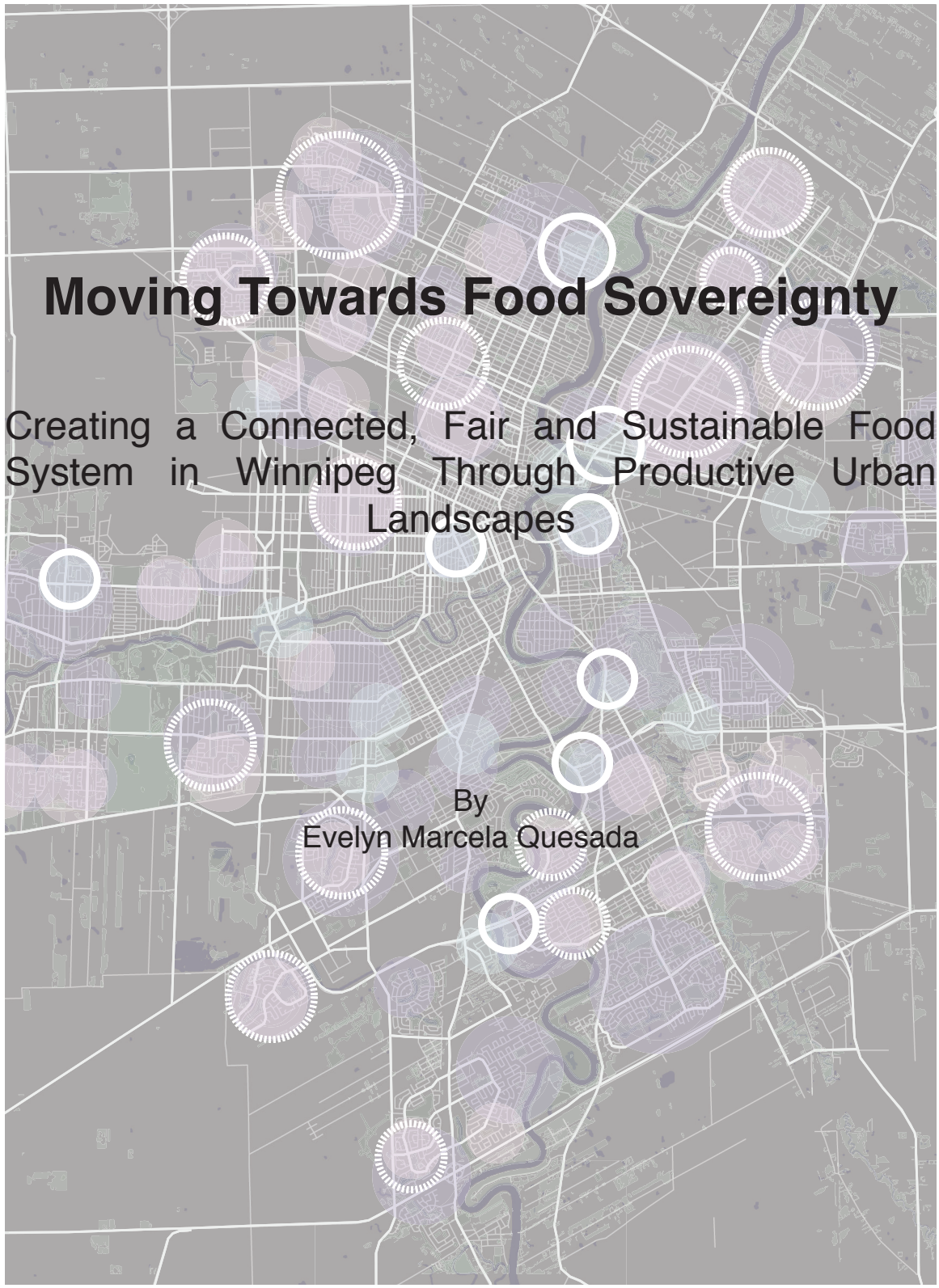

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Abstract

The intention behind this work was to re-imagine the possibilities for productive landscapes within our city. The purpose of this practicum is to design opportunities for people to become more self-sufficient, self-sustaining and less-dependant on the current food system through productive urban landscapes. This practicum proposes that we design a strong network of city wide productive landscapes in order to provide people with the space to grow, trade, buy or sell good quality food at a fair and just price. Through a set of strategies derived from research, observation and experience, we can design a new way of looking at landscapes within our city in order to create a connected, resilient, fair and sustainable food system within Winnipeg.

For Evelyn and Ricardo

Figures

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**Western Development Museum and Library and Archives Canada. *Steam tractor made by Waterloo Manufacturing Co. Ltd, Waterloo, Ont., PA-038420.* In Library and Archives Canada. http://collectionscanada.gc.ca/pam_archives/index.php?fuseaction=genitem.displayItem&lang=eng&rec_nbr=3531166&rec_nbr_list=3531166. (accessed April 11, 2013).

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**Canadian National Railways and Library and Archives Canada. *Steam tractor harrowing ground*. In Library and Archives Canada. http://collectionscanada.gc.ca/pam_archives/index.php?fuseaction=genitem.displayItem&lang=eng&rec_nbr=3519268&rec_nbr_list=3519268. (accessed April 11, 2013).

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**Library and Archives Canada, Acc. No. 1981-32-22 Source: Harry Mayerovitch, Montreal, Quebec. *Plant a Victory Garden: a garden will make your rations go further.* In Library and Archives Canada. http://collectionscanada.gc.ca/pam_archives/index.php?fuseaction=genitem.displayItem&lang=eng&rec_nbr=2846175&rec_nbr_list=2846175. (accessed April 11, 2013).

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Figure 3.6 (page 48) **George E. Dragan and LIbrary and Archives Canada. *Teaching in Komarno School, Man (garden making with students) 1917., PA-088420.* In Library and Archives Canada. http://collectionscanada.gc.ca/pam_archives/index.php?fuseaction=genitem.displayItem&lang=eng&rec_nbr=3381425&rec_nbr_list=3381425. (accessed April 11, 2013).

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Introduction

Figure 1. Mind map. Image of my thoughts and ideas at the beginning of this practicum process.

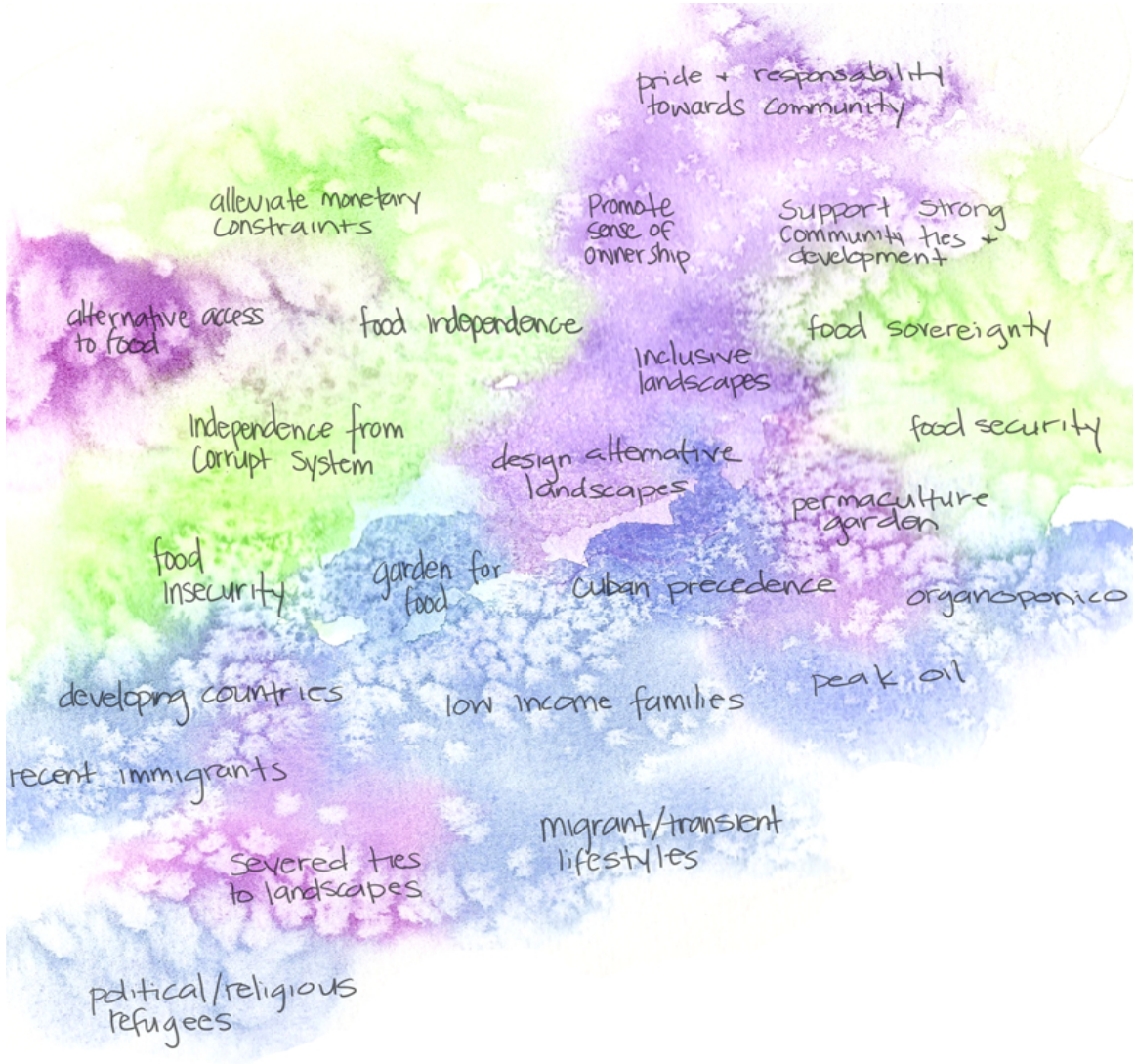

Figure 1.1. Intensive residential urban garden in Havana, Cuba.



I began this process simply by thinking about what it was that I loved about landscape architecture. Firstly, I love that so many landscapes are public. They are spaces that have been designed for people to use and enjoy, freely and openly, without doors to keep certain people out and others in. Landscapes to me contain inherent egalitarian, empowering and socially just qualities that I connect with and appreciate. Secondly, I love the flexible nature of what defines landscape

architecture. Landscapes can mean different things to different people; they can be experienced in different ways, used in different ways and elicit different feelings from individuals.

Over the last few years I have examined and investigated these qualities that I find important and intriguing about landscapes, and they led me to exploring productive urban landscapes, including urban agriculture, community gardens, and allotment spaces. In studying these spaces I began looking more closely at the idea of food sovereignty, which is defined as, “The right of nations and peoples to control their own food systems, including their own markets, production modes, food cultures and environments” (Desmarais 2007, 24). I quickly realized that in order to truly begin to understand these concepts I would have to experience them; this lead me on a journey to Havana, Cuba.

Cuba is an example of a nation that it is now largely feeding itself from locally produced fresh food. Cuba entered the “Special Period” in the 1990’s, a term Cubans’ use to describe the years immediately following the Soviet Union collapse and increased American embargo. With the country’s inability to trade and import food and gasoline, amongst other things, the country quickly encountered a severe crisis and food shortage (Morgan 2006). It was quickly accepted that in order to survive, Cuba would have to produce its own food and return to small-scale farming (Ibid.).

I visited Havana in March of 2012 and was amazed to see how agricultural and productive urban landscapes were so fully integrated into the city and into everyday life. It was eye opening to see just how much food the country was producing for itself and how this form of agriculture was able to work on such a large scale.

There are different scales of urban agriculture that exist in Havana, including large organic farms in urban and peri-urban areas, which produce food sold at markets

within the city. However many people have small private gardens in their homes to produce additional food for their families. It was in visiting and speaking with people that were growing their own food and producing food for the public that I witnessed just how important this act was and how important these landscapes were to them. More than anything during this trip I learned just how much people relied on the food they produced and how much these productive landscapes were sources of happiness, self-sufficiency, community interaction, community support, and of pride.

I came home very affected by what I had learned in Cuba. I began looking more closely at food within a world context and at food on a Winnipeg scale, in order to better understand what systems and factors were affecting food in general and access to food within Winnipeg. I researched food regimes and the ways in which we have historically framed food related issues and found it essential to study the historical and current importance of urban gardening in Manitoba..

Considering what I had learned when I travelled to Havana, the insight I gained when speaking to people in the urban gardening community in Winnipeg and applying everything that I had read related to food systems, I designed a different way to shape and evolve our city. I believe that transforming Winnipeg into a city where a sustainable and just food system exists and flourishes is possible through strategic integration of productive urban landscapes.

Chapter 1
The industrialization of Agriculture

Introduction

Figure 1.2. The typical grocery shopping experience for the average Canadian.



What we eat and how our food is produced has changed since the beginning of the Industrial Revolution, and has continued to dramatically change in the past one hundred and fifty years in Canada. Our understanding of how and where our food is grown and manufactured is far removed from our daily lives, experiences and from our general knowledge. The industrialization of agriculture is a factor that contributes to this constant, deepening rift between our lives and the food we eat.

1.1 Pre-Industrial Revolution

Figure 1.3. Doukhobor women harvest flax by hand in Canada.



The Industrial Revolution emerged in Britain between the years 1750 and 1850 (More 2000, 2) and spread to other European countries, slowly migrating overseas to the United States and Canada (King and Timmins 2001, 5).

As transportation prior to the Industrial Revolution was limited, people were not easily able to travel or transport goods great distances. This limitation in travel and transport controlled the expansion of cities and restricted agricultural trade to local areas. During this period, agriculture was the main source of employment, food and raw materials for residents of a community (Overton 1996, 15). A majority of food was grown locally, within city limits, with more intensive and larger farms located directly outside city walls or boundaries (Crouch and Ward 1997, 64). Many European cities remained walled and contained, maintaining a

clear boundary between urban and rural areas. It was common practice for both urban and rural families to plant vegetable gardens around their residences as food for the household, generally growing a surplus to be sold, as yields could be unpredictable (Ibid., 64).

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As mechanization was not yet available, agriculture was a very physically demanding occupation. Large rural farms depended upon animal and manual labour for all aspects of work on the farm. The sizes of farms were therefore restricted to a human scale. Farms were limited in size according to what a farmer, his farmhands and his animals were able to maintain. Horses or oxen were used to plow the fields, and a sickle and scythe was used to reap cereal crops (Overton 1996, 12). Natural methods were applied to retain and replenish the quality of

Figure 1.4. "The way we harvest wheat" promotional postcard by Canadian Postcard Company.



the soil and to deal with pests and plagues. Manure from livestock and fallow were used to replenish nitrogen, as a source of pest and weed control and animal movement through the fields naturally aerated and turned the soil (Overton 1996, 17). Lime and marl was incorporated into the soil to neutralize acidity and to help in the efficacy of bacteria to breakdown manure (Ibid., 16). Plagues, weeds and pests were mitigated through active plowing, hand pulling weeds, and crop rotation (Ibid., 16 -17). Farmers had lo learn to read the land and were required to work with the earth in order to produce bountiful harvests.

Prior to the Industrial Revolution, a majority of the population were rural farmers. Cities remained small and agriculture remained local, due largely to the limitations of transport and population size. This way of life would forever be altered through the Industrial Revolution.

1.2 Industrial Revolution

Figure 1.5. "Steam tractor made by the Waterloo Manufacturing Co. Ltd" in Waterloo Ontario.



Life dramatically changed in the mid 18th century as the Industrial Revolution emerged. Several inventions were developed during this time that transformed a manually powered world into a highly efficient, mechanically driven factory. The invention and patenting of steam powered machines and engines in the late 18th and early 19th century can be seen as the most defining aspect of the Industrial Revolution (Olson 2002, 243). The Agricultural Revolution occurred concurrently to the Industrial Revolution as this steam-powered mechanization was applied to agricultural equipment and transformed farming methods.

People no longer had to create their own products from raw materials or pay an artisan to create their goods for them; machines were now able to do this, much more quickly and efficiently. Transportation and infrastructure advancements

through the steam engine and railroads provided people with the opportunity to travel greater distances, joining together cities and merging them with the countryside. The achievements in transportation increased, facilitating trade and expanding peoples' realities to include the world beyond their farms and small communities. Cities swelled with people and became crowded and congested as large factories and employment options offered struggling families with an opportunity to earn a steady wage. The shift in the largely agrarian lifestyle held by the majority of the population that included living and working where you lived was completely altered, as the separation of home and workplace was created through factory occupations (Barlow Rogers 2001, 313). The development of suburbs and urban sprawl was enabled by the boom of railroads and steam engines in the 18th century and encouraged the separation of the workplace and home life (Ibid., 313). This separation between the home and ones place of employment was solidified by the invention of the automobile in the late 19th century and its mass production in the early 20th century.

Populations had greatly increased as a result of several factors including; the lowered death rate resulting from the production of potatoes as a staple crop, the smallpox vaccine, separated water supplies and sewage drains decreasing deaths from disease, and the absence of war in Europe (Olson 2002, xii). These factors contributed to the population growth in Canada and the United States as large numbers of immigrants migrated to the new colonies in search of better lives and opportunities (Ibid., xii).

This large and growing population required jobs and a greater quantity of food (Ibid., xii). Factories provided jobs and the mechanization of agriculture during the early 18th century helped to feed this rapidly increasing population (Ibid., xii). The industrialization of agriculture also resulted in a high exodus of rural people to

Figure 1.6. "Steam tractor harrowing ground" in 1920, Canada.

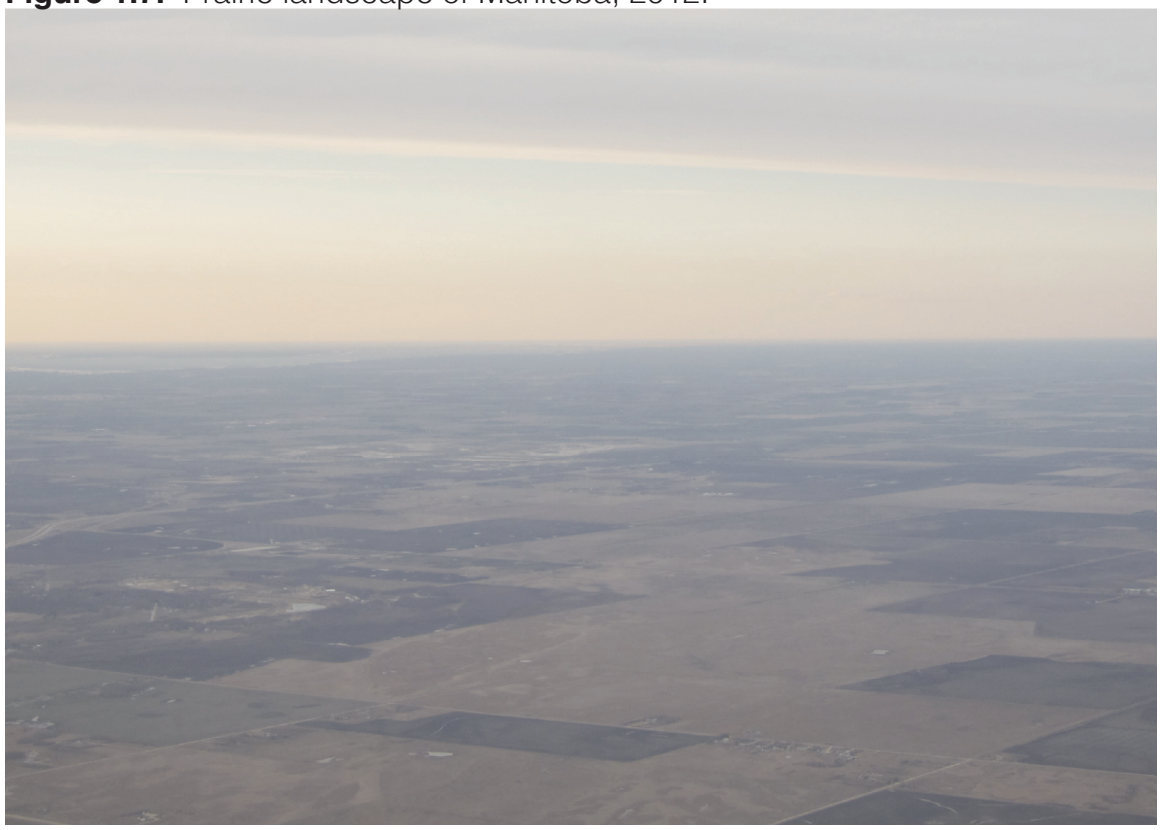


urban centers as many farmers and farmhands lost farming work. As agriculture became more mechanized and less dependant upon manual and animal labor, farmers could expand their acreages while requiring fewer farmhands, increasing both production and productivity. Although many farmers did reap benefits from mechanization an even greater number,

> …unable to out produce or undersell large commercial farms with the latest machinery, suffered badly. In the late 1880's, 90 percent of American farms changed hands as bankrupt farmers sold out. Untenable small farms disappeared into larger farms, and small farmers, with their wives and children, vanished into big cities. (Ibid., xix)

1.3 Large Scale Farming in North America

Figure 1.7. Prairie landscape of Manitoba, 2012.



The large industrialized version of farming has endured as the dominant form of agriculture today. People are further removed from food production as the trend continues for large corporate farms and agribusinesses to take over farmland. Hundreds of years of over production and compaction of the agricultural land through heavy machinery and large-scale farming has resulted in a chain reaction of adverse effects on the soil and environment. Compaction of the soil has created poor agricultural growing conditions, and includes effects such as: nutrient depletion and an increase in water runoff due to the impermeability of the soil, loss of topsoil and crop/vegetation root restriction. As a result the current food system urges

farmers to adopt agribusiness farming methods, if they are not already dependant upon them, in order to mitigate these factors. These methods include but are not limited to: chemical fertilizers and pesticides, excessive irrigation, monoculture farming and an increased use of Genetically Modified Organisms (GMOs). Patrick Hossay, in his book, *Unsustainable: a primer for global environmental and social justice,* explains that,

> When industries insert a gene or modify a seed, the new seed is legally a discrete and patentable commodity. A genetic 'marker' can be inserted with the new gene to identify clearly the proprietary property. Later generations of that seed may not be saved and planted without paying the 'owner' of the seed. The kernel of life, the source of food, is thus recast as a complete commodity to be bought and sold in the marketplace by a single owner. (2006, 153)

The current food system promotes production and trade at all costs, including the present and future welfare of farmers and the environment.

Conclusion

> **"The kernel of life, the source of food, is thus recast as a complete commodity to be bought and sold in the marketplace by a single owner"**
>
> **(Hossay 2006, 154)**

The industrial revolution, including the agricultural revolution, significantly changed and altered food production since the mid 18th century. Food production is no longer a part of our daily lives, instead, food has become another good that is traded in the large world market, to be purchased by the public. Food is a basic human right. However in the current day food system, food is increasingly becoming a commodified good. Large-scale farming and agribusiness farming practices, GMO use, our dwindling knowledge of how to produce our own food and a worldwide political framework supporting these factors has created a powerful present day food system that views food as a good rather than a basic right.

Chapter 2
The Evolution of Food Sovereignty

Definitions

Food Regime:

"The political and economic structures that undergrid successive periods of stability within the world food system" (Fairbairn n.d., 15).

Food Frame:

"…examines how social movements deploy language and ideas to mobilize support for their efforts" (Fairbairn n.d., 15).

Neoliberalism:

"…a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade" (Harvey 2005, 2).

Original Definition of Food Security:

"food security in its broadest sense is the availability of adequate food supplies now and in the future. In the narrower sense, food security means food stocks and arrangements to govern their establishments and use as a protection against crop failures and shortfalls in imported food supplies" (Food and Agricultural Organization (FAO) 1981, 23).

Household Food Security or

Updated Definition of Food Security :

“a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary need and preferences for an active and healthy life” (FAO 2001, 3).

Food Sovereignty:

“the right of each nation to maintain and develop its own capacity to produce its basic foods, respecting cultural and productive diversity...the right to produce our own food in our own territory...the right of peoples to define their agricultural and food policy” (Desmarais 2007, 34).

Introduction

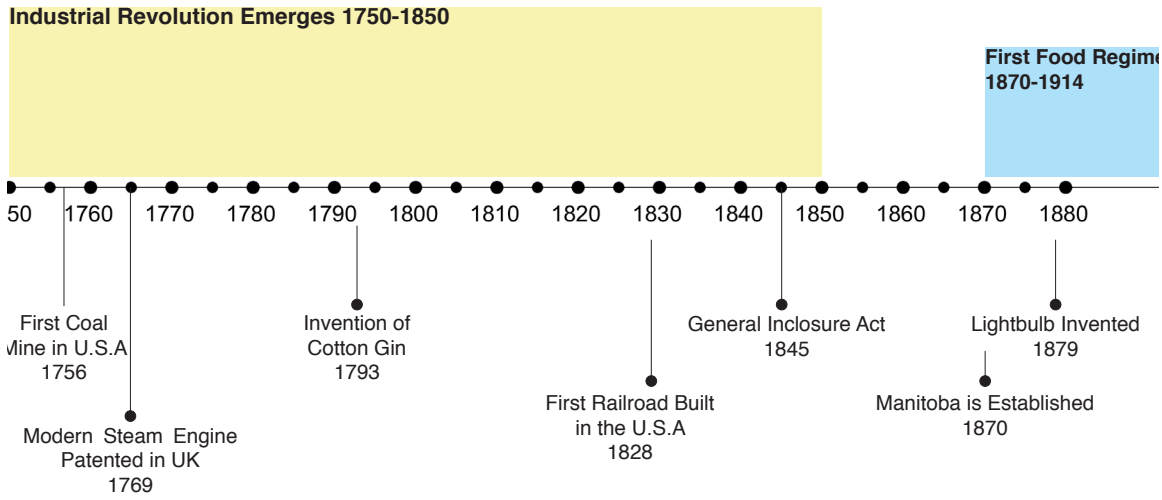
Food regimes describe the political and economic foundations upon which the current food system has found stability (Fairbairn n.d., 15). As these regimes enter crisis, social movements use naming and language in order to interpret the problems and find solutions for them; this occurs through food framing (Ibid., 15-16). The current day food system is the product of a neoliberal economic political framework that is supported by large multinational organizations (McMichael 2008, 149-190). Some of these organizations include the World Trade Organization (WTO), the United Nations (UN) and the World Bank and they encourage neoliberal ideals, like the liberalization of trade, the increased commercialization and industrialization of the agricultural system in order to produce and trade more food (Ibid., 149-190). The idea behind this theory is that the more food that is produced, the more food there will be available for all people. However, under this food system, "more than three-quarters of all malnourished children live in countries with a food surplus" (Lappe, Collins and Rosset 1998, 145). This suggests that access to healthy and nourishing food does not increase as agricultural production increases. It demonstrates that despite increased supplies of food, the commercialization and commodification of food as a result of neoliberal ideals is making it increasingly difficult for a large population of the world to access it. In order to increase accessibility to good quality food a restructuring and change to the current food system is needed.

Food sovereignty is a movement and food frame that describes the restructuring

of this current food system in order to create a market where food producers and consumers are in control, rather than large multinational corporations. The emphasis is on just and sustainable food systems. In order to better understand the evolution of this movement, it is important “to examine the specific historical conjecture within which it arose and to locate it in the context of past food-related concepts” (Fairbairn n.d., 15).

2.1 Food Regimes and Food Frames

Figure 2. This timeline depicts the evolution of food sovereignty through the changing food regimes and food frames. Historically significant events are also represented within this evolutionary time frame. *Source:* Data adapted from Fairbairn n.d., 15-32.



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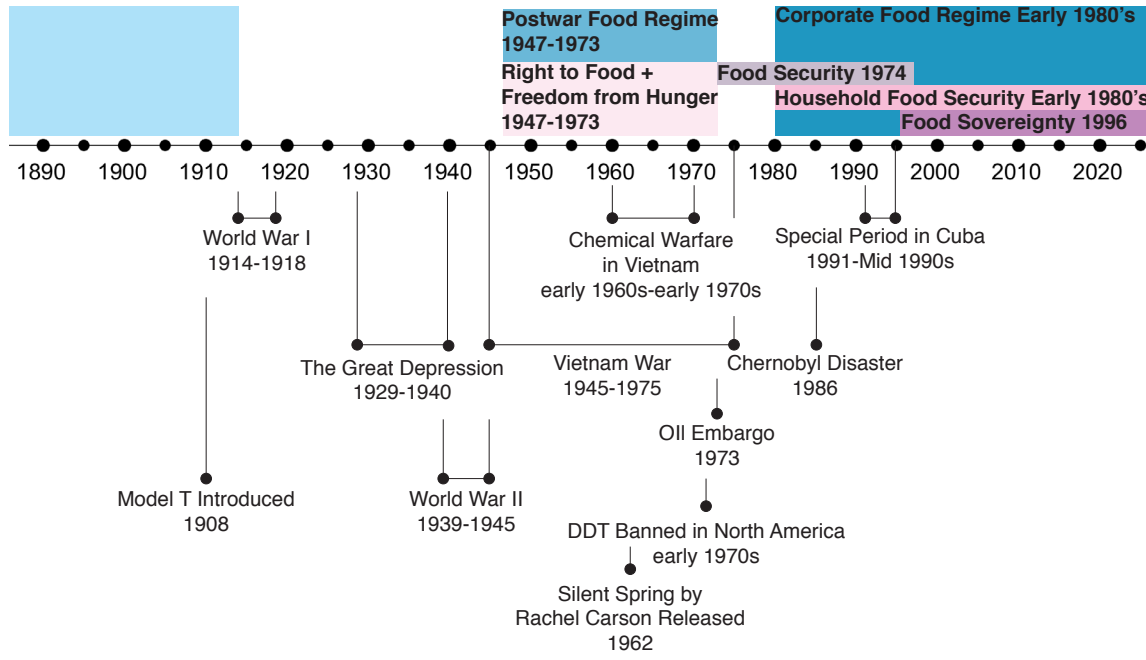
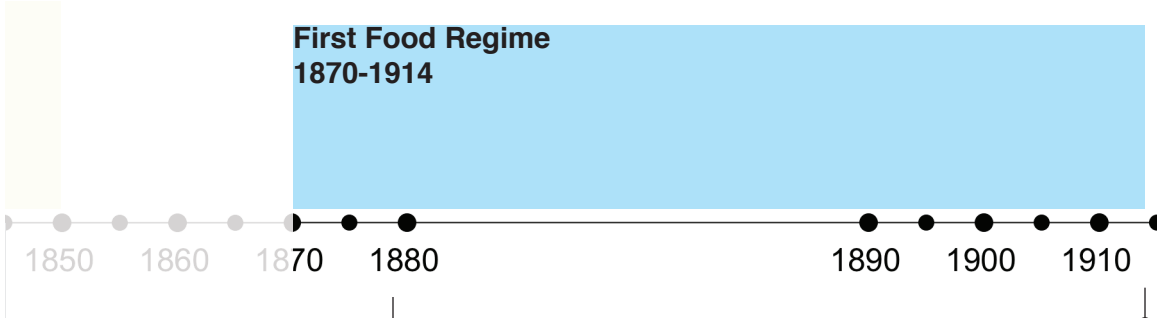
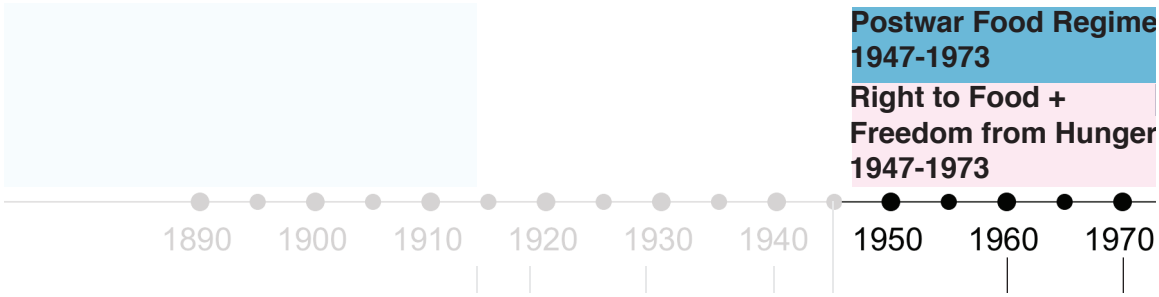


First Food Regime 1870 - 1914



The industrialization of agriculture was in full effect during the period between 1870-1914. The mechanization of farming equipment and agricultural manufacturing had increased farm sizes, farm productivity and crop production. Prices of crops dropped as surpluses grew and small-scale farmers were edged out of the industry, as those who did not mechanize could not keep up with production (Olson 2002, xviii). Large industrialized farms began to dominate and control agriculture. This time frame was structured upon the British hegemony over their new colonies (Fairbairn n.d., 16-17). North America became the primary supplier of cheap grain and meat to the growing urban populations of Europe (Ibid., 17). The Great Depression in the 1930's and World War II lead to the collapse of this first food regime as trade between the colonies in the North America and Europe began to disintegrate as the new nation-state system emerged (Friedman and Michael,1989, 17)). No universal food framing emerged during this food regime.

