GROWING CONCERN: THE EVOLUTION OF URBAN AGRICULTURE IN THE CONTEXT OF MONTRÉAL, A GENTRIFYING CITY

by

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Abstract

Urban agriculture is a growing trend in cities worldwide but there is concern in the literature that urban agriculture can contribute to the phenomenon of eco-gentrification. Eco-gentrification is the process whereby the environmental improvement of a neighbourhood increases land values, contributing to the gentrification process. When this occurs, urban agricultural projects increase land value and may attract new residents as part of the gentrification process, which can then displace older and less-affluent residences in the neighbourhood. Montréal, Québec is one such city where eco-gentrification may be occurring. Montréal is home to a rich history of urban agriculture and some of the world’s first rooftop gardens, and urban agriculture is only growing in popularity. My main research question asks whether the eco-gentrification process is occurring in Montréal through urban agriculture. I am particularly interested in knowing why developers might be interested in including urban agriculture and how the local city government is implicated in this process. To answers these questions, I drew on theoretical insights from urban political ecology and also grey literature from government, industry and non-profit sources. I also conducted 15 semi-structured interviews with key informants, including developers, urban planners, and community actors. I found that there was some interest from developers to include urban agriculture in their projects, but there were many challenges associated with them doing so, especially around cost and logistics. The push for urban agricultural integration into new developments was found to often be instigated through negotiated planning, and through community groups and residents in certain situations. In addition, this study showed significant concern from community residents about the possibility of urban agriculture exacerbating already existing gentrification problems in Montréal. However, there is a plethora of different forms of urban agriculture that exist in Montréal, all with different
aims, levels of community involvement, and consequence. Prior research has demonstrated that intention and method matter when it comes to the consequences of individual projects. Future research should study the impacts on particular neighbourhoods particularly where public incentive through funding or bylaw amendment is offered.

**Keywords:** eco-gentrification, Montréal, urban agriculture, urban political ecology, negotiated planning
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Table of Contents

Abstract ................................................................................................................................. ii
Acknowledgements ................................................................................................................ iv
Table of Contents ................................................................................................................ v
List of Figures ....................................................................................................................... viii
List of Tables ......................................................................................................................... ix
Glossary ................................................................................................................................ x
Chapter 1 Introduction ........................................................................................................ 1
Chapter 2 Literature Review and Context ........................................................................... 4
  2.1 Introduction ................................................................................................................... 4
  2.2 Urban Agriculture: Current State of Research ............................................................ 5
    2.2.1 Critical Urban Agriculture Studies ..................................................................... 9
  2.3 The Urban Political Ecology and Gentrification ........................................................... 11
    2.3.1 Urban Political Ecology ..................................................................................... 11
    2.3.2 Gentrification ..................................................................................................... 13
    2.3.3 Eco-gentrification ............................................................................................... 15
    2.3.4 Food gentrification ............................................................................................. 18
  2.4 Context: Montréal, Québec .......................................................................................... 19
    2.4.1 Housing and Sustainability Policy in Montréal .................................................... 23
    2.4.2 Urban Agriculture in Montréal .......................................................................... 24
  2.5 Research Questions ...................................................................................................... 28
Chapter 3 Methods .............................................................................................................. 30
  3.1 Introduction ................................................................................................................... 30
  3.2 Research Questions ....................................................................................................... 30
  3.3 Case Study Method ...................................................................................................... 30
  3.4 Study Boundary ............................................................................................................ 31
  3.5 Semi-Structured Interviews ....................................................................................... 32
  3.6 Interview Recruitment ................................................................................................. 33
  3.7 Interview Analysis ....................................................................................................... 35
  3.8 Limitations ................................................................................................................... 36
Chapter 4 Results .................................................................................................................. 37
  4.1 Introduction ................................................................................................................... 37
  4.2 Motivations for Including Urban Agriculture in Developments .................................. 39
Appendix B Letters of Recruitment ................................................................. 80
Developers ........................................................................................................ 80
Urban Planners ................................................................................................. 80
Community Actors .......................................................................................... 81
Appendix C Letter of Information and Consent .................................................. 83
Appendix D Interview Schedules ..................................................................... 85
Developers ........................................................................................................ 85
Urban Planners ................................................................................................. 85
Community Actors .......................................................................................... 86
References ......................................................................................................... 88
List of Figures

Figure 1: a leaflet from World War I that encouraged citizens to aid the war effort by planting gardens (Smithsonian Libraries, n.d.) .......................................................................................................................... 7

Figure 2 A sign using environmental discourse and encouraging residents to participate in a community garden, posted by a condominium development in downtown Vancouver (Quastel, 2009). ................. 17

Figure 3 The Island of Montréal, with boroughs of the City of Montréal shown in dark blue (adapted from ville de Montréal, 2006). .................................................................................................................. 21

Figure 4 Certain alleyways in the city are designated as "ruelle vertes" with signage (taken October 21, 2019).................................................................................................................................................. 26

Figure 5 The multidimensional benefits of urban agriculture in disadvantaged neighbourhoods of Montréal (Duchemin, Wegmuller, & Legault, 2009). .................................................................................................................. 27

Figure 6 A planting bin free for adoption and sponsored by the city of Montréal and éco-quartier program (taken October 21, 2019). .................................................................................................................. 56

Figure 7 Themes in each group of interviewees. ............................................................................................................. 61

Figure 8 A photo taken in Rosemont, Montréal, advertising an eco-friendly development project (taken October 18, 2019). .................................................................................................................. 64

Figure 9 a planter bin in a ruelle verte, St-Henri. These bins hold a variety of plants, including flowers, fine herbs, and vegetable plants (taken October 21, 2019). ....................................................................................... 66
List of Tables

Table 1 Interview Participation ........................................................................................................... 38
**Glossary**

**Eco-gentrification** – the process whereby the environmental improvement of a neighbourhood increases land values, contributing to the gentrification process.

**Éco-quartier** – programs funded in the boroughs by the city of Montréal that are generally run by community organizations. These programs provide environmental services to the boroughs, such as providing compost, local activities, clean-ups, gardening supplies, and in some cases, urban agriculture projects. Programs of the same name are also run in France but can have significantly different structures.

**Food gentrification** – a facet of gentrification where food becomes a drawing factors of neighbourhoods, leading to increases in property and rental prices. This can also include the sudden trendiness of staple community foods, or an influx of expensive food items and restaurants.

**Guerilla gardening** – growing plants on land that the gardeners do not have a legal right to plant on, often abandoned private property or in public spaces.

**Sustainability fix** – the process through which cities use sustainability measures to attract capital and “fix” it in place.

**Ruelle verte** – a “green alleyway” in Montréal where residents or community groups add plants. These alleyways often include planter boxes with flowers, herbs, or vegetables.
**Urban Agriculture** – any growing of food in the city, whether it be for personal, community, or commercial reasons.

**Urban Political Ecology** – A study of the social and environmental processes of the city, focusing on how capital is metabolized and flows through the city. Urban political ecology particular focus to the interactions between nature and society, and the way that society conceptualizes “nature” as a divided and separate entity from the city.
Chapter 1

Introduction

In recent years, urban agriculture has grown wildly in popularity. This has encouraged citizens to reappropriate space in the city for a wide variety of projects, and has also spurred involvement by local governments, community organizations, commercial business and academics. Urban agriculture has proven to have wide-ranging social, environmental, and economic benefits for cities (Duchemin, 2020). However, there has also been growing concern among scholars and citizens about the uneven benefits experienced by different citizens, as well as the potential for more nefarious side-effects such as exacerbating gentrification.

I first became interested in urban agriculture during my undergraduate degree in Environmental Science. In third year, I did a research project on the environmental impacts of urban agriculture, specifically reviewing the literature to examine its potential to sequester carbon and reduce the urban heat island effect by greening areas. However, while I was doing this literature review, I came across many social science studies speaking off the benefits urban agriculture brings to citizens. At the time, I was also taking an elective course in urban geography. I was becoming increasingly curious about socioenvironmental connections in cities, and urban agriculture seemed like a fascinating perspective from which to pursue the interactions between nature and society in the city. However, as I entered the first year of my master’s degree and started learning more about contemporary urban agriculture research, I realized some of the negative impacts these projects could be causing, including contributing to gentrification.

Gentrification is a global phenomenon, and the city where I chose to do my case study, Montréal, Québec, Canada, is no exception. Though it has gentrified slower than other major Canadian cities like Toronto and Vancouver, in recent years there has been an outpouring of concern in local media and from concerned residents about the increasing rent in previously affordable neighbourhoods (Walks & Maaranen, 2006; Lessard, Sénécal, & Hamel, 2017). During my field work in Montréal I was able to attend talks on gentrification by local community members, and I heard first-hand the difficulty
residents were having finding a place to rent in neighbourhoods they had lived in for years. But I also experienced a culture of action, and a collection of citizens who were willing to make their voices heard about their concerns.

Montréal is the second largest city in Canada and the largest city in the French-speaking province of Québec. It is a majority francophone city, in contrast with other major Canadian cities such as Toronto and Vancouver, giving it a unique culture. Montréal has a vibrant urban agriculture scene that includes institutional forms of urban agriculture, such as community and collective gardens (ville de Montréal, 2012), as well as more “informal” and citizen-led urban agriculture known as guerilla gardening (Bach, 2016).

The literature on urban agriculture in Montréal is by and large a study of the productivity, logistics, and positive impacts. In contrast, many studies on other North American cities have begun to explore in depth the social issues urban agriculture can (often inadvertently) bring about, such as gentrification. I had not originally intended to do a project on eco-gentrification, but the more I read urban agriculture literature, the more concerned and curious I became about what Nathan McClintock (2018) describes as the “contradictory” nature of urban agriculture – how it can simultaneously be a site of resistance and oppression. This led me to question whether urban agriculture in Montréal was taking the same form as in other North American cities, namely as a contributor to gentrification. With urban agriculture increasingly being included in private developments in the city, I thought it important to explore the impacts this may have, and to contribute research that would hopefully aid in the integration of urban agriculture that amplified its many benefits, while avoiding the detrimental impacts found in many cities.

My research questions explored 1) the motivations for including urban agriculture in private developments in Montréal and 2) the challenges associated with including urban agriculture in private developments, for both the surrounding community, the city, and the developer.

I conducted my research primarily through semi-structured interviews with a wide variety of actors in the urban agriculture scene. I began with developers, particularly ones I knew were planning to integrate or had already integrated urban agriculture into their developments. Unfortunately, developers were difficult to reach. I also began
interviewing urban planners, primarily in central boroughs where large urban agriculture projects, especially in new and private development, were taking place. I also began reaching out to community actors. Many of these participants were reached first through contacting community organizations and éco-quartier programs, and later through attending talks held by local universities. The more I spoke with community actors, the more I realized how valuable their input on the project was. Most of them had been participating in urban agriculture for close to a decade, and so they had watched and witnessed the way that urban agriculture had changed form over the years, and the way it was impacting their neighbourhood as local residents.

In this thesis, I attempt to bring together the many voices that are involved in the current phase of urban agriculture in Montréal – those who are newly integrating urban agriculture, such as developers, community actors who have been involved for many years, and urban planners in charge of regulation. The following research presents findings on changing perceptions of urban agriculture, as well as a look at the challenges urban agriculture poses, both logistically and socially.
Chapter 2

Literature Review and Context

2.1 Introduction

Before turning my attention to the literature review, I will first define what I mean when I write about urban agriculture. Broadly speaking, urban agriculture is the growing of food in cities. Sometimes included within the realm of urban agriculture is peri-urban agriculture, which is growing food just at the limits of, or on the outskirts of the city. However, as I only studied central and dense neighbourhoods of Montréal, I will focus on urban agriculture that is active within the city proper, and often in dense, central, and older neighbourhoods. This form of urban agriculture is likely to happen where there is a lack of space, giving it unique characteristics and forms (e.g., growing food on rooftops), as well as challenges, such as the struggle to find and/or appropriate space within the city (ville de Montréal, 2012).

Urban agriculture can happen on an industrial, community, or individual level, and includes many different formats of growing food. Typically, urban agriculture has involved planting gardens on the ground, such as in community gardens, or in bins in locations like parks. However, as technology has evolved, so too has urban agriculture. Rooftop gardens propose a way of maximizing space for urban agriculture in dense environments. Greenhouses provide a way to circumvent the growing season. Hydroponics and aquaponics provide methods of growing food without using traditional soil and can often be done indoors. Vertical farming – which stacks bins on top of each
other in a way that optimizes lighting and space – is another potential solution for areas where land is scarce (Goldstein et al. 2018).

This Chapter begins by exploring the general research covering urban agriculture to date, which includes the logistics of growing food in cities, and the many potential benefits to citizens. Most of this interdisciplinary literature comes from the fields of food studies, geography, sociology, environmental studies, and education. I then explore the more recent debates that have emerged from critical studies of urban agriculture, which examine equity and access to urban agriculture across different socio-economic backgrounds and neighbourhoods as well as the potential detrimental impacts of integrating urban agriculture into a city. To frame my research and explore the impacts of urban agriculture more critically on places, spaces and neighbourhoods, I draw on insights from urban political ecology and concepts from the large gentrification literature.

In addition, this Chapter also provides some context for my case study on Montréal, including the history of urban sustainability and agriculture and current research to date on urban agriculture in Montréal. I will conclude by pulling together the current research, context, and theory and re-state the emerging research questions from this literature review.

### 2.2 Urban Agriculture: Current State of Research

Urban agriculture is an inherently interdisciplinary topic. As a producer of food, urban agriculture fits well into food geographies, especially when considering the impact of adding the option of fresh and local produce to urban neighbourhoods. In addition, as urban agriculture is often embraced for environmental reasons, it falls under the purview of environmental geography or physical geography. Finally, as it takes place in the city, it
can be studied within the context of urban geography, to examine the way urban agriculture interacts with and is created by the processes of the city. Beyond geography, urban agriculture has been studied in education, urban planning, environmental studies, and sociology. In this thesis, I do not approach the study of urban agriculture from any particular sub-field of geography. Rather, I am interested in seeing how these different priorities and perspectives interact to change the spaces where urban agriculture is present.

