Cultivating the city: An inquiry into the socio-spatial production of local food

by

Michael C. Granzow

A thesis submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

Department of Sociology
University of Alberta

Abstract

Once considered out of place in cities, urban agriculture is an increasingly common practice. This dissertation considers questions of urban agriculture and local food through a "production of space" lens. This framing allows for an expanded empiricism, opening up the investigation of urban agriculture to include a consideration of spatial practices, lived experiences, and varied representations. In addition to theorizing urban agriculture through a production of space lens, this dissertation draws on multiple qualitative methods, including interviews, participant observations, and self-ethnography, to develop and contribute to a socio-spatial mapping of local food space in Edmonton. Through these methods, this dissertation contributes to a better understanding of the complex processes and diverse meanings involved in the production of urban agriculture space. Rather than focusing on a singular site of urban agriculture, I consider its production at various scales, from urban farm to city-region, examining the particulars of each case and the relationships between them through theoretical discussion. The dissertation concludes by introducing the concept of the urban agriculture imaginary, emphasising the ways in which urban agriculture exists as a symbolic landscape – a set of widely circulated representations and ideas about the practice that recasts the city in different ways.

Preface

Following the paper-based format of the Faculty of Graduate Studies at the University of Alberta, this dissertation is organized around three substantive chapters. Each of these chapters has been subject to a process of academic peer review and has been published in a reputable academic journal or, in the case of Chapter Two, an edited book. Chapter Two is published in *The Routledge Handbook of Henri Lefebvre: The City and Urban Society* (Granzow & Shields, 2019). Chapter Three is published in *Local Environment: The International Journal of Justice and Sustainability* (Granzow & Jones, 2020). Finally, Chapter Four is published in the *Journal of Agriculture, Food Systems, and Community Development* (Granzow & Beckie, 2019). Each of these three contributions has been co-authored with members of my supervisory committee, reflecting the collaborative ideals of my research. Following the Faculty of Graduate Studies guidelines, I am the first author on each of the three chapters and hold primary responsibility for all conceptualization, analyses, interpretation, and writing. Finally, sections of the introduction are taken from a solo-authored article *Making Time and Space to Grow: The Spatiotemporal Politics of Urban Agriculture* which has been accepted pending revisions in the *Journal of Cultural Geography*.

I was first introduced to urban agriculture through my volunteering at Prairie Urban Farm in the spring of 2013. Prairie Urban Farm is a volunteer-led community farm located on a section of University-owned agricultural research lands in the centre of Edmonton, Alberta. At that time, I was in the process of developing a dissertation proposal examining ghost towns in western Canada through a ruination lens (see Granzow, 2014; Mah, 2012). As I became more involved with Prairie Urban Farm, I began to link my academic interests with my volunteering, thinking about the socio-spatial aspects of urban agriculture. This would eventually lead to a change in

research topic. It was an unexpected shift, for others as well as myself. Not only did it seem unwise to change research trajectories well into the PhD program, but I was also venturing into somewhat unknown academic territory. With background interests in social theory, cultural studies, and urban studies, I was largely unfamiliar with urban agriculture and food systems research. This set me on course for an unusual foray into these topics.

From the beginning I approached the question of urban agriculture and local food from perspectives rooted in spatial theory and cultural studies. Whereas much research has considered the merits of urban agriculture as an alternative food system, I set out asking what it would look like to consider urban agriculture through a socio-spatial lens. What does urban agriculture look like when considered as a way of conceiving of, practicing, and imagining urban space and the city? While my initial interest was sparked by my participation in urban agriculture through Prairie Urban Farm, it was broader theoretical questions and interests that ultimately led to the changing of my research topic. This foundational theoretical and exploratory interest is reflected, not only in the content of each of the three chapters that comprise this dissertation, but also in the specific way I have chosen to bring these chapters together.

An early proposal for this research involved a cross-context comparison of urban agriculture initiatives in Montreal, Detroit, Berlin, and Edmonton. It was an ambitious plan, but faced practical limitations, including questions of access, funding, and time. In considering the challenges involved with organizing an international, comparative project on urban agriculture, it became apparent that I needed to (once again) go back to the drawing board. As I grappled with questions of where to go and which urban agriculture initiatives to study, a committee member suggested I *just start where I am* and build my dissertation from there. This simple piece of advice helped me challenge a hidden assumption that, in order to research something

successfully you must go to those places where it is occurring most obviously or intensely. Of the four cases initially proposed, Edmonton stood out as the least likely choice. Whereas each of the other cities, in particular Detroit and Berlin, had already attracted much research and writing, Edmonton was conspicuously off the urban agriculture map.[1] So why study urban agriculture *here* in Edmonton? Why choose a seemingly borderline and marginal case as my analytical focus? My decision was driven largely by two factors. For one, I was already involved in urban agriculture practice in Edmonton through my regular volunteer work at Prairie Urban Farm. Reflecting on my committee member's advice, I saw that *starting where you are* is not necessarily a negative compromise, but a possible and often very productive way forward; it is also a recognition that in the search for an ideal case or research project, you risk missing interesting things happening in your backyard. To start where you are is a call to start paying attention. Secondly, in wrestling with my research goals I found that my main interest was in urban agriculture as space to think through – that is, as a set of ideas, practices, and imaginaries. Influenced by Henri Lefebvre, and in particular his writings on the production of space (1991), as well as subsequent work on relational space (Fuller and Löw, 2017; Massey, 2005; Soja, 1989), social spatialisation (Shields, 1991, 2013), and the urban imaginary (Zukin et al., 1998; Donald, 1999), I set out to contribute to rereading urban agriculture. Studying urban agriculture in the under-examined context of Edmonton provided an opportunity to "read for difference" (Gibson-Graham, 2006). As Gibson-Graham note in their introduction to *Postcapitalist Politics*:

> Rereading offers us something new to work with, especially useful if we are trying to
>
> produce raw materials for other (political) practices. Possibilities multiply along with

---

[1] McClintock and Simpson's (2018) expansive study on urban agriculture that included most major Canadian metropolitan areas reported several responses from Montreal, Toronto, and Vancouver, but none from Edmonton, a mid-size provincial capital whose local economy is tied to the boom-bust cycles of the oil industry.

uncertainties, and future possibilities become more viable by virtue of already being seen

to exist, albeit only in the light of a differentiating imagination. (p. xxxi).

Urban agriculture is already a rereading – an unsettling of dominant socio-spatial configurations

that, for example, separate the places where the vast majority of people live (i.e. cities) from the

places where, and processes through which, their food is produced. To unite "urban" and

"agriculture" is a simple but powerful move that has captured the imaginations of people in cities

around the world. Yet, as urban agriculture is increasingly incorporated into dominant planning

logics and as its representations coalesce around predictable urban sustainability imaginaries, it

is vital to continue to examine it critically – that is, to *reread the rereading*. One way to do this is

to explore unusual or unlikely contexts where the dominant imaginaries of urban agriculture may

be troubled or called into question.

This dissertation presents an analysis of the socio-spatial production of, not only urban

agriculture, but local food space more broadly. What started out as a study of urban agriculture

came to include the analysis of an institutional food procurement initiative. This extension of

analysis meant revising and reworking sections of the Introduction. However, the initial research

focus remains inscribed in the form and flow of the text. For instance, Chapter One is divided

into distinct sections in order to introduce and relate diverse ideas, concepts, and discussions,

that together help knit together what are three independent contributions to scholarship.

Moreover, the dissertation begins with an emphasis on urban agriculture (Chapters One and

Two) before shifting towards a discussion of local food more broadly (Chapters Three and Four).

This is not only reflective of the research process, but also points to a key contribution of the

dissertation as itself an experiment in analyzing different types of local food initiatives as part of

a broader production of local food space (see Chapter Four).