Post-War Food Regime 1947 - 1973

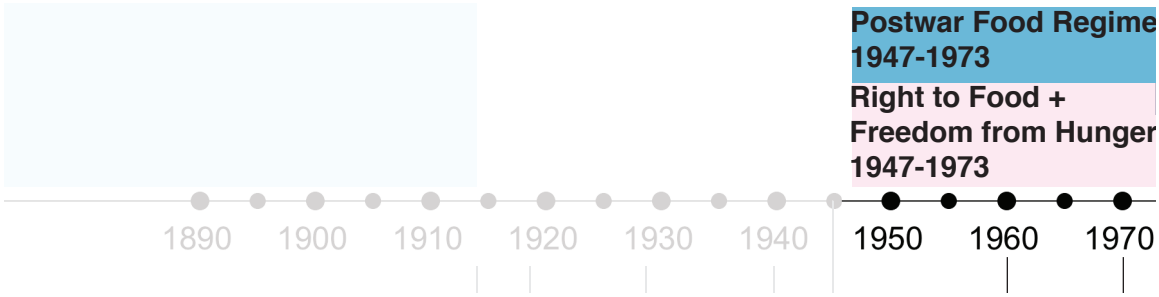


The postwar food regime, "…had consolidated, this time under the auspices of United States, rather than British hegemony and based on state intervention rather than free markets" (Fairbairn n.d., 17). The U.S. was motivated to protect its national markets and instituted agricultural subsidies. Agriculture became increasingly important to the economy as commercial opportunities increased (Ibid., 17). Domestic price supports, export subsidies and protective tariffs were established to support national farmers (Ibid.,17). This resulted in a large consistent supply of food surpluses in the United States.

The United States used this surplus to their advantage by shipping excess grain, sold at a cheap rate to countries south of their border (Friedman 1993, 17). This helped to create stronger relations and ally ties with those countries, while simultaneously, those same countries formed a dependency on the cheap surplus grain (Ibid.,17). In 1954, Public Law 480 (PL 480) was codified, introducing the U.S. food aid program (Ibid., 17). This also led developing countries to adop similar strategies and policies as the United States including the high commercialization, subsidization and government regulation of agriculture (McMichael 1992, 17).

These national and state based policies led to an increase in mechanization and large scale production as agriculture now became an economic sector for countries (Ibid., 17). This resulted in very rapid urbanization and migration of the rural population to cities (Ibid., 17). The food aid program had very successfully established dependant markets on this inexpensive supply of grain (Ibid., 17). Poor weather and wheat harvests however, spurred the U.S. to sell thirty million metric tons of their surplus grain to the Soviet Union in the early 1970's (Ibid., 17). This signaled the end of the grain surplus era and the beginning of the food crisis of 1972-1973, abruptly ending the post war food regime (Friedmann 1993, 17).

Right to Food and Freedom from Hunger



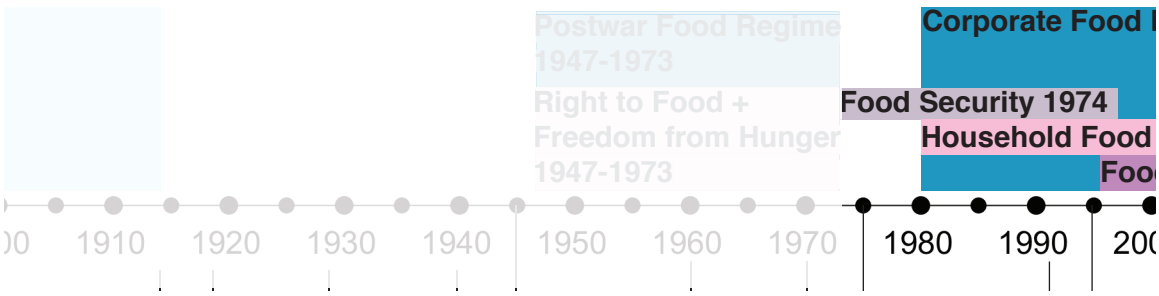
It was not until 1947 with the solidification of the post war food regime that a universally acknowledged food frame describing human access to food was presented as, the 'right to food' and the more commonly used 'freedom from hunger' (Fairbain n.d., 19). During the World Wars, European governments had been forced to exercise unprecedented control over the food supply, in the form of rationing and subsidizing (Helstosky 2000, 19). This government regulation of food, compounded by the severe food shortages affecting European countries following the Second World War prompted the creation of,

"the right to food in paragraph one of Article 25 of the Universal Declaration of Human Rights (UDHR) enacted by the United Nations (UN) in 1948. The UDHR provided the basis for the International Covenant on Economic, Social and Cultural Rights (CESCR), which imbues the right to food with a legal force (Fairbain n.d., 19).

The 'right to food' and 'freedom from hunger' food frame, were working within and responding to the postwar food regime. Therefore, the strategies promoted to achieving 'freedom from hunger', at this time, supported the desires of the postwar food regime (Ibid., 19-21). This included UN encouragement of

developing countries to increase agricultural technology and dependency on the food aid program (Ibid., 20-21). These strategies were promoted as key sources to achieving 'freedom from hunger' and were described as the means by which these developing countries could join the ranks of the United States, in terms of development and prosperity (Ibid., 20-21).

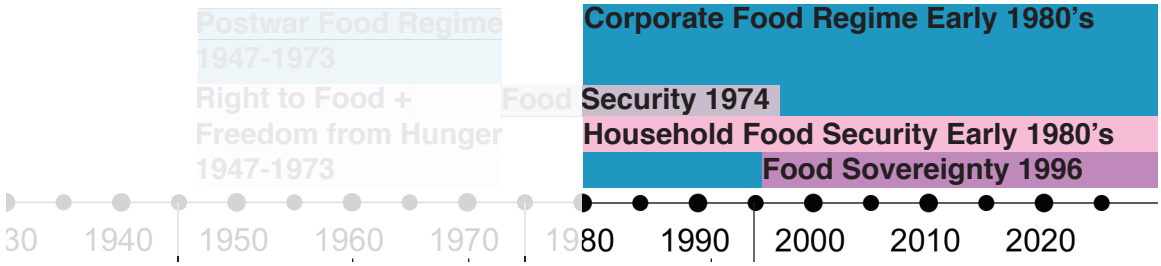
Food Security



The world entered a food crisis between 1972 and 1973 due to a number of factors. A series of poor harvests world wide, the sale of the United States' grain surplus to the Soviet Union and the oil embargo of 1973 that dramatically increased gasoline prices, increasing the cost of agricultural production, led to the framing of the idea 'food security' in 1974 at the World Food Conference hosted by the Food and Agriculture Organization for the United Nations (FAO) (Ibid., 20-21). The description of food security underwent a series of redefinitions and adaptations according to the political ideologies in power at that time. Despite this, food security would remain as the dominant way of framing food issues (Ibid., 22). The initial framing of food security was defined at the World Food Conference in 1974, as the "availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices" (UN 1975, 27). Just as the right to food and the freedom from hunger, food security was defined and arose from a food regime constructed by the global powers and while it "attempts to remedy a faulty system, it does so

without questioning the dominant political-economic wisdom" (Fairbain n.d., 22). Food security initially attempted to address the best way in which nations could manage their food supplies (Ibid., 23). Agricultural technology improvements and industrialization, market intervention and food aid were all encouraged methods in creating food secure nations (Ibid., 22). The initial definition of food security emerged immediately following the 1972–1973 food crisis within the postwar food regime, however this iteration of framing food security quickly changed as the world adapted a new food regime in the 1980's and food security within this new regime would be redefined (Ibid., 23).

Corporate Food Regime 1980's - Present Day



The corporate food regime unfolded in the 1980's following the 1972 - 1973 food crisis. It is upon the neoliberal ideology that the corporate food regime is founded. According to David neoliberalism is,

> a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade. The role of the state is to create and preserve an institutional framework appropriate to such practices…But beyond these tasks the state should not venture. (2005, 2)

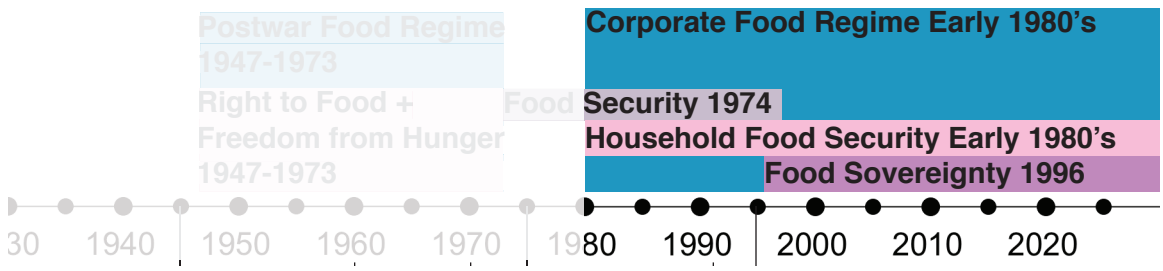
McMichael explains that "during the 1980's, the means to development was identified with liberalization – in particular, privatization of public functions and the "freeing" of markets for labor, money, goods, and services" (2008, 152). Despite the appearance of a free and naturally occurring evolution to the trade market, "markets are neither natural nor free. They are institutional constructs, managed by powerful players, including international financial institutions, banks, corporations, states and even non-governmental organizations (NGOs)" (Ibid., 149). This ideology is

pushed under the guise and promise of wealth for all countries involved, despite the fact that,

> with “free markets,” material benefits are largely confined to only about one-third of the world’s population. The remainder toil in highly exploitative work settings, or struggle to survive on marginal lands or urban margins, as markets capture resources for the global minority that has purchasing power. (Ibid. 149)

Food, under this regime has increasingly become seen as a commodity, as another mass produced and manufactured good, accessible only to those that can afford it.

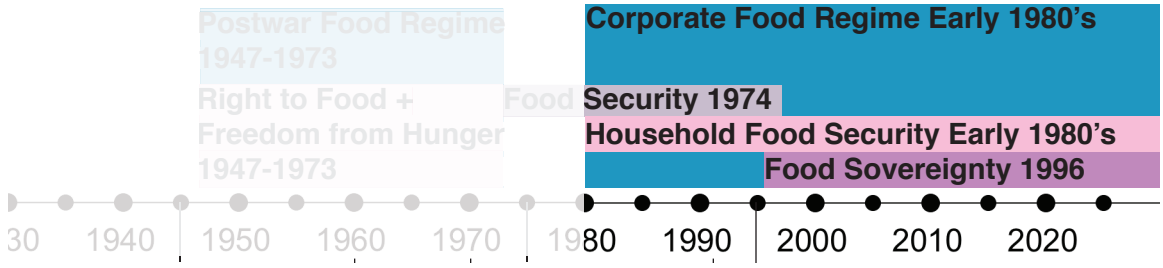
Household Food Security



The food security frame shifted in the late 1970's and early 1980's as the corporate food regime emerged and political powers adopted and promoted the neoliberal ideology, privatization and free markets (Fairbairn n.d., 16-26). Under the corporate food regime, food security evolved into 'Household Food Security'. Its genesis within the neoliberal discourse is evident as the new definition places the responsibility of gaining access to food upon the individual (Ibid., 16-26). Household food security is now used interchangeably with food security, under the definition of household food security, "Food security is now a frame about the micro-economic choices facing individuals in a free market rather than the policy choices facing governments" (Fairbain n.d., 24). It is now defined as existing "when all people, at all times, have physical, social and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (FAO 2013). These organizations in power are pressing developing countries to adopt this neoliberal ideology for food security; the World Bank, as quoted by Fairbain (n.d., 25), insists that countries, "refrain from costly self-sufficiency policies and specialize in producing commodities which are most

profitable to them" (World Bank 1996, 25). Following the food crisis of 1972 – 1973, food security was expanded to include household food security and the new corporate food regime ideals from which it emerged. As the methods in achieving household food security are founded in neoliberal ideals, the world's pursuit for household food security acts to further strengthen the corporate food regime.

Food Sovereignty



The framing of food sovereignty occurred in 1996 at the Second International Conference of La Via Campesina (Wittman, Desmarais and Wiebe n.d., 2). Translated, La Via Campesina, means the way or route of the peasant. La Via Campesina, a multinational movement, came together in 1993 and currently represents over 148 organizations, including peasant groups, farm workers, small-scale farmers, indigenous communities and social groups involved in the agrarian movement (Ibid., 2). Prior to the framing of food sovereignty, every food frame was defined by the supporting organizations and governments of the food regime from which these food frames emerged (Fairbairn n.d., 17-32). Food sovereignty is the first food frame that was not defined by the ruling minority that underpinned the current food regime, but instead was expressed by the majority for whom the food system was failing (ibid, 17-32). Its inception was a result of the political, economic and social context of the world that was quickly and aggressively alienating and undermining, farmers and food producers (Desmarais, 40). Food sovereignty challenges the corporate food regime and insists upon the necessary departure from what has been done in the past and what is currently being done. It suggests a new and alternative framework and strategy in order to create a new food system that demands "the right of nations and peoples to control their own

Figure 2.1. Variety of produce grown in local community gardens in Winnipeg.



food systems, including their own markets, production modes, food cultures and environments" (Wittman, Desmarais and Wiebe n.d, p.2). Food sovereignty, "is based on principals of social and economic justice" (Desmarais 2007, 24) and places the sustainability of the earths resources and the sustainability of our food system at its core. Desmarais further describes food sovereignty as,

> Placing priority on the production of healthy, good quality and culturally appropriate food primarily for the domestic market. It is fundamental to maintain a food production capacity based on a system of diversified farmer-based production - one that respects biodiversity, production capacity of the land, cultural values, preservation of natural resources - to guarantee the independence and the food sovereignty of populations. (2007, 34)

Food sovereignty is a broad frame that supports a dramatic change from our current food regime, to a new food system that places priorities on justice, respect and the ethical treatment of people and the environment.

Conclusion

As world institutions and powers advocate open markets, free trade and neoliberal political policies, the framing of world food issues has historically paralleled and supported these practices. The framing of these food issues has traditionally occurred by the very world powers that have created the food crises that have forced these frames to emerge. The food frames therefore support the agenda of the controlling powers and dominant food regime. The exception to this pattern was the framing of food sovereignty, which was defined and framed collectively by hundreds of transnational groups involved in the agrarian movement. The food sovereignty movement opposes the corporate food regime by maintaining that more food does not increase access to food, it simply means that there is more food available to those who can afford it. Food sovereignty includes a solution to the world's current food issues, by suggesting a change to the food system itself.

Chapter 3
Productive Urban landscapes

Introduction

Figure 3. Intensive permaculture garden located in a private residence in Havana, Cuba. Permaculutre gardens are based upon ideas of designing integrated systems in order to maximize production in a sustainable and ecologically sound way.



Productive urban landscapes have appeared in many forms, under many names, for hundreds of years all over the world. Whatever these spaces have been called, they have been and currently remain an important feature in the urban landscape.

3.1 History of Commons and Allotments in Britain

The history of the British commons are described in the book by Crouch and Ward (1997) entitled, *The allotment: the landscape and culture.* The commons were an important aspect in the development of productive gardening in Maitoba as immigrants brought with them traditions and customs, including gardening, from their native countries.

In communities and settlements in England before the mid 18th Century,

> tradition and a sense of natural justice gave inhabitants of any place the right to till the soil, in what became the common fields, the right to the products of the woods and forests, the right to pasture domesticated animals and to hunt, trap or fish wild creatures (Ibid., 40)

Starvation due to poor harvests, diseases in animals or physical harm, extortion and seizure of farmers' goods by the powerful, if harvests were bountiful, were all realities of dependency on the commons (Ibid., 40). Between 1750 and 1850 The Parliamentary Enclosures in Britain seized this common land (Ibid., 43). The belief was that the poor using the land could not be trusted with the resources, and that the eventual degradation of the commons would occur through over-grazing, over-production and mismanagement (Ibid., 41,43). The need for land to produce and cultivate food did not end with the enclosure of the commons and so the allotment garden movement arose (ibid, 40).

In 1845, The General Inclosure Act was passed. It required that in the allocation of land, some portion of the space be set-aside for the laboring poor to rent for cultivation (Ibid., 48). As industrialization flourished in England, and the rural countryside and small settlements were absorbed by large, congested cities,

Figure 3.1. American World War II Poster encouraging household food production.



allotment gardens quickly became important elements in the lives of the working urban poor. The Small Holdings and Allotments Act, passed in 1908 obliged "local authorities, urban as well as rural, to provide allotments for this 'labouring population' where it could not be obtained privately" (Ibid., 70). The popularity and necessity for allotments increased as the world entered the First World War. The British government forced landowners to turn over their private unused land for

allotment use as the threat of starvation and severe food shortages grew (Coruch and Ward 1997, 72-73). Allotments were no longer seen as only a need for the poor, they were now viewed as ones duty and part of the national culture, as everyone, including the king, was gardening (Ibid., 72). At the end of the war however, as land was returned to owners and cities again began to grow, interest slowly faded, until once again, the world entered into war.

The onset of WWII brought a renewed interest in allotment gardening, as 'Dig for Victory' gardening propaganda and instructional pamphlets were promoted (Ibid., 75). The end of the war gradually lowered interest in allotments. Cities grew even larger and land for building became more valuable than land for growing. Cities sprawled and became more modernized, promoting an easy, quick and efficient new lifestyle. This new lifestyle did not resemble the food rationing and difficult times of the war; it did not include hard-toiling work in a garden planting, tending and picking vegetables. This new lifestyle embraced pre-packaged food and manicured lawns. It was not until the environmental movement of the 1960's and 1970's that interest in urban gardening and allotments would again resurface on a mass scale (Ibid., 78).

3.2 History of Urban Gardening in Manitoba

Urban gardening also received a massive revival between the 1960's and the 1980's in Canada. Although urban gardening in Manitoba evolved along a similar time line as the British allotment movement, it did so under different circumstances and for a variety of reasons that went beyond the cultivation of food.

First Nations peoples and communities farmed on the Northern prairies for centuries before European settlers arrived (Peters 1988, 4). This aspect of the First Nations people's history is generally overlooked and the buffalo-horse culture is best known (Ibid., 4). There is little written about early First Nations communities in Manitoba, but much is known about the Mandans of North Dakota, a community close to Manitoba communities that would have interacted with them (Ibid., 4). The Mandans farmed the fertile floodplains and bottomlands, clearing brush and grass through burning, and working the land with hand held implements (Carter 1990, 37–38). The Mandans built a powerful and prosperous civilization, in which the cultivation of plants played an important role (Peters 1988, 5). Varieties of corn, beans, squash, along with tobacco and sunflowers were cultivated. The Mandans also had an extensive knowledge of wild plants and how they could be used as a source of food, medicine and raw materials for goods. Cross-breeding of many of these hardy native plant species with species brought by European settlers occured in the late 1800's at experimental farms and nurseries to create species that would tolerate the harsh Manitoba climate (Ibid., 6). However, pressure and threat from the arrival of Europeans would change and destroy First Nations communities across North America (Ibid., 5).

The arrival of the first Europeans to Manitoba occurred in 1670 through Hudson

Bay, with the trading adventurers, later becoming the Hudson's Bay Company (Ibid., 12-13). The Northwesters arrived in 1732-1733, through the Rainy River and Lake of the Woods to the east (Ibid., 12-13). Small-scale subsistence agriculture was set up at many trading posts (Ibid., 12-13). Pemmican, a dehydrated bison meat product, was the staple food however it became scarce as excessive hunting decimated the bison population. Meanwhile competition in the fur trade increased, and the rival fur trading companies were forced to merge in 1821, under the Hudson's Bay Company, establishing a large scaled agricultural settlement in the prairies along the Red River (Peters 1988, 12 - 13).

In 1870 Manitoba was established as a province by the Government of Canada. Land was quickly surveyed and promotion of the province within Canada and Europe as a lush, fertile opportunity, with climate, "very much the same as England thirty years ago" (Rees 1988, 7) began. Early settlers already established in Canada began migrating to Manitoba from the east in the early to mid 1870's (Rees 1988, 45). A high number of Europeans began migrating to the province in the 1880's and 1890's as barbed wire fencing and well drilling became available (Ibid., 45). The first settlements occurred near the rivers. With land around the rivers inhabited by early settlers, immigrants arriving later were forced onto less desirable sites. Despite where and when these immigrants settled, many brought plant species from their homeland, and with those species some comfort, familiarity and change to the native Manitoba landscape (Ibid., 91–92). The promoter of this, "flower garden of the continent" (Ibid., 7) image, and the major contributor responsible for attracting many of the immigrants was the Canadian Pacific Railway (CPR). Railway station gardens encouraged immigration through the appearance of a fertile and bountiful land. This stimulated the growth and expansion of the CPR, as the increase in immigration required more rail lines. Railway stations were

Figure 3.2. "Hudson's Bay Company Post" in Long Lake Ontario. This image shows an example of what a developed Hudson's Bay post could have resembled in Manitoba.



anchors in settlements, as they were the connection points and gateways to the rest of the country (Von Baeyer, 1984, 15- 16). The CPR became "Canada's head gardener" (Ibid., 14). Elaborate gardens were created and maintained by CPR agents at each station as beautification groups placed pressure on the CPR to ornament their stations. The CPR established greenhouses and nurseries for their stations (Ibid., 27). The government also began experimental plant farms in the search of hardier plant breeds (Rees 1988, 120).

In the late 1800's and into the 1900's many horticultural societies were established in Manitoba and Winnipeg. They advocated the City Beautiful movement and city beautification became a priority. This included the creation of large city parks, street plantings, schoolhouse gardens, along with private and public space

Figure 3.3. "Caledonia Spring C.P.R. (Canadian Pacific Railway) Station". Maintained and manicured station garden in Ontario,1935.



Figure 3.4. Assiniboine Park, built in the early 1900's as a part of the City Beautiful movement.



beautification in the form of gardens and plantings (Von Baeyer 1984, 66 - 90). Parks were created as places specifically for strolling and enjoying the outdoors, as previously cemeteries had doubled as recreational space (Ibid., 82). The belief was that time outdoors would uplift peoples' spirits and bring people together while concurrently increasing their interaction with the natural world, this in turn would promote morality (Ibid., 66 - 90).

Figure 3.5. House and garden near Reston Manitoba in 1920.



Industrialization and urbanization was occurring alongside large-scale immigration into Manitoba. Many rural people and immigrants flocked to the city. As a result, the Government of Manitoba established the Manitoba Agricultural College and began advocating gardening as curriculum in schools as an attempt to promote and retain farming knowledge and skills (Ibid., 37). The belief was that rural children would learn and appreciate traditions of agriculture and urban children could learn through hands on methods (Ibid., 37). Schoolyard gardens were generally planted with vegetables and were tended to by the children. With a depression being felt by many in 1912 through rising food costs, the 'Agricultural Act' was passed in 1913 which subsidized agricultural education, as a way to retain the migration from rural people to the city and expand knowledge of agriculture (Ibid., 51).

The focus of gardening would change within the province in the early 1900's.

Figure 3.6. "Teaching in Komarno School, Man. (garden making with students) 1917".



Schoolhouse gardens began selling produce in order to raise funds to be donated to the war effort (Ibid., 61). A shift occurred in the CPR gardens with the onset of WWI, and many of the ornamental gardens were plowed up in order to cultivate produce, which was then used in the CPR dining cars (Von Baeyer 1984, 27). Vacant lot gardens were also promoted at this time. The Department of Agriculture encouraged every able-bodied Canadian turn every available piece of rural and urban land into productive gardens for the war effort (Ibid., 91). If the land was private, owners would often rent plots or the lot for a nominal fee and would give returning veterans plots for free (Ibid., 93). Vacant lot garden organizations would

“only 2,400 garden permits have been issued to date, compared to 3,345 in 1944”

Winnipeg Tribune, June 1, 1945

often hold competitions in order to maintain enthusiasm (Von Baeyer 1984, 95). However similar to the British allotment movement, when the war ended, interest in the CPR gardens, schoolhouse gardens and vacant lot gardening, slowly faded. Interest in urban and rural victory gardens quickly returned as Canada entered into WWII. Vacant lot gardens were reinvented as victory gardens, and were promoted as part of every good Canadian’s civic duty to help with the war effort. Government spending needed to be conserved and victory gardens lowered the need for spending on food and food transport (The Winnipeg Tribune 1945a). On May 4th, 1944, The Winnipeg Evening Tribune touted the importance of productive urban gardens in an article when they stated,

> These wartime gardens produced in the neighbourhood of 115,000,000 pounds of vegetables, a substantial contribution to the Canadian larder. Officials here estimate that in the Greater Winnipeg area over 25,000 Victory Gardens flourished last year.

However, only one year later city plots were down to 2,400 from the 3,345 the year before, and free permits dropped from 275 from 439 (The Winnipeg Tribune 1945b). Like the urban garden movements in Britain, urban gardening in Canada, was largely influenced by periods of war and crisis. It was not until the 1970's and 1980's that people would see the current and impending crisis of environmental degradation that would drive them back to gardens.

3.3 Urban Gardening in North America from 1970 - Present Day

The western world reconnected once again to organic, urban gardening through the environmental movement. Rachel Carson's, *Silent Spring*, published in the early 1960's brought environmental issues to the attention of the general public. People and governments began questioning and reassessing their own chemical dependant lifestyles along with their attitudes towards personal health and the health of the earth.

In the early 1970s, the Government of Canada banned the widely used insecticide, dichlorodiphenyltrichlorethane also known as DDT (Aboriginal Affairs and Northern Development Canada 2011). This chemical was highlighted in Carson's book and caused terrible damage to the environment, animals, fish and contaminated water supplies.

The forgotten connection between gasoline, transportation and food was re-exposed during the oil embargo of 1973. Gasoline prices severely increased and as a result the price of food dramatically rose.

We have continued to use our natural resources at an alarming rate, increased our industrialization, free markets and dependency on chemicals, pesticides and manufactured products. Contamination of our water supplies, air and food has increased as a result of large-scale farming practices (Kirby, 2010, xv). This has caused environmental and health issues to become ever more present and a part of daily realities; concern is motivating people to action. An interest in sustainable, organic, productive urban landscapes has once again grown as environmental and health issues have deepened and awareness has been raised.

Sustainable conscientious designs and policies are now woven into the landscape

Figure 3.7. Composting helps divert organic waste from the landfill and creates fertilizer for the gardens. This compost bin is located at the Orioles Community garden in Winnipeg.



and our lifestyles as we attempt to ward off the impending effects of such issues as, global warming, limited supplies of fossil fuel and potable water, over population and wide spread global food crises. Living sustainably is a very broad and complex goal; however, people are choosing to take small steps in changing their habits and adopting sustainable practices in order to achieve this lifestyle. People are becoming more aware of their place in the global system as well as in the global *food* system. Urban gardening offers one way in which people can make a difference in this global food system and can help people to lead a more sustainable and healthy lifestyle. It is a way for people to resist the corporate food system, which most often supports environmental degradation, consumes valuable

resources and shows little regard for the planet, animals and people (Purchase 2007, 23-25). Urban gardening is a means that can connect many people from different backgrounds, cultures, and income levels, as it deals with food. Food is a basic human need and ***right*** that everyone has in common.

We need food to survive and we need to lead sustainable lives in order for our planet to survive. Local, sustainable, organic and ethically produced goods are now desired and recognized as important. Urban gardening is again recognized as important, and the renewed interest in producing ones own organic, sustainable and healthy food has grown.

3.4 Landscape Architecture and Urban Gardens

Urban gardens typically become more popular when people and communities are in short supply of food and have usually been relegated to otherwise undesirable, “left over” pieces of land. Their creation has therefore largely been an ad hoc grassroots activity, lacking space and funding. These gardens are generally designed and built by the individuals that garden the spaces or by community organizations and volunteers. Gardens are designed to primarily focus on food production, and are designed to allow as many people as possible to garden within a small space. The garden spaces are often very minimally designed with the exception of plot delineations and spaces allocated to include necessities such as composting areas and water access. Productive garden spaces are created with the expectation that each individual plot will be planted and manipulated by the gardener allotted to that space.

This differs greatly from the way in which the majority of landscape architectural projects are designed. Landscape architecture projects are designed for the public to use the space in an intended way that does not typically allow for or encourage manipulation of the space. Although activities and site furnishings may be flexible in these designed spaces, the public is not generally required to plant the space with what they choose or maintain it. Landscape architects therefore have a high level of control over how they intend their designed space to look and how that space will typically be used.

Community gardens are typically restricted due to little or no funding. These tight budget constraints therefore do not allow community organizations the opportunity to seek professional design help as they are unable to pay for services. A lack of

Figure 3.8. An example of a community organization run garden on city owned land. Basic and efficient garden plot layout takes precedence over design.



control over what a “finished” space may look like is also a possible factor that may deter many landscape architects from taking on more productive urban landscape design projects.

Urban garden projects can be a difficult undertaking for designers as there is the added challenge of designing spaces that are entrenched in grassroots development with high levels of community involvement. As a result of these factors there has unfortunately been little design interest or opportunities for landscape architects to participate in the creation of productive urban landscapes. However demand for these landscapes is increasing. With this need and desire for productive landscapes growing, more opportunities emerge for landscape architects to become involved in the design and planning of these spaces.

3.5 Drivers for Productive Urban Landscapes

Productive landscapes have served many purposes over the centuries and their popularity has largely been based on societal and economic trends. Although they have been a consistent part of the urban and rural landscape, periods of high interest have arisen when urban landscapes have been critically needed to produce food in order to mitigate a large scale crisis or issue.

Food and Economic Benefit

The most common reason that people have cultivated urban gardens throughout the centuries has been for a source of food. Whether urban gardens are the main source of food or if they are used as a supplementary source to what is purchased for a household, growing produce has been and continues to be an essential aspect of urban gardening. Selling excess produce to supplement the household income has been another aspect of urban gardening. Urban garden cultivation for food has become less common for many reasons, including a reduction in plot sizes, limited access to outdoor space and a growing cultural dependence on pre-packaged, manufactured and convenience food.

Food prices have steadily increased since the early 21st century (Wiggins and Levy 2008). The current revival in urban gardening can be partially attributed to rising food costs. During an interview conducted in April, 2013 in a small inner city community garden, a group of Winnipeg gardeners indicated that they participate in urban gardening due to the fact that produce, such as root vegetables, has become too expensive for them to buy on a consistent basis. Cultivating a portion of their food has relieved some budgetary constraints. A FAO document titled, *Recent trends in world food commodity prices: costs and benefits* (2011, 11-20), indicates that the rising price of food will continue in the future. As this trend persists, there will be an increased need for the public to access garden spaces and affordable food.

Supporting the development of spaces that allow small-scale food producers to

grow, sell or trade their goods could potentially add great value to the local economy and help to mitigate the effects of rising food costs. Sources and venues that allow customers to conveniently access locally produced goods would encourage these consumers to purchase more locally grown produce.

Valuable Skills and Knowledge

Urban gardening provides individuals with 'hands on' experience in a variety of different areas. Growing plants and maintaining a garden plot is not as simple as planting seeds and letting them grow. Commitment, motivation and effort are required to maintain and have a successful garden. Gaining knowledge about different plants and learning the skills necessary to plant, grow and sustain a garden are invaluable skills, and can also provide individuals with valuable job skills.

This sentiment was demonstrated during a visit to an inner city community garden in Winnipeg in April 2013. Two young families were both receiving their first garden plots. Both parents separately expressed their excitement and expectations that their children would gain a greater appreciation for their food as a result of working in the garden by learning where their food comes from and how it is grown. One parent also expressed desire for the children to learn the lesson that hard work and persistence pays off.

Many urban gardens are part of community run gardening programs, which require that people work, interact and communicate with other gardeners and members of the community. Interpersonal and communication skills can be gained through participation in urban gardening programs. Urban gardens are often places where people of different ethnicities, income levels, ages and genders cross paths. This offers people the opportunity to gain knowledge and an understanding into different cultures and lifestyles. It also allows people to learn the variety of uses

and methods of cultivating plants within these different cultures.

Funding programs and projects that provide individuals with practical gardening knowledge and interpersonal skills can be very beneficial to those individuals, communities and to the local economy where these skills are applied.

Wellness and Community Development

The importance and potential of gardens to improve the health and well being of individuals and communities has been well documented. Studies have been conducted showing that there is, "growing evidence that both passive and active contact with gardens provides psychological, emotional, and social benefits" (Campbell and Wiessen 2009, 46). These benefits can include a reduction in stress and an elevated mood. Actively participating in gardening can also improve an individual's health, as tending and caring for one's garden or allotment space can produce feelings of satisfaction and accomplishment which "often leads to a sustained positive outlook and the personal self-confidence essential for taking proactive measures to care about one's health" (Ibid., 77).

Figure 3.9. Welcoming entrance sign in a permaculture garden in Havana, Cuba.



The Government of Canada suggests that the risk in developing many of the diseases and conditions that affect Canadians can be lowered and/or mitigated through consistent exercise and a healthy diet (Government of Canada, 2013). Although there are many factors that cause conditions such as heart disease, diabetes, obesity and

mental health illnesses, being physically active improves an individual's health and can create a better quality of life. The Public Health Agency of Canada (2012) lists gardening as a great way for senior citizens to remain physically active. Community gardening provides gardeners with a way to be physically active and with a source of economical, fresh, produce.

The garden spaces are often small and close together which makes it easy for contaminants and chemicals to spread. Therefore many urban gardens have strict rules against the use of pesticides. Gardeners are therefore not only able to grow their own organic food, but forced to, avoiding exposure and ingestion of hazardous chemicals through their produce.