Urban agriculture takes place around the world, though often in different forms. It has long been an important part of food systems in the Global South, whereas it has been alternatively phased-in and phased-out in cities of the Global North (Hallett et al., 2016). Urban agriculture also differs between the Global North and Global South depending on local needs and production strategies. In the Global South, urban agriculture tends to be more intensely focused on high-value crops and is labour-intensive, whereas in the Global North it can emerge in more technological ways (e.g. hydroponics) and is often undertaken for social or educational reasons (Hallett et al., 2016). Following the industrialization of developed countries’ major cities, urban agriculture was by and large discouraged in cities, particularly the rearing of animals. However, urban agriculture has been increasing in prevalence in the Global North since the 20th century (Duchemin, 2013). Much of this began during World War I and II, as governments encouraged citizens to grow their own food to aid the war effort (e.g. see Figure 1). This led, for example, to the Victory Gardens that were widely planted in New York City, Philadelphia, and other American cities (Smithsonian Libraries, n.d.). More recently, some local governments and non-profit organizations have encouraged urban agriculture
as a way to alleviate concerns about the environment and food security in urban spaces. These concerns are closely linked to global issues such as climate change and the industrial food system (Heynen, Kurtz, & Trauger, 2012), both of which became major issues in the late 20th century. The prevalence of urban agriculture continues to increase. For example, in 2009, Michelle Obama planted gardens in Washington D.C. as part of her campaign to promote healthy food choices (Smithsonian Libraries, n.d.).

![Figure 1: a leaflet from World War I that encouraged citizens to aid the war effort by planting gardens (Smithsonian Libraries, n.d.).](image)

Studies of urban agriculture traditionally have focused on the benefits it may bring the residents, and, to a lesser extent, its physical environmental benefits, such as the potential for carbon capture. The following section will provide an overview of the current state of research on benefits that urban agriculture brings to the city and conclude by considering some of the critical scholarship that has emerged.
Urban agriculture is often cited as a way to make cities more resilient in the face of degrading global environments and increasing social inequality. Ferriera et al. (2018) discuss the potential for urban agriculture to create resiliency for urban communities, particularly due to its participation in circular economies, its contribution to ecosystem services, and its potential for raising levels of food sovereignty. However, they also cite some challenges commonly associated with growing food in the city – these are primarily physical challenges, such as contaminant concerns. Thornbush (2015) provides a good review of the many socio-ecological benefits of urban agriculture found in the literature. Case studies of specific local benefits of urban agriculture have also been extensively done worldwide, including from Cape Town, South Africa to New York, USA, from Nairobi, Kenya, to Montréal, Canada (e.g. see Battersby & Marshak, 2013; Reynolds & Cohen, 2016; Gallaher et al. 2013; Duchemin, Wegmüller, & Legault, 2009). The benefits recorded include increased social capital, education, social interaction, and economic development. However, urban agriculture often has even more wide-ranging goals, at times aimed at dismantling structural inequality.

Heynen, Kurtz, Trauger (2012) note that with their long history of engaging with social, political, and economic inequality, and especially through geographies of urban inequality, geographers are ideally positioned to offer research and insight into urban food insecurity, part of this being through studies on urban agriculture. They describe how food security has become a major issue in many inner cities, led by a combination of problems such as lack of grocery store access, increasing costs of quality foods, and the plethora of low-quality calories made cheaply available by the industrial food system. This leads to an uneven access to food in the city, with traditionally marginalized groups
finding themselves unable to access quality food and more likely to suffer from health problems because of it. Finally, Heynen, Kurtz, & Trauger argue that urban agriculture can ultimately create a link between food sovereignty and food security, “lend[ing] shape and substance to struggles to define and realize food justice” (pg. 306). Urban agriculture thus becomes a tangible solution to large, systemic problems that often are overwhelming to individuals. The problem is that this engagement in urban agriculture does not necessarily confront systems and global processes, such as gentrification and the industrial food system, that are at the fundamental root of the inequality. This problem is examined more in-depth by critical urban agriculture scholars, who are discussed in the following subsection.

2.2.1 Critical Urban Agriculture Studies

Critical studies on urban agriculture have begun in recent years to consider how spaces of urban agriculture can be considered sites of resistance by some, and sites of conformity by others. For example, McClintock (2014) challenges the notion that urban agriculture is “synonymous with sustainable food systems”, stating rather that urban agriculture begins to compensate for the rollback of the state in providing essential services.

In their book Beyond the Kale, Reynolds and Cohen (2016) write that “power and privilege are seldom recognized as fundamental challenges to urban agriculture. More commonly, advocates and policy makers focus on the basic needs: access to land, soil and compost, horticultural advice, and operating funds” (pg. 95). They further note that a lack of recognition of the broader power structures that urban agriculture exists in can work to act simply as a “stop-gap” measure for structural oppression. This ultimately could
transform urban agriculture from a site of resistance to a solidification of the status-quo power structures of a given city.

Processes associated with neoliberalism¹ have also changed urban agriculture, whether through its impacts or forms. McClintock, Miewald, & McCann (2018) write about the changing forms of urban agriculture in the context of the neoliberal city². Within a neoliberal city, as different levels of government roll back support, urban agriculture can be one form of labour that seeks to supplement declining services. Thus, instead of getting at the root of inequality or fixing fundamentally flawed systems, urban agriculture is used to attempt to solve large food security and environmental issues. Whether these urban agriculture projects are actually helpful to residents in the long term in all cases is also questionable, as will be explored in the next section.

However, in Beyond the Kale, Reynolds and Cohen mention multiple times that there is something significant in the particular way that urban agriculture is formed – they ultimately argue that there are many groups actively integrating social justice into their urban agriculture work, and that institutions must pay attention to the many activists, particularly those who are low-income and people of colour. Criticism of urban agriculture, then, should not necessarily be taken as a criticism against all of its forms. Rather, the purpose and methods of urban agriculture matter. The next section will discuss the underpinning systems of cities that urban agriculture plays a role in. Through discussing these underlying processes, an understanding of why and how urban

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¹ Neoliberalism is the broad scale shifting of responsibility from the state to the individual, associated with deregulation, free markets, and privatization. See MacLeavy (2020) for a more thorough explanation.
² The neoliberal city is one focused on economic growth, international competitiveness, and marketization above all else. See Larner & McLean (2020).
agriculture produces negative effects for disadvantaged residents assist in building more equitable systems going forward.

2.3 The Urban Political Ecology and Gentrification

2.3.1 Urban Political Ecology

This research will draw on insights from urban political ecology to explore how the concept of nature is appropriated in the city for projects such as urban agriculture. Urban political ecology is a theoretical framework that examines the linkages between the physical and social processes of the city. Urban political ecology differs from traditional studies of the environmental problems of cities in that it closely examines the fundamental political and social reasons as to why these environmental problems exist (Heynen, Kaika, & Swyngedouw, 2006). It emerged primarily from political economy, though it has since branched off to consider other lenses such as feminist, queer, and critical race perspectives (e.g. see Heynen, 2016; Heynen, 2017). At a fundamental level, urban political ecology argues that cities need to be studied as fully socio-ecological processes (Heynen, Kaika, & Swyngedouw, 2006).

The false nature/society divide in cities has been a key concern for scholars of urban political ecology (Smith, 2006). Urban agriculture has been a part of cities for thousands of years but was removed from cities of the Global North as cities began to prioritize the flow of goods and people, regulating agriculture to rural regions (Duchemin, 2013) and creating this divide between agriculture and the city. Despite the apparent novelty of growing food in the city and its current trendiness, historically this divide has not existed.
A framework of urban political ecology allows us to see the ways that this conception of urban “nature” is metabolized to produce capital (e.g. see Heynen et al. 2006). In the instance of urban agriculture and gentrification, it may be metabolized to increase the value of property. For instance, when the concept of “reconnecting with nature” is brought about in urban agriculture discourse, this transforms what is seen as “nature” into capital as it can increase the desirability of an area and thus its economic value.

When urban agriculture is used as a method of greening the city to attract capital, it can be seen as contributing to a city’s *sustainability fix*. While et al. (2004) first described the urban sustainability fix as a way to reconcile the contrary notions of environmentalism and accumulation in the neoliberal age, building off David Harvey’s concept of a spatial fix. Ecological crises brought on by the overexploitation of the environment through capitalist accumulation is contradictory to the notion of continuous development. The inherent contradiction of “sustainable development,” a term popularized by the United Nations Bruntland Commission, has long been recognized as problematic. For example, Redclift (1987), notes that sustainable development is contradictory but appealing to business and government because it obscures the detrimental impact the constant need for development in the capitalist system has on the environment. However, popular political demand for environmentalism leads to the sustainability fix, where greening is incorporated into development itself; often acting as a means to increase value, thereby contributing to gentrification (While et al. 2004). This allows development to continue to grow despite the contradictions of accumulation and ecological crisis. This is one of the aspects that make urban agriculture contradictory; it is
seen as a contribution to the sustainable city by providing food and reducing greenhouse gas emissions, but it also can act to displace people or increase the value of property by attracting a demographic that is seen to bring in capital (McClintock et al., 2018).

The process of the sustainability fix is not the same process as gentrification; one can occur exclusive to the other. However, when it comes to eco-gentrification, it is important to recognize how these processes may be working together to combine the use of “sustainability” to further development. For instance, the sustainability fix may work to concentrate capital in a particular area, furthering gentrification. The next section explores the history of gentrification and how environmental and food discourse may be used to increase land value in previously devalued areas.

2.3.2 Gentrification

Gentrification is, very broadly speaking, a process of transformation in a neighbourhood whereby renovations or “improvements” are undertaken to appeal to incomers of the middle-to-upper class, often eventually displacing original residents. Gentrification is an extremely complex phenomenon that has been studied over the decades from a myriad of perspectives. However, in this thesis I will focus mainly on the political economy and cultural perspective of gentrification, as I believe they are able to best explain To explore the political economy and cultural underlying of eco-gentrification and urban agriculture, I will draw on two prominent writers in the field, geography Neil Smith and sociologist Sharon Zukin.

displacing the original residents in the process. A primarily economic analysis, Smith’s work on gentrification differs from that done previously in that he began to see gentrification as more than local factors. He focuses on the idea of the “rent gap”, which is the difference between potential rent and actual rent on the ground, produced by capital devalorization (pg. 67-68).

However, there is more to gentrification than economic forces, even those that are global. In her book _Loft Living: Culture and Capital in Urban Change_, sociologist Sharon Zukin (c1989) outlined additional forces at play in the process of gentrification, namely artists. In her latest work _Naked City: The Death and Life of Authentic Urban Places_, Zukin (2010) highlights the importance of the concept of _authenticity_ in the gentrification movement. Zukin explains that gentrifiers seek out authenticity, even though they ultimately “destroy” it.

Taking into account the analyses of both Smith and Zukin, I consider urban agriculture as having the potential to intersect with both the economic and cultural aspects of gentrification. In economic terms, it has the capacity to increase property value, particularly in areas where there is what Smith calls a “rent gap” and prices are low, leaving room for rapid price increases. However, the way in which urban agriculture may be able to trigger this price increase is through its _cultural_ and _authenticity_ value, as Zukin describes. In her 2010 book, Zukin describes a visit to a garden in a low-income New York neighbourhood. This garden has cultural value, and Zukin explains that it has won support from the city due to its “authenticity”. However, over time, these gardens changed from a form of resistance to disinvestment into “an expression of secular cultural identity in tune with gentrifiers’ values” (pg. 197). What Zukin’s research stresses to
demonstrate is that this culture is vital to the process of gentrification, but that it ultimately ends up forcing out those who first created it.

More contemporary research has explored the way the sustainability movement and food are implicated in gentrification. The next two subsections will explore recent research that both theorizes and empirically demonstrates this trend. Urban agriculture allows for a particularly interesting study of gentrification because it intersects both the environmental and the food movements, both of which have been critiqued as causing or exacerbating gentrification through the processes of “eco-gentrification” and “food gentrification”, respectively. Examining urban agriculture as something that intersects these two may allow for a deeper analysis of the systemic issues it intersects with.

2.3.3 Eco-gentrification

Quastel (2009) first described “eco-gentrification” as use of environmental discourses and state policies that in turn contribute to the well-known process of gentrification, raising land values and displacing original residents in neighbourhoods that are “improved” through environmental projects. Quastel approaches the study of eco-gentrification through the lens of political ecology, stating that traditionally in North American cities, environmental discourse has been kept largely separate from discussions of social justice (nature/city divide), and thus condominium corporations are able to push environmental agendas with little critique of their social impacts, like gentrification. The term eco-gentrification is closely related to the terms of environmental gentrification and green gentrification, though their analysis may be approached from different perspectives (e.g. see Gould and Lewis (2017) for a discussion of green gentrification from an environmental justice perspective).
The term “green gap” has been introduced by Anguelovski et al. (2019), building off the idea of Smith’s (1996) concept of the “rent gap.” Anguelovski et al. explain the “green gap” as the method through which “municipalities, investors, and privileged residents find new ‘green rents’ from greening projects, couching them under discourse of win-win benefits and public goods for all” (pg. 1066). In this way, greening becomes an economic strategy that increases the profitability of rentals. However, as Anguelovski et al. explain, this form of gentrification ultimately can impact low-income residents and minorities.

Though eco-gentrification is broader than urban agriculture, and can also include aspects such as parks, neighbourhood clean-ups, and variously other greening projects, urban agriculture has certainly been shown to be a part of it. Specifically examining a community garden created by a condominium development in Vancouver, Quastel found that “the garden was symptomatic of how gentrification draws on and thereby reflects a growing ability by real estate developers and their target consumers to use discourses and policies of the environment” (pg. 695).
Since Quastel’s research, the literature on eco-gentrification and urban agriculture has grown significantly. Further theorizing the concept, McClintock et al. (2018) have also discussed more recently how urban agriculture can be part of the phenomenon of eco-gentrification. McClintock et al. argue “this new wave of UA primarily caters and appeals to the affluent and opens the door to predominantly white gentrifiers” (pg. 2), specifying to whom precisely this environmental discourse is aimed at. Several case studies from different cities have also added empirical data to back up the concept.

There are many examples of the development of green infrastructure displacing and dispossessing people in Canadian and American cities. A major example of this is in Detroit, where Safransky (2014) conducted an extensive study on greening as a means of economic revitalization. She argues that the type of greening that took place was
“neoliberal environmentalism”, which was based in “market-based greening, austerity, and gentrification” (pg. 239). The city of Detroit designated certain neighbourhoods to be cut off from municipal services so that they could be replaced by green infrastructure – part of which included a large urban farm privately owned by a wealthy man. This is an example of more severe displacement via environmental initiatives, where residents were actually asked to leave their homes in preparation for the installation of green infrastructure.

However, there are also examples where green development has not directly displaced inhabitants, but rather contributed to their slow and eventual displacement by pricing out through a more classic gentrification process. Though there are few quantitative studies on the relationship between gentrification and urban agriculture, Braswell (2018) was able to demonstrate quantitatively in St. Louis, Missouri based on rent-gap theory. He found that the placement of community gardens in neighbourhoods was a potential contributor to gentrification by demonstrating that community gardens presence positively correlated with high socio-economic status neighbourhoods. Braswell concludes that community gardens may act as a facilitator for gentrification in gentrified or gentrifying neighbourhoods. Echoing the argument of Reynolds and Cohen, Braswell concludes by warning that urban agriculture is not able to be used as an instrument for spatial justice if the intuitions implementing it are not struggling against fundamental uneven and unjust processes in the city, in this instance gentrification.