Thus, this dissertation stems from the idea that questions of urban agriculture and local food are meaningful beyond their relationship to food production. These are questions about where and how we live, and in particular, how we live *together*. In raising further questions, in the Concluding and synthetic chapter on the urban food imaginary, this research project also argues that urban agriculture must be approached as a site of ambiguity and thus of potential for change. Rather than merely seeking a clear direction forward, asking such questions provides an opportunity to rethink our food systems and how they intersect with urban life. In providing an account of urban agriculture and local food as they exist and continue to be produced here in Edmonton, I contribute to a broader theorizing of food through a socio-spatial lens – in particular, as a site of place-making, city-building, and urban imagining.

References

Donald, J. (1999). *Imagining the modern city*. Minneapolis: University of Minnesota Press.

Gibson-Graham, J. K. (2006). *A postcapitalist politics*. Minneapolis: University of Minnesota Press.

Granzow, M. (2014). Review Essay: Industrial ruins and ruination. *Space and Culture*. Retrieved from http://www.spaceandculture.com/2014/12/02/michael-granzow-review-essay-industrial-ruins-and-ruination/

Granzow, M., & Beckie, M. (2019). Making place for local food: Reflections on institutional procurement and the Alberta Flavour Learning Lab. *Journal of Agriculture, Food Systems, and Community Development*, *9*(A), 215–229. https://doi.org/10.5304/jafscd.2019.091.042

Granzow, M., & Jones, K. E. (2020). Urban agriculture in the making or gardening as epistemology. *Local Environment*, *25*(5), 381–396. https://doi.org/10.1080/13549839.2020.1753666

Granzow, M., & Shields, R. Urban agriculture: Food as production of space. In M. E. Leary-Owhin & J. P. McCarthy (Eds.), *The routledge handbook of Henri Lefebvre: The city and urban society* (pp. 287–297). London: Routledge.

Mah, A. (2012). *Industrial ruination, community, and place*. Toronto: University of Toronto Press.

Shields, R. (1991). *Places on the margin: Alternative geographies of modernity*. New York: Routledge.

Shields, R. (2013). *Spatial questions: Cultural topologies and social spatialisation*. London: Sage.

Zukin, S., Baskerville, R., Greenberg, M., Guthreau, C., Halley, J., Halling, M., … Wissinger, B. (1998). From Coney Island to Las Vegas in the urban imaginary: Discursive practices of growth and decline. *Urban Affairs Review*, *33*(5), 627–654.

Acknowledgements

This dissertation would not have been possible without the support of many people. I would like to thank my supervisor Rob Shields as well as my other supervisory committee members Kevin Jones and Mary Beckie; I couldn't have asked for a better, more generous group of scholars, collaborators, and friends to work with. I would also like to thank Tara Milbrandt and Chiara Tornaghi for so thoughtfully engaging with my work.

Thank you to the Department of Sociology, and in particular Sara Dorrow, Sourayan Mookerjea, Harvey Krahn, Ken Caine, and Paul Datta for their guidance and encouragement during my Ph.D. Thank you also to Monica Gruezmacher and Kristof Van Assche for the road trips and conversations, and for helping me develop research outside my dissertation.

Thank you to the many people who contributed both knowingly and unknowingly to this dissertation. Thank you to Debra Davidson, and all the wonderful volunteers at Prairie Urban Farm. Thank you to my friends, both new and old, who made my PhD so memorable. How fortunate I was to get to share my time in Edmonton with my oldest and dearest friends David, Chris, Rob, Matt, and Ryan (when he made up). How fortunate also to have met such incredible new friends. Thank you to Chad Doerksen, Bozhin Traykov, Justin Tetrault, Jean-Philippe Crete, Kelsie Barkway, Pradeep Sangapala, Anne Winkler, Andriko Lozowy, Shama Rangwala, Susan Cake, Marcella Cassiano, Jason Chalmers, Mike Zajko, Matthew Unger, Juan Guevara, Jim Morrow, and Ipek Oskay for their friendship and comradery. Special thanks to Gary Barron for providing feedback on early drafts of the thesis.

I am so fortunate to have the love and support of my family. I cannot express enough my gratitude to my Mom for all she has given me. Thank you also to my incredible sisters Andrea, Kara, and Erica and my brothers John, Mark, and Tom. I am forever thankful to my Dad, whose boundless creativity and encouragement is with me in everything I do. Thank you also to Mara, David, and Zach.

Thank you most of all to my partner and best friend Madeleine Baldwin. This dissertation would not have been possible without Madeleine's many insightful contributions and last-minute edits. I am so grateful for her support and patience throughout the Ph.D. Finally, thank you to our son Owen, who came along just in time to keep everything in perspective.

Table of Contents

Chapter One: Introduction

Often associated with community and roof-top gardens, urban bee and chicken-keeping, and vertical farms, urban agriculture has come to include all food production within and near cities. As Luc Mougeot notes, "[by] far the most common element to reviewed definitions is location 'in (within) and around' cities or urban areas" (Mougeot, 2000, p. 7). Pushing beyond location-based definitions towards the examination of urban agriculture as a socio-spatial question, this dissertation aims to explore the multiple forms and meanings of urban agriculture and local food. More than a means of local food production, urban agriculture represents a series of material and symbolic interventions into urban space. Drawing on the foundational insights of Henri Lefebvre, this dissertation represents an effort to *read* the meaning and politics of such practices of in Edmonton, Alberta. Before proceeding with a review of the literature and a brief history of urban agriculture in Edmonton, I begin with a question: Why use the term urban agriculture?

Why Urban Agriculture?

"Why use the term 'urban agriculture' instead of 'horticulture' or 'gardening'?" This was a question I received during an early presentation of my research at the Congress of the Humanities and Social Sciences held at the University of Calgary in June, 2016. The experience was important in that it urged me to think about and begin to clarify the boundaries of my object of analysis. The question is tricky because discussions of urban agriculture often overlap with and include mention of a variety of urban food growing practices, including horticulture, aquaponics, agroecology, vertical farming, and community gardening.

To address this question, I began by wondering whether urban agriculture is simply community gardening by another name? In some instances, this may seem to be more or less the case.[2] However, even if little else about a local food initiative has changed beyond its label, the fact that it is being re-framed speaks to a broader socio-spatial shift.

What exactly that shift represents is both contested and unclear. McClintock (2010), for example, understands the shift from talk of "community gardening" to "urban agriculture" as ultimately a consequence of a crisis of capitalism:

> As we find ourselves once again in the throes of a crisis of capitalism, the popularity of [urban agriculture] in the Global North has surged and the discourse surrounding it has shifted from one of recreation and leisure to one of urban sustainability and economic resilience. Even the terms used to describe it have shifted in the Global North; 'urban agriculture' is replacing 'community gardening' in everyday parlance, placing it (despite its much smaller scale) in the same category as urban agriculture in the Global South, where livestock and small plots of food crops have persisted as part of the urban landscape. (p. 2).

McClintock's "crisis of capitalism" framing stems from a theoretical orientation rooted in the writings of Karl Marx. In particular, Marx's writing on metabolic rift provides McClintock with a lens through which to consider urban agriculture, shedding new light on the practice. However, when you look at urban food policies, popular books, or promotional texts, it is unusual to find mention of a "crisis of capitalism." Instead, urban agriculture is most often framed and legitimated in terms of what has become the dominant paradigm of urban growth and development, "sustainability" (McClintock & Simpson, 2018).

---

[2] The question of the difference between community gardening and urban agriculture is addressed in Chapter Three.

As Campbell notes, "in the battle of big public ideas, sustainability has won: the task of the coming years is simply to work out the details, and to narrow the gap between its theory and practice" (in Krueger and Gibbs, 2007, p. 1). With the rise of the sustainability paradigm, there has been an increased recognition of the importance of local food production. Pointing to the work of Ferris et al. (2001), Pink (2012) has commented on the ways in which local projects like community gardens are increasingly shot through with global concerns (p. 86). This is captured by the popular slogan "think global, act local," that has guided grassroots action as well as planning and policy decisions in recent decades. Writing in 2001, Ferris et al. note:

> Although community gardens have a long history there is no doubt that they have been given a fresh impetus by the emergence of international concerns with the environment and sustainability. Local Agenda 21, agreed on at the UN Conference on the Environment held in Rio de Janeiro in June 1992, placed great emphasis on sustainable development at the local level (in Pink, 2012, pp. 86-87).