Urban gardens also provide people with opportunities to socialize and become involved within their communities. Community gardens can become communal places for people from different backgrounds to meet and interact. This human connection can be a great source of happiness for many people. A group of older gardeners in an inner city community garden in Winnipeg described their enjoyment in gardening as it provided them with something to not just occupy their time, but with something productive to do (Interview with 3 gardeners, April 2013). A pair of young families at another inner city community garden in Winnipeg revealed similar feelings. The young parents articulated that gardening fulfilled their desires to participate in something economical, educational, enjoyable and productive with their children (Interview with 2 gardeners, April 2013).

Associating and participating in something that goes beyond the individual is also very important to peoples feelings of self worth and belonging, "Gardeners report a high degree of personal satisfaction associated with gardening as a hobby but they also derive satisfaction as they see their efforts to be an important part of a neighborhood resilience…" (Campbell and Wiessen 2009, 76). Gardeners may

Figure 3.10. An inviting spot in a community garden in Spence neighbourhood, Winnipeg, provides gardeners and area residents with a space to interact.



also find pleasure in being involved in their community on a city scale and not just within their immediate community. During a presentation at the University of Manitoba on urban gardening in November of 2012, one Winnipeg gardener who did not garden within the community he lived, expressed his delight in gardening in another part of the city and getting the opportunity to visit and enjoy other parts of the city.

Increasing the opportunities and spaces in which people can passively or actively interact with gardens can add to the sustained benefits that these spaces can bring to individuals, as well as to communities and to a sense of belonging.

Sustainability and the Environment

Figure 3.11. Varied crops in the organoponico "El Cachon" provide a consistent harvest of produce for residents of the Cojimar suburb in Havana, Cuba. Organoponico's are organic urban agricultural developments.



The benefits of productive urban landscapes extend to the environment as well. The effect of large-scale industrialized farming has greatly added to the degradation and destruction of the environment due to this dependence on large, heavy machinery, pesticides, chemical fertilizers, genetically modified seeds and large-scale monoculture production. These effects described by Graham Purchase, include, "... large-scale soil erosion, simplification and poisoning of much of the world's most fertile land" (2007, 22), furthermore, Purchase explains that,

> Vast tracts of land are given over to production of one strain of a single crop, thus necessitating the increased use of chemicals in order to control large-scale infestations of fungus, weeds and insects which

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> Vast tracts of land are given over to production of one strain of a single crop, thus necessitating the increased use of chemicals in order to control large-scale infestations of fungus, weeds and insects which accompany large-scale agro-industrial monoculture of this kind. (2007, 22).

Agricultural production accounts for the majority of the water consumed on the planet, "approximately 70 per cent is used for growing crops on irrigated lands" (Black 2004, 49). The desire to grow what is most profitable often results in crops requiring excessive amounts of irrigation, pesticides and fertilizers. Environment, climate and soil conditions are not seriously considered, resulting in contamination and over consumption of the worlds most important non-renewable resource, water. This type of farming adheres to the neoliberal system of thought, which only considers what must be produced in order to receive the highest return in profit. These farming methods and practices disregard the planet and ignore the rights of people and animals.

Productive urban landscapes can be a sustainable and environmentally ethical way of producing food. Organic farming and gardening practices tend to use sustainable growing methods such as: composting, vermicomposting, drip irrigation and passive water harvesting, all of which help to retain and better the quality of the soil and earth. Many small-scale farms eliminate the need for less high polluting,

Figure 3.11. Water harvesting system at a Winnipeg community garden site.



fossil fuel consuming machinery as the smaller farm size allows for manual and animal powered methods of cultivation. This eliminates the various effects of soil compaction brought about from heavy machinery, including a higher need for fertilizers, increased amount of water for irrigation, nutrient leaching and runoff. It is in the best interest of the gardener to enrich the soil in order to cultivate a better quality of produce. As space tends to be limited in small-scale farming and urban gardening, it is also in the gardeners' best interest to cultivate a variety of plants in order to receive a long and steady harvest of food throughout the growing period. This method of plant diversity also helps to mitigate plagues and pests from destroying an entire garden or harvest.

Locally produced food also ensures that non-renewable energy sources are not depleted in the transport of food from source to table. Much of the food from the grocery store has traveled thousands of miles and is often shipped multiple places before arriving at the grocery store. Locally grown food does not have to travel as far from the garden to consumption.

3.6 Case Studies: Examining three Urban Landscapes

Bradner Gardens Park in Seattle, Washington, Wood Street Urban Farm in Chicago, Illinois and Organoponico Vivero Alamar in Havana, Cuba are all examples of thriving urban gardens.



Figure 3.12. Seattle



Figure 3.13. Havana



Figure 3.14. Chicago



FIgure 3.15. Havana



FIgure 3.16. Chicago



Figure 3.17. Seattle

These productive urban landscapes are successful because they provide their communities with a wide range of amenities and resources.



Figure 3.18. Seattle



FIgure 3.19. Havana



Figure 3.20. Chicago



Figure 3.23. Seattle



FIgure 3.21. Havana

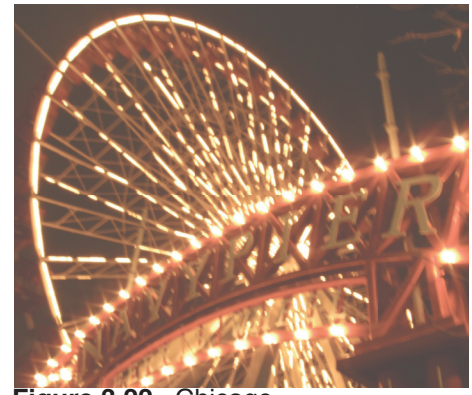


Figure 3.22. Chicago

Figure 3.13, Figure 3.15, Figure 3.19 and Figure 3.21. Images of Havana, Cuba

Figure 3.14, Figure 3.16, Figure 3.20 and Figure 3.22. Images of Chicago, Illinois.

Figure 3.12, Figure 3.17, Figure 3.18 and Figure 3.23. Images of Seattle, Washington.

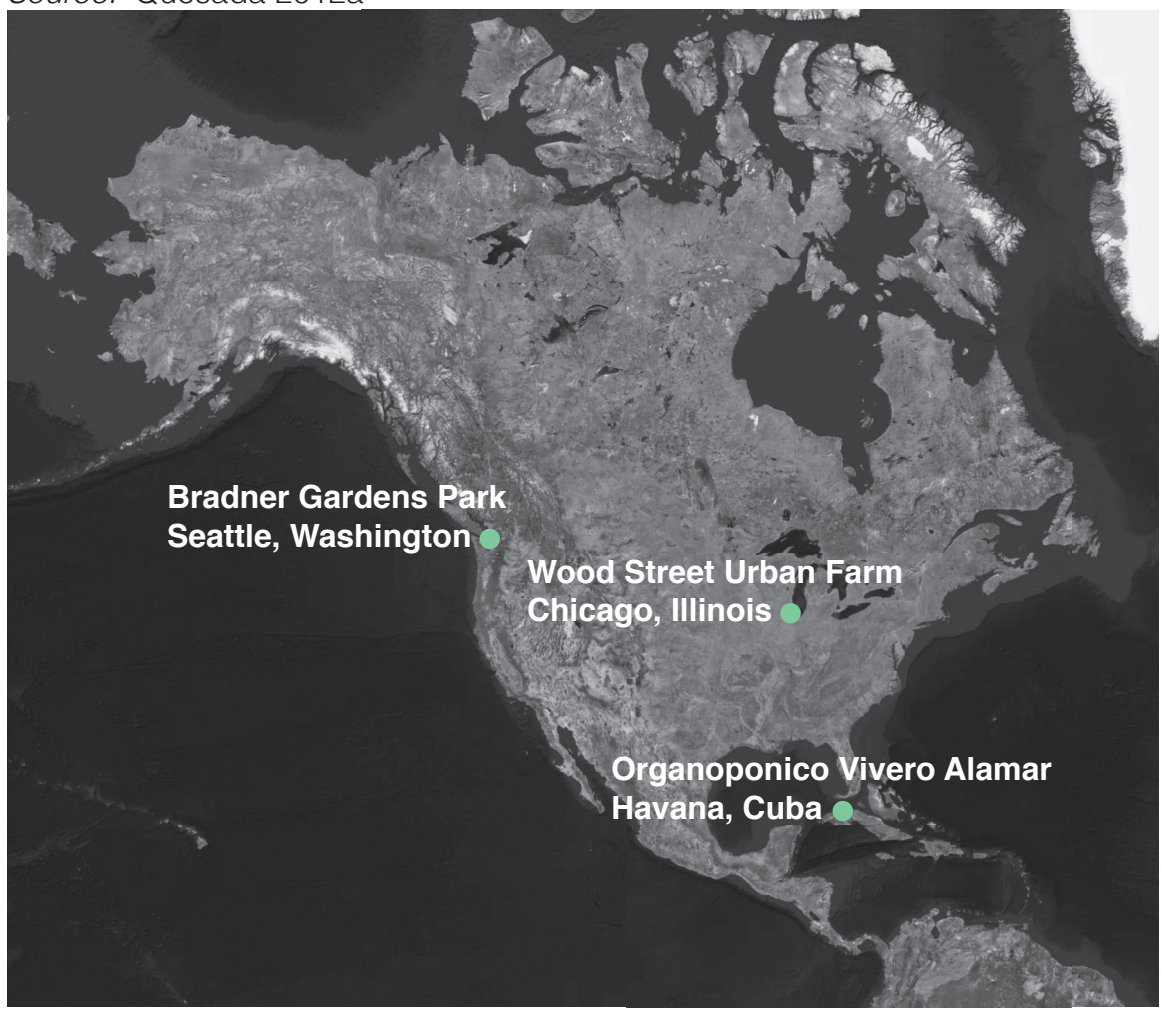
Bradner Gardens Park is an example of a garden that has a high degree of community involvement and support. The focus of the garden and gardeners has shifted from food production to largely include community events and multi-purpose park space.

Wood Street Urban Farm is encouraging revitalization in a struggling community. This urban farm is entrenching itself within the community by offering job training opportunities and a source of fresh food.

Organoponico Vivero Alamar offers a model for a large and highly functioning urban farm. The farm also provides residents of the community with employment opportunities, produce, and prepared food along with a place to socialize.

Looking closely at these three very different urban gardens in three very different settings, can help us to understand just how important and how much of an effect urban gardens can have on communities and individuals. There is a very powerful potential for urban gardens to transform, enrich, reconnect and strengthen communities while providing gardeners and non-gardeners with a source of food and green space.

Figure 3.24. Case Study locations
Source: Quesada 2012a



Bradner Gardens Park

FIgure 3.25. Location of Bradner Gardens Park.
Source: Quesada 2012a



Project Name: Bradner Gardens Park

Neighborhood: Mount Baker

Location: 29th Avenue South & South Grant Street, Seattle, U.S.A

Designers: Barker Architects, Scott Carr of SHED Architects, University of Washington

Neighborhood Design/Build Studio

Construction/Completion: 1998 - 2003

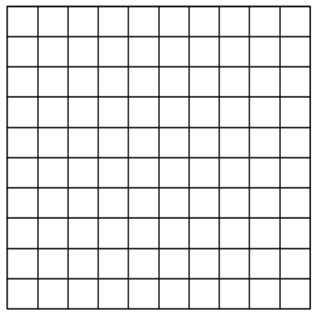
Size: 0.65 Hectares

Number of Plots: 43 (3m x 6m)

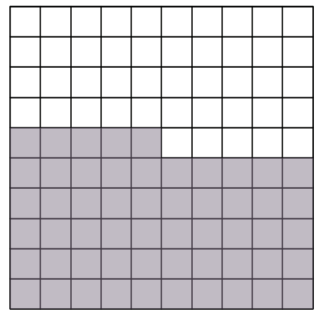
Growing Space: 0.08 Hectares

Managed By: Friends of Bradner Gardens Park with Seattle Department of Parks and Recreation

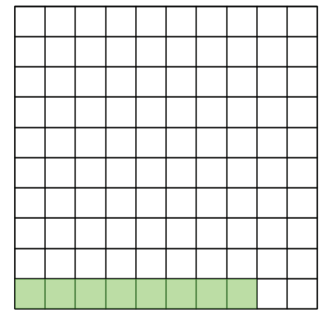
Figure 3.26. Image comparing total area and growing area of Bradner Gardens Park to one hectare of space.



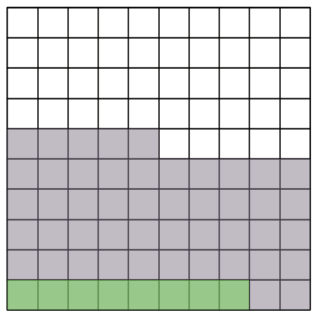
1 Hectare



0.65 Hectares
Total area of Bradner Gardens Park



0.08 Hectares
Total growing area in park



Total area of Bradner Gardens Park vs Growing area of Bradner Gardens Park

Context

Bradner Gardens Park is situated in the historically significant and unique neighborhood of Mount Baker. The land, originally purchased by the Hunter Company in the early 1900's, is located just southeast of downtown Seattle and borders the west side of Lake Washington (Historic Seattle Preservation and Development Authority 1975). The Hunter Company began plans to develop the area into an exclusive suburban development, hiring the Olmstead Brothers to design the plan of Mount Baker at the turn of the 20th Century (Ibid.). Mount Baker offered enough of a distance from the city to be suburban and yet a close proximity for commuters, which appealed to many, as cities were sprawling at this time due to vehicular and railway development (Ibid.). Construction of the "district with character" began in 1907 and by 1910 the neighborhood was an exemplary model of urban planning through its integration of living space, streetscapes and landscape (Ibid.). Flowing canopied walkways, an abundance of vegetation, park space and panoramic vistas have kept people flocking to purchase homes in the area since its development. During the 1960's, 1970's and into the 1980's the community joined together to rally and voice concerns on issues ranging from inequality to the threats to the neighborhood and the local environment (Ibid.). Currently the community is ethnically diverse and made up largely of single family detached housing ranging from middle class to million dollar houses. Mount Baker is an evolving neighborhood that fosters engaged residents, a strong sense of community and remains a highly coveted place to live in Seattle (Nogaki, 2011).

Project Background + History

The development and evolution of Bradner Gardens Park is discussed in detail in the book, *Greening cities growing communities: learning from Seattles urban community gardens* by Hou, Johnson and Lawson (2009).

The 1.6 acre lot was originally purchased by the city of Seattle in 1971 (Ibid., 110-111). In 1987 a community garden was initiated so residents of the local community and other communities, could garden for food. It catered particularly to Mien immigrants from Laos. A neighborhood familiar with local activism, The Friends of Bradner Gardens was formed in 1994, when it was discovered that the city planned to destroy the community gardens in order to construct a housing complex (Ibid., 111). An initial attempt to stop the construction of the building complex was rejected despite the community group's lobbying, petitioning and being awarded a grant for $4500 to hire a local landscape architect from the Small and Simple Projects Fund from the Department of Neighborhoods in 1995 (Ibid.,110-111). The Friends of Bradner Gardens in collaboration with other activists from Seattle drafted a "Protect our Parks" initiative which laid out a policy for the city addressing park space and distribution to the selling or removal of the spaces (Ibid.,110-11). The Protect our Parks initiative received 24,000 signatures of support and finally convinced the city to retain the park and even adopt the "Protect our Parks" initiative as a city ordinance (Ibid.,110-111). After two years of battling with the city, the Bradner Gardens Park was officially approved for use in 1997 (Ibid., 110-11).

Site Analysis

Pedestrians, cyclists and other non-motorized modes of transportation abound in the neighbourhood, as there are many parks, park systems and vegetated streetscapes. The Bradner Gardens Park is located on a small plateau on one of the main ridges that runs through Mount Baker. The park, which contains personal gardening plots, meandering walkways, sculptures, a native plant garden, communal building, an outdoor gathering space and even a basketball court, is an example of a truly mixed use space serving a multitude of functions, activities and people. Arbor entrances invite passersby and gardeners alike to enter the park (Hou,Johnson and Lawson 2009, 111-122). Entrances and parking are on both the west and east sides. Pedestrians can also enter the space through the south edge of the park. Upon entering through the southeastern corner, pedestrians move through an ornamental demonstration garden onto an open lawn, to be greeted by a view of the downtown skyline (Ibid., 111-122). A strong axis links both east and west side entrances, guiding individuals through to the center of the park. People entering through the west side are led by a series of spaces including, a play zone, demonstration garden, basketball court and community building which contains a storage facility, meeting room and a mosaic tiled public restroom. Those who enter the park through the east arbor move between a demonstration lawn and private garden plots, and are lead into the center of the park. This central point contains the “Leaf Pavilion” which serves as the main outdoor gathering space, an important feature for the gardeners (Ibid., 111-122). A children’s garden and

organic growing demonstration garden are also centrally located and encircle the pavilion. Immediately south of the Leaf Pavilion, rows of private plots provide a colorful view for individuals gathering or seeking respite in the pavilion's shade. The north end of the park serves dually as a native plant habitat and acts as a screen between the park and the neighboring residences (Ibid., 111-122).

Design + Program Element

Barker Landscape Architects developed a master plan for Bradner Gardens Park through design workshops and public meetings with the current gardeners, activists and the Mien gardeners (Hou,Johnson and Lawson 2009, 111-113). The park evolved between 1998 and 2003 as different sections were designed and built through the support of professionals, architecture students, activists and residents. Inclusivity was an important aspect of the overall design concept (Ibid.,111-122). Pathways that are compliant with the Americans with Disabilities Act (ADA), personal garden plots, a basketball court and open lawn space all speak to the desire for a main feature of the park to reflect inclusivity and the desire of the community for everyone to be able to use and enjoy the Bradner Gardens Park (Ibid., 111-113). The aspect of a highly inclusive space aided the Bradner Gardens Park design team in merging the functions of community garden and park space, another overall design feature that was important to the community (Ibid., 111-122). Due to the desire to include so many different elements and functions, a metaphor of a plant structure was used to add cohesion to the overall design of the park space (Ibid., 111-122). Although many of the structures have been a collaborative effort between the community and volunteer groups, the highly artistic feel and look of the park allows for flexibility for the park to evolve naturally over time based on the gardeners and community (Ibid., 111-122). Many of the gardeners and community members add their own artistic elements to the garden. The metal fence surrounding the basketball court is one example of this, as it was designed and decorated with antique farming equipment by volunteers (Ibid., 110-122).

Maintenance + Management

The park is largely managed by the Friends of Bradner Gardens park. Once a month representatives from each partner volunteer organization meet with the Friends of Bradner Gardens and a program of the City of Seattle's Department of Neighborhoods, called the, Seattle P-Patch Committee, (Hou,Johnson and Lawson 2009, 115-118). Each committee is involved in the programming and for the maintenance of their area of the park (Ibid., 115-118). Potlucks, fundraisers and work parties have also been organized by neighborhood volunteers in order to provide social, financial and physical support for the development of the Park (Ibid., 115-118). This level of community involvement requires a great deal of planning, organization and commitment from volunteers. The volunteers who take on the roles of organizers and managers for the park have often felt a level of stress and burden by the responsibility and amount of work expected of them (Ibid., 118). Gardeners must also adhere to the Seattle P-Patch regulations and each pays a fee ($50) annually that is used to pay for water and maintenance costs (Ibid., 118).

Uniqueness

The community has made an effort to reuse existing materials and existing buildings in order to promote sustainability in the construction and operating process. A photovoltaic system has been integrated into the roof of the community building, generating a net surplus of power; a windmill on the site is used to re-circulate site run-off into a small stream bed and pond and the community building contains 3 water collection storage tanks (Ibid., 120-122). This level of thinking and action has also been integrated into the material and vegetation choices within the garden; xeriscape plantings and ecoturf have been used where necessary along with recycled plastic and sustainably harvested lumber (Ibid., 120-122).

Conclusion

The success of the Bradner Gardens Park as a truly multipurpose park and community garden can be attributed to the hard work and commitment of dedicated individual volunteers, volunteer organizations, the city of Seattle and the residents of Mount Baker neighborhood. Also contributing to the succes of the park is a the carefully considered designed overall plan integrated with the desire for the Bradner Gardens Park to be an inclusive space with a diversity of uses. Due to gentrification in the neighborhood many of the original Mien gardeners, for whom the garden was developed, have moved out of the area (Hou,Johnson and Lawson 2009, 120). Six original Mien gardeners remain. Although they no longer live in the neighbourhood, they choose to continue gardening in Bradner Gardens Park to remain with the friends they have made over the years (Ibid., 120).

The shift in residents of the neighbourhood has also changed the focus of the space from a largely food producing garden to more of a mixed-use and recreational park for gardeners and visitors alike. Despite the changing neighborhood and primary role the garden plays in the gardeners lives, support for the park is consistent and is expressed in fundraising, grant proposals and the interest of the residents in learning about gardening through the many demonstration gardens. This support and commitment for the park indicates the importance of the Bradner Gardens Park to the residents of the Mount Baker community (Ibid., 108-122).

Wood Street Urban Farm

Figure 3.27. Location of Wood Street Urban Farm.
Source: Quesada 2012a



Project Name: Wood Street Urban Farm

Neighborhood: Englewood

Location: 5814 S. Wood Street, Chicago, U.S.A

Designers: Growing Home and SHED Studio

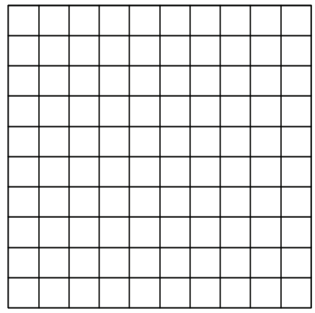
Construction/Completion: 2006 - 2009

Size: 0.27 Hectares

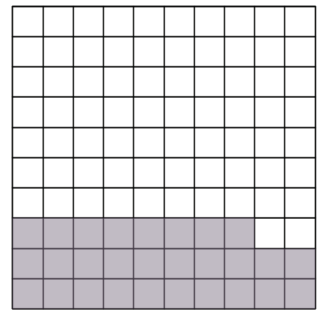
Growing Space: 0.092 Hectares

Managed By: Growing Home

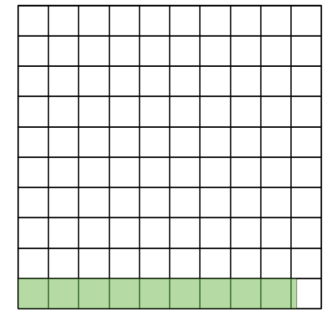
Figure 3.28. Image comparing total area and growing area of Wood Street Urban Farm to one hectare of space.



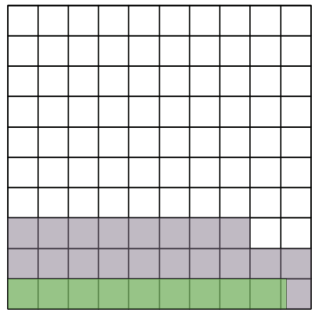
1 Hectare



0.27 Hectares
Total area of Wood Street Urban Farm



0.092 Hectares
Total growing area in farm



Total area of Wood Street Urban Farm vs Growing area of Wood Street Urban Farm

Context

Wood Street Urban Farm is located on the south side of Chicago in the Englewood neighborhood. In 1852, the present day neighbourhood of Engelwood was known as Junction Grove, a swampy area located outside the city (Stockwell, 2005). Junction Grove developed to include Chicago State University (then Cook County Normal School), a large community park and a high school, and was absorbed by the city of Chicago in 1889 (Ibid.). The expansion of Englewood was booming at the turn of the century with the addition of trolley lines, street railways and suburban trains, to downtown Chicago (Ibid.). The construction of apartment buildings and the development of Englewood's shopping area at Halsted Street and 63rd, helped to encourage movement into the area (Ibid.). By 1920 the population was 86,619 (Ibid.). In the 1940's Englewood experienced a decline in real-estate values along with an inability to redevelop the neighborhood due to WWII and the expanding "Black Belt", a term "commonly used to identify the predominately African American community on Chicago's South Side" (Ibid.). The black belt was a form of racially segregating people by neighbourhoods. Englewood was part of this "black Belt" which would ensured that the future of the area would continue to see a decline in housing stocks and investment in the community, as loans or investment opportunities were rarely granted to the residents and businesses of these areas. The population was 97,000 in 1960 but dropped to 40,148 in 2009 (Ibid.). Residents in the neighborhood face a multitude of challenges including a high poverty rate and high unemployment. An increase in criminal

activity has discouraged businesses, including grocery stores from opening in the neighborhood. Englewood is a community that is attempting to rebuild. In 1999, a $256 million dollar revitalization plan was set in place to help regenerate the neighborhood (Levin, McKean and Shapiro 2004).

Project Background + History

'Growing Home' began in 1992 when the Chicago Coalition for the Homeless acquired federal surplus land to create an urban garden. Growing Home,

> operates a transitional employment program for Chicagoans who face barriers to entering the workforce from homelessness, prior incarceration, or substance abuse. It offers participants six months of farming employment while training them in general job-readiness and organic agriculture skills. (Gorgolewski, Komisar and Nasr 2011, 98)

In 2005, Harry Rhodes, a staff member at Growing Home, initiated this process in an attempt to redevelop Englewood through urban agriculture. The idea was that urban agriculture could provide the neighborhood with a multitude of necessary amenities including a place to access fresh produce and employment opportunities including job training and preparation skills (Ibid., 98). That same year Growing Home purchased the Wood Street Urban Farm site, approximately 2/3 of an acre, for $1 from the city of Chicago (Ibid., 99).

Site Analysis

Englewood is a mix of industrial and residential, with a majority of the residential areas concentrated to the center of the neighborhood and circumscribed by industrial parks and rail yards. The site of the Wood Street Urban Farm is located on the west side of Englewood, among a high number of community parks, large vacant lots and a very large rail yard. The farm is approximately 80m x 30m and roughly half of a small city block. There is one entrance into the Farm, located on the south side of the site through Wood Street. This entrance is also used to access a building located within the farm that functions as a classroom and offices. On the east side of the site, which faces a backlane and the backs of residential homes, ornamental plantings have been included in the design along with a living wall and flower boxes (Gorgolewski, Komisar and Nasr 2011, 98-99). A vegetated overpass, which extends into an elevated walkway, runs parallel with the long west side. The edible fence, consisting of fruit trees and bushes has been planted along the stretch of this west side boundary (Ibid., 98-99).

Design + Program Elements

Growing Home worked with several collaborators in the development of Wood Street Urban Farm (Gorgolewski, M., Komisar, J. and Nasr, J., 2011, 99). One of these collaborators was SHED Studio, a Chicago based design studio striving for Sustainable, Humane, and Experimental Designs and imparted these elements into the final design (SHED Studio). Mike Newman and Rashmi Ramaswamy of SHED Studio played a particularly dominant and integral role in the project (Gorgolewski, M., Komisar, J. and Nasr, J., 2011, , 98). Following the purchase of the Wood Street site, Growing Home and SHED Studio worked together rigorously for the next six months to plan and develop the project. The project was completed within two Phases. Phase 1 began in 2006 and was focused on the farm areas. Approximately three quarters of site is dedicated to farm space, all of which is located towards the rear of the space. Three solar heated hoop house greenhouses make up the majority of the farm space, totalling 780 square meters of covered growing space (Ibid., 99). There is also approximately 140 square meters of productive growing garden space. This portion of the project was completed in 2008. Phase 2 was scheduled for completion in 2009 and focused on ornamental plantings, bounding vegetation and the building located at the entrance of the Farm. The entrance building contains administrative offices and classrooms, and also includes spaces to clean and pack the produce (Ibid., 99). The main entrance area also doubles as a produce stand between April and October, selling fresh Wood Street Farm produce for neighborhood residents (Ibid., 99).

Maintenance + Management

Growing Home employees, along with paid Growing Home interns, work together to maintain Wood Street Urban Farm. Interns participate in every aspect of the farm, including selling produce at farmers markets, weeding, planting, grounds maintenance, giving tours and helping with special events (Growing Home, 2013).

Uniqueness

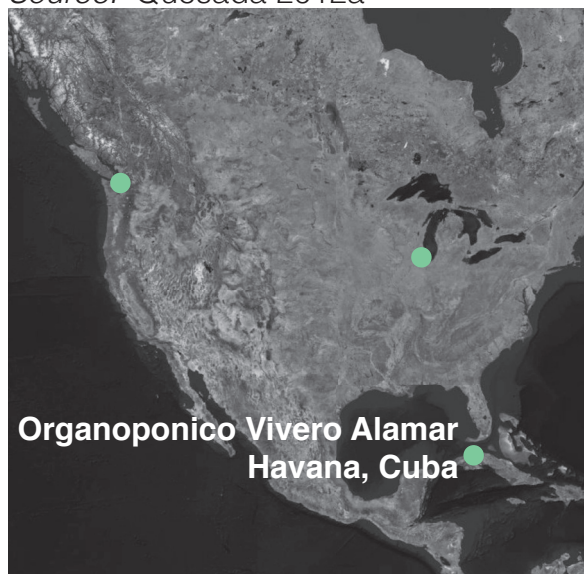
Along with the desire to provide residents of Englewood with fresh food, the Wood Street Urban Farm is devoted to helping residents of Chicago who face challenges in finding work by assisting in the development and experience to do so. The program at the Wood Street Urban Farm is a transitional job framework where interns working at the farm acquire practical skills, readiness training and are helped with job placement, along with receiving daily classes in horticulture, nutrition, food, writing skill and other topics (Growing Home, 2013). The farm provides an opportunity for people to gain skills and training in order to acquire a job, while improving individual lives and the community as a whole.

Conclusion

Community development and improvement was the driving force behind the Wood Street Urban Farm. The farm has been integrated into the Englewood neighborhood through its importance as a source of high quality, fresh produce in a neighborhood that was severely lacking nourishing food, and also due to the community involvement by way of its transitional job model and intern training. The Wood Street Urban Farm offers Englewood with access to fresh produce, employment and training and also provides the neighborhood with the opportunity to create a strong and healthy community.

Organoponico Vivero Alamar

Figure 3.29. Location of Organoponico Vivero Alamar.
Source: Quesada 2012a



Project Name: Organoponico Vivero Alamar

Neighborhood: Alamar

Location: Alamar, Havana, Cuba

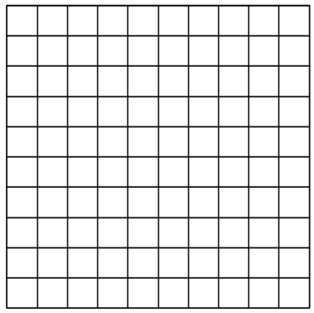
Designers: Miguel Salcines Lopez and Cooperative

Construction/Completion: 1997

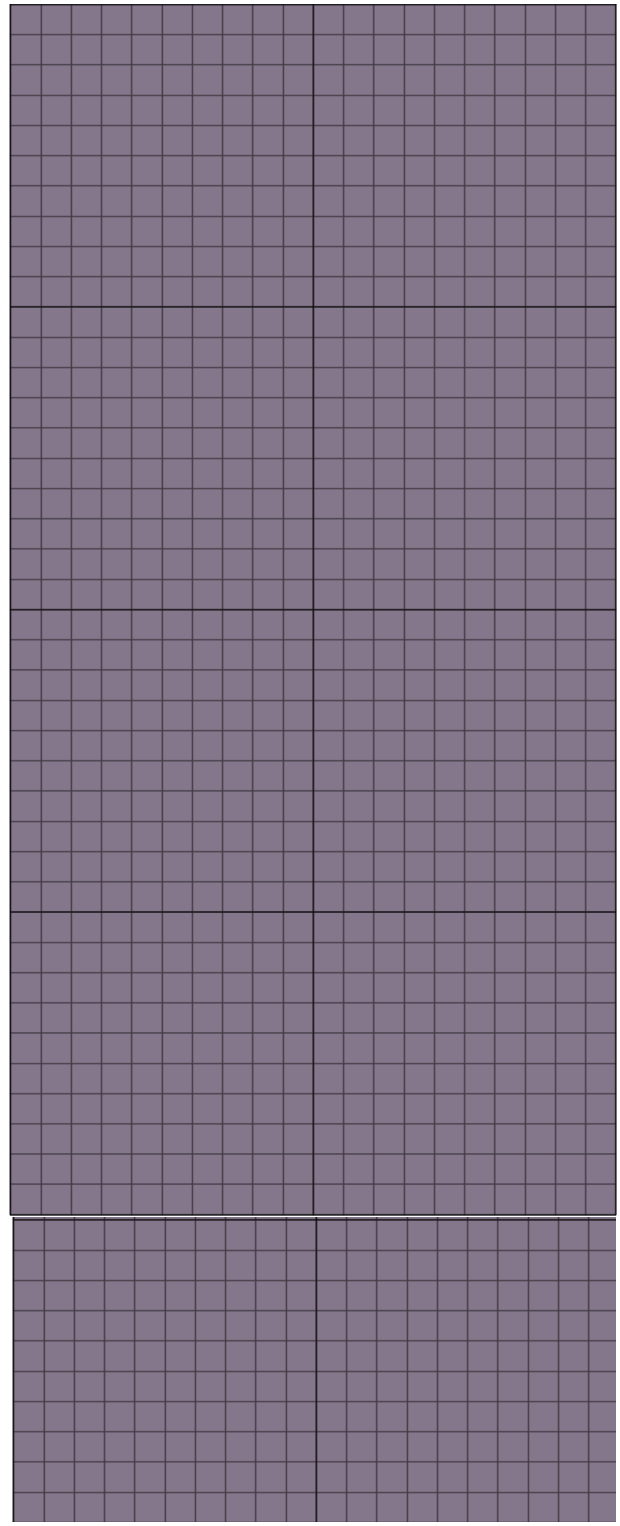
Size: 10 Hectares

Managed By: Miguel Salcines Lopez and Cooperative

Figure 3.30. Image comparing total area of Organoponico Vivero Alamar to one hectare of space.