2.3.4 Food gentrification

Food gentrification is another way that urban agriculture may contribute to gentrification and intersects closely with eco-gentrification. Discourse on food often
employs not only language about eating healthy, but also about eating in a sustainable manner that emphasizes eating locally and organically to reduce the emission of greenhouse gases. DuPuis and Goodman (2005) both recognize and problematize this phenomenon. They argue that the push towards local food in response to the industrial food system, when unreflexive, “could threaten a similar romantic move to the ‘saving nature’ rhetoric of environmental social movements” (p. 360). As food is an integral part and common motivation of urban agriculture, it is important to consider it as a potential gentrifying force in addition to urban agriculture’s environmental dimensions.

Food gentrification has been linked with eco-gentrification in empirical studies, notably by Pearsall & Anguelovski (2016) in New York City. They found that residents are well aware of the dangers of food gentrification. They observed that local food advocates are increasingly concerned about the potential of high-end food stores like Whole Foods to increase property prices and attract new residents. This demonstrates that it is important to consider how the discourse of food may also be involved in gentrification caused in part by sustainability initiatives. When urban agriculture is considered for its food benefits, for example, by bringing fresh and organic food to a neighbourhood, it may be pertinent to ask who is gaining access to this higher-quality food, and who the “local and organic” movement is catering too.

2.4 Context: Montréal, Québec

In this section I will situate my research within the context of Montréal, Québec, Canada. I will first begin by giving a brief description of the geography and municipal structure of Montréal, before further explaining the current context of gentrification, and finally
giving an overview of urban agriculture activities in the city and reviewing urban agriculture research there to date.

Montréal is the traditional land of the Kanien’kehá:ka Mohawk people and was colonized by the French in the 1600s. Presently, it is the largest city of the French-speaking province of Québec and the second-largest city in Canada. The city is located on the Island of Montréal which sits in the St. Lawrence river, though the city proper does not cover the entire island. There are 19 boroughs in Montréal, each with their own central borough hall and borough mayor. Figure 3 is a map of Montréal boroughs following the 2006 de-amalgamation referendum, where dark blue regions are part of the city of Montréal, and light blue areas are surrounding suburban municipalities (ville de Montréal, 2006). Each individual borough is responsible for its own environmental services, which often includes an éco-quartier program. Éco-quartier programs are funded by the city but run by community organizations, and their services include distributing recycling bins, cleaning alleyways, and greening spaces (ville de Montréal, c2020).
Montréal is a gentrifying city, though compared to other major Canadian cities, it differs in its state and process of gentrification. Though now outdated, Walks and Maaranen (2008) provides one of the only comparisons of gentrification in the major Canadian cities of Toronto, Montréal, and Vancouver. They state that gentrification began in all three cities in the 1960s. However, there are some key differences they noted that have taken place in Montréal as compared to the other two cities from the 1960s until the time of the study, 2008. Most significantly, gentrification was much less complete overall in Montréal at the time, indicating that it took place at a slower pace (or later time) than in the other two cities. However, there were also other key differences about what the gentrification actually entailed in each city that the authors were able to deduce.
using census data. In contrast to Vancouver and Toronto, at the time gentrification actually produced some decline in inequality in gentrified neighbourhoods of Montréal. Another interesting finding was that neighbourhoods in Montréal that did gentrify showed less of a loss of diversity. This study is important because it highlights the increased difficulty of extrapolating the effects of gentrification and eco-gentrification from other Canadian cities, not to mention American cities, to Montréal. While there are several studies about the impacts of eco-gentrification, it is difficult to conclude that if eco-gentrification were also happening in Montréal, it would have similar impacts should these differences in overall gentrification effects still exist. Geographies, then, matter.

More recent local studies have demonstrated that gentrification is still actively occurring in Montréal. For example, Lessard, Sénécal, & Hamel (2017) report that gentrification has become a major concern for citizens of Montréal. Displacement is a particularly poignant concern. They also note that gentrification is mostly undertaken with the idea of having “mixed” neighbourhoods of varying socio-economic status. While this can improve quality of life in the short-term by adding increased services as capital enters the neighbourhood, in the long-term it can make housing unaffordable for the original longstanding residents.

Though there is little scholarly analysis on eco-gentrification in the Montréal context, Poitras (2009) questions how urban sustainability has been incorporated into new housing developments in the Southwest, and specifically, for whom exactly these sustainability projects have been designed. The Southwest (Le Sud-Ouest) is traditionally one of the poorest boroughs in Montréal, but parts of it have begun to intensely gentrify, particularly the neighbourhood of St-Henri which is on the Lachine Canal. Poitras
ultimately argues that urban sustainability is integrated into housing developments to attract middle- and high-income urban dwellers. This may be an early sign in the literature of eco-gentrification occurring in Montréal. However, Poitras also notes that there is a substantial stock of community housing in the Southwest, suggesting that this may mitigate some of the impacts, including allowing lower-income people to stay even as the neighbourhoods become more mixed-income. This stock of community housing will also be important to consider when attempting to extrapolate the experience of other North American cities with eco-gentrification to Montréal.

2.4.1 Land Use and Sustainability Policy in Montréal

The current policy climate in Montréal is of note as it directly influences gentrification as well as urban agriculture. The Plan d’urbanisme is the main document which outlines how the city may develop in the near future, and thus guides any new developments (ville de Montréal, 2016a). This document contains guidelines for land use upon which bylaws are based, and also explains the city’s priorities for land use planning, which include sustainability, specific areas of densification, economic vitality, and architectural quality (ville de Montréal, 2016a).

When developing new land, developers may ask for bylaw amendments. However, this process does not occur at the city level but rather through each individual borough. In addition, bylaws themselves are not uniform throughout the city, as urban planning bylaws are set by each individual borough (ville de Montréal, 2016a). The process to apply for and obtain a bylaw amendment is demonstrated in Figure 4, and the stakeholders involved include the property owner, borough officials, and the public.
In terms of institutional sustainability, some policy documents and action plans explicitly mention urban agriculture as a policy initiative of the city of Montréal. Sustainable development (*développement durable*) is noted as a key priority of the city from the very beginning of the Plan d’urbanisme and other policy documents (ville de Montréal, 2016a,b). While their social action plan does mention food security, it does not explicitly call for urban agriculture (ville de Montréal, 2019). However, the sustainable development plan does mention urban agriculture. Specifically, the city vows to “support access to healthy food and urban agriculture” (ville de Montréal, 2016b, pg. 19). Therefore, we can see that urban agriculture is used in the sustainability discourse of the city.

### 2.4.2 Urban Agriculture in Montréal

In 2012, the city of Montréal conducted a study on the state of urban agriculture (*État de l’agriculture urbaine à Montréal*, Ville de Montréal, 2012). This report details both the then-current state as well as the historical emergence of contemporary urban agriculture. Though agriculture has existed on the Island of Montréal since pre-colonial
times, urban agriculture made a re-emergence after industrialization in the early 20th century. Urban agriculture began to emerge in times of scarcity, such as during World War I and World War II, when the city had a Victory Garden program, and during the Great Depression (ville de Montréal, 2012). It emerged again during the 1970s, coinciding with the environmental movement and the energy crisis (Wegmuller & Duchemin, 2010). Urban agriculture was institutionally implemented in the city in the 1970s with the commencement of the community garden program in 1975. Although this was originally meant to be a temporary use of space, the gardens still exist (ville de Montréal, 2012).

Today, many diverse forms of urban agriculture exist in Montréal. Collective gardens, run by community organizations, have supplemented community gardens. In addition to these, there is industrial urban agriculture on rooftops, a plethora of private projects in bins, balconies, and available parcels of land, and small urban agriculture projects in emerging ruelle verte (green alleyway) projects that have recently been promoted by the city.
For those who have been able to access urban agriculture in Montréal, numerous benefits have been found. For instance, Duchemin, Wegmuller, & Legault (2009) found that urban agriculture has many multidimensional benefits to citizens in disadvantaged neighbourhoods, primarily including education, social interaction, and food security (see Figure 5). Interestingly, in a separate study examining the discourses of the city of Montréal with the actual benefits observed by gardeners, Wegmuller & Duchemin (2010) found that despite the environmental discourse of the city, many gardeners did not associate their gardening with environmental priorities as strongly. Rather, they associated it more with other benefits including intergenerational knowledge transfer (education) and socialization. In light of this study I wondered if urban agriculture would take a different form in Montréal than those shown in the eco-gentrification studies from other North American cities, particularly given the focus on social benefits.
Figure 6 The multidimensional benefits of urban agriculture in disadvantaged neighbourhoods of Montréal (Duchemin, Wegmuller, & Legault, 2009).

Bach (2016) also notes the increasing emergence of informal urban agriculture in Montréal, that is often contravening or not strictly following bylaw, referred to as “guerilla gardening”. Some of the major incentives Bach found for guerilla gardening within Montréal were largely connected to environmental concerns in a drive to “green the city” by reducing the urban heat island effect and improving air quality. Other citizens, Bach notes, see urban agriculture as a political movement. Bach found that in guerilla gardening, food security was less often realized as an explicit goal.

As is noted above, there are many different forms of urban agriculture in Montréal. Urban agriculture in Montréal is by no means a single, centralized movement, but rather a multi-faceted phenomenon with various motivations and actors. Finally, there is also the emergence of urban agriculture integrated into private development to consider, which is more recent and far less researched. While urban agriculture may or
may not directly cause gentrification, it is important to question whether it helps, harms, or both in a city where the forces of gentrification are well underway.

2.5 Research Questions

As noted above, there are few critical urban agriculture research studies that have occurred in Montréal. This led me to wonder whether these studies didn’t exist (and thus there was no data on whether or not gentrification was happening), or if there was something about the context of Montréal that was able to mitigate the dangers of eco-gentrification that have been found in so many other cities. Either way, it is important to discover how gentrification may be changing the longstanding urban agriculture scene. If gentrification effects were to be found, this would be important information for activists and long-time urban farmers who may want to mitigate any potential harm, as well as important information for the city. On the other hand, if Montréal has somehow been able to resist eco-gentrification despite its proliferation of sustainability and urban agriculture projects, then this could prove vital information for other cities undergoing gentrification problems. In that instance, information about context and strategies in Montréal may be transferrable to other situations. Thus, I came up with the following research questions:

1) Why are developers beginning to integrate urban agriculture into new developments? What are their motivations?

2) How has the urban agriculture movement in Montréal changed in the context of a gentrifying city?

3) What is the role of the municipal government in facilitating or encouraging these new private forms of urban agriculture?
In addition, since I began reading about eco-gentrification, I have often wondered: do environmental initiatives cause gentrification or does an already gentrifying city change any green or sustainability movements into a further gentrifying force? It is my hope that through a case study in urban agriculture, and by close examination of the key actors in urban agriculture, I may be able to contribute to further theorizing this. The subsequent Chapter will explore the research methods I used to explore my research questions and contribute to the theorization of urban agriculture’s role in gentrification.
Chapter 3

Methods

3.1 Introduction
This chapter explains the methodology taken to gather the empirical research for this thesis, as well as the analysis used to inform the discussion. This chapter begins with an explanation of the research questions and the theoretical framework that informed the design of the research, followed by an explanation of the case-study method chosen, the justification for choosing semi-structured interviews as the main method of empirical data collection, interview recruitment and analysis, and finally a discussion of the limitations of the chosen methodology.

3.2 Research Questions
My research was driven by questions surrounding the tension between social and environmental priorities in the city. These research questions are based on an urban political ecology understanding of the city that question the nature/society divide (Smith, 2006). Specifically, I drew on literature examining the concept of eco-gentrification\(^3\) to design a study that would explore the way the urban agriculture movement may have changed in a city where both extensive greening and extensive gentrification are currently underway.

3.3 Case Study Method
The case study method is an intense study of a small and defined unit, and often at a single point in time (Baxter, 2016). Following the work of Robert Yin (1981), case studies are not simply for exploratory research. Rather, case studies are useful for verifying the applicability of a concept (in this case eco-gentrification), as well as aiding in coming up with resolutions to concrete problems. In addition, case studies allow a deeper exploration of nuances and context (Baxter, 2016). Using a case study method allowed me to study the specific context of Montréal’s gentrification and the impacts on

\(^3\) See Chapter 2 Section 2.2.3
the socioenvironmental movement of urban agriculture. In this instance, Montréal acts as a case study as a major city, but urban agriculture is also a case study of a particular movement within social and environmental movements. Performing a case study of Montréal allows for the deepening of information on both a) the ways in which urban agriculture may be used as an act of resistance or gentrification, and specific factors that contribute to either; and b) abstracting these findings to advance theoretical knowledge of environmental urban planning and its broad ranging impacts on cities.

Montréal was chosen as a study site for several reasons. First, although many studies on urban agriculture have been done in the city and the city has a vibrant urban agriculture scene, few of them are critical analyses of urban agriculture and tend to focus on only the positive benefits. This led me to question whether urban agriculture took a different form that mitigated some of the harms found in cities such as New York, Vancouver, and Detroit, or whether it was simply understudied. Second, urban agriculture has a long history in Montréal, which allows for an analysis of the changes that have occurred over time as the city has increasingly gentrified.

3.4 Study Boundary

I focused on finding interview subjects in the following boroughs and neighbourhoods: Ville-Marie, Rosemont, Le Sud-Ouest (St-Henri), Parc-Ex, Hochelaga, and Verdun, as these were where I found urban agriculture projects being integrated into private projects. Interestingly, these boroughs also have had instances of gentrification and even eco-gentrification concern either reported through conversation with locals or in the media. Unfortunately, there is as of date little scholarly study on eco-gentrification and its spatial impacts in Montréal, and thus I had to rely on these other sources to determine where to

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4 See Chapter 2, section 2.4
5 See the following media reports: https://www.journaldemontreal.com/2019/05/09/saint-henri--un-groupe-anti-gentrification-victime-de-la-gentrification
https://www.journaldemontreal.com/2019/11/03/la-gentrification-samene-a-parc-ex
focus my research. Though it would have been ideal to more intensively study the entire city, this was not time-permitting. However, where possible and if suggested by a participant or other contact, I did follow up on suggested areas of study in other boroughs, most notably Plateau Mont-Royal, which is somewhat infamous for its gentrification.

3.5 Semi-Structured Interviews

Gentrification is a difficult phenomenon to quantify. It involves multiple factors, such as short-term rentals (i.e. Airbnb), municipal actions incentivizing development, cultural factors, and urban greening initiatives. While a quantitative study had been done by Braswell (2018) in St. Louis, Missouri showing the correlation between community gardens and increases in housing prices, I did not feel confident I would be able to separate the multiple variables involved to accurately demonstrate a causative effect of urban agriculture on gentrification. I thus decided to step back and examine the way that the urban agriculture movement could be changing in the context of a gentrifying city.