The rise of the sustainability paradigm is itself the result of a particular theoretical and political framing that in turn may account for the shift towards the more expansive term, urban agriculture. Where some see the turn to sustainability as a symptom of more systemic and entangled economic and environmental crisis, others understand it more simply as a set of progressive measures towards a better future for a planet of connected ecosystems. Broad debates around the politics of sustainability are articulated and researched through a wide variety of disciplines and across different scales. Perhaps only behind "energy," the topic of "food" is a hotbed of thinking around sustainability politics, with ongoing debates around the political significance of various efforts towards food system change, such as re-localization and urban agriculture.

In the present study, I am interested in drawing attention to urban agriculture, not as a clearly delineated *thing* reduced to particular criteria (i.e. growing techniques, land-use designation, etc.), but as a contradictory and multidimensional socio-spatial process, what the French philosopher Henri Lefebvre (1991) referred to as a production of space. My interest is not primarily in the technical aspects of urban agriculture or related questions around how much food can feasibly be produced within cities (although these are important aspects of the conversation), but in the production of urban agriculture and local food space. In other words, I am interested in, not just the framing, but the *spacing* of urban agriculture and local food. It is urban agriculture that, more than any other term, has represented the broad cultural and imaginative shift towards re-casting the relationships between food, cities, and people. It is this material and discursive re-casting of the city that lies at the center of my interest, and which is the thread tying together the contributions that comprise this dissertation.

What is urban agriculture? How does it take and make place? How is it legitimized? How does urban agriculture reinforce, maintain, or unsettle existing socio-natural and socio-spatial relationships at play in the city? How might we make sense of various instances of urban agriculture? How do specific urban agriculture initiatives engage with broader sustainability politics and imaginaries? Considered together, what can these instances tell us about the production of urban agriculture space, or changing ideas of the urban? Addressing all of these questions comprehensively is not possible in the scope of a single dissertation; however, they have guided my contributions to a growing body of research examining the socio-spatial politics of local food and urban agriculture.

Overview of the Literature

My research into local food and urban agriculture revealed a vast and multidisciplinary body of work exploring numerous aspects of global, regional, and local food systems. Beyond differences of theoretical approach, method, context, and scale, many of these studies shared a general concern with the unsustainability of our current globalized agri-food system. Indeed, much of this research is informed by a local food movement that has been framed by discourses of re-localization and embeddedness (see Hinrichs, 2000), challenging the instrumentalism of conventional food systems, and promoting more direct relationships between producers and consumers.

Urban agriculture has emerged as one popular spatialisation of the food movement, bridging not only processes of production and consumption, but also the symbolic landscapes of urban and rural. The last decade has witnessed a surge of interest in the topic of urban agriculture, evidenced by the explosion of popular books on the topic. Titles such as *Public Produce: The New Urban Agriculture* (Nordahl, 2009), *The Vertical Farm* (Despommier, 2010), *Food and the City* (Cockrall-King, 2012), *The Urban Food Revolution* (Ladner, 2011), *The Urban Farmer* (Stone, 2016), and *Urban Farming* (Fox, 2018) speak to the promise of urban agriculture to transform our cities, the environment, and our diets.[3] While much of this popular literature focuses on the Global North, a review of academic scholarship illustrates a focus on the role of urban agriculture in the Global South. In this literature review I begin by introducing a common definition of urban agriculture, before discussing research findings from the contexts of both the Global South and the Global North. I then explain how my dissertation research builds on this literature, particularly on those studies offering a critical approach to the topic.

---

[3] In an early blog post on "The Promise of Urban Agriculture" I presented some initial thoughts on the subject: https://www.spaceandculture.com/2015/11/25/industrial-ruin-and-the-promise-of-urban-agriculture/

Defining Urban Agriculture

A widely-cited definition of urban agriculture comes from Luc Mougeot (2000), who describes it as

> an industry located within (intraurban) or on the fringe (periurban) of a town, a city or a metropolis, which grows or raises, processes and distributes a diversity of food and non-food products, (re-)using largely human and material resources, products and services found in and around that urban area, and in turn supplying human and material resources, products and services largely to that urban area. (p. 10).

Addressing shortcomings in location-centric definitions of urban agriculture, Mougeot (2000) outlines his own definition, emphasizing the degree of "integration with the urban eco-system" as a fundamental (and under-appreciated) characteristic of urban agriculture. As he notes, "agriculture will be more or less urban, according to the extent to which it will use the urban eco-system and in turn be used by this same urban eco-system" (p. 12). Despite efforts by Mougeot and others to provide nuanced definitions, urban agriculture continues to be widely understood in terms of its location within or near cities.

Urban Agriculture in the Global South

Notable in Mougeot's definition is his understanding of urban agriculture as an industry. This emphasis reflects the author's focus on the Global South, where urban agriculture is largely seen as a means of alleviating poverty and build food security through cultivating urban lands and establishing local markets for poor inhabitants. As countries in Africa, Asia, and Latin America rapidly urbanize (UN, 2014), scholars, policy-makers, and citizens look to urban agriculture as a potential development pathway. Mougeot (2005) writes, "urban agriculture has spread to become a critical source of food for urban populations in countries affected by natural

disasters (Honduras), economic crisis (Togo), civil wars (Armenia) and disease epidemics (Malawi)" (p. 3). This quotation speaks to urban agriculture's emergence as a specific form of *industry*, one emerging out of the necessity of crisis.

Since the 1990s scholars have researched urban agriculture in Africa primarily through the lens of food security, exploring the potential of urban food growing as a development pathway for some of the world's poorest cities. In reading collections by Mougeot (2005) and Redwood (2009), the importance of urban agriculture as a livelihood strategy for many of the world's most impoverished people is clear. Indeed, if urban agriculture has tended to proliferate during times of social and economic crisis, nowhere is this relationship more apparent than in the African context. Here I point in particular to the relationship between urban agriculture and the imposition of Structural Adjustment Programs (SAPs) implemented in African countries during the 1980s. Oriented towards market reform, these policies led to widespread currency devaluations, price increases for basic goods and the removal of subsidies for food production. In their effort to stimulate economic growth, SAPs actually removed some of the critical lifelines of the poor, thus shifting the focus of some economic planners onto the informal economy – including urban agriculture – as the poor discovered ways to survive (Redwood, 2009, p. 4).

Although there has been a resurgence among activists supporting urban agriculture as a viable response to food insecurity, others have pointed to the limited empirical evidence for such claims (Webb, 2011). Page (2002) draws on Ferguson's (1990) notion of the "anti-politics machine," taking a critical look at urban agriculture in Buea, Cameroon. Page is skeptical of the simplistic portrayal of urban agriculture in Africa as "an ingenious, indigenous, heroic response to the rigours of structural adjustment which provides a key coping strategy for the urban poor - especially women" (p. 41). In contrast to this sanguine perspective, Page's case study

emphasizes the politics of urban agriculture as a manifestation of austerity. By emphasizing the micro-economic benefits of urban agriculture (i.e. individual and household food security), attention is diverted from the broader political injustices brought about by structural adjustment. As Page writes, urban farmers in Buea "set out to reduce their bills in food markets and ended up helping to diffuse the social discontent associated with the reconfiguration of the Cameroonian political contract that had been prompted by the forced shrinking of the government's wage bill" (p. 51).

African cities are undergoing unprecedented rates of urbanization, and this trend is expected to continue, with the UN predicting Africa to be the fastest urbanizing region in the coming decades (UN, 2014). While urbanization is often associated with economic growth and an increased standard of living, this has not been the case for all African cities, many of which have witnessed rising levels of inequality and an alarming proliferation of slums (Davis, 2006). Throughout the global south, urban agriculture has been seen primarily as a means of mitigating food insecurity, malnutrition and, ultimately, poverty.