1 Hectare



10 Hectares Total area of Organoponico Vivero Alamar

Context

“in 1989 a typical Cuban averaged approximately 3000 calories a day, and by 1993 that dropped to 1900 calories daily”

(McKibben 2007, 71-72)

When the Soviet Union collapsed in 1989, Cuba lost its main source of oil and 80% of its foreign trade market (Cruz and Sanchez Medina 2001, 3). The United States immediately increased their embargo restrictions against the country. The following years lead to a dramatic and fast fall in exports and importation of food, oil, agricultural equipment and fertilizer (McKibben 2007, 71-72). Cuba entered into a “peak oil crisis” and food crisis; this period in Cuban history is known as the “Special Period”. Unable to trade and import on the scale that the Cuban economy had depended upon, and unable to farm on the large industrial scale, food scarcity on the island was very high. In 1989 a typical Cuban averaged approximately 3000 calories a day, and by 1993 that dropped to 1900 calories daily (Ibid., 71-72).

No longer able to depend on other countries for food the Cuban government and people realized that they must grow their own food. A return to small-scale organic farming methods had to be relearned and adopted across the country (Faith 2006). Examples of this new form of agriculture have now spread all over the island, and in particular have also taken root in the capital city of Havana. The city of Havana has a population of approximately 2 million people and grows nearly its entire supply of vegetables through these urban and peri-urban organoponicos, around 3,000 tons of vegetables (McKibben 2007, 75).

Project Background + History

Organoponico Vivero Alamar began as a small 800 square foot farm and grew into the 10 hectare farm it now is (Organoponico Vivero Alamar 2013). The farm was founded by Miguel Salcines Lopez in 1997 following the collapse of the Cuban economy and during the latter part of the Special Period (McKibben 2007, 74). Lopez was originally an agronomic engineer working for the Minister of Agriculture when he took on the role of developing the farm (Organoponico Vivero Alamar 2013). Lopez describes in the book, *Deep Economy* by Bill McKibben, that the farm was developed on land that was originally intended to be used for a hospital and sport complex, however when the food crisis hit, the government decided that agriculture was a more pressing issue (2007, 74). During the mid to late 1990's there was an increase in self-employment and cooperatives in Cuba as the government began giving away upwards of 2,600,000 hectares of state owned land for agricultural purposes (Cruz and Sanchez Medina 2001, 6).

Site Analysis

The Organoponico Vivero Alamar is a large 10 hectare peri-urban site located in a highly residential area. Alamar is a small suburb of Havana located about 10km east of Old Havana. The area was, “a planned community built outside Havana at the height of the Soviet glory days” (McKibben 2007, 73). The era is evident as many of the dwellings are multi- storey pre-cast concrete apartment buildings (Ibid., 75). The farm is located in the center of this community and is encircled by these large apartment buildings. The Cojimar River also passes by the farm at a close proximity to its west side. It is also bound on its south and east side by two major roadways through the community, and a local road on its west side, making for easy accessibility to and from the farm.

Design + Program Elements

The Organoponico Vivero Alamar was designed to be an intensive self-sustaining urban farm intended to produce healthy food for the community (Organoponico Vivero Alamar, 2013). The farm grows a variety of fruits, vegetables and herbs, producing approximately 300 tons of produce a year and selling food to approximately 50,000 people (Ibid.). All of the animals raised on the farm are used for the growing of produce, for manure and physical labor (Ibid.). Oxen are used to plow the fields; worms are used in vermiculture, to produce natural fertilizer, biopesticides and other organic alternatives to chemicals, are cultivated and used on the farm for increased productivity (Ibid.). Three million seeds, or nearly 90 percent of the vegetation planted on the farm, are started in the farm's greenhouses before being transplanted into the outdoor fields (Ibid.). One of the most important aspects of the farm is the market. Residents of the area are able to not only purchase fresh, organic produce, but the farm also produces, pickled vegetables, hot tomato past, dried herbs, spices and sugar cane juice (Ibid.). The market and farm have also provided many residents in the area with well-paid stable employment and the opportunity to be a part of the cooperative. Participating in a cooperative allows employees to partake in the decision-making for the operation. The farm will also provide private landscape help to those who request it and will even provide haircuts for neighborhood residents (Ibid.).

Maintenance + Management

Organoponico Vivero Alamar is a cooperative employing 160 people that are involved in different aspects of the farm (Organoponico Vivero Alamar, 2013). Although the land is not owned by the cooperative and is owned by the state, the full responsibility of the land maintenance and food production belongs to the cooperative (McKibben 2007, 74). Due to the political status of the country the cooperative must produce a certain amount of income from food and food products sold at its market, and is responsible for providing the government with this quota (Ibid., 74). Anything sold over and above the amount the government requires, is evenly distributed amongst the cooperative members (Ibid., 74). The wages earned in the Organoponico Vivero Alamar are considered to be very good and are much higher than those employed directly by the government (Ibid., 75).

Uniqueness

Organoponico Vivero Alamar is a beautiful urban landscape that is also a highly productive, cooperative farm. It provides neighborhood residents employment opportunities and also provides the community with produce and other food goods. The farm makes an effort to participate in other community aspects such as teaching children and youth about the benefits of organic, sustainable farming and how they can grow and maintain their own gardens (Organoponico Vivero Alamar, 2013).

Conclusion

After the rapid decline of the Cuban economy following the collapse of the Soviet Union, Cuba faced a food and peak oil crisis. Embargoes and trade restrictions prevented agricultural imports including tractors, fertilizers, oil and pesticides from reaching the country. The country had to return to organic, small-scale farming practices. Every available piece of land was converted into organoponicos in order to feed the country. Organoponico Vivero Alamar is a strong and thriving example of one of these necessary farms that emerged out of the Special Period. The farm provides the government with food and money for the city and also provides food and other food products for the suburb of Alamar. Along with these food items the farm also provides the community, schools and children education and knowledge about sustainable farming and provides neighbors with assistance for their private gardens.

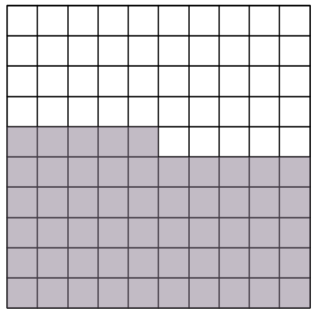
Case Studies Summary

Figure 3.31. This image helps to visually compare the similarities and differences of the three community gardens that were studied

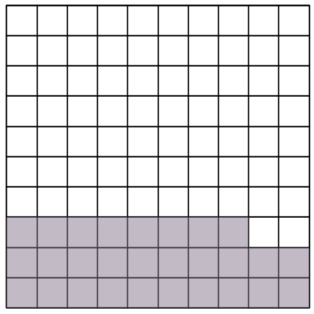
	Bradner Gardens Parks	Wood Street Urban Farm	Organoponico Vivero Alamar
Community Involvment	●	●	●
Source of Food for Gardeners	●	●	●
Source of Food for Community		●	●
Source of Employment		●	●
Communal Park/Graden Space	●		
Landscape Architect or Architect Collaboration in Design	●	●	

Although these three examples of productive urban landscapes are dramatically different, similarities amongst them emerged with respect to how important they each were to the community in which they were located. Each landscape is important to their respective community for a multitide of different reasons, however each is highly involved in their community beyond just gardener involvement. They were all places that are accessed by other members of the immediate community or city as a source of food, employment, knowledge and training or as the spot to meet and socialize. These urban landscapes have become integrated into the lives of individuals and into the structure of the community.

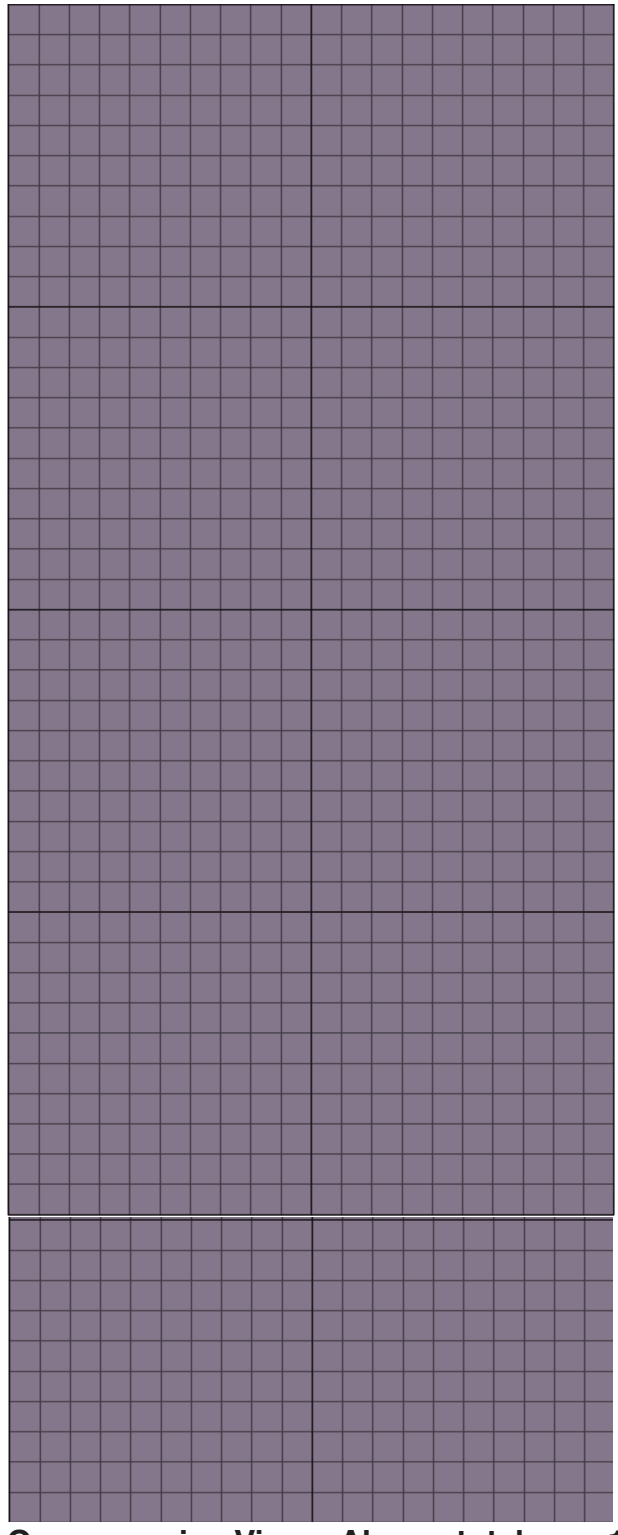
Figure 3.32. Image comparing total area of Bradner Gardens Park, Wood Street Urban Farm and Organoponico Vivero Alamar to one another.



Bradner Gardens Park total area .65 Hectares



Wood Street Urban Farm total area .27 Hectares



Organoponico Vivero Alamar total area 10 Hectares

Conclusion

Historically, the interest in productive landscapes has been inconsistent, however urban gardens have persisted as a part of the urban landscape. Their integration and importance to our daily lives has evolved over the centuries. Although urban gardens have generally been embraced during times of hardship, changes in the global culture have expanded the reason why we garden within a city to go beyond the cultivation of food. The purpose of these spaces has broadened to include reasons such as city beautification, community building, knowledge, personal growth and health.

Chapter 4
Food Systems in Winnipeg, Manitoba

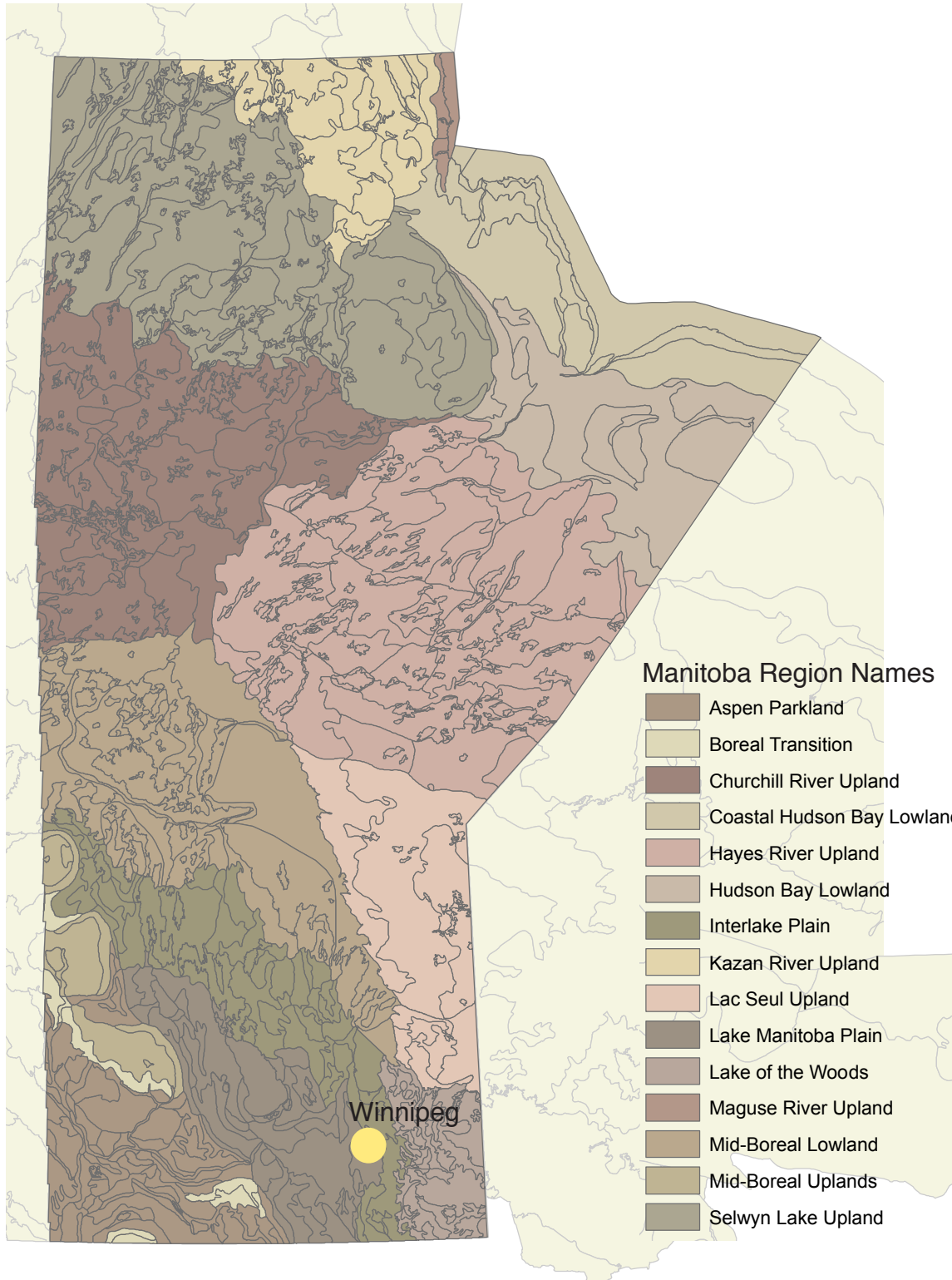
Introduction

Figure 4. A deserted homestead in the Interlake Plains region of Manitoba.



Small-scale farms are slowly disappearing in Manitoba as large-scale farms and agribusinesses continue to monopolize the agricultural land and market. This style of farming reflects the current neoliberal food system and corporate food regime. Manitobans are dealing with many of the challenges associated with this food system including a disappearing small-scale farming population and difficulty in accessing nourishing food. Despite the challenges Manitoba food producers are faced with due to this food system, the province and city has experienced an increase in local markets and venues where people may access local produce.

FIgure 4.1. Map of Manitoba showing its different regions.
Source: Data from Quesada 2013a



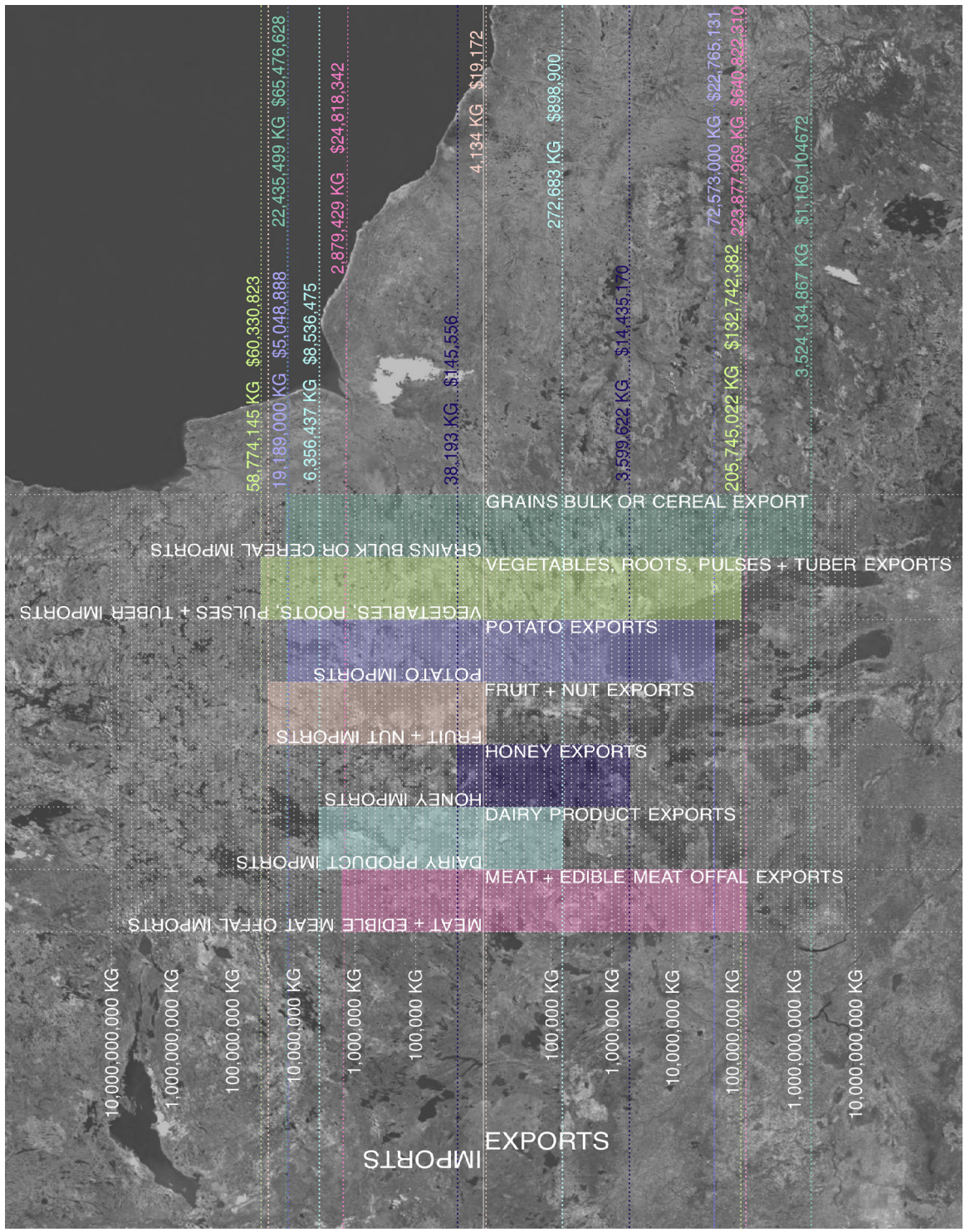
4.1 Large Scale Agriculture

Figure 4.2. Large scale farming in the Interlake Plains region of Manitoba



The large majority of farming in Manitoba adheres to a neoliberal large-scale agribusiness model of agriculture. The pressure exists for farmers in Manitoba to mass produce monocultures of cash crops and sell in enormous volumes in order to make profits as the trend and support continues to develop for large-scale agriculture. This pressure and trend can be seen as "the number of farms in Manitoba dropped by 17% between 2006 and 2011, an average of twelve farms per week over the five year period" (Food Matters Manitoba n.a., 6). This is also indicated as, "the number of farms over 3,250 acres has risen by 12% since 2006. The number of farms under 69 acres, meanwhile has dropped by 29% during the same period" (Ibid., 6). Manitoba's agricultural policy has heavily promoted large-scale agriculture, squeezing out small-scaled farmers and making it increasingly difficult for small farms to compete in the highly commercial and export driven

Figure 4.3. This diagram indicates the value and proportion of food that Manitoba is currently producing and exporting. It also shows the amount of food that Manitoba requires through imports. *Source:* Data adapted from Government of Manitoba 2011 and Quesada 2012b.



market. In April of 2013, *Growing Forward 2 (GF2)*, a five year, $3 billion dollar plan funded by provincial, territorial and federal government of Canada was launched for agricultural programs and services (Agriculture and Agri-Food Canada 2013). This policy framework provides financial support to farmers, specifically stakeholders in the agri-industry to increase, modernization on farms, pesticide use for specialized crops and export expansion (Ibid.). This framework is biased towards promoting and sustaining large stake-holding agribusinesses. Agribusinesses dominate the market and their raw products are often sold to processed and packaged elsewhere in the world.

Figure 4.4 & Figure 4.5. These images describe the distances our produce must travel before it reaches our grocery stores. It also indicates just how far away we are exporting our food.
Source: Data adapted from Agriculture and Agri-Food Canada 2010 and Quesada 2012b.

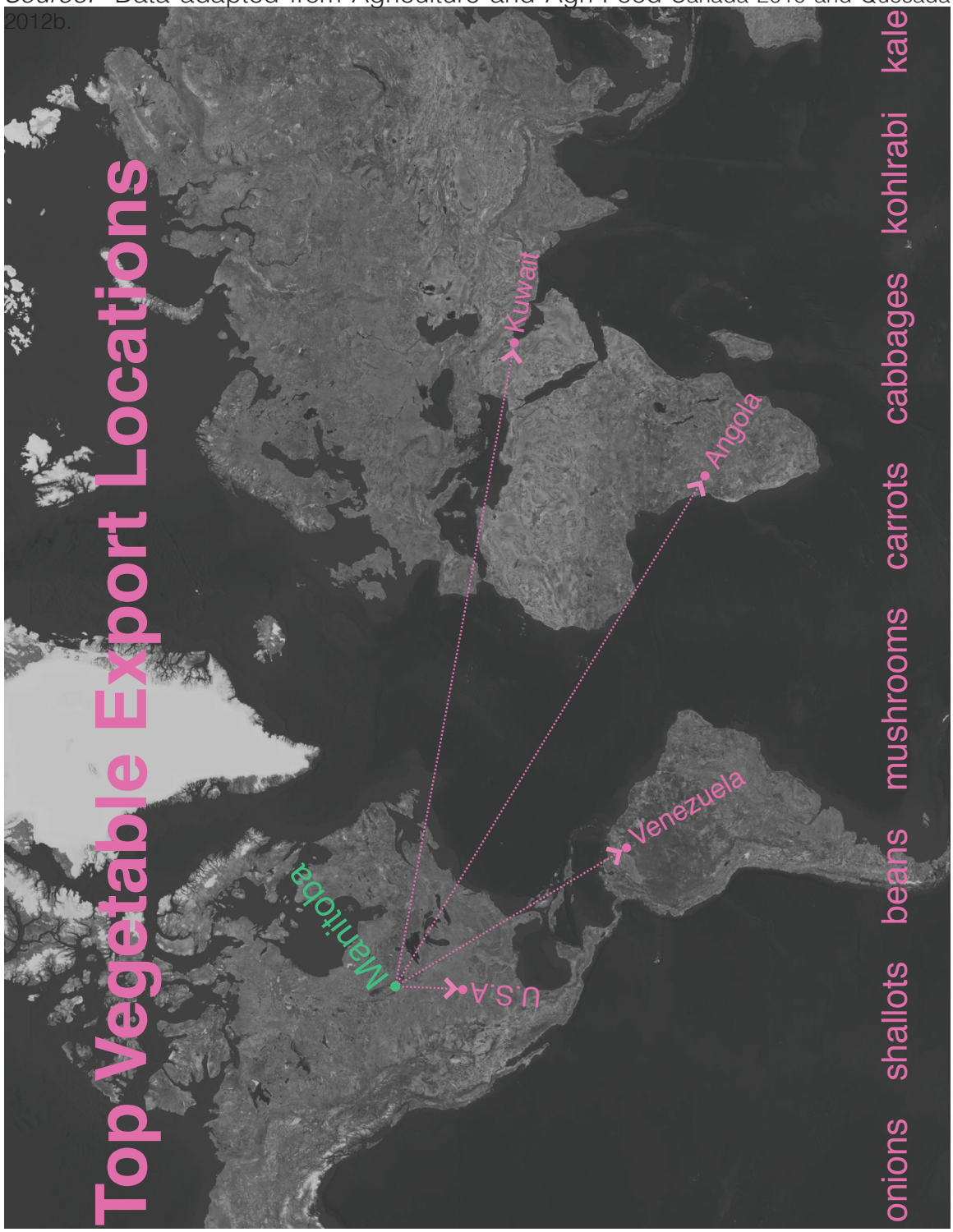
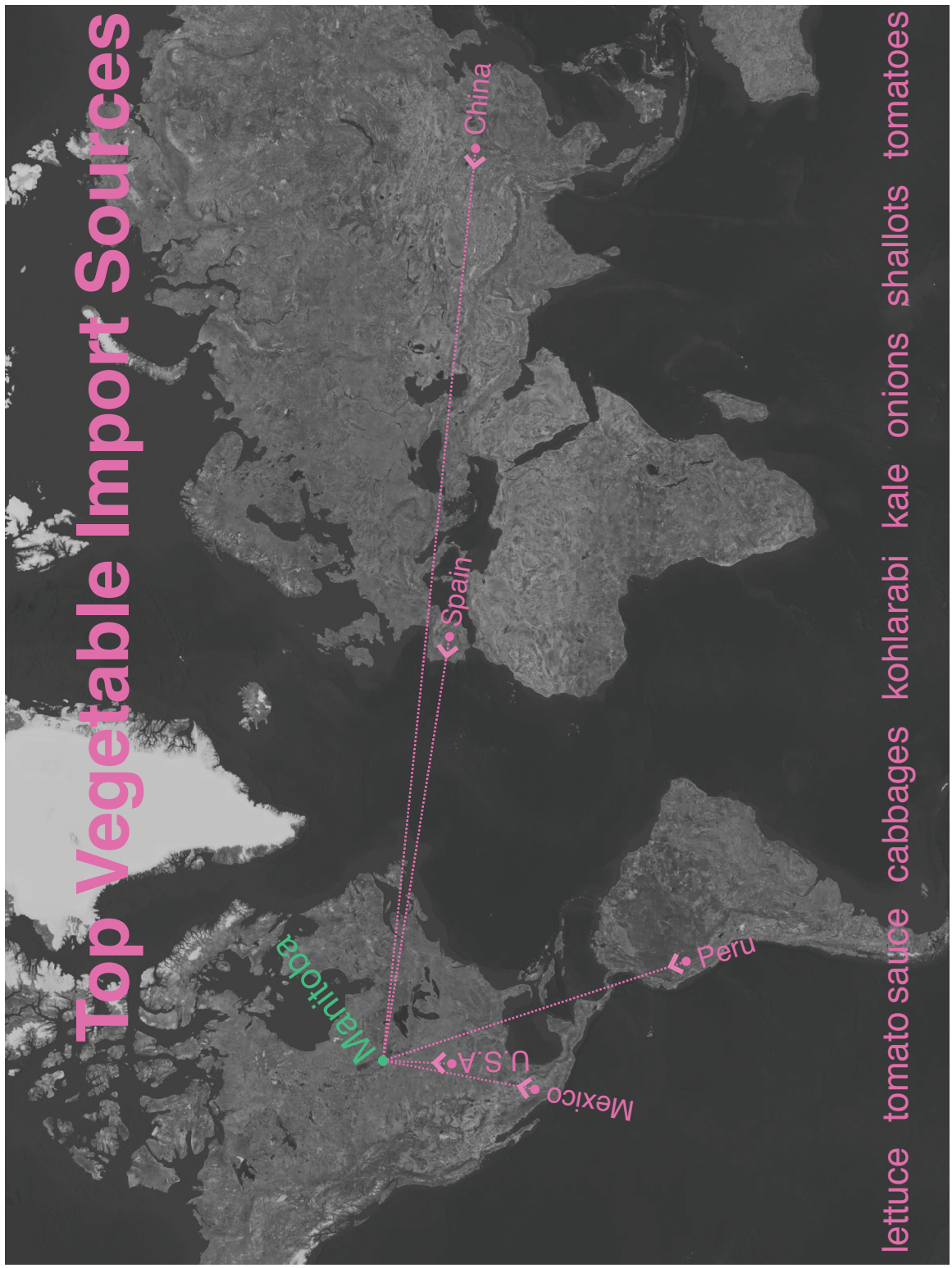


Figure 4.5


Top Vegetable Import Sources
lettuce tomato sauce cabbages kohlarabi kale onions shallots tomatoes
China
Spain
Peru
Mexico
U.S.A.
Manitoba

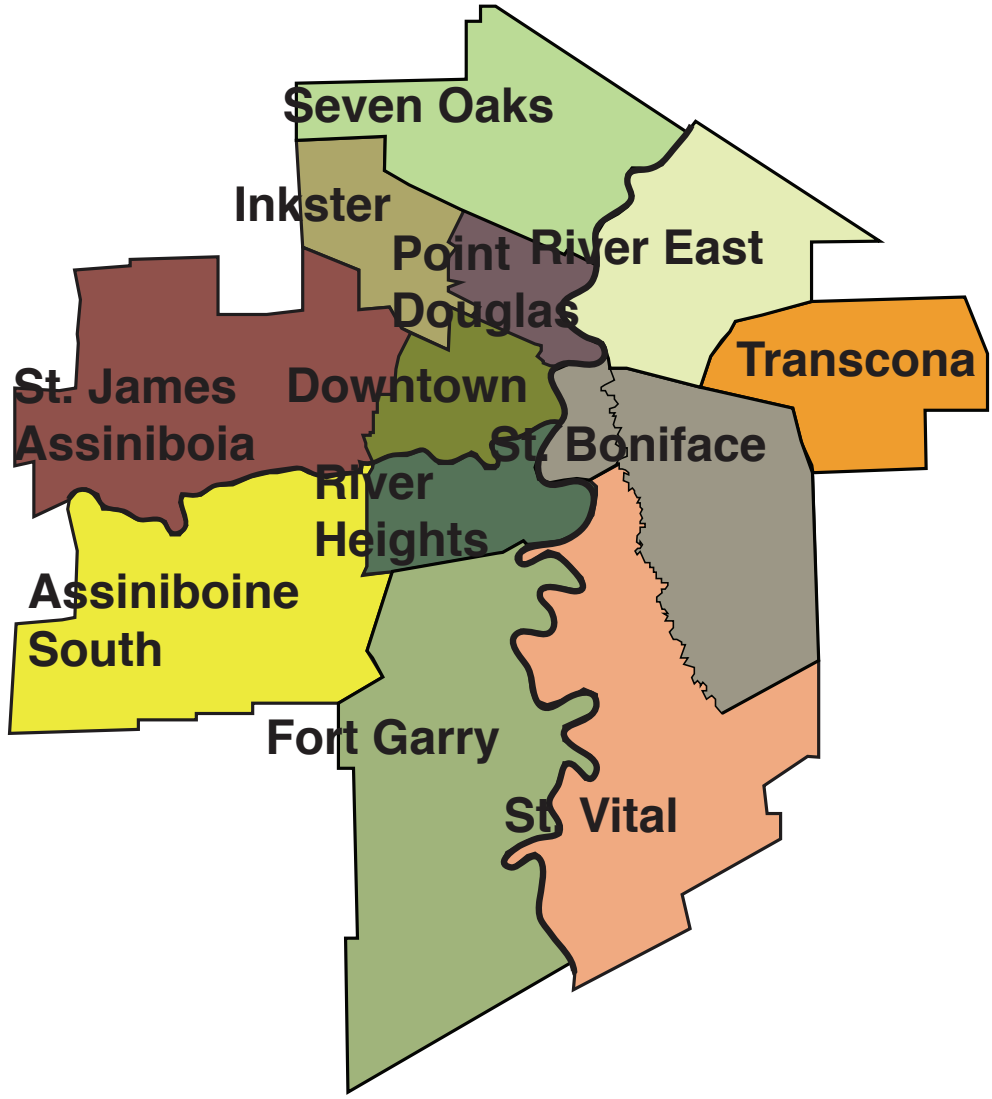
4.2 Winnipeg

Winnipeg is the capital city of the Province of Manitoba. It is the largest city in the province with an estimated population of 783,700 in 2013 (CBC 2013) and has a wide range of ethnic and culturally diverse residents. Winnipeg experinces four well-defined seasons as temperatures can range between a low of -23°C in the Winter to a high of 26°C in the summer months (Tourism Winnipeg).