This method was also partially driven by local urban agriculture activists and potential participants I spoke with in the early stages of my research development. I quickly realised that many of the benefits of urban agriculture were still deeply felt by activists and participants and quantifying the impact of urban agriculture as a whole on gentrification would not account for different forms of urban agriculture that could have markedly different impacts on gentrification. Factors such as community participation, city involvement and institutionalization, form, and context could all potentially change the impacts urban agriculture has on each neighbourhood.

The lived experiences of people living in neighbourhoods that were undergoing gentrification and simultaneously had urban agriculture activity allowed me to explore the way the urban agriculture movement had change in the eyes of those who have been involved for 5+ years. While this cannot give us concrete information about what role urban agriculture may play in furthering gentrification in certain contexts, it can tell us how the movement as a whole has changed given the context of gentrification.
3.6 Interview Recruitment

Before I began this study, I went through a research ethics approval at Queen’s University by the General Research Ethics Board. This process examined the entire study methods, from the recruitment of interviews, the interview conducting, and the way that all data was securely stored.

Interviews were conducted with key actors in the development of condominiums in Montréal (Developers and Municipal Employees including Urban Planners) as well as community actors who had been involved in urban agriculture in their community for several years.

The primary method of recruitment was through email (see Appendix B), though I also followed up with telephone calls or by presenting myself in person when I did not receive a response and such contact information was available.

All recruitment information was initially communicated in both French and English, saved for when I was introduced to someone in one of the languages and then followed suite. Since English is my native language (I am a proficient French speaker but have a noticeable accent) and I was coming from an English-language University, many participants offered to switch to English for the interview. In all instances I informed participants that I was happy to conduct the interview in either language and followed their lead as to which language to continue in.

Developers were recruited first by contacting the five largest development firms in Montréal, as suggested by a local researcher in urban agriculture. These contacts were made first through email, followed up with phone calls and office visits when it was possible to find this information from developers. In one instance I was given the contact information of a developer by another researcher from a local university. Following from the inspection of condominium advertisements, any project that advertised urban agriculture was subsequently contacted to request an interview. In one case, a suggestion from a city planner I interviewed led me to attempt to contact a development for which I was told there was urban agriculture, despite the fact that the urban agriculture was not advertised.

Municipal employees were recruited through each borough, as bylaws regulating urban agriculture is administered through the borough, and each borough has their own
urban plan (plan d’urbanisme). Unfortunately, contact information for individual urban planners was not accessible through any means. I began by contacting the secretary of each borough, explaining my project and requesting that I be able to speak to an urban planner who was knowledgeable on sustainable development issues. This method of contact was only successful in one instance. Thus, I began showing up at the office of each borough to explain my research and request an interview. In four instances, I was granted access to an urban planner that day.

Community actors were recruited in a variety of ways. I found participants through talks given on urban agriculture where I subsequently searched and contacted speakers and searching community groups and organizations and requesting contact from their leaders. These interview candidates were selected carefully and had all been involved in urban agriculture in Montréal for over 5 years and had been involved in some sort of organizational capacity of it.

As each potential recruit was contacted in multiple ways (email, phone, and office visit), and finding them took extensive research, I focused on making contact which each key informant rather than broadly reaching out to many informants. The reason for this was twofold; first, as urban agricultural integration is a relatively new phenomenon in private development, there were not many key informants available, particularly in the private sector. Thus, it made more sense to focus my energy on contacting those whom I knew did have or plan to have an urban agriculture feature in their buildings. Second, because I had to follow up through several chains of people for one interview (i.e. secretary to colleague to key informant) and through multiple communication mediums, it was very time intensive to secure an interview with each informant. While I spent an initial two months in the summer in Montréal familiarizing myself with the urban agriculture scene and reaching out to initial potential informants, during the following 3 months of fieldwork in the fall I split my time between Montréal doing fieldwork and Kingston at my University, thus also limiting my time.

Interview schedules were created to broach select topics with all three groups (see Appendix 4). The goal of these schedules was to explore a) why developers and the city were interested in including urban agriculture in their project as part of urban sustainability goals and b) how this transformation of urban agriculture was interpreted
by community members who had been long time participants and members in the urban agriculture scene in Montréal.

3.7 Interview Analysis

All interviews conducted were transcribed, save for one interview where I was not permitted to record. In this instance I took extensive notes during the interview in place of a transcription. In several instances, interviews also had to be translated from French to English. All translations were verified by a native French speaker from Québec to ensure accuracy, who signed a confidentiality agreement.

I coded all my interviews to organize and explore the data, reducing it into distinct themes that were generated by the words of participants and the connection of their experience to relevant literature (Cope, 2016). While my research questions mainly derived from readings of urban political ecology and most notably theories and case studies of eco-gentrification, I chose to start with descriptive and inductive coding. I chose this because I wanted to be sure I was catching the meaning and intentions of my participants, particularly community members and activists who often had a complicated relationship with urban agriculture and expressed multiple and at times conflicting viewpoints on its impaction on their neighbourhood and city.

I first did content analysis with NVivo 12. Content analysis aims to identify themes that come directly from the participants themselves, as well as the context with which they appear in (Cope, 2016). Through NVivo, I was able to determine the words that were used most frequently, and then I manually grouped words that held similar meaning into themes. This allowed me to begin my coding in an inductive manner, allowing the data to point me to theory that may be relevant (Cope, 2016).

Once I had some themes from content analysis and inductive coding, I began analytic coding (Cope, 2016). I examined the descriptive codes to find major themes. I then compared the themes I found to themes present in the current literature and other case studies of urban agriculture in major cities. In addition, I categorised the data by circumstance, particularly the position of the participant. I created three categories of analysis; developers, municipal urban planners, and community, a category that included both community members currently working with an organization and those that had
worked for one, or several, in the past (see Table 1). I examined the differences between these categories to examine the different narratives held between each group, as well as analysing all the data as a whole to examine larger themes held in common between all participants.

3.8 Limitations
Recruitment was a major limitation to this research. Specifically, it was difficult to access private developers and urban planners at the city. In addition, it was also difficult to determine which private developers had included, were including, or were planning to include urban agriculture. While urban agriculture was sometimes mentioned in condominium advertisements that were currently selling, this was not necessarily the case for condominiums that were in the development phase or who had included urban agriculture after initial development.

Another limitation to my research was that I was not a local in the city. Initially, when some potential participants realized I had an Ottawa area code as my phone number or that I went to Queen’s University in Ontario, they were quite curious as to why I was interested in Montréal. I did my best to explain my genuine interest in the city and the importance of its long history of urban agriculture. While this more in-depth explanation was possible with those with whom I was fortunate to have opportunity to speak further with, I have no way of knowing if my status as an “outsider” in the urban agriculture movement and the multiple communities with whom I interacted negatively impacted my ability to reach potential participants who could have added valuable insight.
Chapter 4

Results

4.1 Introduction

This section describes the results from my interviews with developers, city planners, and the community actors in urban agriculture. “Community actors” refers to members, employees, or leaders (present or past) of community organizations, particularly those involved in urban agriculture for a long time.

The majority of developers I attempted to contact demonstrated no interest in urban agriculture and did not wish to participate in my study. I searched over 80 condominium advertisements across 3 platforms recommended to me by locals (Guide Habitation, Centris, and DuProprio), but this yielded only 3 mentions of urban agriculture or any growing of food. This demonstrates that while urban agriculture in condominium developments and other development may be an emerging trend, it is not yet mainstream, particularly in marketing materials.

When contacting city planners, I specifically asked to speak to planners whose profile included sustainable development, though oftentimes this was just a small part of their day-to-day job. Members of the urban agriculture community generally had 5-10 years of experience working in urban agriculture, and thus were able to report on changes they experienced within the movement.

In total I interviewed 15 participants, 3 of whom represented developers, 5 of whom were urban planners presently employed by the city of Montréal (at their respective boroughs), and 7 of whom were community actors (see Table 1). All participants were kept anonymous except for those who requested to be named.
Table 1 Interview Participation

<table>
<thead>
<tr>
<th>Group</th>
<th>Total Contacted</th>
<th>Total Interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Planners</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Developers</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Community</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>Totals</td>
<td>33</td>
<td>15</td>
</tr>
</tbody>
</table>

A contact was only counted once in the above table even if in reality I contacted several people to reach them. For example, if I was attempting to contact an urban planner in a specific borough, I would first contact the secretary of the borough by email, then I would call the borough and follow up on any leads brought by that, and finally I would show up at the borough office and ask to speak to them. However, despite speaking at times to 3 different people throughout this process, I would only count that as one contact. This intense method of tracking down informants lead me to a success rate of 45.5% recruitment overall as demonstrated in Table 1.

After coding the interviews, several major themes emerged which I have coded under the sections of “Motivations for Including Urban Agriculture in Developments”, “Challenges of Including Urban Agriculture in Developments”, and “Changing Perceptions of Urban Agriculture”. The first section documents the perspective of developers and urban planners, as they were the main forces driving the integration of urban agriculture in new developments. The following two sections weave together the voices of developers and urban planners with community actors to bring together the different perspectives in the contemporary urban agriculture scene.
4.2 Motivations for Including Urban Agriculture in Developments

This section includes thematic motivations I discovered during interviews for the inclusion of urban agriculture in developments. These answers reflect the perspective of the developers I interviewed, as well as urban planners in the local boroughs who were often involved in the development for negotiation, advising, and approval.

4.2.1 Demand

When asked why they had included urban agriculture in their projects, a common theme was that residents and tenants were interested in having it. Sometimes, developers directly solicited feedback on urban agriculture from prospective buyers and tenants.

When asked if prospective buyers were interested in urban agriculture, one developer told me:

> we have focus groups and surveys that we send to potential buyers for new projects when we’re in conception, and there is a lot of interest for anything, like vegetation. So, a lot of interest for – and then the new project we’re going to do as well, just having plants on your balcony or a green wall (Developer02).

This demonstrates that while it was not always organically brought up by prospective buyers or tenants, when suggested, it was noted as a positive enough benefit to consider including in the development.

It should also be noted that just because a developer decided to include urban agriculture in one project, did not mean they would find it suitable for all their projects. Rather, as one developer put it, “every project that we do, we try to pinpoint what the specific client for that project would like to have and how we can better the lives of these people living in our projects” (Developer02). This indicates that demand of the intended
market for the project can influence a developers’ willingness to include urban agriculture.

Other times, rather than coming directly from prospective buyers/tenants, the idea came from community organizations and solicited feedback from tenants reinforced the concept for developers:

We were approached by a non-profit group that wanted to use our roof to do kind of a Tom’s shoe store situation where they would sell one bag of produce and give one to a local community, because we live in – I mean our offices are often in impoverished areas. And so, we did like a survey… we did like a way to understand if our tenants gave a crap about that and if they would be willing to build that. And we had this crazy overwhelming response, like absolutely, how can I help, how can I invest, how can I pay for it, how can I whatever (Developer03).

In this situation the demand was not just from those occupying or potentially occupying the building, but also from broader organizations within the community.

4.2.2 Environmental Consciousness

Whether it was phrased as “sustainability” or a “natural” inclination towards greening, some sense of consciousness towards environmental issues, particularly climate change and the urban heat island effect, were cited by developers and urban planners as a reason to include urban agriculture. One developer described it as being “a little bit obsessed with making sure that the urban environment is as sustainable as it could be” (Developer03), while another described the turn towards inclusion of urban agriculture as being “just really natural for us” (Developer02) since as a company they had always been concerned about the environment.

Urban planners also revealed that a concern for the environment at the city level, reflected in policy and planning, was at the heart of the municipality and individual
boroughs’ interest in having urban agriculture included in some new developments.

Describing Montréal’s *transition écologique* (environmental transition), one urban planner told me that:

> Basically it’s, the city’s putting effort to make itself more eco-friendly at large. In terms of its procedures, the way it functions, it’s budgets, it’s basically - and it’s basically trying to see far and wide what it can change in order to have less of an aggressive footprint on the environment (Urbaniste04).

When asked where the interest in urban agriculture arose from one urban planner noted that:

> It’s difficult to say what it is on the political level. I think that firstly, it’s principally the question of the urban heat island effect that interest us, on our side in urban planning, more so than food security (Urbaniste05*).

Similarly, I was told that “the goal at the moment we’re speaking, the main goal is really to reduce the urban heat island effect, increase the cooling areas, permit the infiltration of water in-situ” (Urbaniste03*). The urban heat island effect was by far the most-mentioned environmental concern by urban planners.

When it came to municipal processes, politics and the idea of “green politics” was often mentioned, although I never directly asked about it. Sometimes, this was mentioned in light of politicians’ desire to increase urban sustainability. One urban planner told me that “politics has an important role to play. The green spirit is very present in our elected officials from the Plateau” (Urbaniste05*).

In the community, too, there was mention of an increased environmental consciousness that was observed by those who work in community greening projects. One community actor described it in the following way:
People are drawn to the desire to grow their own vegetables. They are a lot more conscious about the origin of certain plants and vegetables. That leads to having an environmental consciousness and for their health as well (Community05*).

4.2.3 Marketing
Developers noted that urban agriculture could be used to positively market new condos. For example, one developer noted that “it was something that was a good selling point when we did sell the condos here” (Developer02). In addition, it was not just the “environmental” idea of urban agriculture that was able to be marketed. There was also an aesthetic side to it:

Urban agriculture – to have an environmentally responsible building it’s not the aspect that will have the most impact on the carbon footprint of the building. However, there is a marketing side, an aesthetic side that I find super important because whether you like it or not, you look from the outside and it’s the first thing that you see (Developer01*).

Urban planners were also cognizant of the marketing ability of urban agriculture. Although urban agriculture is often unprofitable, or developers were resistant to it for other logistical reasons, urban agriculture could be used as a marketing strategy that would pay off in other unexpected ways. As one urban planner put it:

It’s a marketing strategy to cultivate on the roof, it is not profitable to cultivate on the roof, they are profitable because they [Lufa⁶] want to sell greenhouses in foreign countries, they are profitable because they have a niche of products and vegetables that are ultra-local, it’s a publicity strategy, it’s not the profitability (Urbaniste05*).

Noting the importance of marketing in urban agriculture, an urban planner also warned me that the prospect of marketing alone was not enough of an incentive to

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⁶ Lufa Farms is a rooftop urban agricultural business in Montréal, not a developer. See: https://www.montreal.lufa.com
develop interest in urban agriculture from developers. Rather, “it is these partnerships [with community organizations] that need to be put in place to implement these projects. IGA\(^7\) would not have built a green roof and raised its costs only for its brand image” (Urbaniste05\(^i\)).