Urban Agriculture in the Global North

In a context of planetary urbanization (Brenner, 2014; Brenner & Schmid, 2012) and globalized cultural and socio-spatial forms, examples of urban agriculture can be found in most cities. However, while we should exercise caution in over-emphasising differences across time and space, we must also be attuned to their significance. While urban agriculture projects in the Global South and the Global North draw on similar discourses such as localism, food security, and sustainability, the meaning and practice of these ideas changes greatly depending on social, cultural, economic, and geographic context. As Tornaghi (2014) writes, "[n]ot only are Global North and South experiencing different degrees of population growth and triple crunch effects,

they have also different histories of 'eviction' or marginalization of farming from cities, different food consumption styles and a different manifestation of back-to-the-land exodus" (2014, pp. 4-5). Pearson et al. (2010) also recognize this divide, noting that "urban agriculture, although practiced in both developed and developing economies, often serves different purposes, e.g. recreation in the former and food security in the latter" (p. 7). This dissertation goes beyond a recognition of a North/South divide, emphasizing the importance of more specific regional and urban contextual differences, with an emphasis on the production of urban agriculture and local food in Edmonton, Alberta, a sprawling, automobile-oriented, Western Canadian prairie city. Edmonton has had some of the highest rates of economic growth in the OECD but is also a "boom and bust" economy closely linked to the fortunes of the Alberta hydrocarbon resource extraction industry and the changing prices of gas and oil.

Despite the aforementioned discursive shift from community gardening to urban agriculture, a review of the literature reveals a far from tidy divide between the two realms. For example, many studies on urban agriculture include discussion of the growing body of research on community gardens. Community gardens have received much attention as a privileged site for studies of community (Armstrong, 2000; Firth, et al., 2011), social capital (Alaimo et al., 2010; Glover et al., 2005; Glover, 2004; Kingsley & Townsend, 2006), and individual health and wellbeing (Alaimo et al., 2008; Blair et al., 1991; Kingsley et al., 2009; Wakefield et al., 2007). Research in this area reveals that most of the available studies focus on the leisure and community side of community gardening, exploring the social-psychological and general health and nutritional impacts of growing food in the city. This research has, by and large, found community gardening to have positive effects on community development and individual health and well-being. For example, in a survey of over 60 sites in upstate New York, Armstrong

(2000) found that community gardens "improved social networks and organizational capacity in the communities in which they were located, especially in lower income and minority neighborhoods" (p. 325). Speaking to the individual health effects of involvement in a community garden, Alaimo et al. (2008) report that "adults with a household member who participated in a community garden consumed fruits and vegetables 1.4 more times per day than those who did not participate, and they were 3.5 times more likely to consume fruits and vegetables at least 5 times daily" (p. 94).

While some of this research remains somewhat disconnected from broader discussions about the politics of food and the urban space, there is increasing recognition of both the politics of gardening and gardening as politics (see Kingsbury & Richardson, 2005; McKay, 2011; Tornaghi & Certomà, 2019). In the last two decades there has emerged an interdisciplinary body of work considering forms of both urban gardening and urban agriculture from a socio-spatial perspective. With discussions of relevant literature included in each of the following chapters, I highlight here the key texts that provide a general foundation for critical socio-spatial accounts of urban agriculture, and have influenced my own thinking and research.

Nicholas Blomley's (2004) exploration of a public gardening program in British Columbia sparked my interest early on, connecting my previous research on the politics of public space (see Granzow, 2017) with my more recent interest in urban agriculture. Blomley documents the creation of a greenway in inner city Vancouver, illustrating how what might be seen to be an instance of neoliberal urbanism (see Peck et al., 2009) was much more complicated upon further inspection. In speaking with those involved in the project, Blomley reveals a set of spatial claims that both reinforce and challenge hegemonic understandings of private property.

As he put it, "if the ghost of John Locke haunted Atlantic Street, so did Gerard Winstanley and the seventeenth century Diggers of radical England" (Blomley, 2004, p. 633).

Blomley's (2004) article is about gardening insofar as gardening relates to questions of critical geography, and in particular his interest in questions of property. The article turned out to be prescient, anticipating a burgeoning interest in the spatial politics of urban food growing, particularly in relation to the rise of urban agriculture. This interest was not designated as its own sub-field of inquiry until a decade later in 2014 when another geographer, Chiara Tornaghi, connected a disparate and interdisciplinary literature to propose a "critical geography of urban agriculture." Tornaghi's (2014) paper was another guidepost in developing my own approach to urban agriculture and local food initiatives. Tornaghi saw urban agriculture as more than a simple description, recognizing it as a broad set of socio-spatial interventions. Influenced by the likes of Henri Lefebvre, David Harvey, and Peter Marcuse, I saw reflected in Tornaghi's approach strong parallels with my own interests in urban agriculture as a production of space.[4]

A production of space framing positions urban agriculture in relation to, and constitutive of, a broader spatial politics. As Tornaghi (2014) writes, "within this approach, I call for an understanding of how [urban agriculture] initiatives contribute to perpetuate new forms of injustice or open the way to subvert current forms of urbanization…" (p. 553). Urban agriculture is not only a way of growing food sustainably or building food security, but a site of creative city making and urban possibility. Urban agriculture, in other words, is not only about the question of what we eat, but also how we live and, most importantly, how we *might* live. As Tomkins (2014) notes, "[t]here is a need to move beyond the notion that the objective or objects of harvest alone can represent practice" (p. 13). What is at stake with urban agriculture goes beyond what is most

---

[4] See Chapter Two for a detailed exploration of urban agriculture as a production of space.

obvious or immediately apparent, namely the production of local food. Writing about alternative food initiatives more broadly, Levkoe (2011) observes, "at its core, a transformative food politics uses food as an entry point to address a much broader range of issues and to work towards social change" (p. 700). Along with these scholars, I approach urban agriculture with an eye towards socio-spatial and political change.

Considering urban agriculture through a production of space lens involves a critical approach that challenges urban agriculture as uniformly "benevolent and unproblematic" (Tornaghi, 2014, p. 552). Rather than accept normative framings around, for example, "sustainability" and "food security," critical scholarship on urban agriculture has called the meaning and politics of such ideas into question (Classens, 2015; Ernwein, 2017; McClintock, 2014, 2018; Quastel, 2009; Reynolds, 2015; Saed, 2012; Walker, 2015; Wekerle & Classens, 2015).[5] For example, recent analyses of urban agriculture as neoliberal strategy comes out of Vancouver, where the City provided developers with tax breaks on vacant land for allowing temporary urban agriculture uses (see Quastel, 2009; Walker, 2015). As Walker (2015) notes, this strategy "reveals the ultimate contradiction between the twin goals of economic development

---

[5] Why spend precious time and energy critiquing urban agriculture? Isn't urban agriculture itself the critique, part of a growing number of local and sustainable food initiatives that have emerged in response to the violence of the conventional food system? On one occasion, mid-way through the PhD program, I mentioned my proposed critique of urban agriculture to a colleague who responded, "leave those poor gardeners alone!". The comment revealed dominant understandings of critique as negative and prompted me to reflect on the value of a critique of urban agriculture. In his book *Freud & Philosophy*, Paul Ricoeur (1970) used the term "hermeneutics of suspicion" to refer to what he recognized as a pattern of 19th Century thought defined by the overriding sense that *nothing is at it appears* (see also Felski, 2011).

Why target solutions rather than the problem? For the modern critic, solutions are rarely what they appear, and for that reason can be especially pernicious. Critical sociologists in particular have been drawn to those phenomena that others might overlook as unimportant. The more banal and seemingly innocuous, the more worthwhile and exhilarating the hunt. Negative critique is both paradigm and approach, providing the critical researcher with a way into a topic. Over the last decade there has emerged a large and multidisciplinary body of work critiquing all aspects of "local" and "sustainable" food initiatives. A large number of these critiques have been made in relationship to the rise of neoliberalism (Guthman, 2007, 2008; Pudup, 2008; Walker, 2015; Rosol, 2012). The urban studies literature is home to much thinking about neoliberalism, and it is therefore not surprising that urban food initiatives have attracted some critical attention.