Winnipeg is following the sprawling trend and suburban flight patterns of other North American cities. City investments and expansions are occurring at its peripheries and few improvements are taking place to the downtown and core urban areas. According to *OurWinnipeg* (2011), the city of Winnipeg's new official plan, none of the major redevelopment sites are located in the downtown, most are occurring in the recently developed communities on the boundaries of the city and all of the new communities are being constructed on the outer edges of the city (The City of Winnipeg 2011, 29). As core areas slowly fade due to neglect and a lack of investment, those who can afford to, often move to the outer edges of the city. As indicated by the *OurWinnipeg* plan, the areas moving further from the downtown area tend to be more heavily invested in and redeveloped.

Community Area Statistics

Figure 4.6. Map of Winnipeg community areas.
Source: City of Winnipeg 2006



Winnipeg is divided into twelve community areas. Although conclusions cannot be made based upon community area statistics, it is possible to glean a general description of the areas.

The statistics indicate for example, that family income and home ownership levels are typically higher in areas of the city that are further from the downtown. Lower income areas such as the Downtown and Point Douglas tend to use public transit as a main source of transportation.

The community area statistics highlight factors that may affect the availability and opportunities for residents of certain Winnipeg communities to access local produce.

Page 114-: **Figure 4.7 - FIgure 4.18.**
Winnipeg community area statistics.
Source: Data from City of WInnipeg 2006

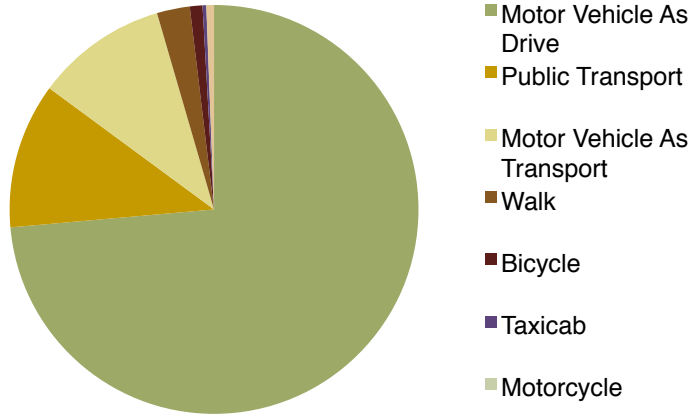
Seven Oaks

Figure 4.7

Population: 54, 595 **Population Density:** 1369.1/km^2

Average Household Income: $69, 119

Transportation



Housing

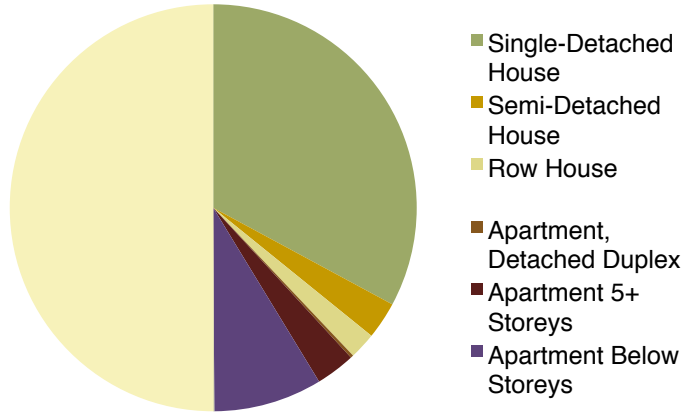
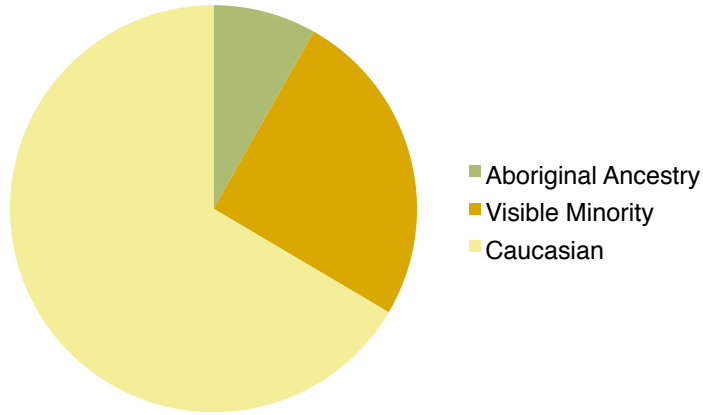
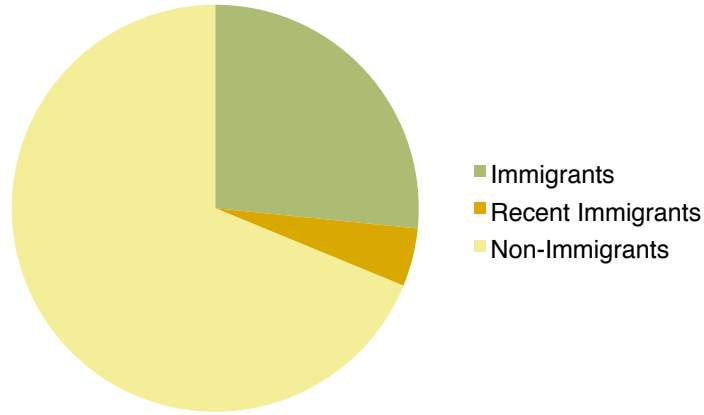


Figure 4.7

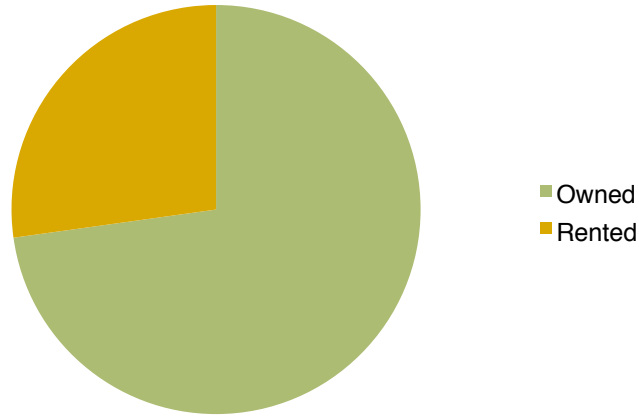
Diversity



Immigration



Housing Ownership



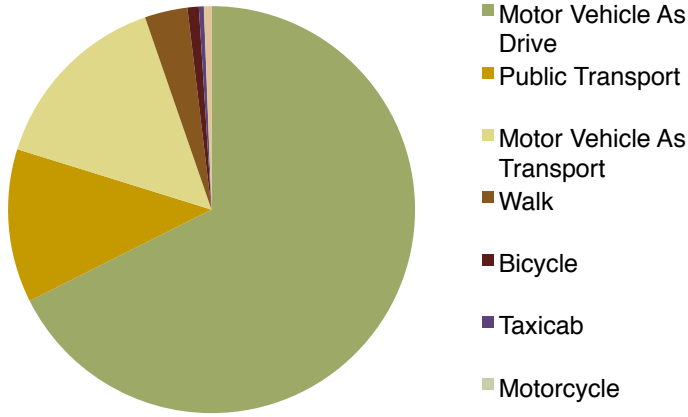
Inkster

Figure 4.8

Population: 29, 110 **Population Density:** 1608.2/km^2

Average Household Income: $59, 111

Transportation



Housing

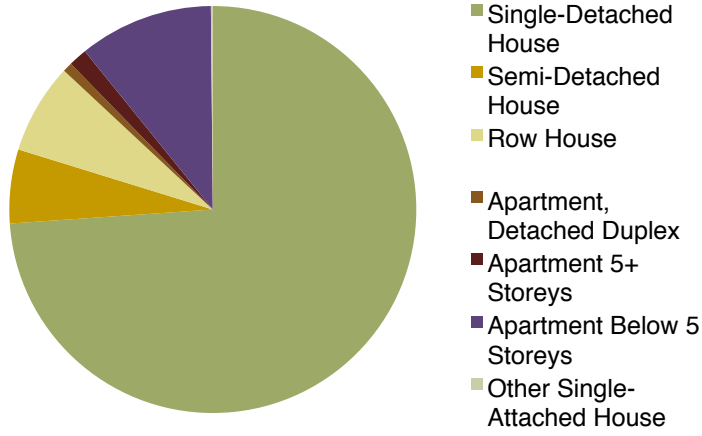
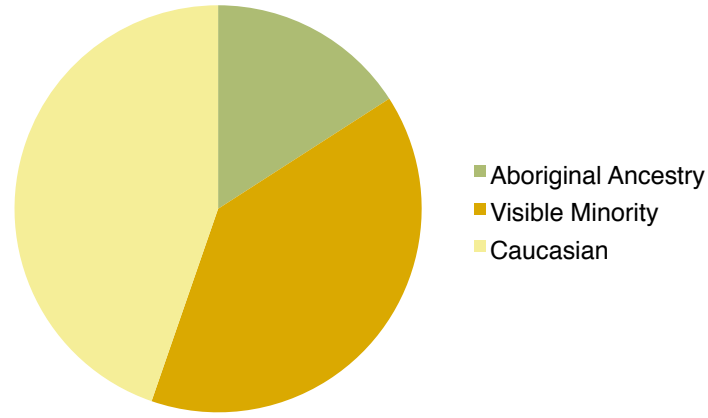
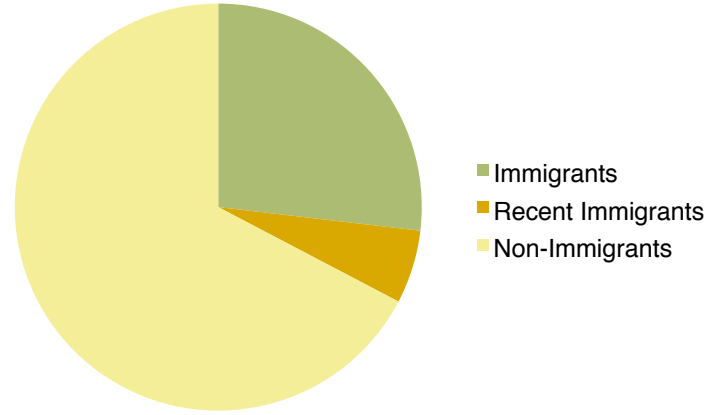


Figure 4.8

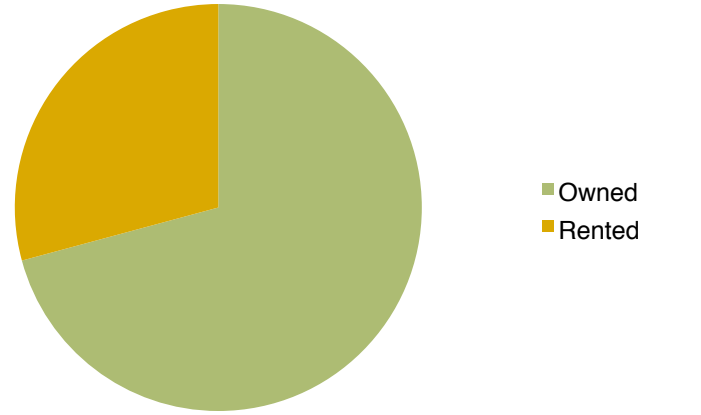
Diversity



Immigration



Housing Ownership



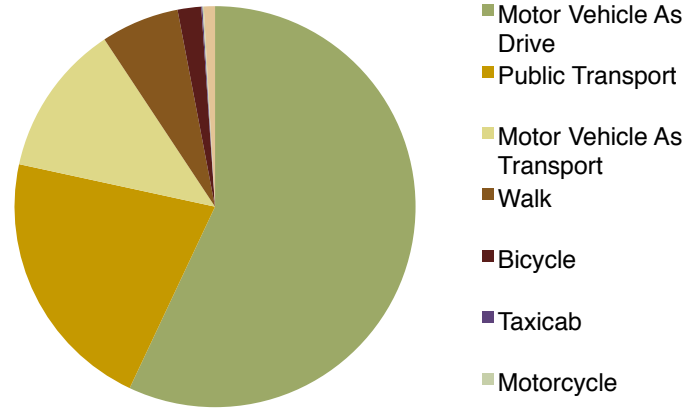
Point Douglas

FIgure 4.9

Population: 37, 615 **Population Density:** 3459.4/km^2

Average Household Income: $40, 703

Transportation



Housing

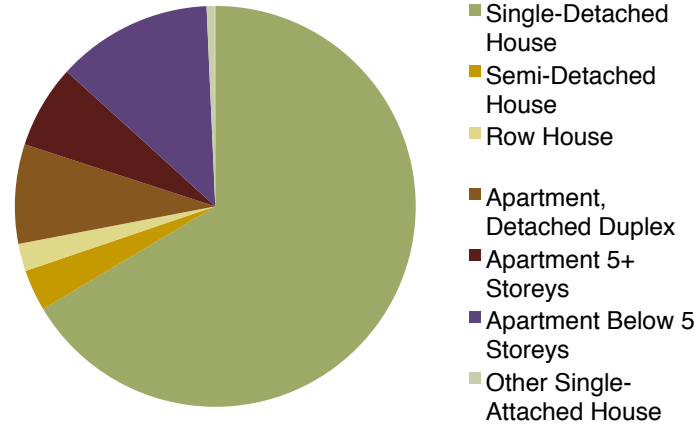
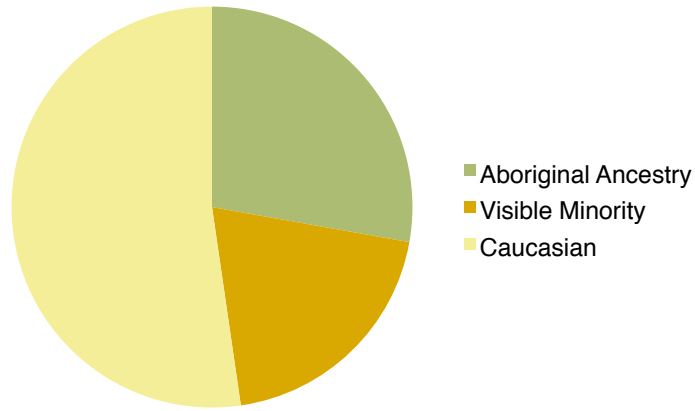
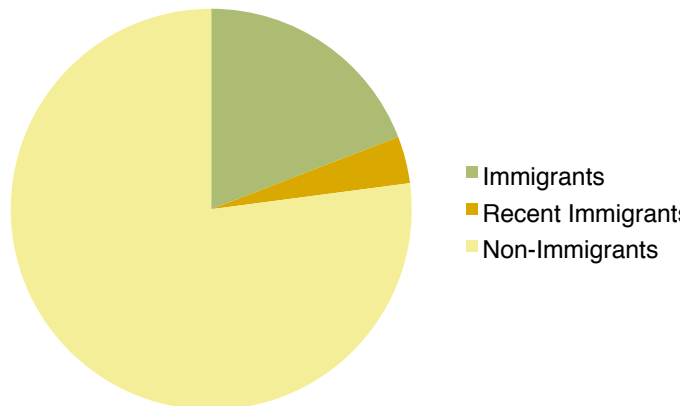


FIgure 4.9

Diversity



Immigration



Housing Ownership

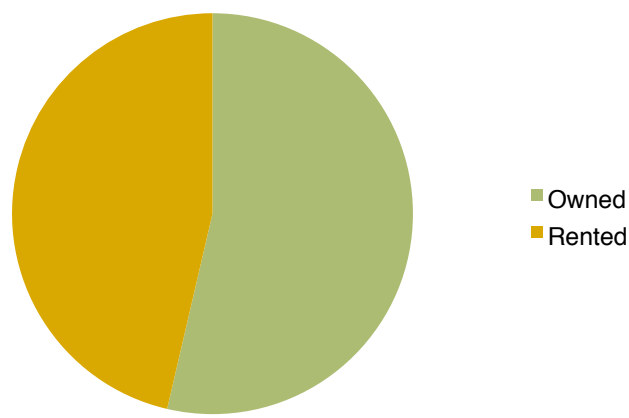


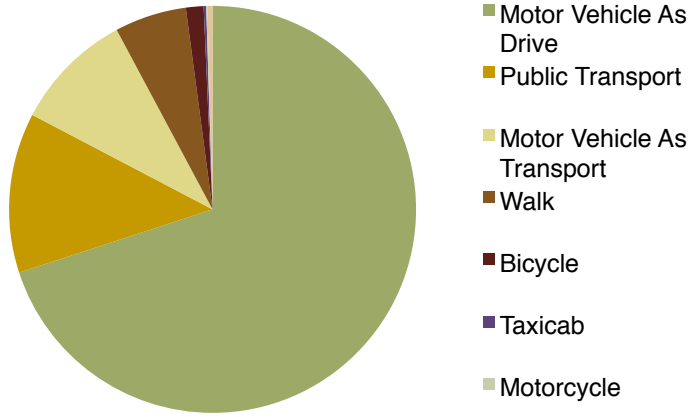
Figure 4.10

St. James Assiniboia

Population: 57, 855 **Population Density:** 976.2/km^2

Average Household Income: $74, 411

Transportation



Housing

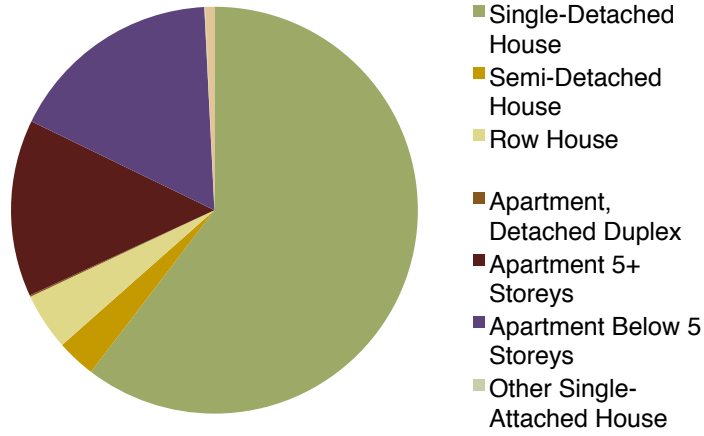
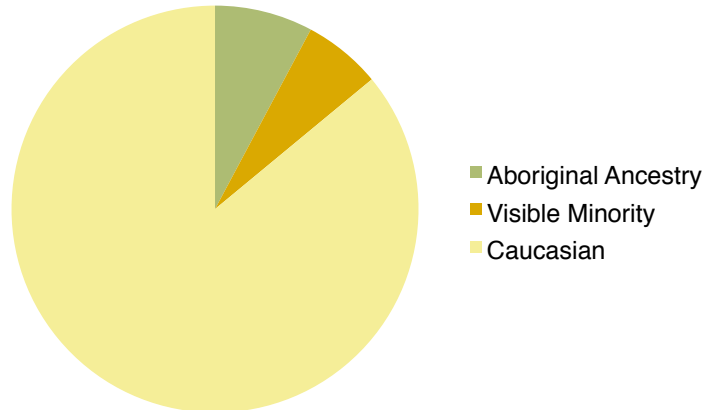
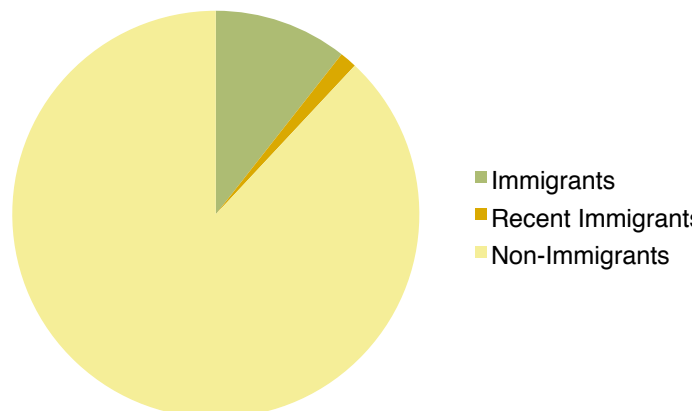


Figure 4.10

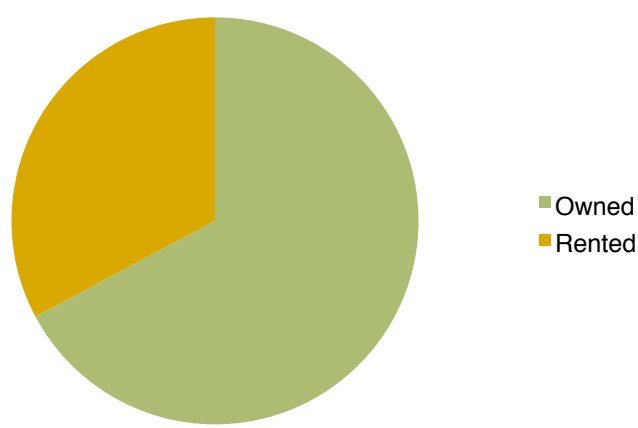
Diversity



Immigration



Housing Ownership



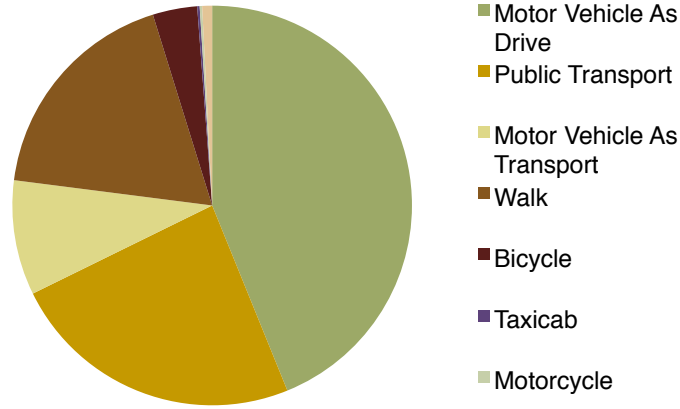
Downtown

Figure 4.11

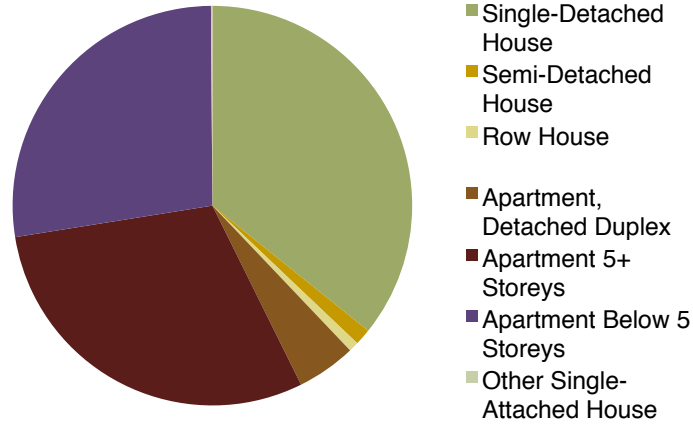
Population: 64, 860 **Population Density:** 3973.1/km^2

Average Household Income: $50, 099

Transportation

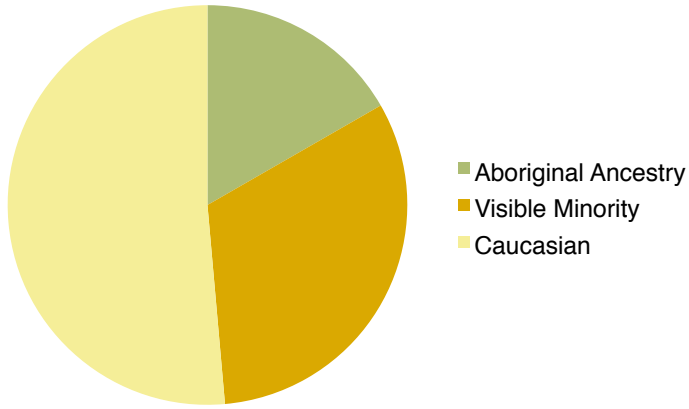


Housing

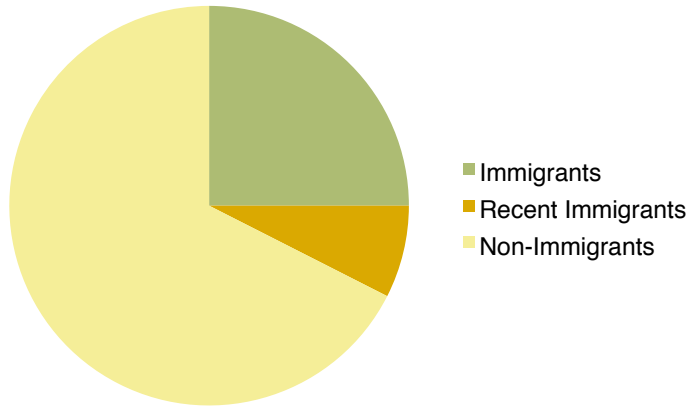


Diversity

FIgure 4.11



Immigration



Housing Ownership

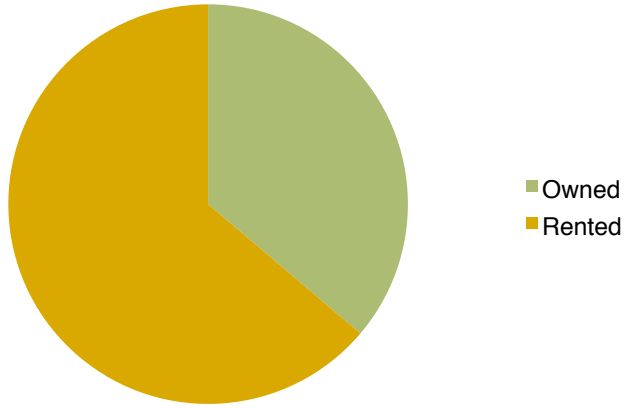


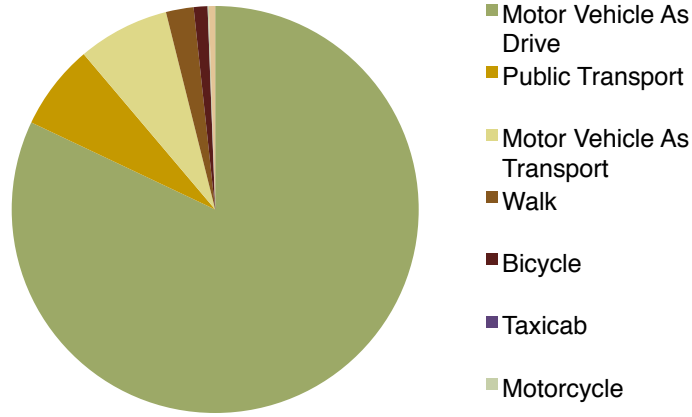
Figure 4.12

Assiniboine South

Population: 34, 610 **Population Density:** 565.2/km^2

Average Household Income: $124, 396

Transportation



Housing

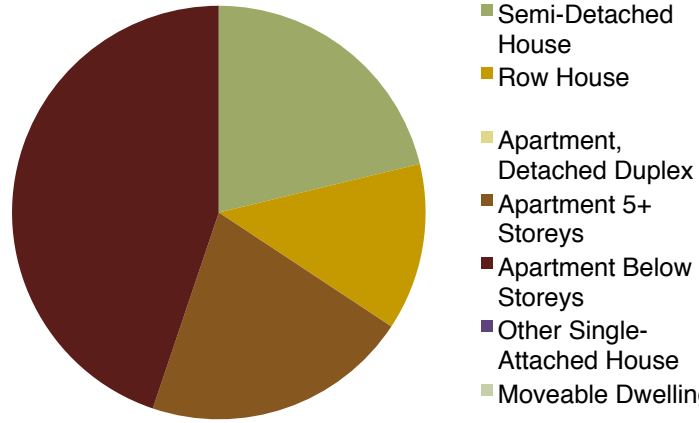
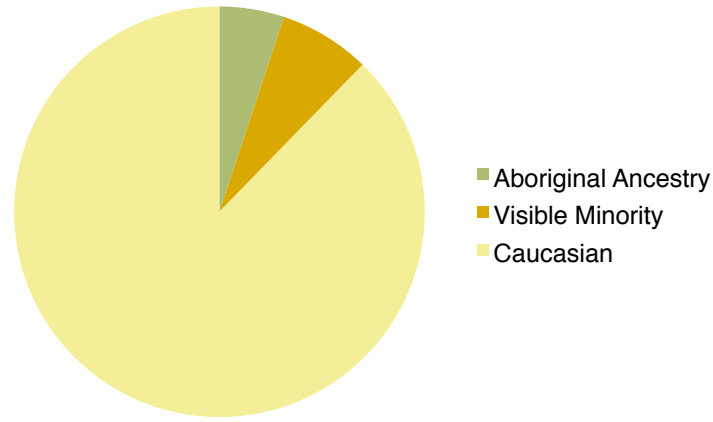
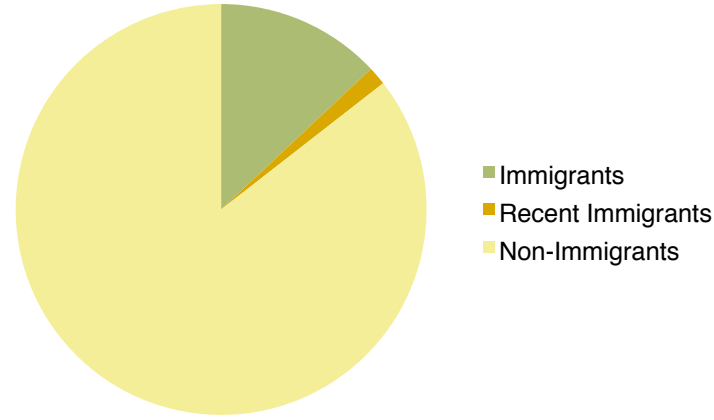


Figure 4.12

Diversity



Immigration



Housing Ownership

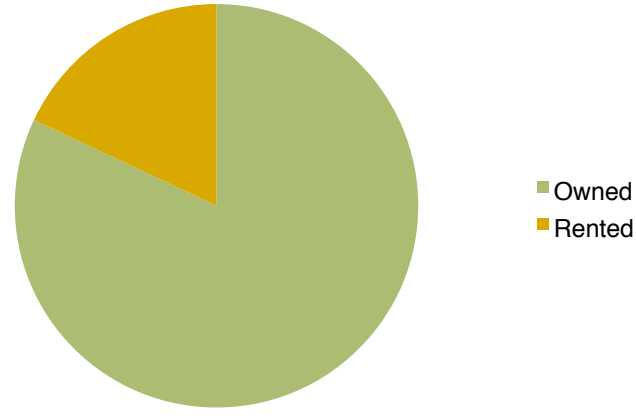


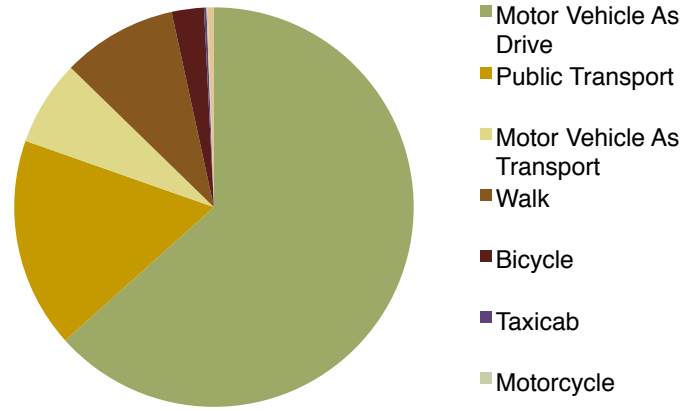
Figure 4.13

River Heights

Population: 56, 505 **Population Density:** 3121.7/km^2

Average Household Income: $85, 222

Transportation



Housing

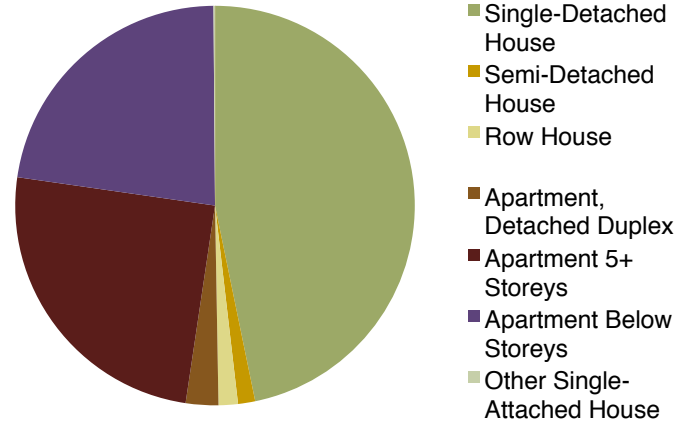
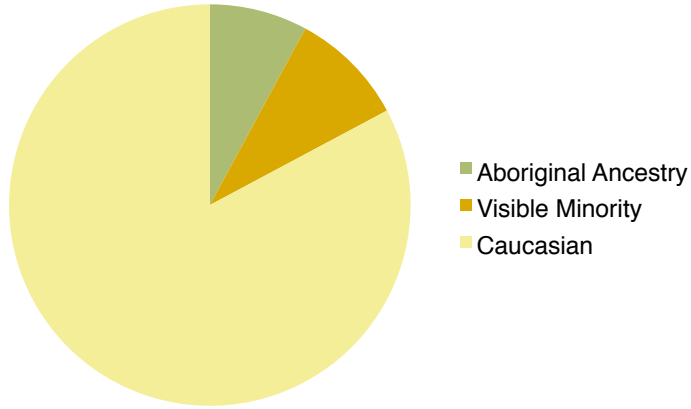
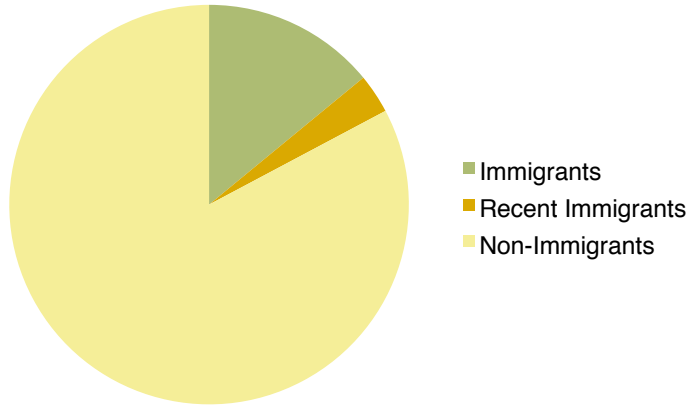