However, marketing was noted by an urban planner as something that might create a sort of niche for a specific project, even though in general developers are not very interested in urban agriculture:

In an instinctive way, the developers are not interested at all to do that type of project – unless they make it a trademark of theirs, that says come visit us, we have this. You pay more, but people jump on board. But in a natural way, the private developers are not interested in that, they are less interested in that type of architecture, because it’s expensive. Because actually, the bill is often transferred to the citizens or residents (Urbaniste03\(^*\)).

One developer also told me that “it’s an aspect that we are able to sell to other projects when we’re in the process of developing sites, we say ‘on other blocks we have agriculture planned on the roof’ (Developer01\(^*\)), indicating that urban agriculture can be used as a marketing tool not only for those potentially occupying the building but also when working with other professionals to create new developments.

4.2.4 Eating Local

Urban agriculture is not only seen as a “greening” force, but as providing additional benefit through providing food. One developer explained that “the idea of urban agriculture was brought in very quickly in the plans, because one way that I see it is that when you speak about a green roof, since you are growing grass, why not grow

\(\text{\footnote{\text{A grocery store}}\)}
something more beneficial?” (Developer01*). In this way, urban agriculture is perceived as providing a dual benefit. While it was often discussed in conjunction with green roofs, it was generally characterized as a natural progression that provided additional benefit.

In some instances, social and environmental goals were explicitly mentioned, with the concept of food deserts and long-distance shipping practices evoked:

> Every decision we make is about being better for our communities, and the environment. So, we’ve become a little bit obsessed with our roofs as we continue to redo our roofs, you know we went from tar and gravel roof to a membrane, to a white gravel roof, so that we could be better. But then it’s a lot of space that we don’t really do anything with…. That’s how we work with [local universities], to try to figure out how to bring lower income citizens in touch with the fact that there are many food deserts in Montréal for fresh food. And why are we shipping all our food from China when we can at least work seasonally here? (Developer03)

In another instance, the concept of “eating local” was the driving factor behind the integration of urban agriculture:

> The main reason why we decided to include urban agriculture was to provide fresh and local produce to the people living in our project and the people around the project. So, the idea was to have kind of like a micro-organism around the project, so you can buy bread at your local bakery, you can buy your produce on a Saturday in the local square. We developed this project [name] around this public square where you would have restaurants and cafés. And the goal was to have the fruits and vegetables sold in that. So that was the main inspiration. Just like farm-to-table (Developer02).

There was also concern about quality of food and waste created by the modern food system that drove interest in urban agriculture, in addition to “local food” and “foodies” culture:

> Urban agriculture has come into our lives because we’re huge foodies in our company, and we think waste is crappy, and I think that there’s a lot of people getting cancer from the crap that goes
in our food. So, I think it’s our obligation to figure out how to make sense doing [urban agriculture]. Because government’s not gonna pay for it. (Developer03).

However, there was concern among community actors about food discourse used in urban agriculture that was less accessible, and whom this may be catering to. For example:

The local economy seems to mean production by whatever methods allows vegetables to be grown in the city without a particular attention to the social impacts of growing or making it accessible. It’s really catering to kind of the local, sometimes organic markets. So often that translates to growing really high-value production in a really intensive way and selling it at very high cost. Because we know growing in the city requires a lot of capital, compared with growing in more traditional settings (Heather Elliot).

4.2.5 Negotiated Planning

When asked if there were many developers in their borough interested in incorporating urban agriculture, most urban planners replied that there was little interest. Usually, the interest was actually coming from the borough, and this could result in “negotiated planning”. For example, when asked if there was interest in agriculture from developers, one urban planner described it as being “the other way around”. Elaborating, he said that “we ask them sometimes to add urban agriculture, mainly for particular projects. In those cases, if we allow let’s say a high building, we ask them for a few things to add to their project” (Urbaniste01). Sometimes, urban planners face reluctance to greening from developers, and use negotiated planning to overcome or bypass other barriers such as cost. As one planner told me, “from the start they will not want to do a green roof, an extensive or intensive green roof on their property because for them it will
maybe not be profitable enough. So that’s why we can go and look for it during the process of negotiation” (Urbaniste05*).

Urban agriculture and other negotiated goods were seen as a form of mitigation or compensation for a community when developers wished to negotiate certain bylaws within the local borough:

When we are in a negotiated zoning amendment process, when the person wants to construct a 4 story building, and the regulation limits to only 3 stories, but the person gives some compensation with a green roof or otherwise, it’s a mitigation measure that will aid in the realization of their project. If you follow me, basically what we are looking to gain with permit negotiation is to have some compensation that will benefit the collective. And urban agriculture can be an interesting form of compensation. Yes, the private landowner will be able to develop more square feet for offices or housing or whatever, but the compensation offers the community a green roof, they will offer that. So, it can be a form of – in the negotiation it can be a positive point for the borough to add that type of development (Urbaniste05*).

Urban agriculture in these instances becomes a “trade off” for the loss of something else.

It is also important to note that not all boroughs negotiated first and foremost for urban agriculture when given the opportunity to negotiate with a developer. For example, some boroughs were much more concerned about adding units of social housing, while other urban planners emphasized the importance of preserving heritage buildings and maintaining the aesthetics of particular neighbourhoods. What was negotiated, then, was very borough-dependent, though often negotiating for urban agriculture was balanced with other needs of the borough. There was also an acknowledgement that there were limitations as to what a borough could negotiate for, since the project had to remain overall profitable to the developer. This therefore placed urban agriculture against competing interests for other needs.
As one urban planner stated:

There are also other values like inclusion, social housing, and there are many things that the city council would like to have in a project but for a small project it’s difficult to have all this in the same project. Because it’s not financially sustainable to have inclusion, green, so and so and so, eventually it’s not economically interesting for them. So, we cannot push for everything, so eventually we have to make a choice about what we would like to be incorporated into the project (Urbaniste01).

4.3 Challenges of Including Urban Agriculture in Development

4.3.1 Cost

Cost was cited as a major barrier to the integration of urban agriculture by both developers and urban planners. Urban agriculture was reported to often be one of the first potential features to be axed when attempting to make a development profitable. One developer stated that “when the building is constructed, people don’t have the money to pay for it so one of the first things that we see when the client lacks financial resources, it’s one of the first things they’ll cross off their list. They will say, ‘I can’t afford my green roof or urban agriculture’” (Developer01*).

In addition, urban agriculture projects take a long time to design and implement. One developer explained:

The conception of this project was about 5 years back, so it was very new and when you work for a developer or as a developer usually, you’ll have like the financial side and then you have the creatives that try to implement new projects. So, I guess just making that possible is our first challenge (Developer02).

As one developer explained to me, “Yeah, it’s expensive. Yeah, we have a lot of barriers. It’s expensive, people don’t want to do it, who’s going to take care of it, who’s going to manage it?” (Developer03). The cost of urban agriculture comes not just from
the initial set-up, but also from hiring people to take care of the project as developers themselves do not often have the internal know-how to do that.

Developers also stated that it may be more profitable to do other things: “It’s very expensive to do it, there’s no real proven model yet, and you still make a whole lot more money doing other things. Like residential. So, I think it’s gonna take a long time, and proof of concept to realize that there’s money in doing good” (Developer03).

Urban planners also noted that cost was a barrier, and one in particular noted that if urban agriculture was something the city wanted to promote, there would need to be something in place to mitigate cost:

From an economic perspective, the price it costs to implement all the construction, the resources, the quantity of resources that you succeed in pulling, it’s difficult to make it profitable. So, to succeed in making it profitable we have to facilitate the implementation, grants, limit the regulations for installations, those are non-negligible incentives If we want to develop this practice (Urbaniste05*).

Interestingly, while these interviews were not directly asked about the cost of urban agriculture projects, some community actors specifically stated that cost was not typically a barrier, and that funding was available. For example, one participant who works with installing gardens for educational purposes with different schools and community groups stated that “gardens have different funding opportunities too, right? I mean if you’re working in the community sector, it’s hard not to work with gardens” (Mitchell McLarnon). This suggests that perhaps funding is more available for community-focused urban agriculture.

4.3.2 Logistical Issues
There were several logistical issues mentioned by developers and urban planners, including finding someone to take care of the garden, making space for it if it was on the roof, dealing with the changing seasons of Montréal, and dealing with heritage buildings and their protections.

One developer I spoke with mentioned having residents take care of the urban agriculture project, while the other two chose to hire someone professional to look after it. As one developer explained, “finding the person that would take care of the garden, that was a challenge. We weren’t – since we’re not in agriculture” (Developer02).

As one developer explained to me, “the roof is only there for mechanical reasons, there is a lot of equipment, so there was no appeal to doing anything on the roof” (Developer01*). Thus, the roof was not always an empty space waiting to be used.

The winter season in Montréal was mentioned many times as a logistical issue, whether because it shortened the growing season and thus potential of the urban agriculture project, or because trying to grow year-round was costly, both environmentally (in terms of energy consumption) and monetarily. One developer explained their decision to grow seasonally in the following way:

We’re not building a greenhouse because we’ve looked into that and – so you’re looking at circular economy and sustainability, it’s very difficult to heat and cool these things all year without having an additional power source (Developer03).

Sometimes, one issue exacerbated another, such as when it came to building for the changing seasons while also preserving heritage buildings:

I don’t know - there’s a winter thing - urban agriculture, yes maybe it’s possible during the summer, but if you want to make the four seasons, make it four seasons, you have to build infrastructure, and that, maybe it’s not, I don’t know if it’s compatible with, let’s say time, with all
buildings. You know when you have a neighbourhood with very old buildings, you cannot allow for things to be - let’s say in the old Montréal (Urbaniste01).

4.3.3 Gentrification

Concerns over gentrification were mentioned by some urban planners and many community actors. Several community actors saw exacerbating an already-present gentrification problem as a significant risk of encouraging urban agriculture in new developments.

One urban planner appeared immediately disinterested in urban agriculture, citing that the borough had more pressing issues. In particular, this borough was concerned about housing and the looming threat of gentrification. The urban planner characterized the population and its needs in the following manner: “People in this borough are poor… not poor, but middle-class. We have to be concerned about housing” (Urbaniste02*).

There was particular concern that gentrification would drive inhabitants towards the suburbs. When asked if there was concern about a link between these gentrification concerns and greening projects, the urban planner replied that “certainly, there is a link between greening and gentrification. Environmental upgrades make buildings more expensive” (Urbaniste02*).

Community actors who had been involved in urban agriculture for a longtime expressed frustration about how the urban agriculture had been appropriated in the advertising of new developments that were increasing rents. For example, christian scott expressed:

The new developments will include or use, you know, landscaping, urban agriculture, as part of their like media, or part of their aesthetic, when they’re building it. I’m like oh yeah, now
everyone has tomatoes and green onions, like fuck you, you’re like charging 3x what I used to pay rent 2 years ago.

Some community actors expressed conflict over the perceived benefits and risks of including urban agriculture. Even when it was seen as a gentrifying force, it was simultaneously seen as a force of good that could increase food security:

I know that Montréal is really starting to gentrify, the price of housing has really, really gone up in the last 2 years, and I know that some people are critical of urban agriculture, because they say you’re making places more beautiful, and people are then wanting to move in that have more means, and therefore some people say that it’s a vector to gentrification. You know, because it makes a place more palatable, I guess. I see that argument, but I also feel like urban agriculture is such – like food security is only going to become more important and more integral to the future and our resilience. So yeah, it’s a tricky think, right? (Community06).

However, other community members were clearer about the overall impact of greening. Mitchell McLarnon stated that:

I just don’t think the ends ever, ever justify the means. That’s all. So, for example, let’s say we put in a garden, and it’s beautiful, and it helps the organization, but it drives up real estate, and the organization has to move, something like that.

In addition, one community actor stated that they felt their involvement in urban agriculture negatively contributed to gentrification in their neighbourhood:

My friends and I benefited a lot in the short-term [from urban agriculture], because it was fun, because we learned, because we appropriated the city, right to the city, confidence, whatever. But in the long term we were putting the spotlight on particular places, that were owned by particular people, and allowed for land speculation to happen. So, 10 years later we were being kicked out of the places that we improved or beautified. Or reappropriated, or whatever (christian scott).
4.4 Changing Perceptions of Urban Agriculture

As urban agriculture is perceived to have grown in popularity, participants reflected on how their perception of it changed. They also noted the different forms urban agriculture has taken as it has grown in popularity, and the complex ways that urban agriculture could act in both positive and negative capacities within their neighbourhoods.

4.4.1 Growing Popularity

In the community sector, many actors noticed the increasing popularity of urban agriculture in the projects that they work in. As one community actor described it:

There’s definitely an enthusiasm for it, more and more for urban agriculture projects. I don’t think there has been a lot of changes. It’s basically more like an acceleration in demand for projects, projects that are implemented, whether it be more vertical, or urban agriculture in bins, there are lots of options. Green roofs have also started to become more popular. So more and more these projects are really put forward (Community05*).

Urban agriculture as something that is considered “trendy”, “in”, or “popular” was mentioned by several different participants, particularly urban planners. As one planner with both private and public experience stated:

There is an enthusiasm here, it’s 100% clear, like I said with the community gardens with the number of requests that people made. In fact, when I was working for certain private developers, we were doing public consultations and we were noticing it was something people wanted. So, yes there is an enthusiasm, it is something that is trendy, it’s quote-on-quote in (Urbaniste03*).

Another cited reason for the growing popularity was people’s desire to grow their own vegetables, particularly for access to healthier, higher-quality, and/or organic foods. As someone working for a community organization put it:

I think that’s more the change. We are starting to want to grow our own organic vegetables. With the cost as well, I think that the more the price of vegetables increases, it is not necessarily
healthy, and more people will be led to produce their own vegetables. That’s what has changed, it’s the consciousness of people, more and more people are conscious of healthy diets (Community05*).

Generational value shifts were mentioned as a potential reason as to why urban agriculture may be more popular to the point of being included in developments:

I think that for the new generations, it’s a - they would evaluate with urban agriculture as being more interesting than another one. So, eventually it will show in the value of the building. One integrating urban agriculture, the other one not integrating. So. And it’s like the same in the way people move. A few years ago, builders would build garages and parking underground also to - because people asked for that. But now, people share bikes or share cars or use the metro or so the new generation, they change everything (Urbaniste01).

4.4.2 Changing Forms

Many participants, particularly community actors, noted the changing forms of urban agriculture as it grew in popularity. This could be physically or temporarily. For example, one community member noted the less structured and permanent form urban agriculture took a decade earlier when they started gardening:

I mean 10 years ago, when I started getting involved in this, we were seeing a lot, we were doing and seeing a lot of the wild gardening kind of thing. Stuff that would like pop up one night, disappear in two weeks (christian scott).