(in a consumption and housing-driven economy) and environmental sustainability (through local food production)" (p. 9). Situating his study within literature connecting neoliberalism to nature and the environment, Walker (2015) finds that the cities of Detroit and Vancouver selectively implemented urban agriculture as a "sustainability fix." In another line of neoliberal critique, scholars have argued that urban agriculture space produces neoliberal subjects by encouraging people to internalize responsibility for their own food production (Pudup, 2008; Rosol, 2012). Linking these studies is revealing of a darker side of urban agriculture. Yet, these critical studies remain ultimately oriented towards productive critique, contributing towards the building of a more socially and ecologically just urban agriculture future.[6]

A production of space lens is grounded in the position that spaces are not natural settings, but are produced, contested, and political. Rooted in the critical theory of Karl Marx via Henri Lefebvre (1991), studies of the production of space are often defined by an emphasis on revealing underlying ideologies. Indeed, my own past research has been largely guided by the enduring suspicion that our experiences and perceptions of the urban environment obscure more fundamental and ideological elements lurking just below the surface. As is illustrated in Chapter Two, Lefebvre's spatial dialectics mixes a "hermeneutics of suspicion" (Ricoeur, 1970) with a critical optimism.[7]

---

[6] Marcuse (2009) defines a critical approach as "an evaluative attitude towards the world as it is, a taking apart and examining and attempting to understand the world" (p. 185). Thus, criticism is seen, not only negative, but also as "exposing the positive and the possibilities of change" (p. 185). Latour (1999) goes even further, arguing against traditional modes of critique altogether: "the program of debunking, exposing, avoiding being taken in, steals energy from the task that has always seemed much more important to the collective of people, things, and gods, namely, the task of sorting out the cosmos from an unruly shambles" (Latour, 1999, p. 22). A few years later, Latour (2004), with a little help from unlikely ally Martin Heidegger, further developed his critique of critique, suggesting a new role for the critic as "not one who debunks, but…one who assembles" (p. 246).

[7] Lefebvre's theory has emerged as a key influence on urban political ecology (see Swyngedouw & Heynen, 2003 Heynen et al., 2006), which has recently been taken up as a critical approach to urban agriculture (Classens, 2015; Passidomo, 2016).

This summary of key contributions in the literature helps position my own research on the production of urban agriculture and local food space in Edmonton. Distinguishing between urban agriculture practice in the Global South and the Global North, this review has highlighted the need for strong contextual analyses that account for place. The literature also reveals a distinction between research documenting benefits associated with community gardens and more critical studies on the socio-spatial politics of urban agriculture. As urban agriculture continues to grow in popularity, and as its principles begin to be increasingly incorporated into municipal food-policy and place-making strategies, it is important to critically investigate the ways it is implicated in the re-imagining and re-making of both cities and the urban. Before moving to a discussion of Edmonton's recent "urban agriculture moment," I provide a brief history of the city and its relationship to gardening

A Brief History of Gardening and Urban Agriculture in Edmonton

Edmonton, Canada's most northerly major city, is far better known as a hub for the oil industry than for urban agriculture or sustainability. Referred to as the "Gateway to the North," Edmonton is a five-hour drive from the Athabasca Oil Sands, one of the world's largest oil reserves. Beyond its strong association with oil, Edmonton has a reputation for being an industrial city, with a more blue-collar citizenry than neighbouring Calgary. In a recent episode of the gameshow Jeopardy, "What is Edmonton" was the correct answer to the question: "Found on the North Saskatchewan River, this petroleum & meatpacking city was established as a fort in 1795" (Fournier, 2019). The less-than flattering description of Alberta's capital got a lot of attention in the local media, with many Edmontonians coming up with their own counter-narratives of the city. [8] The Jeopardy clue speaks to Edmonton's continued place-image (Shields,

---

[8] The official City of Edmonton Twitter account also had something to say about the disparaging tweet:
https://twitter.com/CityofEdmonton/status/1091431650565677057

1991) as an industrial oil city, despite numerous initiatives to diversify the city's economy through, for example, recent attempts to establish Edmonton as an arriviste urban destination (Scherer and Davidson, 2011); a world-class global city (Scherer, 2016) and as an entrepreneurial and innovation hub (Jones et al., 2019; Shields & Jones, in press).

Yet, despite its dominant place image, and recurring attempts to transform it in relation to the latest development, Edmonton has a long, rich, and often overlooked horticultural heritage. Situated in the northwest corner of the North American prairie, the City has always centred a vital agricultural industry and been home to a well-developed culture of gardening (home and market). Today's flourishing of markets, community gardens, and a growing local food movement might often be shrouded in the sustainability politics and identities of the current moment, but it finds fertile space to grow in what has come before.

Kathryn Chase Merrett's (2015) detailed history of gardening in Edmonton begins with the question, "why grow here?" She describes how, even in the late 18th and 19th centuries, the area that would become Edmonton struggled with another form of negative place image, this one in regards to growing conditions. She identifies a perceived "eastern prejudice," referring to the assumption held by Eastern Canadians that the Northwest, with its inclement weather and short growing season, was ill-suited to horticulture or gardening (p. 2). It was this prejudice, says Merrett, that led to the creation of the Edmonton Agricultural Society in 1879, which, through its annual exhibitions, demonstrated the region's impressive soil fertility and productive potential. This counter-narrative to the so-called "eastern prejudice" is reflected also in early efforts to attract settlers to the area. For example, in 1890 the *Edmonton Bulletin* put out a call for "50,000 farmers and their families" to visit the "Garden of the Northwest Territories" (cited in Merrett, p. 48). The region's high-quality soil was recognized early on as a major asset, playing a central

role in the settlement of the area.[9] Merrett does not go into detail regarding the relationship

between Edmonton's gardening history and colonialism, only pointing out a basic tension

between the "domesticated garden" of European settlers and what she calls "nature's garden,"

referring to the landscape that predated European settler colonialism:

> As the settlement community relentlessly pursued its vision of the domesticated garden,
> 'nature's garden' began to disappear as a cultural concept…Hunting and gathering, which
> had formerly supplied many of the fur traders' needs, played a diminishing role in the food
> supply of the settlement community, replaced by agriculture, horticulture, and imported
> goods" (Merrett, 2015 p. 47).

While a detailed analysis of the historical connections between cultivation and colonialism is

beyond the scope of this dissertation, it is important to note that Merrett's account reproduces a

particular kind of national mythology. While Merrett laments the disappearance of "nature's

garden," the narrative focuses on the optimism and self-reliance of European settlers who

managed, ostensibly against all odds, to *grow here* in the inhospitable rugged margins of colonial

empire. Much of the North American mythos of modernity and progress, as Merchant (1995)

notes, has equated horticulture with a return to Eden and the orderly conquest of unruly nature.