Figure 4.13

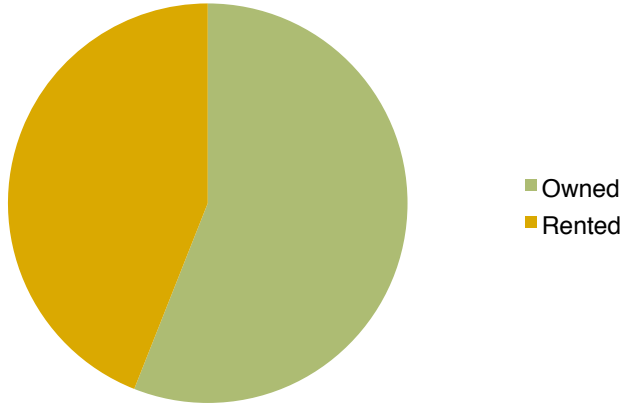
Diversity



Immigration



Housing Ownership



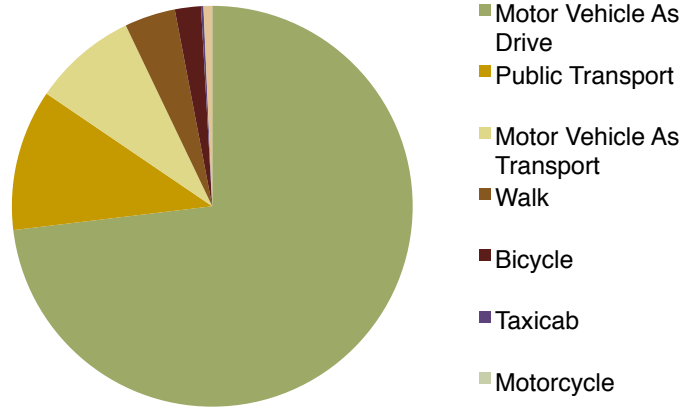
Fort Garry

Figure 4.14

Population: 68, 095 **Population Density:** 883.7/km^2

Average Household Income: $77, 978

Transportation



Housing

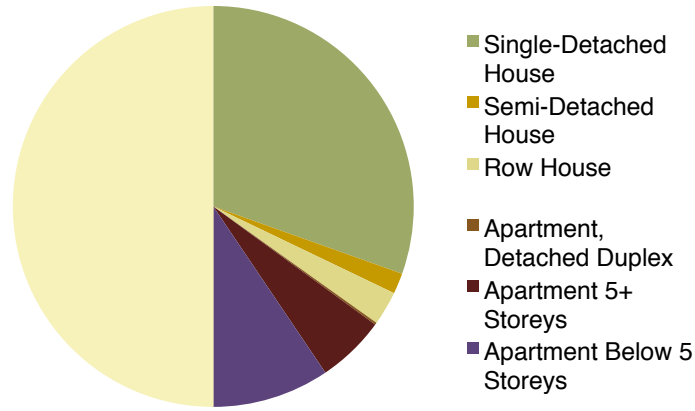
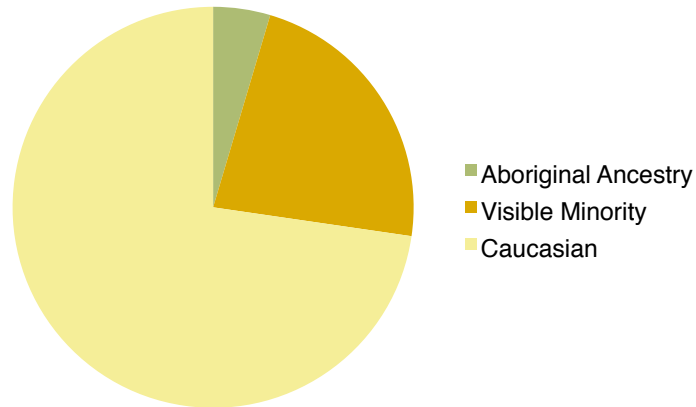
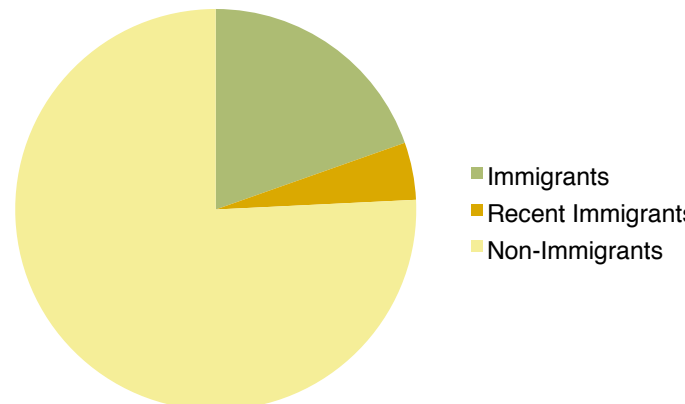


FIgure 4.14

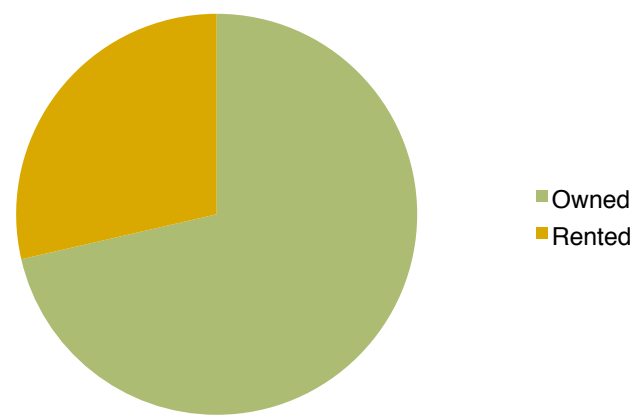
Diversity



Immigration



Housing Ownership



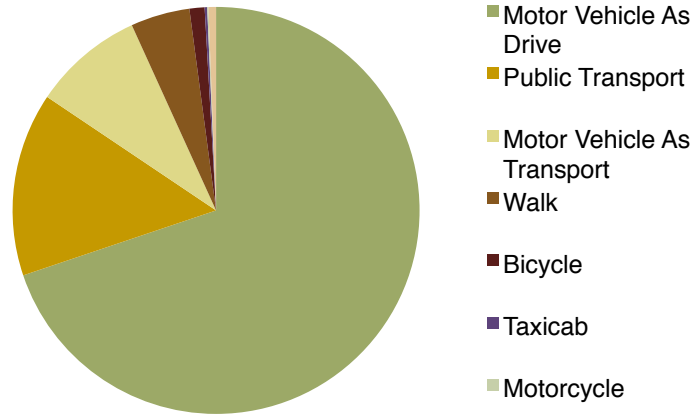
River East

Figure 4.15

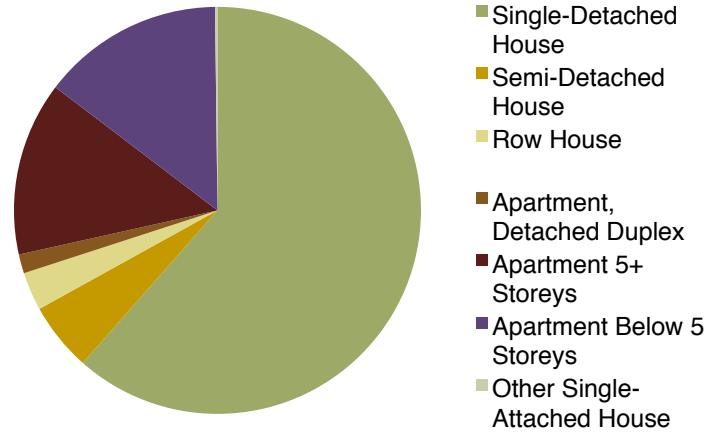
Population: 80, 935 **Population Density:** 2333.4/km^2

Average Household Income: $68, 316

Transportation

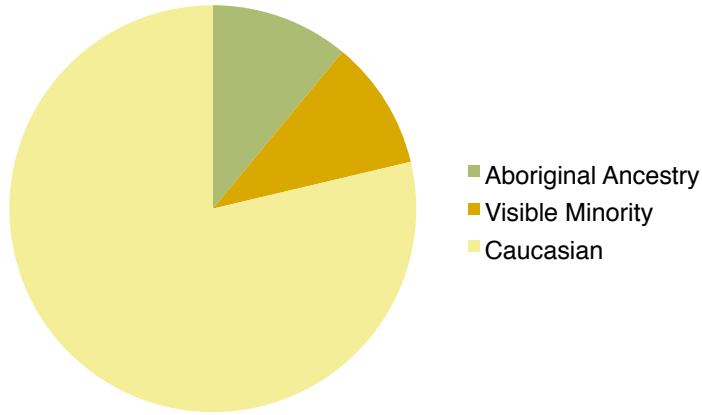


Housing

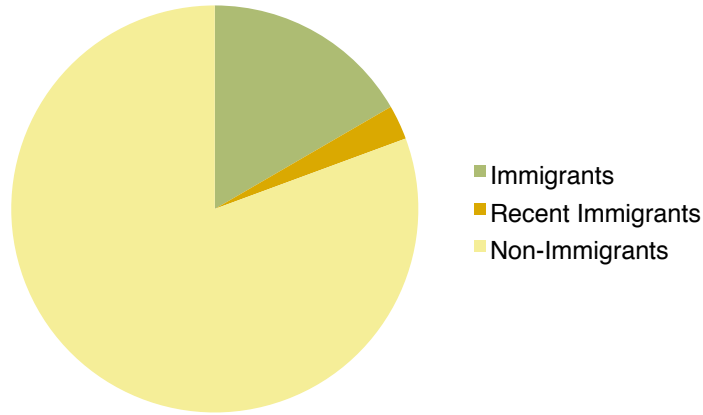


Diversity

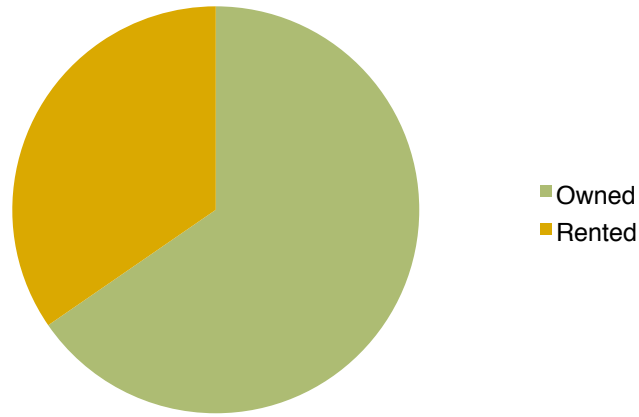
FIgure 4.15



Immigration



Housing Ownership



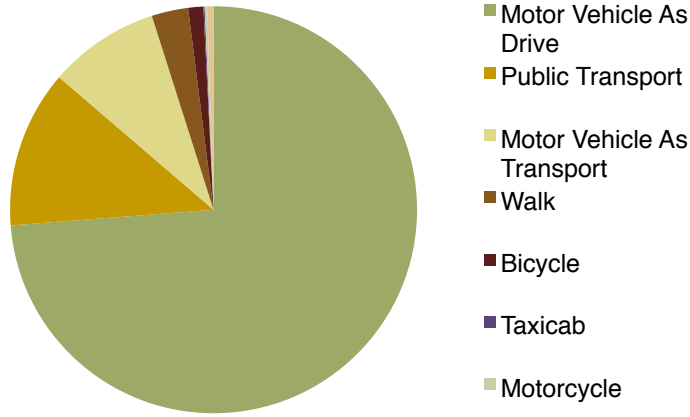
Transcona

Figure 4.16

Population: 30, 740 **Population Density:** 1059.1/km^2

Average Household Income: $70, 983

Transportation



Housing

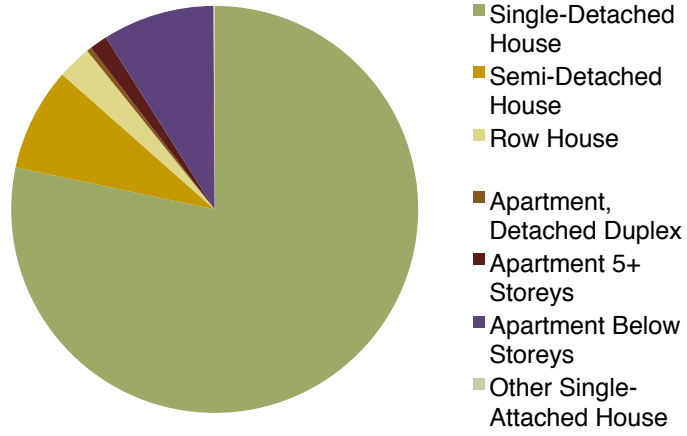
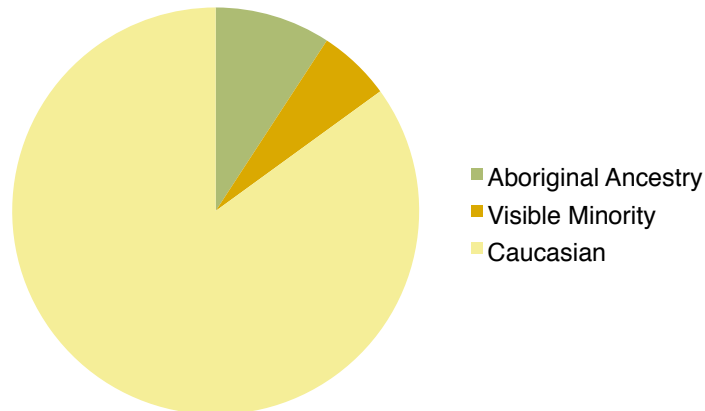
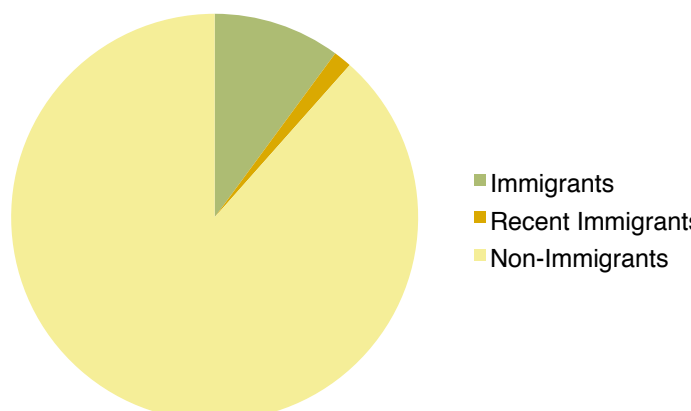


FIgure 4.16

Diversity



Immigration



Housing Ownership

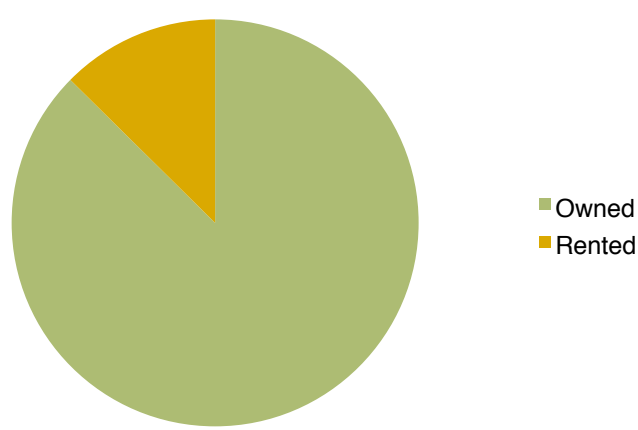


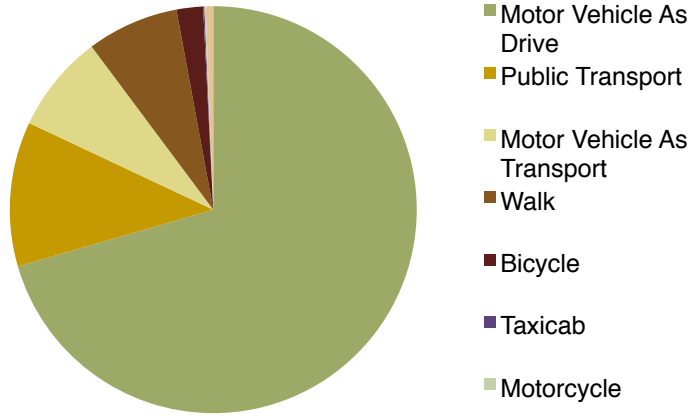
Figure 4.17

St. Boniface

Population: 64, 860 **Population Density:** 3973.1/km^2

Average Household Income: $83, 946

Transportation



Housing

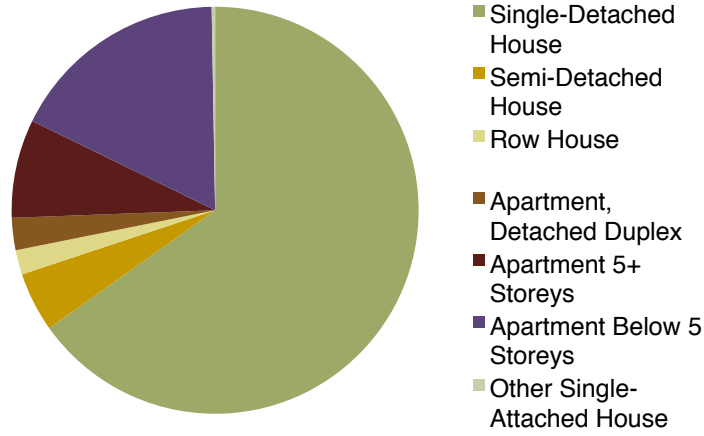
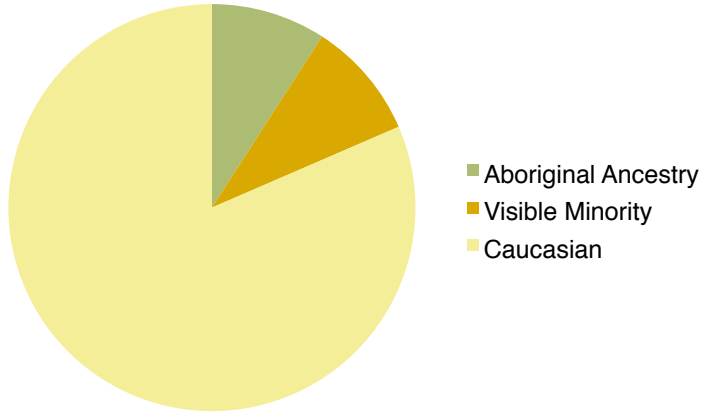
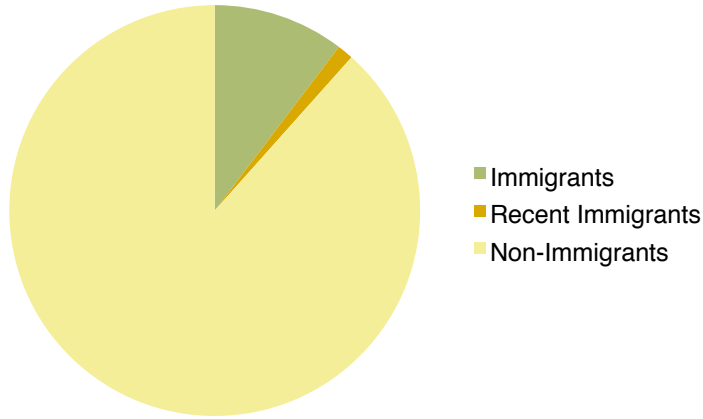


Figure 4.17

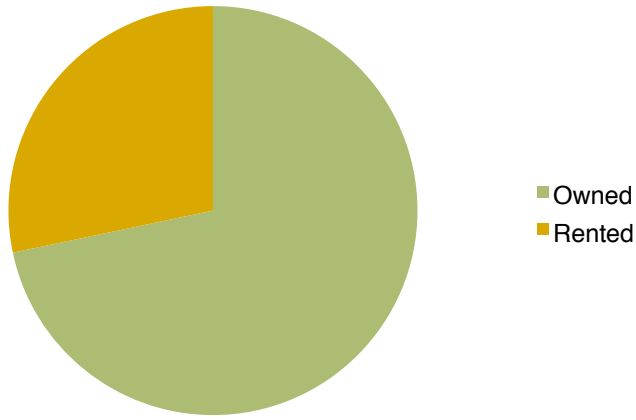
Diversity



Immigration



Housing Ownership



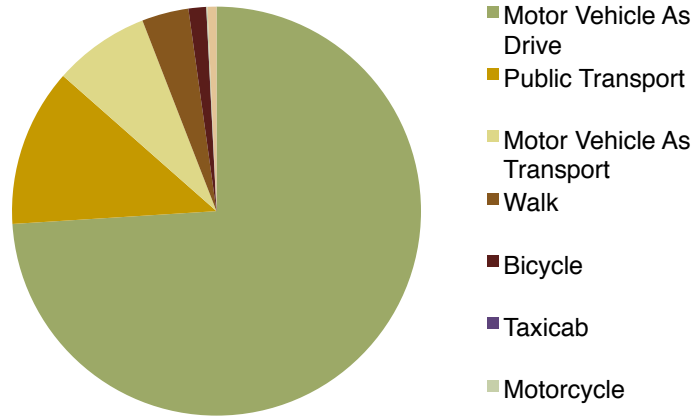
St. Vital

Figure 4.18

Population: 61, 605 **Population Density:** 973.5/km^2

Average Household Income: $80, 562

Transportation



Housing

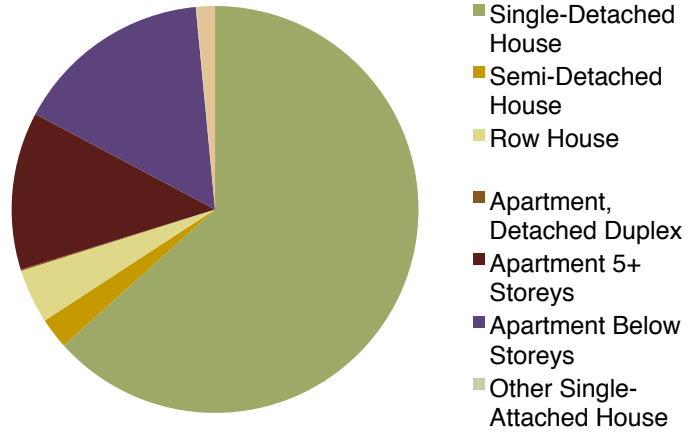
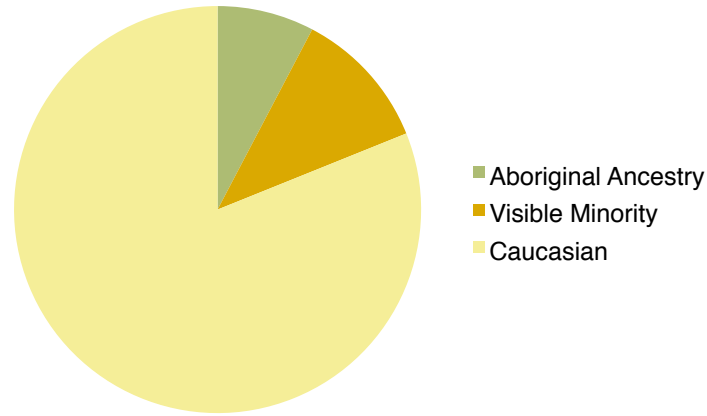
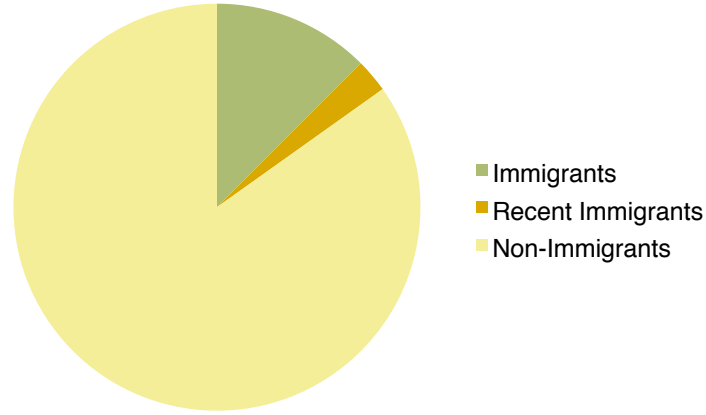


Figure 4.18

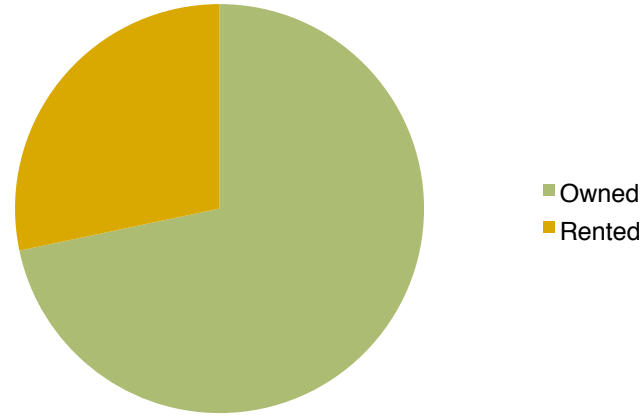
Diversity



Immigration



Housing Ownership



4.3 Access to Food

food bank use increased in manitoba by 56.9% between march 2008 and march 2012

(Food Bank Canada, 2012, 7).

Neoliberal, large-scale agriculture has been promoted as the key to eliminating hunger through an increase in food production. However food prices are steadily rising and Manitobans are finding themselves increasingly unable to purchase adequate amounts of good quality food. *HungerCount 2012*, created by Food Bank Canada (2012) describes how food bank use at a national level increased at an average of 30.6% between March of 2008 and March of 2012. During the same time period, food bank use in Manitoba increased by 56.9%. Approximately 5% of the entire population of Manitoba was assisted by food banks in 2012, an increase from 3.68% of Manitoba's population that was assisted in 2002 (Ibid., 23). Food bank use affects a wide spectrum of people across the province and although there are certain groups that tend to be more at risk for requiring food bank assistance and a multitude of reasons why, "a lack of income, whether in the short, medium

or long term, is the key factor that leads Canadians to ask for this most basic form of assistance" (Ibid. 13). Single female parents, First Nations people, children and youth, and people receiving social assistance, face an increased risk of needing food bank help (Ibid., 7).

This difficulty in accessing food is further aggravated by the lack of grocery stores located in lower income neighbourhoods (see figure 4.20). Public transportation in lower income neighbourhoods is also more heavily relied upon making it more difficult and less convenient to purchase fresh produce. Small corner stores with a limited selection of fresh food are often depended upon as a source of food.

Figure 4.19. The locations of major grocery stores and urban gardens are highlighted on this map.
Source: Data of community garden sites from City of Winnipeg 2013 and Quesada

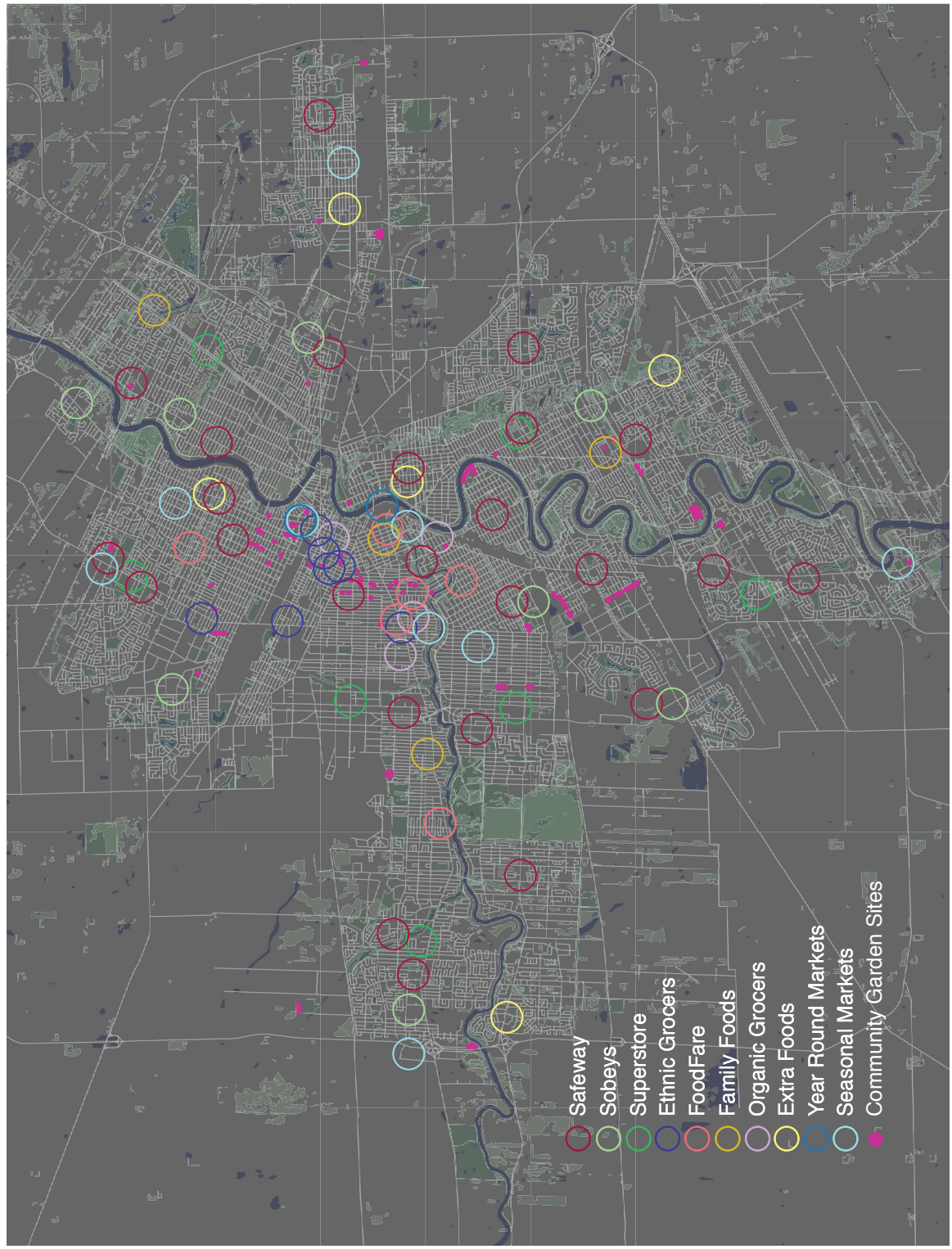


Figure 4.20. This map shows where the locations of major grocery stores and community gardens and markets are in the city's major communities.
Source: Quesada 2013b.

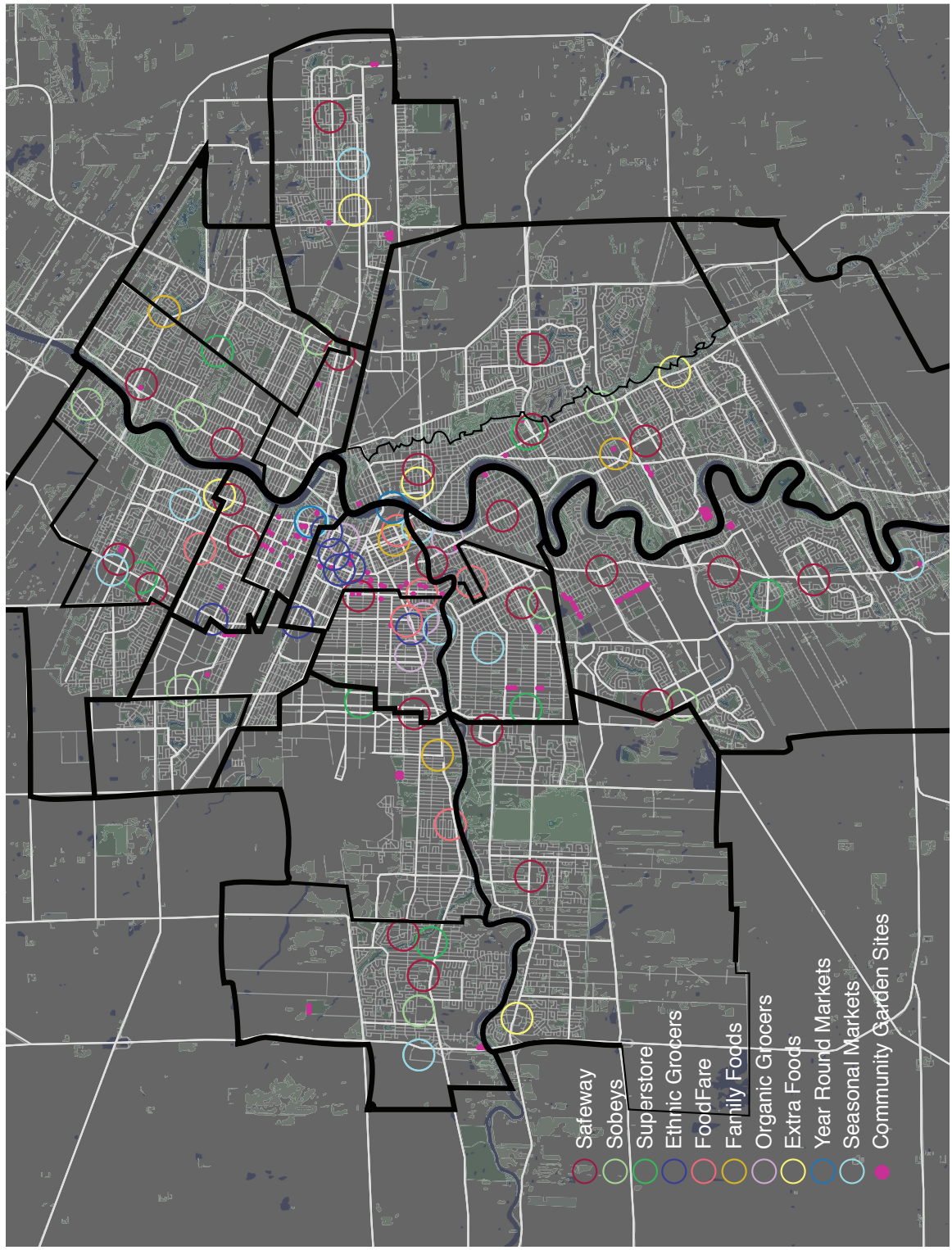


Figure 4.21. This map indicates where there is an absence of grocery store locations in the city of Winnipeg.
Source: Quesada 2013b.