In addition, rooftop gardens were often mentioned in relation to new-build developments. This was considered negative by some planners, as it was more expensive and provided less environmental benefits than protecting already-existing green space on the ground. One urban planner considered the decreased ecological value of rooftop gardens, stating that “there is less retention of water, biodiversity – it can be a bit more complicated to preserve a biodiversity corridor at those time” (Urbaniste03*). He
summed up the situation by stating that rooftop gardens were a “lesser evil” as compared to just having no compensation at all when so-called “virgin” land is developed.

However, there were also some positive aspects associated with rooftop gardening, particularly regarding food quality. One developer noted that:

they can actually grow almost everything that you would in a traditional farm, but because they’re actually so high, and they’re associated to some of the other agricultural fields, there’s less pesticides, because apparently the bugs don’t go that far up (Developer03).

Changing the form of urban agriculture, if done in a different manner, could, however, contest forms of gardening that are less beneficial:

So, let’s think about gardens from a consumeristic perspective, it requires store-bought material, we can’t just dig a hole and put some rocks around it, although we can, and although we have. So, that might be one way to contest traditional forms, or white and western forms, of these types of gardens, like boxes, enclosed, high, presentable, painted, artistic (Mitchell McLarnon).

4.4.3 Changing Meaning

As well as changing material form, urban agriculture has also changed in regard to the meaning that those engaging in it associate it with. Many community actors reported previously seeing urban agriculture as a “site of resistance”:

Maybe 10 years ago starting a garden would be like a form of resistance or, you know, radicalness, and like guerilla gardening and blah blah blah. And now if someone – if you see someone planting things, you’re gonna give them money, and the city’s gonna love you. You can fundraise on the internet. So, it has definitely become more widespread. There are more non-profits doing this type of thing, or private companies doing edible landscapes, gardening, and education. So, the bubble exploded. And yeah, the city’s funding it (christian scott).

I think urban agriculture used to be a site of popular struggle for access to land, for access to resources, to allow people to do what they needed to do to survive kind of thing. You know, most
of these projects originated as kind of guerilla gardening, or like non-institutional sites where people got together and grew their own food. And so now even when I talk about the collective garden, and that organization, that’s become institutionalization, so already that’s kind of a step away from a site of popular struggle, and folks meeting their own needs in their own ways. And then I think when we talk about you know that tendency towards a technological approach to really maximize the localness of food production, that element of people coming together to meet their own needs is lost. Those are for the most part the people who are buying the food in the fancy restaurants at the high cost that those projects require to make them viable (Heather Elliot).

However, as Mitch McLarnon notes, now “it’s not about sites of resistance, it’s about fitting in with the new neighbourhood”. This change in meaning was deeply tied to the idea of “institutionalization” that others mentioned. Much of this feeling of institutionalization comes from the idea of the city being involved:

What’s really changed recently is how the city has gotten involved. So, the City of Montréal, if you look at their policy documents, they say things like they’re “revitalizing the area” which really means that they’re displacing certain human beings and making way for others to come in (Mitchell McLarnon).
There was also a feeling that the movement had been “co-opted” among some of the community actors. One participant compared this to the way other social movements have been co-opted by corporate interests, stating “it has definitely been co-opted. Now that it’s hot and safe – you know, it’s like queerness and pride, and LGBTQ identity, the banks are sponsoring it” (Christian Scott).

4.4.4 Exclusion

Often, participants who were community actors questioned the accessibility of urban agriculture in the city as it grew in popularity and became increasingly institutionalized. There was a feeling of exclusion towards gardens, and Mitchell McLarnon discussed the way that the very form of gardens can contribute to this:

I’ll show you gardens that the city’s built, and that we’ve built, and how similar they are – they usually require store-bought materials, right, like I have to buy wood, I have to enclose the area, but if you think about the etymology of the word garden, it actually means enclosure. So, let’s think about who’s invited into that space and who’s not.

Access to space was mentioned many times by participants as an important factor in excluding some from urban agriculture. One community actor who had previously been involved in running collective gardens stated that “there’s so few spaces for urban agriculture in the city that those spaces need to prioritize participatory forms of urban agriculture” (Heather Elliot). In addition, there was a theme of access to space for urban agriculture being closely linked to other sociodemographic inequalities in the city:

This is not about tomatoes, this is about inequality, it’s about food distribution, it’s about production at mass scale. This is about access to food. Because it’s also very linked to having the
space to grow it. But not everyone has it. Or having the time to grow it. Who is doing urban gardening in the city? What’s their race, what’s their social demographic? (Christian Scott).

### 4.4.5 Gentrification, Resistance, or Both?

Community actors in particular expressed mixed and complicated feelings towards urban agriculture in its current form. Though actively involved in creating urban garden projects for educational purposes, Mitchell McLarnon expressed his concern in the following way:

I question if my role establishing gardens is a worthwhile endeavour, because like I said before, organizations may want and need a garden, but what they really need are better policies. You know? Financial support, human resource support, etc. And from a gentrification perspective I mean, gardens and eco-gentrification…. It is a little bit alarming that we’re watching organizations kind of participate in this greening, willingly.

It was not so much urban agriculture per se that participants seemed concerned about, but rather, the ways in which it was being done and the ways in which public funds might be used to further particular forms.

“I think it’s great, every, all green spaces that we can create in the city – wonderful. I just feel concern about how publicly we choose to support some things rather than others. So, if people want to have a green roof on their condos, awesome. I don’t mind” (Heather Elliot).

It’s no longer – like it’s co-opted, it’s totally co-opted. It’s not bad per se but who in in charge of those images etc, etc. And for what purpose (Christian Scott).

The use of public funds for project that may be exclusive and/or encourage gentrification was a frequent concern. When asked directly, urban planners and developer I interviewed stated there was no monetary incentive to including urban agriculture in
private developments. However, as seen in Section 4.2.5, there may be indirect incentivization through bylaw amendments and permit negotiation.

Mitchell McLarnon noted that “a lot of it is making sure that these are sites of resistance as opposed to sites of acceptance” of gentrification. So, what does that look like for those who have been involved in urban agriculture for a long time? One participant currently coordinating urban agriculture for a community organization put it the following way:

I think having community implication and having the human at the centre and really in response – being tailored to being able to respond to different issues is really – like if projects are made with that in mind, then I think it’s really – I think that’s kind of – I don’t wanna say the best we can do but, I think it’s really in that spirit that change can be make. I’m trying to think, there’s a lot of – I feel like there’s a few different arms of urban agriculture, and some are really making it trendy, do you know what I mean? And really like…. And so, I wonder, and often in very inaccessible ways, and so I think having every voice at the table is an important way not to go down the gentrification path. And having a connection between what we eat and – yeah, what we eat and how we grow it, you know? So not to do urban agriculture in some sort of silo that is not accessible to others. I don’t know if that’s enough. I think also gentrification has to do with so many other things as well, such as you know, Airbnb and the rising – there’s so many things. And so, you know, sometimes I think of what is the greater good. And I think having food security is for the greater good (Community06).

Participation seemed to be the most important factor mentioned by community actors, but form and intention were also often mentioned. For example:

I think the main thing that I stress to say, is that the bad thing of urban gardening is that we did it without thinking a lot about social housing. Or about the potential effects that it could bring in terms of land speculations, pressure to move into the neighbourhood, i.e. gentrification. So that was kind of my main point of why it’s for the worse (christian scott).
4.5 Urban Agriculture and the Nature/Society Divide

As urban agriculture is (re)integrated into the city on a mass scale, it brings about interesting questions regarding the classical nature/society divide that has persisted in North American cities.

Many participants brought up “contact with nature” as an important benefit of urban agriculture, suggesting that it adds some aspect of nature to the city that people are lacking. A few participants also questioned this divide. For example:

A lot of people do gardening because of the contact with nature, and sensitivities, and whatever. So, for me that’s also an interesting point of how people compartmentalize their lives. Nature versus city, or my 9-5 job versus my leisurely connected to nature time gardening. For me it doesn’t happen. I integrate it, everything. For me the ecology of the Earth is like, Earth. But for most people, I see that they compartmentalize it, and so they frame things in those ways (Christian Scott).

Ideas of “consumerism” and “capitalism” were frequently mentioned as being at the hand of many environmental problems plaguing cities.

I can see an analogy between the way our extractive tendencies in this world and how that links as well to how we treat others in this capitalist society. It’s always what can we get, what can we extract. And I think in changing the way we think about the environment, we then can also change the way we think about humans. It’s a systems-change that’s being proposed (Community06).

Participants often referred to urban agriculture as a vector for larger societal changes that were required to tackle existential environmental threats.

There was also a sense that despite a long history of agriculture existing in cities, the current ecological state of the city provided particular challenges. An urban planner described that “from a historical point of view, I mean urban agriculture has always been part of the city – to a certain point – but now it’s just – we’ve exposed it so much to
things” (Urbaniste 04). Specifically, this becomes a concern as North American cities undergo transformations from industrial to post-industrial, with specific sites in Montréal providing a prime example for this concern:

Maybe let’s say we have here an old industrial site in Angus, okay? Which basically they used to – they made tanks there, trains, and a lot of heavy duty industrial. Now it’s out of use, now it’s become residential. And you find that all over North America. All of the old industrial sectors which are transformed to residential. So always managing the soil quality. Transforming to a residential use is one thing, but then is a residential use good enough for food production? That’s another level, you know? You’re not just playing around in your park which is okay, you’re actually growing things that you’re going to be consuming, is the residential great enough to ensure that it’s edible and it’s not contaminated? (Urbaniste04).

Due to historical separations of nature/city and resulting environmental degradation, many urban planners and community actors mentioned problems with contamination in a variety of sites, both public and private. This is an ongoing concern for urban agriculture in Montréal and could represent significant cost.

4.6 Conclusion

As this Chapter described, the 3 groups of interviewees demonstrated very different concerns and perspectives about urban agriculture (see Figure 1). However, a common theme among participants across groups was environmental consciousness and food security were identified as significant motivators for engaging in urban agriculture projects.
Figure 8 Themes in each group of interviewees.

Urban planners appear to act as the “bridge” between the interests of community actors and developers, taking into consideration some community needs such as housing and gentrification, while also considering development issues such as cost and logistics. However, what Figure 1 is unable to show is the strength these themes showed up in each group. While urban planners and community actors were both concerned about housing, gentrification, and the environment, overall, urban planners mentioned environmental concern much more frequently, often in reference to the Transition écologique happening at the City of Montréal. Developers also frequently mentioned concern for the environment. While urban planners did also mention food security, food security discourse was most strongly used by developers and community actors, one of the few things that they had in common. Overall, while food security and environmental consciousness are held in common by the 3 groups, there are many concerns that the
community actors had when it came to urban agriculture that were not addressed by urban planners nor developers, including equality, accessibility, and concerns over the institutionalization of urban agriculture. In the next Chapter, I will discuss how these finding relate to previous research done in Montréal, as well as research in other North American cities, and suggest the implications these findings may have.

*these interviews and quotes were translated from Frenc
Chapter 5

Discussion

5.1 Introduction

The previous section documented the results of my empirical research through interviews as to the impacts of the every-changing urban agriculture movement in Montréal. In this Chapter, I will further explore the results and discuss the implications in relation to current literature on urban agriculture and eco-gentrification.

I will begin by discussing the most compelling areas of my results sections, including the changing perceptions of urban agriculture among the three groups I interviewed. This will include the role of institutionalization and negotiated planning in urban agriculture, how the contradictions of urban agriculture may be negotiated. Finally, I will discuss limitations of my research projects and suggestions for where future research can be focused.

5.2 Changing Perceptions of Urban Agriculture

One of the most compelling results from my interviews was the changing perceptions of urban agriculture in Montréal over time. However, these changes were not recognized equally across the 3 groups I interviewed (developers, urban planners, and community actors). Rather, each group experienced the change in a different way which possibly correlates to their time of involvement with urban agriculture. The following subsections describe the changes documented within each group.

5.2.1 Developers

Developers seemed the least experienced with urban agriculture, with all of those I interviewed having just integrated urban agriculture or still in the process of planning an urban agriculture project. This can also be seen in the relative rarity of finding developers with urban agriculture, as it has not been widely adopted yet.
On the whole, developers largely saw urban agriculture as part of their environmental sustainability plan. All three developers I spoke with already had large sustainability components to their previous projects, which were mentioned in interviews. Thus, perhaps the integration of urban agriculture is more of a “niche”, for developers who draw in an environmentally conscious clientele.

Figure 9 A photo taken in Rosemont, Montréal, advertising an eco-friendly development project (taken October 18, 2019).

All of the developers brought up concerns regarding the urban heat island effect. This may signal a certain collection of “buzzwords” that are present in discourse that are easy for developers to attach themselves too. It is also reflective of environmental discourse coming from the city of Montréal, which will be discussed in the following subsections.

There were also early signs of discord between critical gentrification studies and urban sustainability efforts. For example, despite the many critical studies of sustainability practice coming out of Detroit (e.g. see Safransky, 2014), Detroit was still
brought up in my interviews as an example to be praised. Interestingly, one of the developers I spoke with stated that:

there’s some really great reading material out there. It was excellent sources on how you could find different cities all over the planet. I mean, Detroit is a perfect example of that – they’re actually creating farms in the city because the city’s empty (Developer03).

However, scholars have noted that the characterization of the city of Detroit as “empty” is highly problematic and serves to further marginalize already marginalized groups, facilitating the gentrification of the city by so-called “pioneers” (Safransky, 2014). Lack of awareness of this on the part of the developers highlights a significant knowledge gap of these processes by some of those integrating urban agriculture into new developments in Montréal. This could be because of their newness to the field, or an unwillingness to engage in critical studies. As this is a preliminary study, it is too early to draw conclusions on that particular aspect. However, it is interesting that there appears to be two parallel narratives on the emergence of sustainability projects being used to revitalize Detroit; on the one hand, critical scholars’ question whom these sustainability projects are for, critiquing their displacement of marginalized residents. On the other hand, sustainability in Detroit is seen largely as a success, a “win” for the environmental urban planning. This highlights a polarity in perceptions of urban agriculture and sustainability more widely, which could have far-reaching consequences in a time of increased environmental action and awareness.

5.2.2 Urban Planners

On the whole, most of the urban planners I interviewed spoke of urban agriculture in a positive light, and all of them mentioned that it was a tool for combatting the urban heat island effect. However, there were some boroughs where there was less enthusiasm for urban agriculture.

One of the largest themes that emerged amongst urban planners was the concept of “negotiated planning”. In fact, several planners mentioned that developers were not initially interested in urban agriculture but that boroughs sometimes negotiated for it when amending zoning or bylaws for developers. This indicates that perhaps the city itself is the larger “push” for the integration of urban agriculture into private
developments than the developers themselves. Thus, the city could be directly implicated in the facilitation of gentrification.