Even Merrett's adoption of the term "nature's garden," referring to the native ecological system

that supported hunting and gathering in the prairies, betrays a Eurocentrism, with the etymology

of the word garden associated with enclosure (see Ostertag, 2018, p. 84)

The title of "Garden of the Northwest Territories" was both a description of the region's

fertile soils and a piece of Canadian propaganda, part of a national strategy to secure control and

---

[9] As was reported in an Edmonton Bulletin: "This partly wooded country, lying between the Great Plains to the south and the forests of the North, has for many years attracted the favorable notice of travelers, and is even yet best known to many by the name "Fertile Belt" which was given to it."

influence over those more remote reaches of the territories, an especially urgent task for the state in the years following the Northwest rebellion. In the same *Edmonton Bulletin* article from April 5, 1890, the author follows up a description of the natural beauty of Edmonton with the reflection: "[h]ow it came to pass, I said to myself, that so beautiful a country is not inhabited by human creatures" (p. 2). Of course, it was very much inhabited, as it had been for thousands of years prior to the arrival of the first European settlers. Supported by a framework of *tabula rasa* and the related legal doctrine of *terra nullius* (see Razack, 2002), White settlers ignored first inhabitants' spatial practice, refusing, as illustrated in the quotation, to even recognize them as human. Early gardening and horticulture experiments in the northwest and throughout Canada were part of a larger national project that erased Indigenous culture and space.[10]

Merrett's (2015) account focuses largely on the gardening and horticultural practices of Europeans that came to settle Edmonton. She illustrates the early success of market gardening in Edmonton through the story of Donald Ross, a man dubbed Edmonton's "father of gardening" in an *Edmonton Bulletin* article from 1903 (p. 20). Born in Scotland, Ross made his way to New York City before heading West in search of gold, eventually settling on river-valley land now part of Edmonton's Rossdale neighbourhood. The reprinted photographs of Ross' oversized and bountiful harvests represent an early moment in Edmonton's settler history. Ross was one of the first of many market gardeners who would come to shape the Edmonton landscape.

Another notable chapter in Edmonton's horticultural history is the period spanning from the 1930s to the 1950s when Chinese immigrants created market gardens that lined the North

---

[10] The link between cultivation, colonialism, and experimentation is made clear in the same Edmonton Bulletin article cited above, which states: "if he goes to a section of country, newly opened up, he must get along without these appliances of civilization and must experiment for himself, and most likely suffer many losses and disappointments before the various qualities of the soil and the many changes of the climate are thoroughly understood."

Saskatchewan river valley. Merrett (2015) refers to these gardens as an "invisible tapestry,"

highlighting the fact that they have been largely forgotten by Edmontonians and are absent from

city records (p. 200). Making a living gardening was not easy, and for many Chinese, the

decision to cultivate the river-valley lands was likely more a matter of necessity than choice.

Indeed, the choices for ethnic Chinese in Canada at the time were very limited. Chinese faced

racism, prejudice, and discrimination, both in the form of official laws and in their everyday

lives.[11] Merrett speaks to this when noting an incident "in 1927 when a Chinese market gardener

was refused a stall at the city market on account of his ethnicity" (p. 206). Further detail is

provided by Merrett in her earlier (2001) history of the Edmonton City Market, where she

reports:

> In October 1927, the legal firm of Robertson, Winkler & Hawe wrote the commissioners
>
> on behalf of an unnamed Chinese client who had applied for a stall only to be told that 'it
>
> was a rule of the market that no Chinamen would be rented space on the market for the sale
>
> of produce.' (p. 71).

Such incidents, notes Merrett, were not uncommon. While a number of Chinese market

gardeners were very successful, it is clear that the pursuit was fraught with difficulty, and was

mainly considered a steppingstone towards a better future for themselves and their children (see

Merrett, 2015, p. 232). As ethnic Chinese received more rights and status in Canada, they often

chose other livelihoods (Lennon, 2014). Traces of Edmonton's Chinese market gardens can still

be found in the wild goji berry plants that can be found growing along the city's river valley

---

[11] Such laws included the Chinese Immigration Act of 1885, which included a head tax restricting Chinese immigration from 1885 to 1923. Subsequently, the Chinese Immigration Act of 1923 put a stop to Chinese immigration altogether.

(Lennon, 2014) as well as in residential gardens where many have been transplanted.[12]

Merrett's (2015) essays on Edmonton's gardening history include accounts of influential gardeners, organizations, and city programs, but none discuss the topic of urban agriculture specifically. This is likely because urban agriculture is often distinguished from previous forms of urban gardening through both the discourses that surround it, and its historical relationship to the city. Specifically, the popularity of urban agriculture in the Global North developed in relation to municipal planning strategies, and their growing emphases on building more sustainable and greener cities.

Food systems were not on the radar of North American planners until the early 2000s. A 2007 report by The American Planning Association suggests a number of possible reasons why planners were so late to recognize food as a planning issue, the first being the perception that food systems only indirectly affect the built environment of cities (APA, 2007). This inability to see the connection between cities and increasingly distant agricultural hinterlands speaks to a broader cultural separation of, not only the urban and the rural, but also the cultural and the natural.

Throughout the 19th and 20th centuries, North American cities were increasingly sanitized of spaces and activities related to food production. Through a kind of urban purification process, modern planning helped cement the separation of urban and rural by means of land use planning and zoning. Many spaces of industrial production, from factories to slaughterhouses to farms, were relegated to peripheral areas within the city or sometimes to areas beyond its borders. This shift towards the separation of cities from processes of food production, however, was neither linear or absolute. For example, the 19th century saw an increase in the number of urban dairies

---

[12] Visit https://ccyp.ca/portfolio/edmonton-chinatown-stories/ for a history of Edmonton's Chinatown including a segment on the goji berries in Edmonton's river valley.

due to a rapid rise in demand for milk in many North American and European cities (Speake, 2015; Egan, 2005). Urban food production also re-emerged in the 19th and 20th century during times of crisis. During these moments, the underutilized productive capabilities of the city were drawn upon as an improvised social safety net, enabling residents (especially those already marginalized through poverty) to endure hard times.

The connection between urban food growing and crisis is well illustrated by the case of Cuba. Regularly held up as a local food system success story, Cuba developed its unique urban agriculture infrastructure in direct response to a particular set of crises (the US trade embargo, the dissolution of the Soviet Union in 1991, and rural soil degradation). This "Special Period" had "a devastating impact on Cuban food security" (Altieri et al., 1999), forcing the country to rethink its mode of food production and resulting in the expansion of its now iconic organaponicos. Today Havana is said to produce about 60 to 90 percent of its own produce and attracts increasing numbers of food tourists interested in adopting similar ecological techniques in their own cities.

Urban agriculture as a function of crisis also has a long history in North America, from early experiments with vacant-lot gardening in the late 19th Century to depression era relief gardens, to WWII Victory Gardens (see Lawson, 2005; McClintock, 2010). A notable example is Detroit's potato patches. During the depression of 1893, Detroit Mayor Hazen Pingree encouraged city residents to farm vacant lots to feed the city, setting an example that would be widely replicated and adapted across the US and Canada. Once the depression came to an end in the early 1900s and there was no longer a need to cultivate city lands, land was allowed to return to what had been established as "normal" conditions for an urban environment. This early moment in the history of Detroit presaged the city's dramatic return to urban agriculture in the

wake of the 2008 financial crisis. As Colasanti et al. (2012) note, "[t]he decline of Detroit's auto industry, the city's 1967 race riots, and urban policy favoring sprawl have combined to create 50 years of population out-migration, leaving acres upon acres of abandoned land within the urban boundary" (p. 351). The result has been one of the most expansive urban agriculture experiments in North America. Yet, while the rise of urban agriculture has expanded in post-industrial cities like Detroit, we should not limit our understanding of urban agriculture to such contexts.

In her analysis of subsistence gardening in early 20th Century Columbus Ohio, Moore (2006) argues that common crisis narratives construct urban food production as a regression to rural practices that, while necessary during times of crisis, remains in opposition to what continue to be understood as normal, capitalist, development trajectories:

> In order to explain practices or spaces (like household non-commodity production) that seem at odds with capitalism, theorists and practitioners must co-opt them either by subsuming them to the reproduction of the social totality of capitalism or by characterizing them as temporary 'crisis' situations, which will be rectified through the evolution of capitalism itself. The same process applies to the unified notion of the urban, from which alternative landscapes, such as those of subsistence gardening, are systematically excluded by representing them as 'crisis' measures. (Moore, 2006, p. 174).