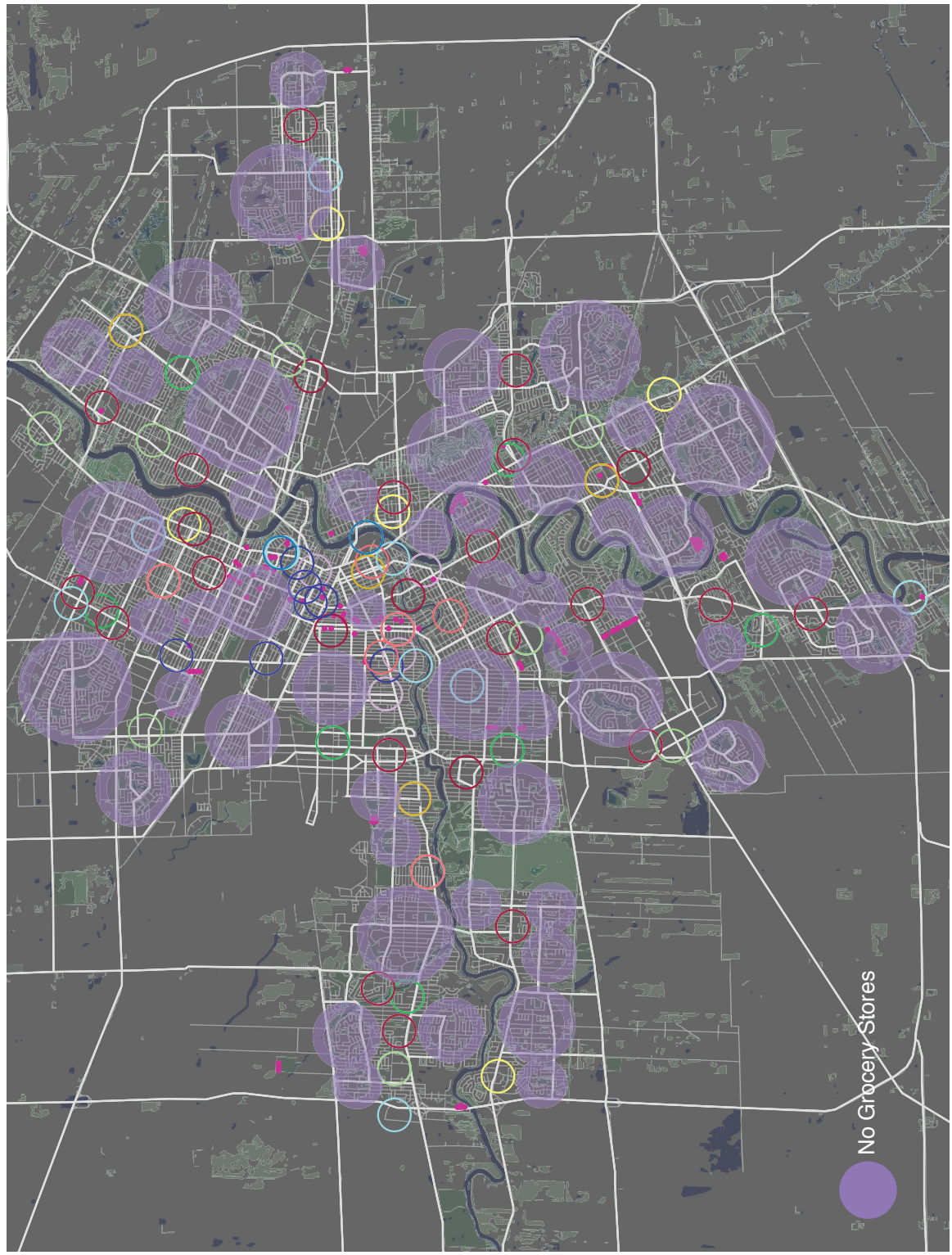
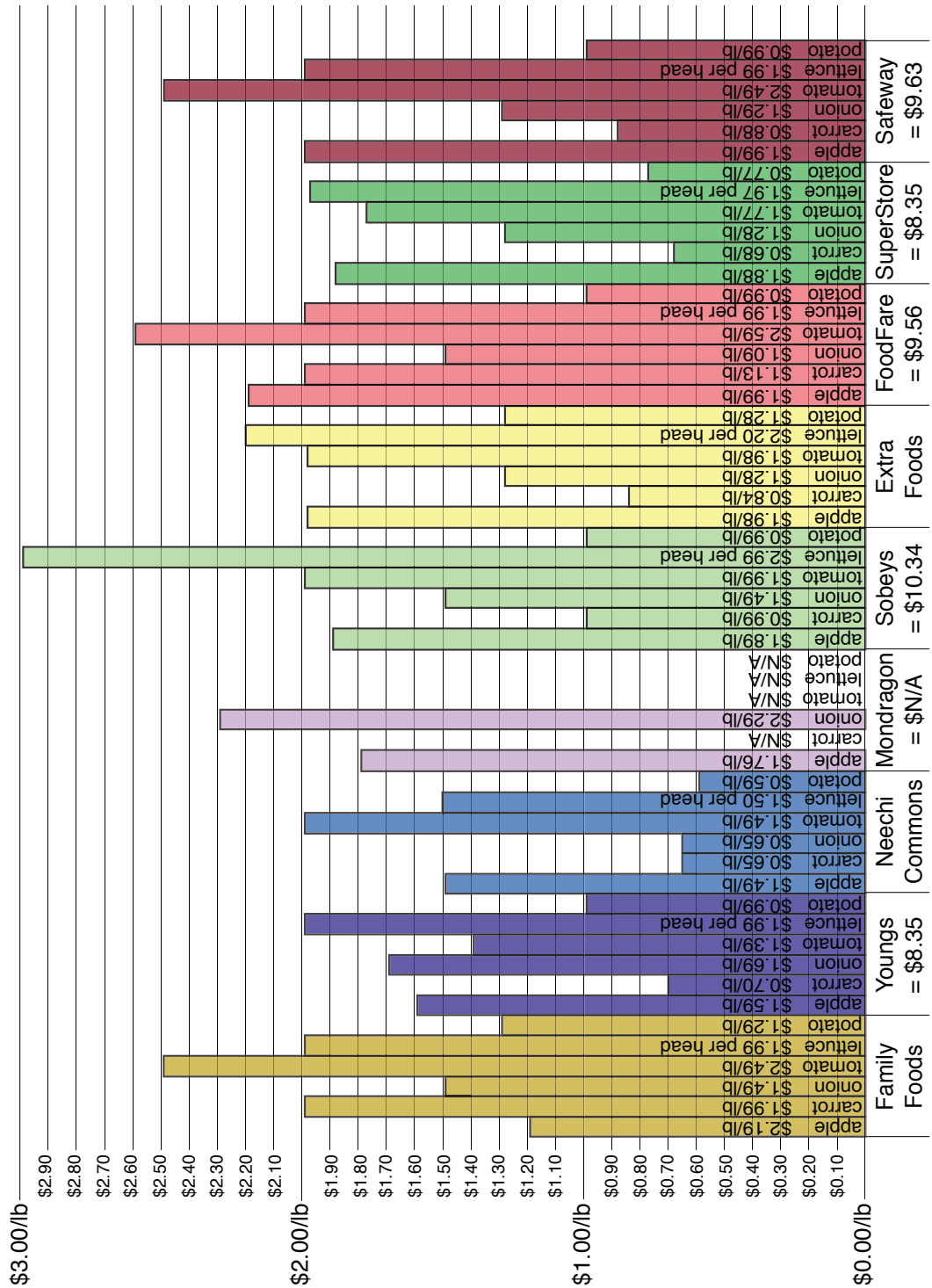


Figure 4.22. This graph compares produce prices from the major grocery stores in Winnipeg. It also compares the total prices of one pound of apples, carrots, onions, tomatoes, potatoes and one head of lettuce from each store.



4.4 Sustainable Food

Despite the agricultural norm of industrialized farming in Manitoba there is also an increasing trend in the desire for local, sustainable and organic food. The fruit and vegetable market in Manitoba is very small. Of the 15,877 farms existing in Manitoba in 2011, only 283 of those produce vegetables, fruits and nuts (Manitoba Agriculture, Food and Rural Initiatives 2011). In 2011, 1% (189) of the farms in Manitoba harvested vegetables, totaling an area of 4,004 acres, and of these farms there were only eight certified organic vegetable growers (Food Matters Manitoba n.a., 13, 24). Only 0.5% (94 farms) of the farms in Manitoba harvested fruit and nuts, which was a total of 501 acres of harvested fruit and only five farms were organic fruit producers (Ibid., 24). Despite this small proportion of fruit and vegetable producers, the desire for these goods is present and is growing. People continue to grow their own produce in urban gardens and there has been an increase in the number of local farmers markets and Community Supported Agriculture (CSA), that provide people with access to locally grown produce.

Urban Gardens

Urban gardens are located throughout the city of Winnipeg with a high number of gardens located centrally in the downtown area. These productive urban spaces provide residents of Winnipeg a chance to take an active role in cultivating food to feed themselves and their family members. The urban gardens also stimulate participation in community and neighbourhood development. Of the 48 community gardens around the city where plots can be rented, 24 of the gardens are located on city owned property and four are located on Manitoba Hydro land (City of Winnipeg 2013). This indicates that over half of the community gardens in Winnipeg are not located on land that the community garden organizations own. This creates an unstable future for many of the gardens as the land could be taken at any point. Instability such as this can be a deterrent for many gardeners to participate in these community gardening groups. Nineteen of these gardens are run and maintained by community centers or groups. These groups often rely heavily on government grants, fundraising and volunteers (interview with neighourhood association community garden organizer April, 2013).

There are also privately owned community gardens, each with its own set of rules and fees. City run gardens cost $42 for serviced sites (tilled) or $28.36 for unserviced sites (untilled) and priority is given to returning members (Public Works Department 2013). Many of the community centers or organizations that have gardens on city owned land provide plots for a very minimal fee and will offer gardeners financial exemptions if necessary. Two different community garden organizers also expressed how priority is generally given to those who do not have access to outdoor growing space. The added benefit of gardening through

Figure 4.23. A large number of the community gardens in Winnipeg are located in the downtown and Point Douglas neighbourhood.
Source: Data from City of Winnipeg 2013 and Quesada 2013b.



a community organization is that many of the groups give additional support to gardeners through workshops, cooking classes, tool sharing programs and pair skilled gardeners with beginner gardeners. Participants also have the opportunity to get to know other individuals within the same community, build relationships and bonds and strengthen the community. Several community garden managers, mentioned that many garden organizations make an effort to encourage interaction amongst members of the same community garden. However there is limited interaction between members of different community gardening groups, so gardeners have limited opportunities for learning and interacting with other gardeners in different areas of the city.

The benefits of urban gardening exist regardless of the avenue by which they choose to do so. Individuals stand to gain fresh produce, friendships, a sense of community, pride and ownership in their neighbourhood and control over the quality of food that they are able to provide for themselves and their families.

Figure 4.24. Map of Winnipeg showing the locations of all of the community gardens, including community gardens, city owned plots and privately run gardens.
Source: Data from City of Winnipeg 2013 and Quesada 2013b.

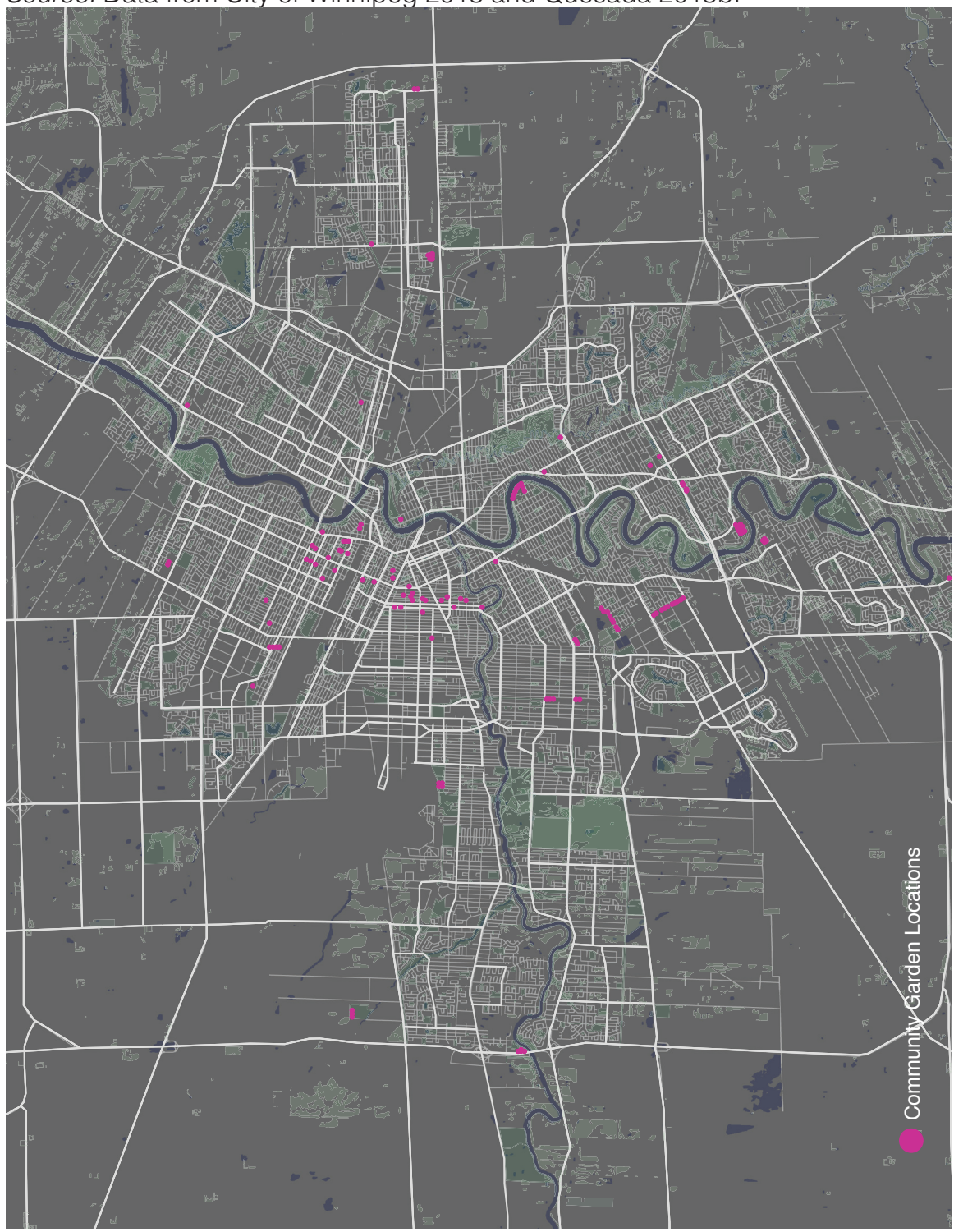


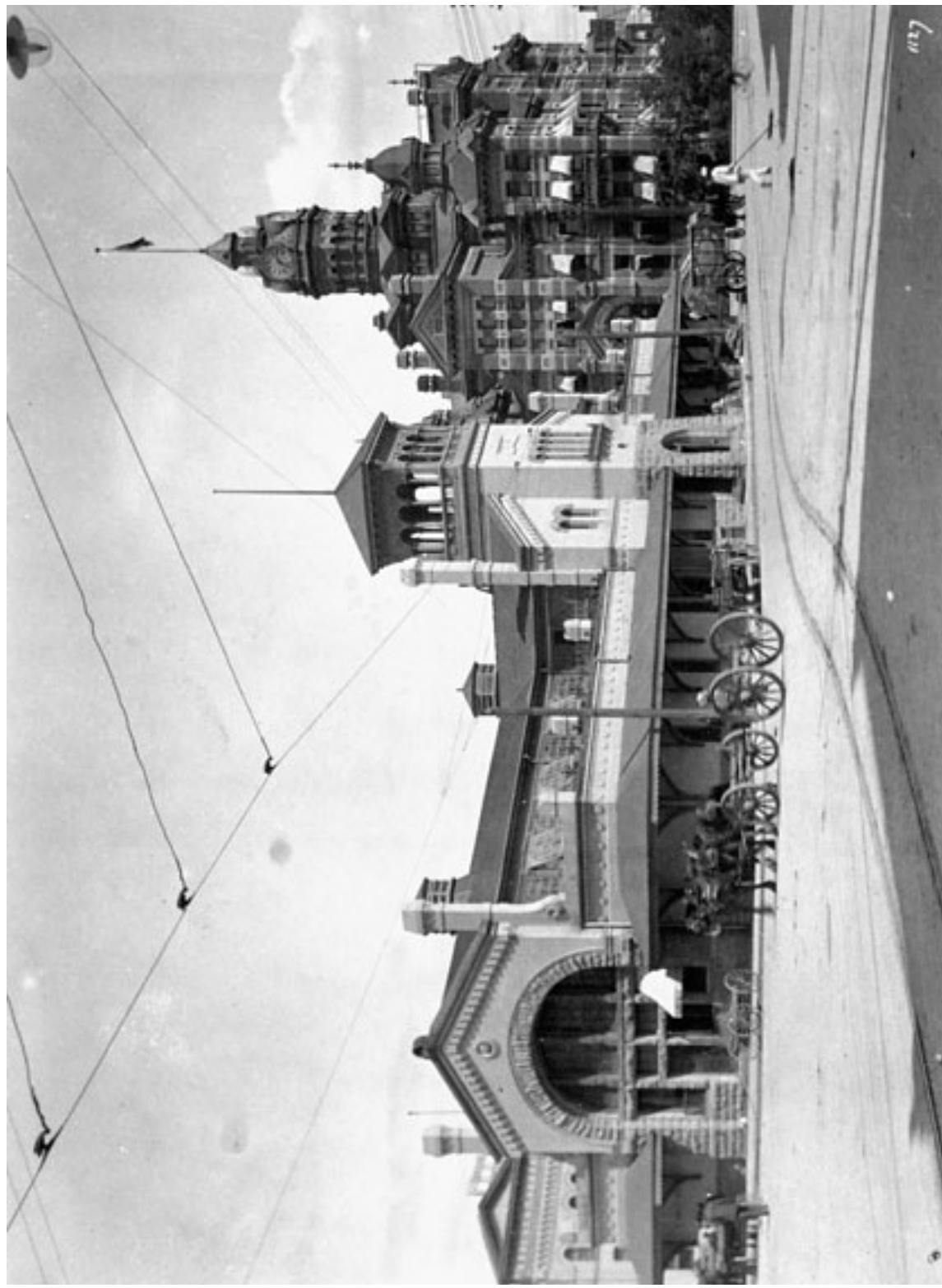
Figure 4.25. A communal plot in a small community garden in Winnipeg.



Winnipeg Food Markets

Markets have historically played an important role in Winnipeg's culture. In 1901 the province of Manitoba had only 255,211 inhabitants; of these people 70,436 (28%) were urban and 184,775 (72%) were rural (Statistics Canada 2011). Despite this, urban farmers markets were booming in the city of Winnipeg. According to Peters, a majority of the "early market gardeners around Winnipeg had only small holdings, carried on mixed farming, and did not produce vegetables on a large scale. At first many of them used horse drawn carts to peddle their produce to customers' homes" (1989, 268). David's or Duvid's Market existed before 1910 and was located on the corner of Dufferin and Derby, while a smaller market was also located on Colony Street at this time (Ibid., 268). Carts would be pulled up in long rows for buyers to peruse the produce (Ibid., 268). The Northend Farmers Market, containing approximately 160 stalls, began around 1931-1932 and operated both as a retail and wholesale market by the Manitoba Vegetable and Potato Growers' Co-op Association (Ibid., 270). Many of the David's Market stalls amalgamated with this market when it was opened (Ibid., 271). The city of Winnipeg began getting numerous complaints about the amount of peddling going on all over the city, and thought it best to establish a central market (Peters, 1989 268). In May of 1914 the Central Farmers' Market, containing 48 stalls, was opened on Market Square behind

Figure 4.26. "City Hall and Market, Winnipeg, Man." This photograph taken in the early 1900's shows the Central farmer's market located on Market Square.



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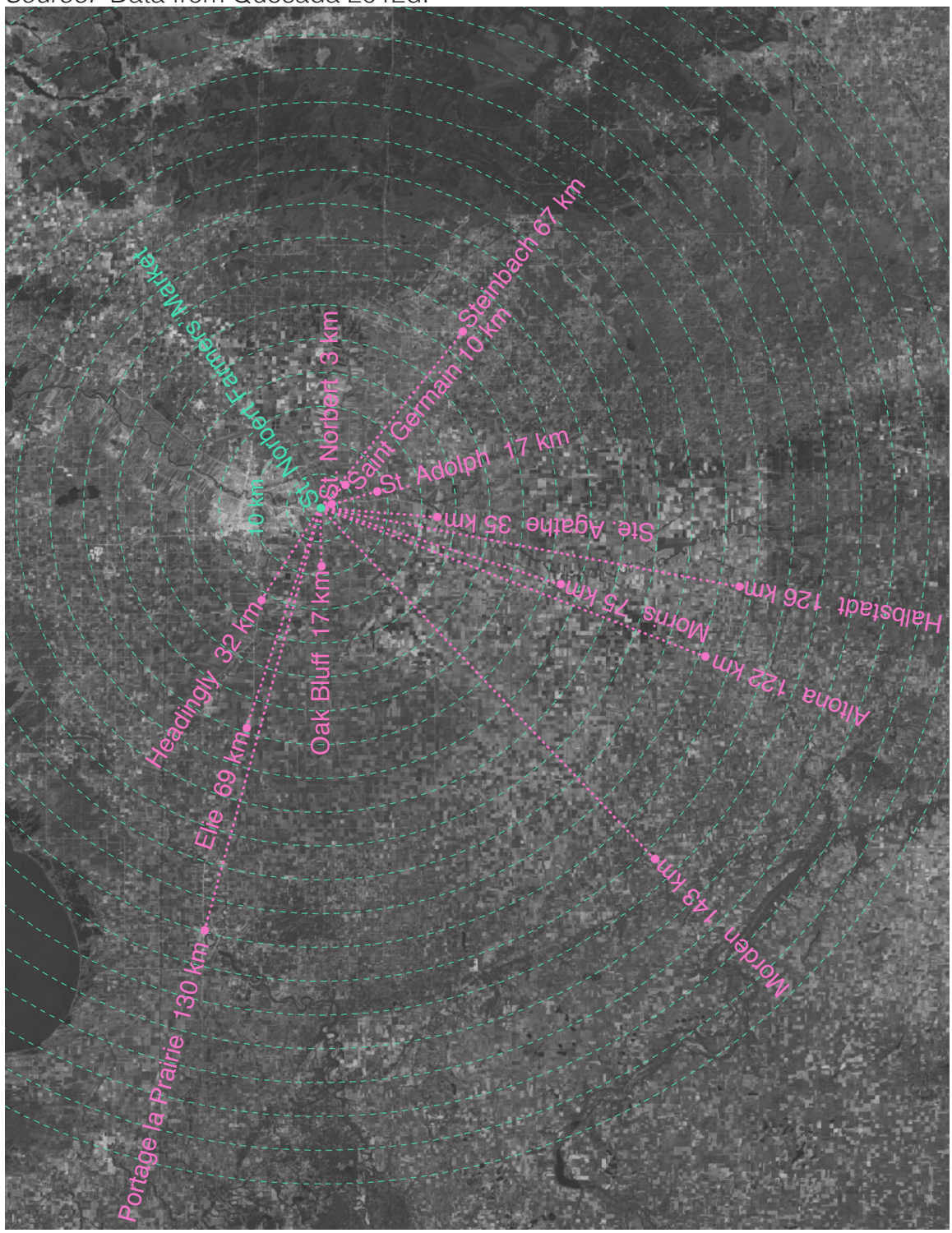
With the increase in people owning their own vehicles and no longer requiring a

centrally located market, the Northend Farmers Market decided to purchase land at Nairn and Stapleton (Ibid., 272). They opened a large three acre market space with office and toilet facilities, “room for 48 stands, 80 truck stalls, and parking for 113 cars and 30 trucks” (Ibid., 272). Perhaps it was due to the location change or the change in farming practices and consumer purchasing practices, but the market never flourished and was closed and the property sold by 1981 (Ibid., 272). There are currently 40 farmers’ markets belonging to the Farmers’ Markets Association of Manitoba Co-op Inc (FMAM) located in Manitoba; nine are located in Winnipeg (see figure 4.19). There are an additional three farmers’ markets not in Winnipeg that do not belong to FMAM. Farmers’ markets provide consumers with the opportunity to purchase a variety of locally produced goods in one spot and offers them the opportunity to interact and engage with the farmers that are producing their food. This interaction helps to foster a connection between growers and consumers, and begins to close the gap of how, where and who produces our food through education, dialogue and understanding. Markets also provide vendors a stable location and consumer base to sell their products to and an opportunity to make connections with other local farmers.

Figure 4.27. The St. Norbert Farmer's Market on a busy summer weekend. The market is open every Saturday and Wednesday from early summer till late autumn and is the largest farmer's market in Winnipeg.



Figure 4.28. This map shows the distance between the St. Norbert Farmer's Market in Winnipeg and its local produce vendors. It is clear that Farmer's markets that sell local food greatly decrease the distance food must travel from farmers to consumers. *Source:* Data from Quesada 2012d.



Community Supported Agriculture

Community Supported Agriculture (CSA) offers an alternative option for the public to access sustainable produce. CSA's are growing in popularity due to their convenience, direct interaction with food producers and symbiotic relationship between the farmer and the customer. CSA farms provide, individuals and families with fresh, local and sustainably produced goods, support local farms and the local economy. Although every CSA will be different, the Manitoba CSA (2013) website describes the basic structure of a CSA:

> CSA farmers receive a set fee (from you – the consumer) prior to the start of the growing season. In return, you receive shares (produce) in the farm's bounty and you also share the risks due to weather and other factors beyond the control of the farmer. The shares typically come in a weekly box that is delivered to a pre-determined location throughout the growing season (in Manitoba CSA's range from 12 weeks to 18 weeks long, typically starting in mid to late June, and ending in the fall).

These food boxes can often contain a different selection of produce on a weekly basis depending upon the season. Many people find this to be exciting and embrace the opportunity to try new and different produce. However it can be difficult to plan meals in advance as the contents of the food container can be unpredictable.

Currently there are 16 CSA's farms located in Manitoba and two within the city of Winnipeg. This shared investment in CSA farms, "helps to create an economically stable farm operation. The members receive high quality produce, often at below retail prices. In return, farmers are guaranteed a reliable market for a diverse selection of crops" (CSA Manitoba 2013).

Challenges Facing Local farmers

It has become increasingly difficult for small-scale farmers, in particular organic farmers, to find local facilities to process their goods (Food Matters Manitoba n.d., 41-42). This has resulted in the need to ship raw products, such as grains, somewhere else to be processed and then back to Manitoba, essentially eliminating the benefits of the lowered fossil fuel consumption and pollution emissions associated with local food (Ibid.). It also creates a more costly product both for the farmer and the consumer. This lack unfortunately also deters and inhibits many farmers from processing their goods or growing goods that require processing.

A large challenge facing local farmers was described in the study, B*uy Manitoba Food: A Survey of Manitoba Grocery Shoppers,* carried out by PRA Inc. Research & Consulting (2008). The Study surveyed grocery shoppers in 2008. Findings indicated that 21% of the shoppers surveyed did not purchase local food because they were not aware which food was local in a grocery store. Eighteen percent also answered that local produce was not offered where they shopped. Nine percent suggested that it was too expensive and they bought what was the cheapest at the store. Large grocery chains were the main source of food for shoppers: 83% shopped at large chains, 8% shopped at small independent stores and only approximately 1% did a majority of their shopping at farmers markets. Of those that did purchase local food, 84% purchased local vegetables and 12% purchased fruits.

This study illuminates some of the factors that are preventing consumers from purchasing locally produced foods. Increasing awareness as to what is locally produced and where to source local goods can help in mitigating some of these factors. As is, providing consumers with easily available and convenient to access local goods.

Conclusion

Although the statistics in Manitoba indicate that the numbers of small-scale farms are dwindling as a result of agribusiness farming, other figures describe the interest of Manitobans in gaining access to locally grown goods. Manitobans are facing challenges in accessing healthy food and produce as the current food system continues to fail them. This is indicated by factors such as the rise in food prices, the decrease in local small-scale farming infrastructure and the increased number of Manitobans requiring food assistance.

Local market spaces, along with productive urban landscapes have traditionally been a staple source for consumers to access local goods. Fostering environments that support the success of productive urban landscapes, local marketplaces and small-scale farming practices can greatly contribute to the success of local farmers, gardeners, consumers and the local economy.

Chapter 5
Moving Towards a New Food System in Winnipeg

Integrating Food and City: Strategies for a Food Sovereign Winnipeg

EXPOSURE INTEGRATION ACCESS DESIGN

The corporate food regime is failing in Winnipeg, as it is in many parts of the world. Neoliberal policies that urge for globalization, privatization of goods, services and enterprises and which encourage capitalism above all else, are making it increasingly difficult for a large number of the world's population to access the most basic of human necessities, including food.

Statistics indicate the number of Manitobans requiring food assistance is increasing every year. Of those people in 2012, 47.6% of them were children, ranking Manitoba as the province with the highest percentage of children requiring assistance in that year (Food Banks Canada 2012, 23). The corporate food regime is also accountable for the loss of many small-scale farms and the destruction of native landscape.

This flawed food system has become more evident, and Winnipeggers are taking an increased interest in producing and consuming locally grown goods. The city of Winnipeg can regain control of its food system by moving towards food sovereignty. As the food sovereignty movement suggests, a radical restructuring of the present day food system must take place in order to create a new food system that fundamentally advocates for the economic and social justice of food producers, people and environmental sustainability.

Through a set of strategies that utilize productive urban landscapes as a foundation, Winnipeg can begin to move towards food sovereignty. Exposure, integration, access and design are the strategies that can help to establish a new food system within Winnipeg.

Exposure

Increase **EXPOSURE** to productive urban landscapes on a daily basis

Our lives have been significantly removed from the process of cultivating our own food. By increasing exposure to productive landscapes through visual and physical methods we can begin to mend our fractured connection to what we eat. We may then better understand how our food is grown.

Exposure to productive gardens can spark a curiosity in people and a desire to learn more about them through participation.

As previously stated, the benefits of exposure to plants and gardens can occur through passive interaction. People who have passive contact with these garden spaces can still obtain the positive benefits.

Major transportation routes and hubs like large bus stops, highly used roadways, connective bike routes and multi purpose trails, can act as visual and physical points of contact and interaction with productive landscapes. Through repeated exposure and an increased familiarity with the garden spaces, these landscapes can become a normal part of everyday life in Winnipeg.

Figure 5. This map highlights the major roadways, major trail and bike route systems. The opportunity for exposure at these points and routes would be high as they are highly used by pedestrians, cyclists and motorists. *Source:* Data adapted from City of Winnipeg 2012 and City of Winnipeg 2013 and Quesada 2013b.