Recently it has been noted that many cities use gentrification as an *economic strategy*. In fact, one of my participants, Mitchell McLarnon, pointed this out to me while taking me on a tour of his (gentrifying) neighbourhood, St-Henri. He referred me to the book *How to Kill a City*, written by journalist P.E. Moskowitz. This book, referencing geographers like Neil Smith, engages on a tour of four American cities, exploring the way gentrification has changed them all through historical analysis and in-depth interviews with local residents. It ultimately discusses the way gentrification has been used as a strategy to “revitalize” cities at the cost of low-income residents.

![Figure 10 a planter bin in a ruelle verte, St-Henri. These bins hold a variety of plants, including flowers, fine herbs, and vegetable plants (taken October 21, 2019).](image)

Should this prove true in Montréal, it may make gentrification-resistant urban agriculture more difficult, as the vital role of the city in promoting this becomes jeopardized. The city no longer protects the interests of citizens, but instead works for financial gain, similar to and in line with the values of business. With no one there to
balance the needs of residents and business, the two could remain in permanent conflict, leading to less productive use of resources and less productive urban agriculture projects for entire communities. The role of the city, then, cannot be ignored.

Another interesting finding of my research was one urban planner who was quite concerned about urban agriculture and brought up gentrification right off the bat. He was the urban planner of a traditionally low-income borough and mentioned having significantly less resources than other boroughs. He also stated that there is a large push from the city to increase greening, but that in his borough there were many other priorities, particularly social housing (I was not permitted to record this interview). This finding highlights the importance of the political structure of Montréal itself. While boroughs are generally in charge of their own éco-quartier and greening projects, there is an overarching sustainable development plan for the environmental transition that boroughs must adopt their plan to. This influence of the larger city was mentioned not only in the interview mentioned above but in others as well, highlighting its importance and influence. However, a larger environmental strategy may impact different boroughs in different ways, even if they are allowed some degree of adaption. As Montréal is a large city, it makes sense that the impacts and fears over gentrification would be uneven. Further studies would do well to focus on borough or neighbourhood specific projects and impacts.

5.2.3 Community Actors

Community actors presented the most complex view of urban agriculture, quite possibly because they have been involved with it the longest out of any of the 3 groups. Even for an individual participant, there was most often a complex mixture of being critical of urban agriculture’s role in gentrification and acknowledging the many benefits urban agriculture brought to citizens of Montréal, particularly those who are low-income. The many benefits of urban agriculture for Montréal citizens, such as those mentioned by Duchemin, Wegmuller, & Legault (2009), were frequently mentioned. The contradictory nature of urban agriculture, as identified by McClintock (2018), was present in many but not all interviews. For example, many participants had become involved in urban agriculture for environmental or social justice reasons, such as increasing food security.
However, over time their perception of urban agriculture changed to become more critical, and their involvement changed as well.

The degree to which community actors were critical of urban agriculture varied. Some participants, particularly those still working for community organizations, tended to find that the positive outweighed the negatives. Unfortunately, my study did not have the data to document whether this changing perception of urban agriculture varied among different socio-economic levels of actors, but this would be important data to collect to determine who any negative impacts are most strongly impacting.

A common theme among those most concerned about gentrification and negative impacts of urban agriculture was that urban agriculture had shifted from away of appropriating space as urban agriculture has become more common and encouraged by the city. This demonstrated increased concern over institutionalization and concern over the motivations of those institutionalizing urban agriculture, which will be explored below.

5.2.4 Bringing together varied perceptions

One of the biggest challenges facing urban agriculture in Montréal will be bringing together the various different perceptions of the activity that currently exist in the city. My research highlights that urban agriculture is viewed differently by different groups, and some opinions on how urban agriculture should be done and for what purpose may conflict.

Urban planners, and most of the developer responses, were primarily environmentally motivated, in contrast with community actor motivations for performing urban agriculture, which tended more towards the social or a mix of social and environmental reasons. Urban political ecology theory discusses some of the dangers of separating the social from the environmental. When the social is ignored, then the environmental may end up harming the social, i.e. through gentrification.

The next section will explore the role of institutionalization and the city of Montréal in urban agriculture, along with that of community organizations who may be funded in part by the city. As noted, the city has a unique role in communicating with both developers and community actors.
5.3 Institutionalization through Negotiated Planning

As mentioned above, negotiated planning was a theme that came up repeatedly throughout the interviews, particularly with urban planners. However, there was another theme that may intersect with this: that of a feeling of “institutionalization” by community actors. Negotiated planning may interact by further institutionalizing the urban agriculture movement through encouraging and prioritizing certain forms of urban agriculture. Institutionalization may not only take the form of direct city projects, such as community gardens. In Montréal, it may also take the form of negotiated planning and funding given to community organizations.

Examples of the impacts of institutionalization can be seen in other North American cities. For example, Reynolds and Cohen (2016) discuss the institutionalization of urban agriculture in New York City. Speaking about the struggle communities had to protect their gardens, they note that “the process of protecting the gardens also made what had been a transgressive use of public space part of the status quo” (pg. 38). This is similar to what I found in my study. Participants spoke of the increasing acceptance and even encouragement by the city of Montréal of urban agriculture activities that were once transgressive, such as planting in vacant lots. When something becomes part of the status quo, it is necessary to think of what the status quo as a whole is. The status quo represents regular, normal, or accepted life in the city. However, when we consider a gentrifying city in particular, rising property values are also part of this status quo. Therefore, by becoming an institutionalized part of the status quo, urban agriculture becomes not only more common and widely accepted (which may be good from an environmental perspective) but also another cultural contributor to this process of gentrification (which will have detrimental social impacts).

Another form of institutionalization mentioned briefly in the interviews was that through the involvement of community organizations in urban agriculture projects. As noted by Heather Elliot, a participant who had worked for community organizations that led collective gardens, these are a step towards institutionalization. However, the goals of each community organization and the degree to which they actively manage their projects varies greatly. For example, in the program the participant was involved in running, the community organization provided materials and an animator who guided participants, but
participants were free to collectively choose how they wanted their gardens set up. However, as Heather Elliot put it, when organizations become involved, it’s “a step away from a site of popular struggle”, as most projects had originally begun as guerilla gardening. Eventually, she noted, and especially with increasing technological approaches, “the element of people coming together to meet their own needs is lost.” As Reynolds and Cohen note, the fundamental priorities of community organizations are relevant when it comes to measuring their impacts. In Montréal, there are multiple community organizations running urban agriculture projects all over the city with different goals, funding, and mandates. As my study was more broad-scale, I am not able to evaluate to the types of impacts of communities of this organizational involvement vs guerilla gardening. However, it is a marked change noted by participants. Here, further case studies are needed on a small-scale and neighbourhood level basis. As their involvement increases in the urban agriculture scene, as they are at times recipient of funding through the city’s éco-quartier program, community organizations cannot be ignored as important actors in urban agriculture.

5.4 Negotiating the Contradictions of Urban Agriculture

Similar to the results demonstrated in this thesis, Checker (2011) found residents in New York City all too aware of the dangers of eco-gentrification as the city encouraged more and more greening, particularly through the creation of parks. Her study ends with a very pertinent and paradoxical question: do we need to resist greening to resist gentrification? Applied to this research, we might ask: if urban agriculture is contributing in some way to gentrification, should it be resisted?

The answer to this is complex. Smith (1996) writes of how the involvement of artists in gentrification in New York City’s Lower East Side, which was previously described by Zukin (1989), appeared “contradictory”. These artists were seen as “countercultural” yet at the same time directly involved in the commodification of art and brokered the flow of capital into the Lower East Side. Yet, Smith explains this by stating that “the broad absenteeism from political self-reflection condemned Lower East Side art to reproducing dominant culture” (pg. 19). This is similar to how McClintock (2018) describes urban agriculture as “contradictory”, at once a social/environmental movement while simultaneously reinforcing status-quo settler colonialism and racial capitalism.
Further, we can see echoes of Smith’s argument about political absenteeism in Reynolds & Cohen’s argument that a lack of challenging of the structural inequalities of society in many urban agriculture projects is what ultimately results in the reproduction of status-quo (2016). However, Smith goes on to write that other artists at the time were actively engaged in protesting gentrification – and thus art itself does not inherently cause gentrification, but rather it is that way that is commodified. This too could be true of urban agriculture. In fact, Reynolds and Cohen mentioned several examples of socially-justice oriented urban agriculture projects from their research in New York City. During my own research, I also came across individuals and organizations who likewise appeared genuinely interested in providing education, food security, and environmental justice. Therefore, urban agriculture should not be outright avoided over fears of gentrification. Rather, municipalities must be cognizant of the different forms urban agriculture can take and prioritize the ultimate goals and impacts of each project for everyday citizens.

Similar to how Heynen, Kurtz, & Trauger (2012) suggest that urban agriculture can “lend shape and substance to struggles to define food justice” (pg. 306), some participants who were food justice- or food sovereignty-oriented found urban agriculture to be important because it provided a tangible way to struggles with a larger system that seems so difficult to change. In particular, one community actor who worked for a community organization that engaged with homelessness and disadvantaged youth through urban agriculture stated that,

I was doing my undergrad in history and politics, and I was getting increasingly frustrated by how there’s all these big problems but no concrete solutions. And I was wanting to do something more with my hands and really seeing a cause and effect. And so, I stumbled upon urban agriculture (Community 06).

In this instance, it was not actually the idea of growing food itself that lead the participant to urban agricultural; rather it was a desire for broader political change. Problems such as gentrification and the industrial food system are global in nature; this may lead well-intentioned people to engage in initiatives such as urban agriculture which seem to tangibly be doing good, even though others in the community see them as an agent of the very systems that are causing inequality in the first place. My study highlighted some of the dangers present as urban agriculture becomes increasing popular and its form
evolved; however, it also highlighted the many ways urban agriculture is benefiting citizens, and the many actors who are invested in created a better community through the tangible solutions urban agriculture offers.

In seeking to optimize the benefits of urban agriculture, it is necessary to be extremely cognizant the context of global forces of gentrification and inequality, and of how this can play out in different forms of urban agriculture. Reynolds and Cohen (2016) state that “seeing contemporary urban agriculture as a strategy to advance environmental justice is quite different from seeing it as a way to beautify or even ‘green’ a neighbourhood” (pg. 57). Considering all these global forces at play, it is hard to see urban agricultural as a force of gentrification on its own. After attending local talks on gentrification and conducting my research in Montréal, I have been led to wonder whether we should be asking if urban agriculture causes gentrification, or if urban agriculture has been changed fundamentally within the context of an already gentrifying city. Urban agriculture is not “good” or “bad” as a concept on its own. Taking into account Reynolds and Cohen’s comment, it is more about the value that is attached to urban agriculture, through the motivations of the project. For instance, a project focused on environmental justice will recognize the fundamental injustices present in our society in terms of access to greenspace. A project focuses simply on greening will not take this into account.

A difficult issue is taking the motivations of developers, urban planners, and community actors at face value. In New York City, it was found that sometimes, organizations that engage in urban agriculture use the language of social justice to get funding, even if they only engage with social justice superficially (Reynolds & Cohen, 2016). This is a major struggle, as it is difficult to tell just from interviews who is genuinely engaging in social justice initiatives, who is appropriating the language, or even which groups may be attempting to engage in social justice but lack the training or knowledge to do so in an effective manner (such as perhaps the developer who drew on Detroit literature without recognizing the many critical studies conducted). This is not only a limitation of my study, but a limitation of trying to determine in general who should receive funding, government support, community support, etc. As the language of social and environmental justice has entered the mainstream, teasing out these differences
becomes more and more complicated. If current systems are to be improved, then this will need to be something that is studied further, possibly on a case study basis that allows for in-depth analysis.

However, this is not the only limitation of my study. In the next section, I explore some of the more methodologically driven limitations of my study and make suggestions as to where further research could help address these limitations.

5.5 Limitations

It is extremely important to recognize that most of the work on eco-gentrification is coming out of other North American cities with vastly different contexts than Montréal, specifically when it comes to language and culture. While Montréal shares many characteristics with these cities, such as an industrial history and colonialism, it is extremely important that further research is undertaken to examine how global forces of gentrification are specifically acting within the context of Montréal. My project is a step towards that, and while it demonstrates significant resident concern, it cannot accurately parse out cause-and-effect.

A significant limitation of my study is that it did not show any quantitative link between urban agriculture and gentrification. Though my study demonstrates individual experiences of gentrification and changing perceptions of the urban agriculture movement by experts in that field (particularly the community actors and urban planners), there is no data to demonstrate an actual increase in housing cost caused by urban agriculture. However, it would be difficult if not impossible to demonstrate this quantitatively. Though Braswell (2018) attempted to show a quantitative link between community gardens and gentrification, there is the classic problem of trying to decipher whether this is correlation or causation. For instance, did community gardens arrive first and increase housing costs? Did gentrification begin to occur and along with the gentrifiers came community gardens, as a sort of by-product? Or was it some combination of the two, whereby neighbourhoods started to gentrify, and urban agriculture exacerbated the problem during the process? Unfortunately, current census data in Braswell’s study and in Montréal are probably too crude (particularly, not geographically specific enough and too spaced out over time), to accurately tease this out. Going forward, it may be best to use quantitative and qualitative methods together, to
first demonstrate a correlation between housing increase and urban agriculture activity, and then use in-depth qualitative data such as interviews to piece together the story of how and why the situation happened.

Another major limitation includes the small scale of my interviews, and the limited groups of people I was able to interview. A couple of the urban planners I interviewed reminded me that they are not directly involved in the politics of the city, as they are not elected officials. Though some of them appeared to be politically engaged, others were adamant that they could not or should not be. Thus, to build on this research, it would be critical to also speak to the people who are making the political decisions. However, a benefit of interviewing only urban planners is that it lends perspective to the way the politics of the city are actually playing out practically on-the-ground. However, and although some planners did comment on this, it lacks a more in-depth view of why these politics are occurring, and how these decisions are being made.

5.6 Conclusion

Overall, my results are fairly in line with the eco-gentrification literature shown in other North American cities, such as New York, Detroit, and Vancouver. Urban agriculture and other sustainability projects are becoming increasingly popular, and with that, residents are concerned about the possible impacts on the already ongoing process of gentrification.

However, further empirical evidence and context analysis are required. Specifically, the cultural and structure Montréal should be accounted when extrapolating results from other cities. In addition, the actual role of urban agriculture in the gentrification process should be further theorized, as I have begun to do in this discussion section. Understanding whether urban agriculture is a reaction to gentrification, or a direct contributor will greatly help in efforts to create urban agriculture projects that are not contributing to harmful processes like gentrification, which may further trouble the marginalized residents many urban agriculture projects originally intend to aid.