If urban food growing practices are always framed as a temporary response to crises, argues Moore, there is little room for interrogating how these practices existed differently in the past, how they have shifted over time, and what they might mean in the future. Moore's study points to the importance of understanding the particular social and cultural forms of urban food growing. For example, rather than assuming a productivist model of urban agriculture focused on caloric outputs, it is important to consider the ways urban food practices exist in relation, and

perhaps in opposition, to broader urban logics and rhythms. As cities and citizens increasingly look to urban agriculture as a pathway to social and environmental justice, it is timely to consider the urban politics of the various practices that fall under its umbrella.

Cities all over the world – rich and poor, large and small – have turned to urban agriculture as a way to address a myriad of social, environmental, economic, and even moral, problems – everything from nature deficit disorder and urban blight to food insecurity and climate change. While it is clear that various forms of crisis have been a strong motivator of urban agriculture practice, this framing alone is limiting. In order to understand urban agriculture as a meaningful spatial practice, we need to consider it on its own terms, within particular contexts. This means going beyond generalizations and abstractions and looking at how urban agriculture is actually taking place. That is, how it is being produced and made meaningful in specific places at specific times.

Edmonton's Urban Agriculture Moment

The origins of Edmonton's recent "urban agriculture moment" can be traced back to 2008 when the city was in the process of revising its Municipal Development Plan (MDP) – a ten-year statutory growth and development plan. As a city planner involved with the strategy told me in an interview, "you could see that something was happening in the community around food," and when the city held public hearings about the upcoming revisions, over 500 Edmontonians showed up at City Hall to demand the inclusion of food into the plan. As Beckie et al. (2013) report, this was unprecedented territory in Canada. The City listened, and in May, 2010 Edmonton became "the first urban municipality in Canada to link land use planning with a comprehensive agriculture and food strategy" (p. 16).

Although limited to just a few chapters of the MDP, this inclusion of food in the plan was quite remarkable as it legally obligated the city to make space for urban agriculture in Edmonton. This set the stage for the development of what came to be known as *Fresh*, a broad strategy aimed at setting the direction of urban agriculture in the city. The development of *Fresh* incorporated what one city planner described to me as the most comprehensive public engagement ever conducted by the City. Through interviews conducted with people involved in the public engagement process, it became apparent that the main focus of the engagement was the preservation of prime farmlands in Edmonton's northeast Urban Growth Area. The fact that Edmonton had such an abundance of farmland within its borders was highly unusual and provided a unique opportunity for questions around food and urban agriculture to transform structural municipal politics which prioritize land owner rights (Beckie et al., 2013). As one urban planner closely involved with the process told me, the extensive engagements around the drafting of *Fresh* "really...set the stage for the battle between people who were pro-development of those areas, and people who thought those areas should be preserved". As Beckie et al. (2013, p. 2) write, "[t]he citizen engagement processes revealed strong support for preserving prime farmland for agricultural production, particularly in the northeast [Urban Growth Area]". As part of this process, a survey was done which found that "the highest rated recommendation of the randomly selected members of the citizen panel was to 'create and/or amend zoning, bylaws, fees, and taxes to prohibit development on good fertile agricultural land, particularly the northeast farmland" (p. 24).

Fresh was first approved by City Council in 2012. Reflecting citizen concerns, the food and agriculture strategy advocates for the protection of farmland in the cities northeast Urban Growth Area, and proposes innovative solutions including cooperative land ownership models,

land trusts and Transfer of Development Credit models of land preservation. At the same time, the strategy uses vague language and lacks hard targets. Recognizing these shortcomings, citizens asked that more time and effort be put into drafting a more robust and targeted strategy that prevented the development of the northeast Urban Growth Area. These appeals were denied and council officially approved Edmonton's food and urban agriculture strategy in 2012, ultimately resulting in a "business as usual" approach – that is, an approach characterized by "continued urban sprawl and loss of prime farmland" (Beckie et al. 2013, p. 1).

It is tempting to read the Edmonton case as a straightforward example of the local state acquiescing to the interests of private developers. Yet, as an urban planner closely involved in the Edmonton public engagement process emphasized, the situation was far more complicated than many realized. While it was the case that a large group of Edmontonians had organized in support of protecting the farmland in the North East, other community members organized in favour of development. This included a number of farmers who were depending on the income made from the sale of their land for their retirement, as well as acreage owners who were "living in a part of Edmonton still inside the city limits, but with no services." This group also included those who did not see farmland in the city as desirable. Beyond competing perspectives and interests there was, as one planner I spoke with made clear, the difficult question of how best to plan Edmonton in relation to questions around food:

> With all this land around us…would we see leap-frog development, some weird sprawling pattern, would we see some strange…un-coordinated development. Is it better to actually concentrate all the development, so we achieve that efficient end state that we're looking for and then let the region take care of the farming? …on the other hand, there's this feeling that even one square inch of good farm land being paved over is tragic,

we shouldn't do it ever, especially in the light of global situations where you have

countries like China for example buying up farm land in Africa because they're out, so

what does it mean, so what does this all mean?

These are indeed significant questions that highlight the complexity of the urban agriculture

question, both in Edmonton and elsewhere. In asking "what does this all mean?" the interviewee

makes an important point – that is, in order to speak to the best way forward in terms of urban

agriculture, we need to know what exactly the goal of urban agriculture is. If, as is suggested by

the urban planner both in the above quotation and elsewhere in our conversation, the priority is

feeding cities, growing food in sections of land within city limits may indeed be misguided. In a

recent review of the benefits and limitations of urban agriculture, Santo et al. (2016, p. 15) found

that "the ability of urban agriculture to improve food security on the municipal level is even less

demonstrated than on the individual or household scale." While it is true that there is a dearth of

evidence around the ability of municipalities to address food insecurity through urban

agriculture, this is due in part to the fact that few cities have enacted the kinds of changes

necessary to make this possible. Moreover, even if a city is unable to produce the amount of

appropriate food required to address food security, this certainly does not mean cultivating the

city is without benefits. As is born out in the research, urban agriculture is about far more than

producing food.

The failure of the City of Edmonton to protect the northeast agriculture lands is part of a

larger moment in the production of urban agriculture space in Edmonton. While a particular

radical version of urban agriculture was ultimately lost to development pressures, another

version has made significant gains in the city. The implementation of *Fresh* ushered in a number

of changes related to urban agriculture. One urban planner I spoke with talked about how the

highly charged and political nature of the northeast agriculture lands allowed the city to "sneak in" a number of changes that would likely not have been accepted if proposed on their own. For example, gardens no longer require a development permit to be established on public park land in Edmonton and other forms of urban agriculture have become legal for the first time. Edmonton City Council passed an amendment to the Animal Licensing and Control Bylaw that allows for beekeeping in the city. The City also extended its Urban Hen Keeping Pilot Project, increasing the number of licenses from 19 to 50. Beyond these changes, City Council also approved the establishment of three new urban agriculture land uses within the City's Zoning Bylaw – urban outdoor farms, urban indoor farms, and urban gardens. The city has come out in strong support of urban agriculture, and these changes certainly make it legal to produce food in more areas of Edmonton. However, as one small-scale commercial urban farmer I spoke with noted, the changes also resulted in a new set of restrictions, costs, and bureaucratic hoops. Whereas this urban farmer had been farming vacant lands under the radar of municipal governance strategies, the new "opening up" of the city to urban agriculture (which this farmer himself had advocated for) also made his operation more onerous. As this urban farmer put it, "things were getting a little tighter and tighter, so now for us we will need currently five permits." This points to the need to consider the particular ways urban agriculture strategies are rolled out in urban contexts. Apart from the new work and costs of complying with the new land-use designations, the new urban agriculture landscape in Edmonton is defined by a particular temporality. The urban farmer quoted above also mentioned concerns with the lack of permanence in regard to land use, suggesting that a sense of predictability is required to make urban agriculture a viable and appealing option: "if it's permanent it gets people thinking about getting into it, [that] this is going to be around and you've committed to it."