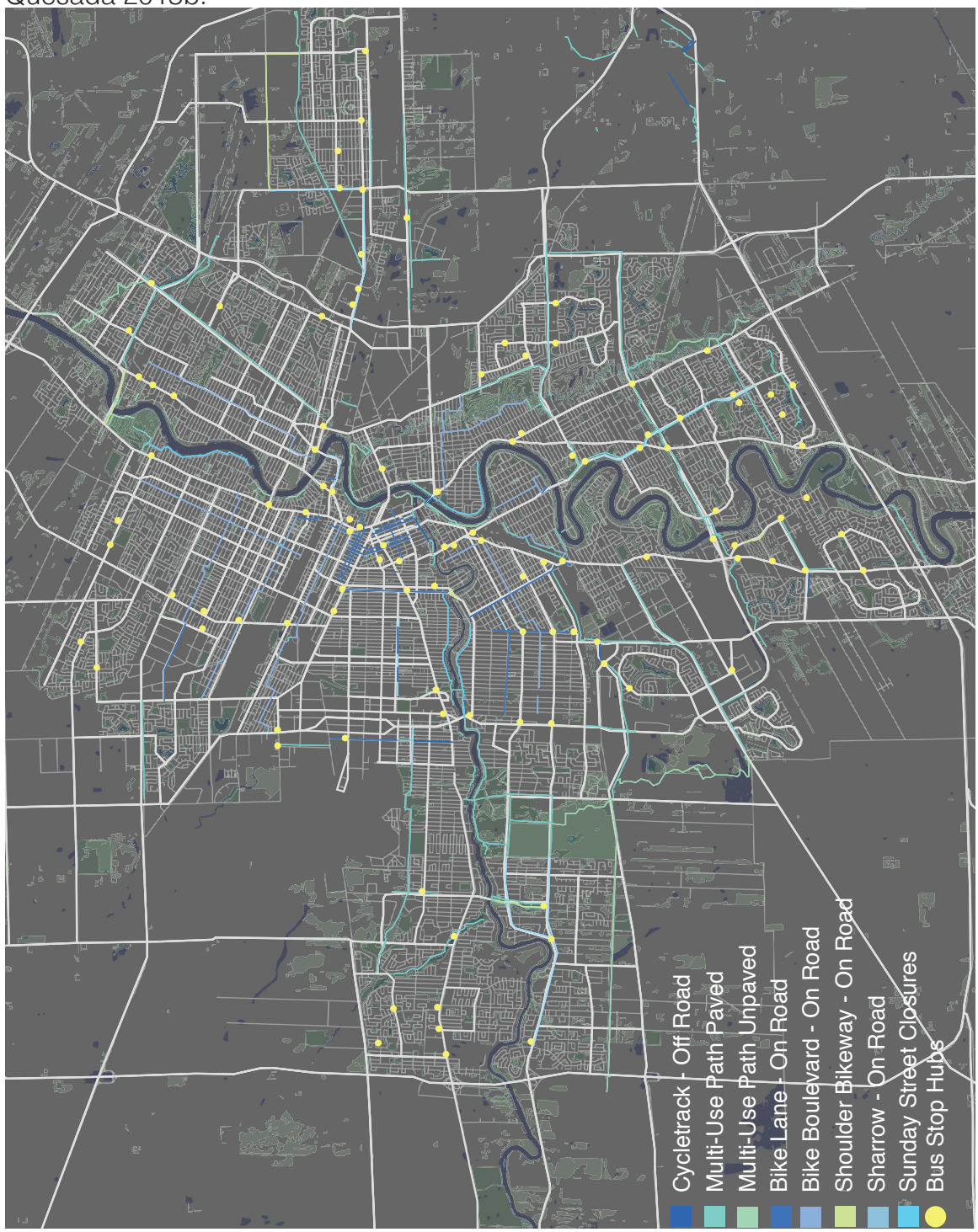
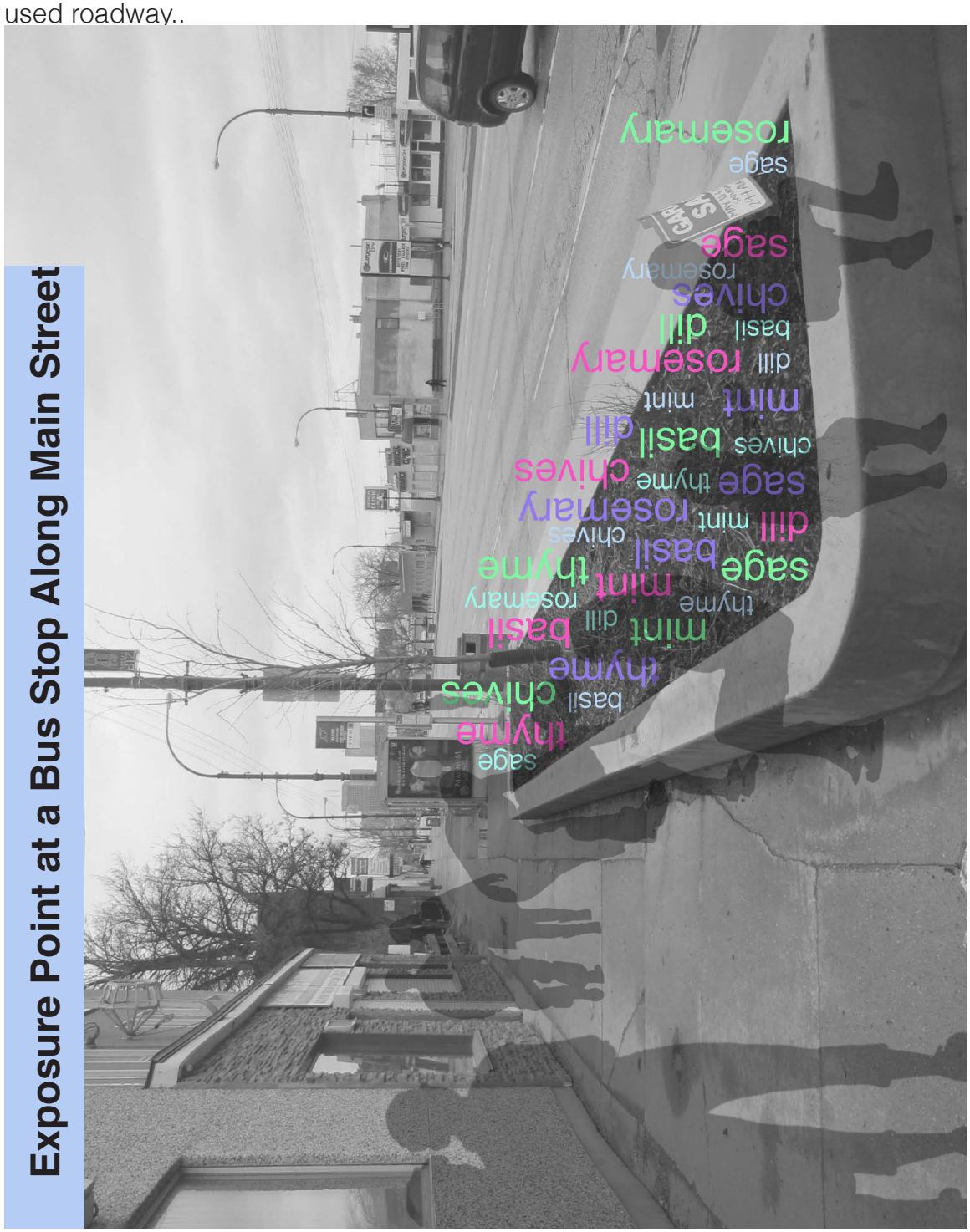


Figure 5.1 This image shows a potential exposure site along Main Street, a highly used roadway..



Integration

INTEGRATE productive urban landscapes into the development and fabric of the city.

Productive urban landscapes and a food sovereignty framework can both be integrated into Winnipeg culture. As Winnipeg expands, opportunities for integration of productive urban landscapes into new developments and redevelopment areas should be taken advantage of. Measures can be taken at a city level to ensure that productive urban spaces do not become an afterthought in design. Urban gardening spaces along with the services associated with them such as irrigation and sustainable organic waste management systems, will also need to be considered, and integrated into the new Winnipeg landscape.

An important aspect of food sovereignty is that food producers have control over their food production methods and food markets. As small scale farming practices have drastically declined, small scale manufacturing infrastructure is also disappearing. Integrating small scale processing and packaging facilities into the city allows local, small-scale food producers an opportunity to process their goods locally. This may in turn increase the amount of goods and lower the cost for both the farmer and consumer.

Edible plants, trees and shrubs can be planted into new and existing landscapes. This will be a very simple yet effective way to integrate productive urban landscapes into our daily lives.

Figure 5.2. This map indicates where there are new communities and redevelopment areas in the city. These areas would provide the opportunity to plan and design for productive urban gardening spaces. *Source:* Data adapted from City of Winnipeg 2011 and Quesada 2013b.

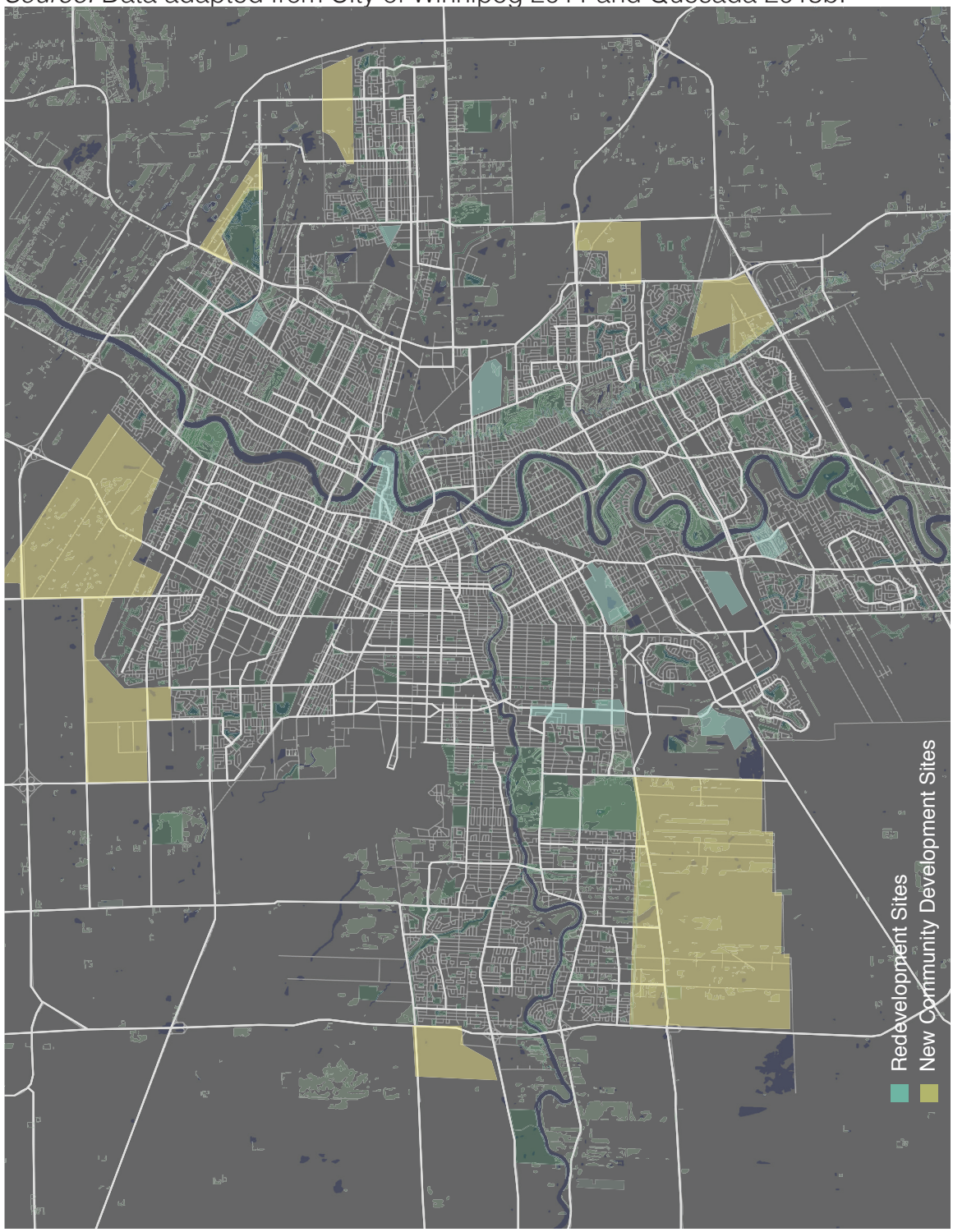
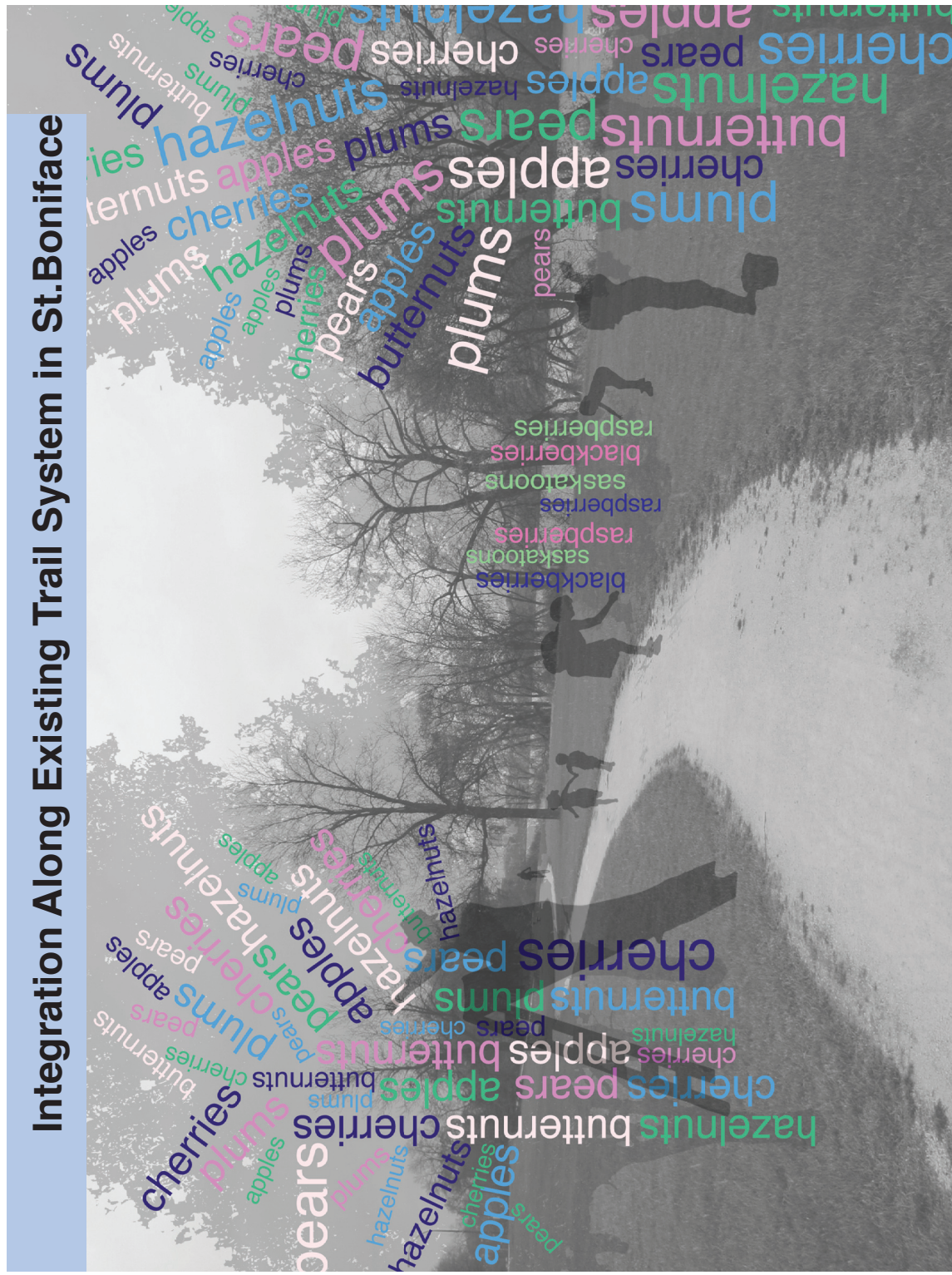


Figure 5.3. This image shows how the "integrate" strategy can be applied into an existing multi-purpose trail. This trail is located along the Red River on Lyndale Drive in St.Boniface.



Access

Create convenient **ACCESS** to locally grown food and garden spaces

Convenience is key in motivating people to participate in urban gardening and to buy locally produced food. According to the Buy Manitoba food: a survey of Manitoban grocery shoppers, “More than 9 in 10 respondents agree at least somewhat that they would buy more Manitoba food if they were available in the stores in which they now shop, including 74% which strongly agree” (PRA Inc. Research & Consulting 2008). This survey clearly shows that locally produced food needs to be readily available and easy to locate for consumers to purchase it. Gardening and market spaces must also be placed in locations that are accessible by multiple forms of transportation in order to encourage use through participation. A person can be deterred to participate in productive gardening if the available garden plot is located in an inconvenient area. Considerate and strategic placement of productive garden spaces and market spots that are easily accessible can significantly increase the number of people that are able to use the spaces. A better-connected and expanded alternative transportation network would facilitate in creating better access to productive urban spaces and markets.

Although the average yearly temperature in Winnipeg is below freezing, Winnipeg has on average, “2,372 hours of sunlight annually...also 2,727 hours of clear skies per year” (Tourism Winnipeg). The potential exists for successful year round indoor growing opportunities that would also greatly increase access to locally grown produce all year and could provide people with jobs and practical skills.

FIgure 5.4. This map overlays where there are areas in the city that do not have grocery stores but are easily accessible by bus and alternative transportation methods.
Source: Data adapted from City of Winnipeg 2013 and Quesada 2013b.

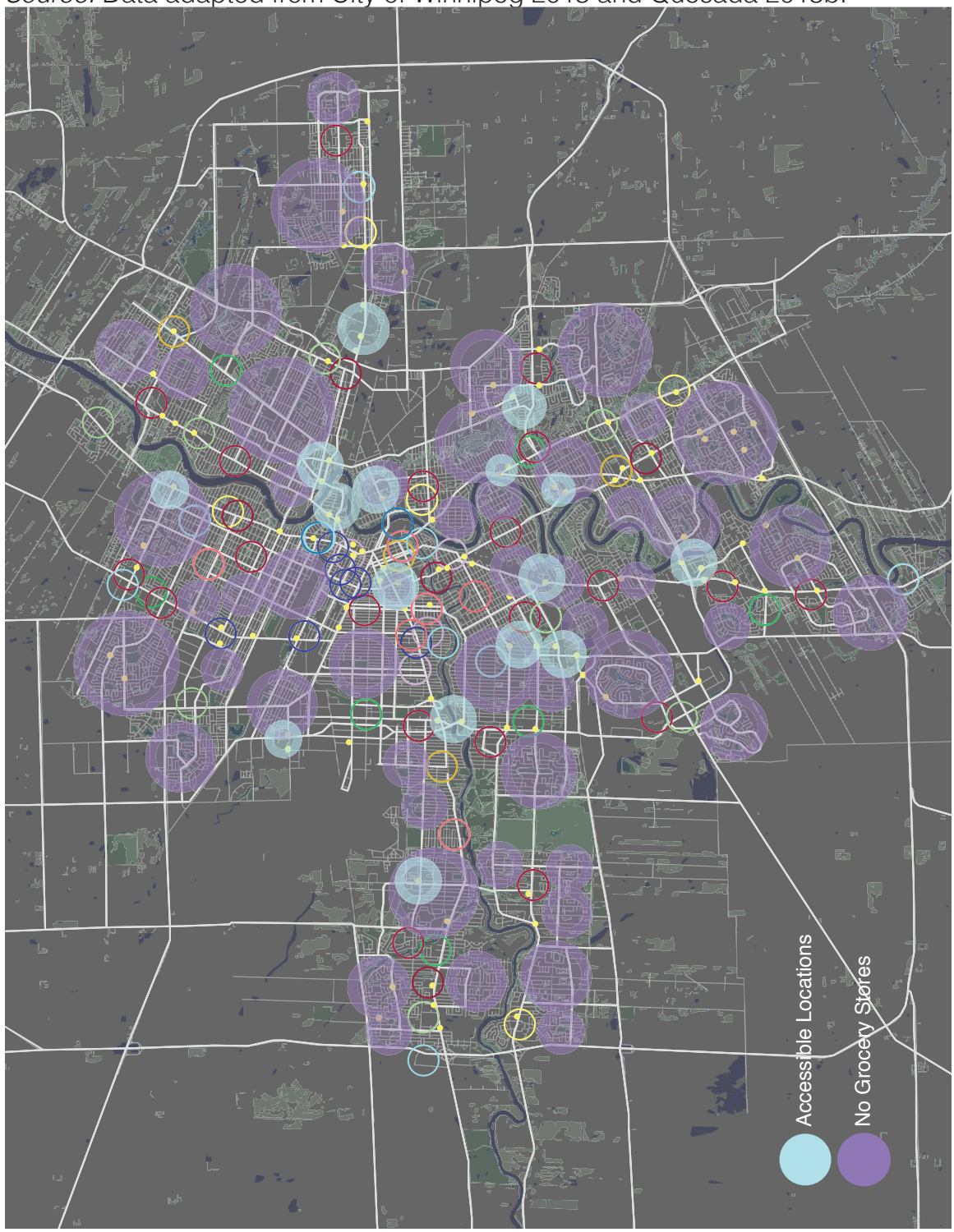


Figure 5.5. This map overlays the areas of the city lacking grocery stores and areas with poor access to bus and alternative transportation methods. *Source:* Data adapted from City of Winnipeg 2013 and Quesada 2013b.

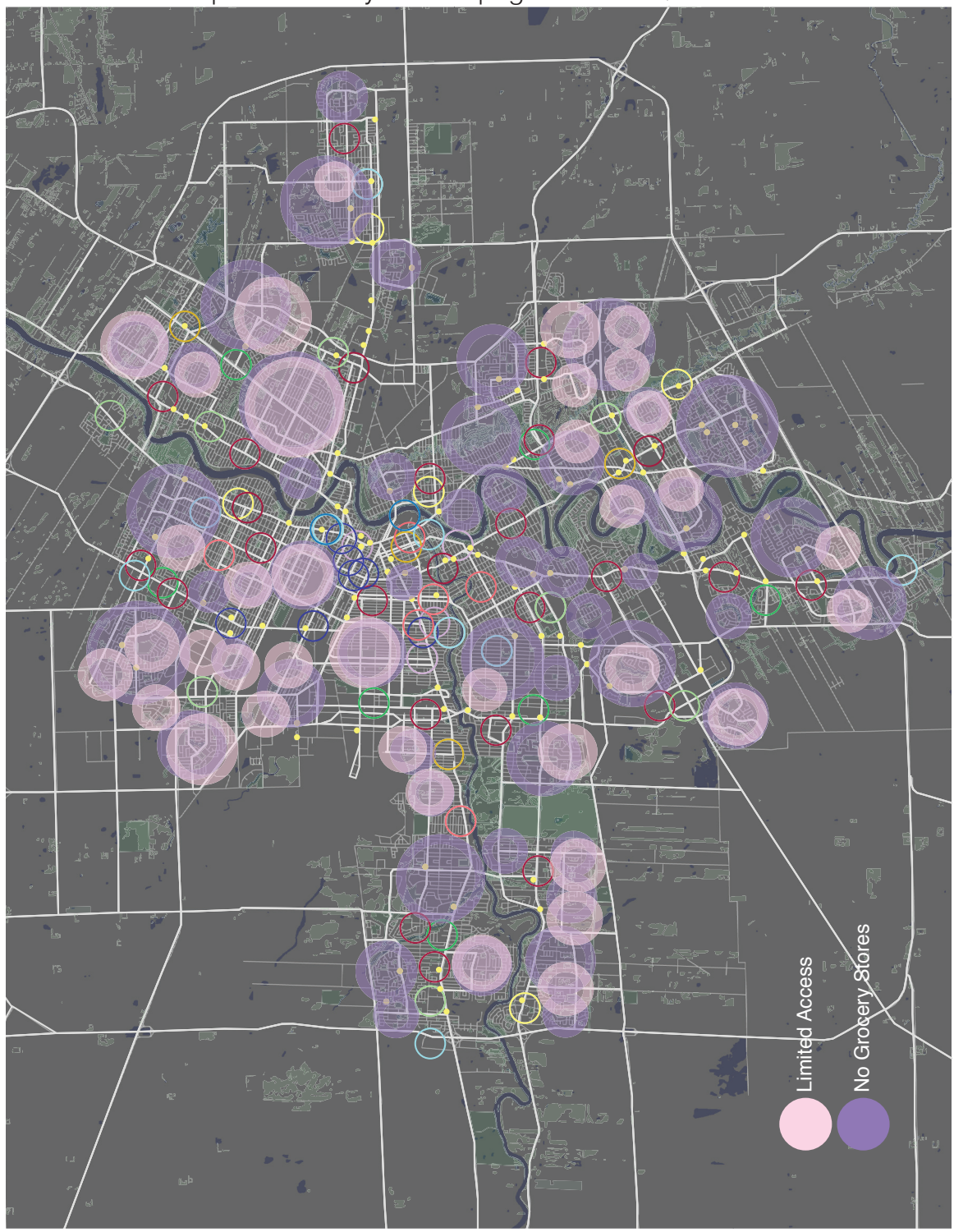
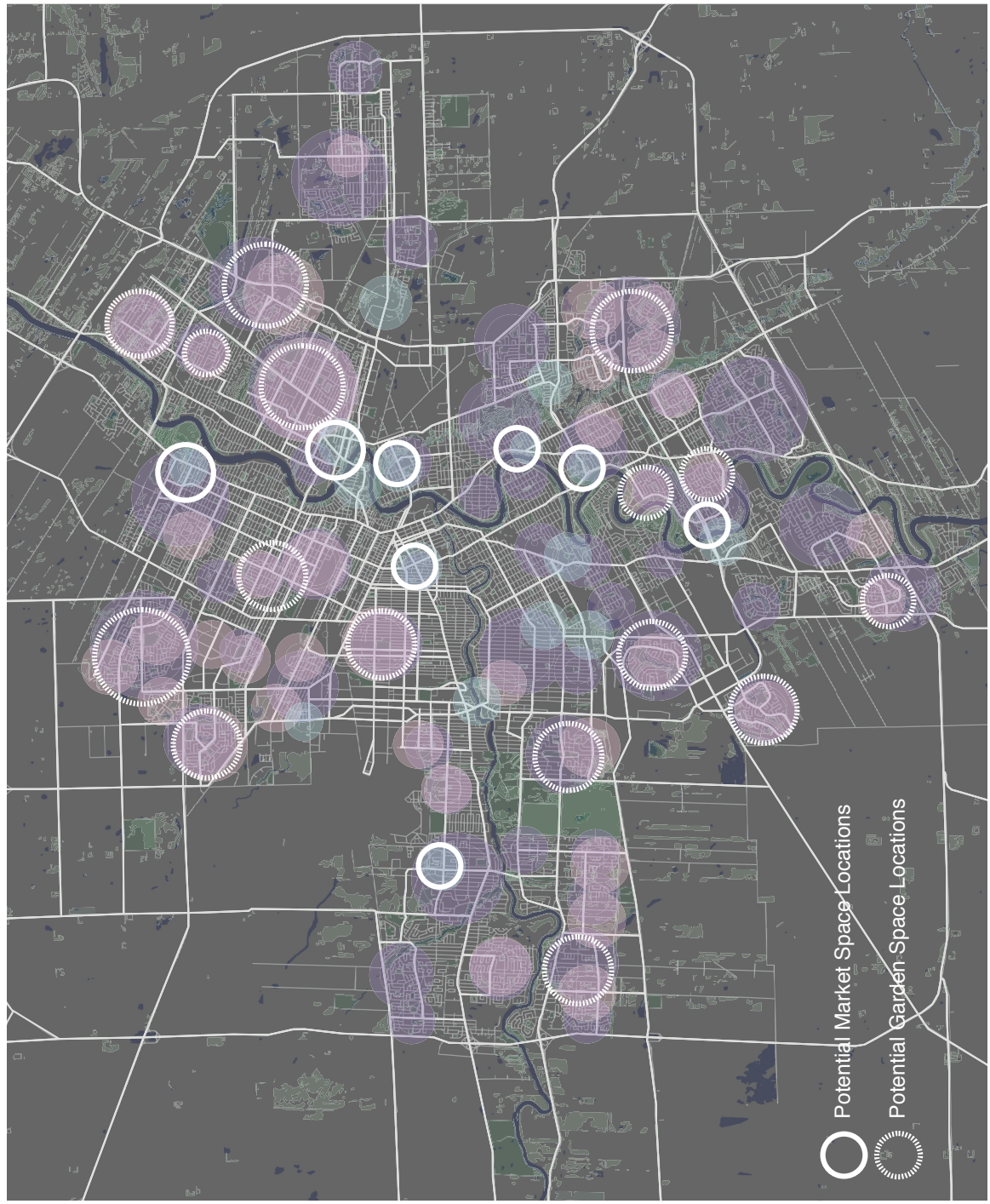


FIgure 5.6. In acknowledging where there is a limited source of food but there is good access to the area, a potential market space could be proposed. Garden spaces would be best designated in areas where there is limited access to food and transportation thereby providing people within the immediate area with a garden space to grow fresh produce.
Source: Quesada 2013b.



Design

+ **DESIGN** better garden spaces

It is crucial that landscape architects become involved in the planning and designing of productive urban landscapes. Urban garden spaces that have been designed by a landscape architect can transform communities. Landscape architects have the potential to re-imagine productive urban gardens and change the current paradigm of what a typical productive landscape is. Thoughtful and creative designs, which include multi-functional spaces, can help to actively engage a larger population to use these spaces and can also change perceptions of urban gardens and change how they will be received within a community.

Encouraging people who are not currently involved in urban gardening by enabling them to use urban gardens through multi-purpose designs, can increase support for these spaces. Designs that allow non-gardeners to feel welcome and comfortable in entering the landscape and providing them with other activities to become involved can help to achieve this. Activities such as walking, biking, shopping in market spaces, participating in gardening classes or even just interacting with the gardeners can foster feelings of a communal space to be used by everyone, not just the gardeners.

Spaces that have been designed to facilitate buying, trading and selling locally produced goods along with the sharing of knowledge can encourage people to become involved in productive gardening in different ways. Multi-functional communal spaces also allow for gardeners from different parts of the city and

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Productive garden spaces that incorporate multi-sized garden parcels can allow people to have more options in what they grow and whether they want to grow

enough just for themselves or enough to be able to sell at local markets. They provide the gardeners with a chance to interact and learn from people that are participating in local food production at different scales.

Communal fruit and berry growing areas give people the chance to grow food that would otherwise be too time consuming to harvest on one's own and too space consuming to grow on a personal plot. These types of spaces can also foster communal interaction and participation.

FIgure 5.7. A representation of a multi-functioning productive urban garden



Summary

I believe the city of Winnipeg has an opportunity to take control and revolutionize the current food system that is limiting opportunities for its citizens. By embracing food sovereignty as a framework for this radical change, Winnipeg can create a food system that fights for environmental sustainability, strong local food markets, social and economic justice for food producers and consumers. Through **exposure** to productive urban landscapes, **integration** of these spaces into the city, easy **access** to gardens and marketplaces and thoughtful **design** considerations by landscape architects, productive urban landscapes can become a fundamental aspect of the city, seamlessly woven into the existing Winnipeg milieu.

Conclusion

Figure 6. Evolved mind map upon concluding this practicum process



1. Large agri-business and industrialized farming practices have been adopted as the standard in our current global culture. This along with other factors has severed our connection and understanding of the way in which our food is grown and produced.

2. The foundation of this new style of farming, which underpins the current food system, has largely encouraged neoliberal ideologies that stress the commodification of food. Food sovereignty suggests a restructuring of this current food regime in order to create a sustainable and fair food system.

3. Productive urban landscapes have historically been an important source for obtaining food. Although their prevalence has increased during periods of economic depression, they have persisted as a part of the urban landscape. As farming practices and lifestyles changed, the purpose of productive urban gardens evolved beyond food production to include additional functions, such as personal wellness and community development.

4. As a result of the increasing commodification of food and awareness of environmental issues, Manitobans are beginning to both require and desire alternative sources for food. The importance of urban gardens as a food source has been reignited along with local and sustainable food sources such as, farmer's markets and Community supported agriculture.

5. There is an opportunity for landscape architects and designers to redesign the city of Winnipeg to embrace the idea of food sovereignty as a framework for creating a strong and resilient local food system. Productive urban gardens can be woven within Winnipeg through a set of strategies including ‘Exposure’, ‘Integration’, ‘Access’ and ‘Design’, to create a beautiful, connected, empowering and sustainable city and local food system.

6. These strategies and ideas are universal and can be adapted to reflect the unique needs and challenges of different cities.

This practicum emerged out of the aspects of landscape architecture that I am passionate about, and evolved through research and experiences. Throughout the process of writing this practicum, I realized how pervasive the effects of the current food system are within our cities, lives and landscapes. Upon speaking with individuals in Winnipeg and Havana who participate in urban agriculture, I began to fully understand the power of landscapes. Landscape architects have an incredible opportunity to transform our environments by designing spaces that respond to and reflect the changing social and environmental needs of our world. My intention was to design situations within our landscape that allow people to feel empowered and connected, and that enabled people to regain control over aspects of their lives and environments. Productive urban landscapes offer this opportunity. While these spaces currently exist they are not recognized. I have re-envisioned our city so that there are opportunities for these spaces to be seen, used and flourish.

Although these strategies were designed specifically for the city of Winnipeg, I believe that these are universal ideas that could translate to other cities. I encourage Winnipeg and other urban centers to embrace these strategies as a way to create more socially and environmentally conscious as well as healthier and better fed cities.

Figure 7. A community garden in Winnipeg's West Broadway neighbourhood.



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