Finally, more research needs to be undertaken to empirically document the conditions of urban agriculture and gentrification as a whole. As I noted above, there are major concerns with extrapolating findings from other cities to Montréal. As Montréal is actively gentrifying, while also facing the same environmental issues faced worldwide, understanding how to improve environmental conditions of citizens while maintaining an
affordable housing stock is critical. This can be facilitated by active, on-the-ground empirical research that can inform policy.
Chapter 6

Conclusion

6.1 Introduction

The underlying ethos of urban agriculture in Montréal has become more complex as it has grown in popularity and new actors, such as developers, have become interested in it. This was allowed to happen because urban agriculture was not always socially integrated, and thus could be co-opted by development interests. The nature/society divide allows environmental movements to be co-opted and thus become a contributor to gentrification. In this thesis, I have demonstrated that eco-gentrification is a serious concern when it comes to urban agriculture in Montréal. The following section discusses the implications of this and directions for future research.

6.2 Implications

Montréal is not immune to the threat of eco-gentrification. Despite little scholarly research available on eco-gentrification in the city, it is a significant concern for those who have been involved in urban agriculture projects for a long time.

The city plays a key role in this process as a major contributor to funding of urban agriculture projects (whether through funding éco-quartier programs, ruelle vertes, or otherwise.) Many of the projects I came across during my research were specifically in traditionally low-income and/or gentrifying neighbourhoods such as St-Henri, Hochelaga, and Pointe-St-Charles. These are the neighbourhoods that may benefit most from increased access to fresh food, but also the neighbourhoods which may suffer the most if allowed to (continue to) rapidly gentrify. Funding urban agriculture projects without further research into their long-term effects on neighbourhoods may ultimately harm those it purports to help. Therefore, it is urgent that the city carefully consider how urban agriculture projects can maximize benefits for citizens while mitigating risks. Simply stopping greening and urban agriculture projects need not be the solution. Rather, this needs to be thought of in conjunction with consideration of affordable housing in the neighbourhood. As demonstrated in my results, participants felt that considering social
housing when creating projects was important. This ensures that there will be more space in the neighbourhood for people who may not be able to afford gentrified prices.

Negotiated planning may also have great implication on the impacts an urban agriculture project will have, particularly as it directly engages with development. The most common reason for including urban agriculture on planner’s end was to reduce the urban heat island effect. Planners mentioned that a variety of things may be negotiated for – urban agriculture, other green space, or affordable housing. However, when talking to planners, urban agriculture was most often treated as a purely environmental factor in development. Awareness of the social benefits and dangers of urban agriculture is crucial when it becomes a bargaining point for new development.

6.3 Priorities for Future Research

Further empirical work and smaller case studies in Montréal on the role of urban agriculture in gentrification are imperative. While my project was able to demonstrate concern, this serves only as a preliminary investigation – a signal that there are concerns with urban agriculture in the context of the gentrifying city. This is expected given the scholarly research to date. However, there is a lack of research on eco-gentrification and gentrification in general within the context of Montréal, making it difficult to account for local factors.

Research must question whether specific urban agriculture projects are upholding or challenging the status quo. Previous research and my own interviews have demonstrated that urban agriculture is not strictly one or the other. Local and small case studies may be able to identify the conditions in which urban agriculture either exacerbates or resists gentrification and other social inequities. Studies in other Canadian cities, such as Toronto, have found that eco-gentrification may be specifically linked to “the broader race and class remake of the city” that is occurring as cities gentrify (Parish, 2020, pg. 264). Local case studies in Montréal could further focus on the race and class dynamics of whom sustainability projects serve, particularly from an environmental justice perspective.

In addition, the role of urban agriculture and other environmental projects should be further theorized. This research contributes to the growing body of urban political
ecology work by questioning what role the context of an already gentrifying city has on urban agriculture as a force for gentrification. However, this was something I began exploring later in my research that should be explored further. It would be pertinent to ask whether urban agriculture can truly act as a gentrifying force on its own, or whether it only exacerbates already occurring gentrification under certain circumstances. Indeed, Anguelovski et al. (2019) also call for more research on this matter, stating that it is clear from the current literature that greening does not always cause gentrification. Therefore it is important to study the contexts and reasons behind the role of urban agriculture in gentrification, so that policy can be informed by best practices discovered through research.

6.4 Conclusion

What I have strived to emphasize in this thesis is not that urban agriculture, directly or singularly, causes gentrification. Rather, that the movement itself has been swept up in the global process of gentrification that has been ongoing since the 20th century (Smith, 1996). Perhaps this inclusion of urban agriculture was made easier by certain weakness in parts of the movement or popular, large scale projects, such as those described by Reynolds and Cohen (2016) that include, most fundamentally, a lack of engagement with the larger systems that cause the very problems urban agriculture most often strives to combat, such as food insecurity. At the end of the day, urban agriculture projects need to bring everyone to the table. The varied perspectives demonstrated in this thesis show fault lines that only collaboration and a challenging of the fundamental inequalities that cause food insecurity and gentrification in the first place may heal. (Gould & Lewis, 2016)
Appendix A

Research Ethics Approval

May 22, 2019

Ms. Christina Frendo
Master’s Student
Department of Geography and Planning
Queen’s University
Kingston, ON, K7L 3N6

GREB Ref #: GGEOPFL-276-19; TRAQ # 6026645
Title: "GGEOPFL-276-19 Integrating urban agriculture as green infrastructure in Paris and Montréal"

Dear Ms. Frendo:

The General Research Ethics Board (GREB), by means of a delegated board review, has cleared your proposal entitled "GGEOPFL-276-19 Integrating urban agriculture as green infrastructure in Paris and Montréal" for ethical compliance with the Tri-Council Guidelines (TCPS 2 (2014)) and Queen’s ethics policies. In accordance with the Tri-Council Guidelines (Article 6.14) and Standard Operating Procedures (405.001), your project has been cleared for one year. You are reminded of your obligation to submit an annual renewal form prior to the annual renewal due date (access this form at http://www.queensu.ca/traq/signon.html; click on "Events," under "Create New Event" click on "General Research Ethics Board Annual Renewal/Closure Form for Cleared Studies"). Please note that when your research project is completed, you need to submit an Annual Renewal/Closure Form in Romeo/traq indicating that the project is 'completed' so that the file can be closed. This should be submitted at the time of completion; there is no need to wait until the annual renewal due date.

You are reminded of your obligation to advise the GREB of any adverse event(s) that occur during this one-year period (access this form at http://www.queensu.ca/traq/signon.html; click on "Events," under "Create New Event" click on "General Research Ethics Board Adverse Event Form"). An adverse event includes, but is not limited to, a complaint, a change or unexpected event that alters the level of risk for the researcher or participants or situation that requires a substantial change in approach to a participant(s). You are also advised that all adverse events must be reported to the GREB within 48 hours.

You are also reminded that all changes that might affect human participants must be cleared by the GREB. For example, you must report changes to the level of risk, applicant characteristics, and implementation of new procedures. To submit an amendment form, access the application by at http://www.queensu.ca/traq/signon.html; click on "Events;" under "Create New Event" click on "General Research Ethics Board Request for the Amendment of Approved Studies." Once submitted, these changes will automatically be sent to the Ethics Coordinator, Ms. Gail Irving, at University Research Services for further review and clearance by the GREB or Chair, GREB.

On behalf of the General Research Ethics Board, I wish you continued success in your research.

Sincerely,

Chair, General Research Ethics Board (GREB)
Professor Dean A. Tripp, PhD
Departments of Psychology, Anesthesiology & Urology Queen’s University

c: Dr. Betsy Donald, Supervisor
Dr. Audrey Kobayashi, Chair, Unit REB
Ms. Joan Knox, Dept. Admin.
Appendix B
Letters of Recruitment

Below are letters of recruitment. These were generally sent with both a French and English version by email, unless prior contact was already established.

Developers

Dear __________,

I am a master’s student at Queen’s University in Kingston, Ontario, in the Department of Geography and Planning. I am currently researching the integration of green infrastructure, and particularly urban agriculture, in condominiums and apartments. I think you could offer great perspective to my research.

I obtained your contact information from [your development website/search engine/contact/the HR department of your company]. I would love to meet with you to interview you to ask questions regarding the (possible) integration of urban agriculture in your project. This interview would be completely voluntary, and data would be anonymized prior to publication. Please let me know if there is any particular date/time that works for you. Interviews can be conducted in French or English.

If you have any questions or would like further information about the project, please do not hesitate to contact me at christina.frendo@queensu.ca.

Sincerely,

Christina Frendo

Urban Planners

Dear __________,
I am a master’s student at Queen’s University in Kingston, Ontario, in the Department of Geography and Planning. I am currently researching the integration of green infrastructure, and particularly urban agriculture, in condominiums and apartments. I think you could offer great perspective to my research.

I obtained your contact information from [your development website/city website/contact person/other]. I would love to meet with you to interview you to ask questions regarding urban agriculture in your borough. This interview would be completely voluntary, and data would be anonymized prior to publication. Please let me know if there is any particular date/time that works for you. Interviews can be conducted in French or English.

If you have any questions or would like further information about the project, please do not hesitate to contact me at christina.frendo@queensu.ca.

Sincerely,

Christina Frendo

Community Actors

Dear __________,

I am a master’s student at Queen’s University in Kingston, Ontario, in the Department of Geography and Planning. I am currently researching the integration of green infrastructure, and particularly urban agriculture, in condominiums and apartments. I think you could offer great perspective to my research.

I obtained your contact information from [your organization/person recommendation/other]. I would love to meet with you to interview you to ask questions regarding urban agriculture in your neighbourhood, and how it has changed over time.
This interview would be completely voluntary, and data would be anonymized prior to publication. Please let me know if there is any particular date/time that works for you. Interviews can be conducted in French or English.

If you have any questions or would like further information about the project, please do not hesitate to contact me at christina.frendo@queensu.ca.

Sincerely,

Christina Frendo
Appendix C
Letter of Information and Consent

Study Title: Integrating urban agriculture as green infrastructure in Montréal

Name of Principal Investigator: Christina Frendo, Department of Geography and Planning, Queen’s University
Name of Supervisor: Dr. Betsy Donald, Department of Geography and Planning, Queen’s University

I am inviting members of community organizations, developers, and key stakeholders to take part in a study on urban agriculture. The purpose of this study is to see how green infrastructure (like parks and urban agriculture) are integrated into neighbourhoods and buildings, and the historical context in which this emerged. If you agree to take part, I will interview you for 20 minutes at a public location of your choice, by telephone, or by Skype. The interview will be audio-recorded and later transcribed. There are no known risks. There are not direct benefits to you as a participant. Study results will help inform how green infrastructure can be better integrated into major cities at the community level. You will not be paid for taking part in this study.

Participation is voluntary. You don’t have to answer any questions you don’t want to. You can stop participating at any time without penalty. You may request to have your data withdrawn from the study up until January 31, 2020 by contacting me at christina.frendo@queensu.ca.

Your confidentiality will be protected by replacing your name with a pseudonym in all publications and a study ID number in all study records. The study data will be stored on an encrypted hard drive on Queen’s University servers and stripped of all identifiers. Identifiers will be stored on a separate password-protected USB key until the end of the data collection period. I will keep your data securely for at least five years per Queen’s University Policy, after which the de-identified data will be deposited into the Queen's University's Institutional Repository. The code file identifying your pseudonym and study ID number will be destroyed five years after study closure. In addition to the Principal Investigator, the research supervisor will also have access to the data. The Queen’s University General Research Ethics Board (GREB) may see your study data for quality assurance purposes.

I plan to publish the results of this study in academic journals and present them at conferences. I will include quotes from some of the interviews when presenting my findings. I will never include any real names with quotes unless requested to do so by the participant. I will do my best to make sure quotes do not identify participants. During the interview, please let me know if you say anything you do not want me to quote.
If you have any ethics concerns please contact the General Research Ethics Board (GREB) at 1-844-535-2988 (Toll free in North America) or chair.GREB@queensu.ca. Call 1-613-533-2988 if outside North America. Please note that GREB communicates in English only.

If you have any questions about the research, please contact me at christina.frendo@queensu.ca or my supervisor, Dr. Betsy Donald, at betsy.donald@queensu.ca or 613-533-6040.

This Letter of Information provides you with the details to help you make an informed choice. All your questions should be answered to your satisfaction before you decide whether or not to participate in this research study. Keep one copy of the Letter of Information for your records and return one copy to the Researcher, Christina Frendo. You have not waived any legal rights by consenting to participate in this study.

By signing below, I am verifying that: I have read the Letter of Information and all of my questions have been answered.

☐ Yes, you have my permission to use quotes/audio record (circle action if only 1 option is permissible)
☐ No, you do not have my permission to use quotes/audio record (circle action if only 1 option is NOT permissible)

_________________________  _______________________  ______________
Signature of Participant/  Printed Name  Date
Guardian/Substitute

_________________________  ________________________  ____________
Signature of Person Conducting  Printed name and role  Date
the Consent Discussion
Appendix D
Interview Schedules

Developers

What motivated your company to include urban agriculture in its project?

In your opinion, are green features something residents/tenants look for? Why/why not?

What are the challenges of integrating urban agriculture?

Are there any policy barriers or incentives for including urban agriculture?

Who designed and implemented this project?

How does the project function?

How involved are residents/tenants/the community?

Who benefits from this project?

Who does urban agriculture appeal to?

In your opinion, is urban agriculture a good way to improve sustainable development?

What other types of sustainability measures has your company considered?

Is there anything else you would like to add that you think I should know for my project?

Urban Planners

Could you describe your role at the city of Montréal?

What is your experience working with green infrastructure or sustainable development?

What is your experience planning or working with urban agriculture projects?

In your experience, what is the interest level in urban agriculture here from organizations/residents/business?

Are there any development projects that are currently working to integrate urban agriculture in your borough?
How has urban agriculture changed in this borough or in the city since you have been working?

What, if any, are the incentives for developers from the borough to include urban agriculture in their project?

What are the requirements for implementing urban agriculture in private development projects? (e.g. rooftops of a shared building, on land, etc.)

What benefits does urban agriculture have from the perspective of the borough? Are there any concerns?

In your experience, do you think urban agriculture is a good way to improve sustainable development?

What other types of sustainable development projects does the borough prioritize or consider?

Is there anything else you would like to add that you think I should know for my project?

Community Actors

Can you tell me a little bit about your history of involvement in urban agriculture?

How has urban agriculture changed over the years?

What was your motivation for becoming involved in urban agriculture? Has this changed?

What are the goals of your organization and/or the organizations/groups you have worked with in the past?

What different types of urban agriculture projects exist in your neighbourhood that you are aware of?

Do you think urban agriculture has changed your neighbourhood? In what way?
Do you feel urban agriculture is a social justice/environmental justice tool/both?

In your opinion, who benefits most from urban agriculture?

Were there or are there any barriers to being involved in urban agriculture?

Is there anything else you think I should know for my project? (Montréal, 2016a)
References


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