While the city has supported urban agriculture, there are still few guarantees regarding the future of the land on which urban agriculture is now sanctioned. This is illustrated through the fact that urban agriculture, even where it is now legal, continues to be deemed a "discretionary" rather than a "permitted" land use, resulting in less certainty for urban gardeners. For a local SPIN (small plot intensive) farmer I spoke with, food growing in Edmonton is defined by rapid change and uncertainty. Not only does he not know if he will have access to his land from year to year, the desirability of any particular plot of land can also change quickly and with little notice:

> You think of [housing] as permanent. But what we've noticed and what we've experienced on some sites, is that infill buildings will go into these older neighborhoods and completely change your landscape for growing. Because they will create worse exposure, it will dominate the light. We've seen that a little bit. Obviously, planting trees too, but trees can only get so big in a year. A house can be built in a year.

What begins to emerge is a spatial moment of urban agriculture that compliments pre-existing orders of urban space-time defined by a market logic that prioritizes "highest and best use." Even though urban agriculture has achieved a new legitimacy through innovative land uses, it continues to be defined by a temporariness allowing it to fit within a pre-existing urban order. This trend is exemplified by Edmonton's 2018 Vacant Lot Cultivation Pilot. Initiated by the City's real-estate and housing department, this program offers temporary use of public utility lands and other select vacant lots. As described on the City of Edmonton website:

> The City of Edmonton is piloting a Vacant Lot Cultivation Licence, beginning with public utility lots. This is a land use agreement and licensing process for making temporarily vacant, idle and underused City-owned lots available for food production.

At a public engagement event, the process was described as "way simpler than community gardens, but also likely less permanent." According to the licensing agreement, residents were able to rent the lots for seven-month time-periods. A number of those who attended the public engagement events about the licensing agreement pointed to the fact that this time frame was incompatible with many gardening practices. Several community members voiced questions around the possibility of growing perennial plants such as raspberries, or garlic which is best planted in the fall. The current seven-month model does not allow for these types of plants. As one of the members at the public meeting states, "it would work a lot better if we had five years at least." Another concern public participants raised was the quality of the growing spaces being provided by the city, since the history of the available lands is not provided and some of it currently exists as parking lots. One public participant, a farmer from outside the city, asked "why would anyone want to grow here. I don't mean to brag but where we farm we have ten inches of top soil."

Recent trends towards flexible, more temporary forms of urban agriculture point to the ways in which both municipalities and gardeners themselves struggle to carve out space within increasingly constrained urban environments. One way in which urban agriculture is growing in cities is by renegotiating its place in the city through strategic mobility, or what Demailly and Darly (2017) call "temporary gardened urbanism." Such projects involve a renegotiation of the place of urban agriculture in the city, allowing them to better fit into a landscape of "highest and best use". Yet, it seems not all gardeners are content with bending their practices and the biophysical needs of their desired crops to the constraints of short-term garden plots. In bringing up the needs of perennial plants and the soil, community members invoked "nature" as an actor in the conversation. As Classens (2015) suggests, the biophysical needs of plants imbue them

with an ability to resist the development pressures of neoliberal urbanism. For example, perennial plants are defined by the fact that their life cycle extends beyond that of both annuals or biennials. It often takes several years for perennial plants to produce fruit, let alone complete their full life cycle. As such, the natural rhythms of perennial plants resist the flexibility and short-term practice assumed by temporary urbanism.

Theory and Methodology

One of the tasks of this introductory chapter is to provide a theoretical and methodological framework through which to relate the three stand-alone, chapters that comprise this dissertation. While each of these chapters was written independently, within its own context and in relation to its own set of questions and concerns, they are unified by a common topic: *local food and urban agriculture in Edmonton.* The chapters also reflect a common theoretical approach to this topic, one signalled by an emphasis on the *socio-spatial production* of local food and urban agriculture in Edmonton. This approach positions local food as a "spatial question," drawing on relational understandings of space as process rather than thing or container (Shields, 2013). As Fuller and Löw (2017) write in their recent invitation to spatial sociology, "relational spatial theory argues that the social is spatial, and vice versa: when space is understood as relational, it becomes a category of analysis and a lens through which sociologists can look to uncover new insights and deepen understanding of a myriad of research questions" (p. 469). The discipline of sociology has historically paid little attention to the role of space and place (Urry, 2004; Dhams, 2009). Key spatial insights of classical thinkers such as George Simmel and Emile Durkheim went largely unnoticed and the influential urban sociology that emerged in the 1920s contributed little to the development of space as concept of theoretical significance (see Urry, 2004). While deeper engagements with space and place have more recently been finding their way into the

sociological imagination, they continue to live on margins of the discipline. Soja (2009) made the following observation in a personal reflection on the influence of the Spatial Turn: "Sociology…on the whole has been relatively non-receptive if not antagonistic to the Spatial Turn, especially in the relative decline of specifically urban sociology and the deep suspicion of any hint of urban spatial causality, due perhaps to continued reactions to the crude causality of the old Chicago School" (p. 33). Of course, as Soja also suggests, it is not that the significance of spatiality needs to be foregrounded equally across social sciences and humanities, but that studying space effectively necessitates "unprecedented transdisciplinarity" (p. 24).

In exploring the topics of local food and urban agriculture through the lens of socio-spatial production, this dissertation advances socio-spatial thinking and research in sociology. Each of the following chapters rests on an ontological assumption that space is an ongoing and complex social production. Years of scholarship, much of from within human geography, has established this general ontological position on space as more or less given (Harvey, 1973, 1989; Massey, 2005; Soja, 1989, 1993). Many key contributions to the development of relational perspectives on space in geography, sociology and beyond are rooted in the foundational insights of the French Marxist philosopher and sociologist Henri Lefebvre. In his magnum opus on spatial theory, Lefebvre (1991) offers the foundations of a relational understanding of space. Lefebvre's (1991) critical engagement with space as matter of sociological and political importance provides the theoretical framework through which I explore local food and urban agriculture in Edmonton.

As Shields (1999) writes, Lefebvre's spatial theory goes beyond previous philosophical debates on the nature of space, and beyond human geography, planning and architecture, which considered people and things merely 'in' space, to present a coherent theory of the development of different systems of spatiality in different historical periods" (p. 146). For Lefebvre, any given

mode of production requires a concomitant production of space – one stripped of previous

collective meanings, uses, and values and, in the cause of capitalism, cordoned off, quantified

and commodified. Yet, the production of space under capitalism goes beyond the idea of

"primitive accumulation" discussed by Marx (1976). Importantly, Lefebvre invokes an expanded

idea of production that cannot be reduced to the privatization and commodification of land. Early

interpretations of *The Production of Space* by Harvey (1973, 1982) and Smith (1984) laid

foundations for an important trajectory of Lefebvrian scholarship emphasizing a political

economy approach (See Brenner 2004). Lefebvre is without doubt interested in the effects of the

ongoing commodification of space under capitalism and the related ascendency of "abstract

space" (See Wilson, 2013). Yet, as Fraser (2015) notes, this strand of scholarship has at times

overshadowed Lefebvre's other roles, including that of cultural critic. As key analyses by Elden

(2004) and Shields (1999) have emphasized, Lefebvre's work takes us beyond a political

economy of space towards a broader politics of space that also emphasizes ideas, experiences,

perceptions, representations, interactions, and practices. This multidimensional ontology of space

is outlined in Lefebvre's (1991) tripartite model of spatial production.

Early on in *The Production of Space*, Lefebvre introduces three moments that, taken

together and in dialectical relation to each other, constitute social space. These moments which

are discussed in more detail in Chapter Two, include *representations of space*, *spatial practice*,

and *representational space*. Lefebvre's spatial triad re-casts space as a complex and dialectical

process irreducible to any single logic. As Pierce and Martin (2015) note, *The Production of*

Space focuses on the ontological problem of space, while providing little clarification regarding

the epistemological consequences of social space: "his goal…is not to define how to "know and

examine (social) space but to posit just what, ontologically, (social) space is. Social space in a

Lefebvrian framework requires an expanded empiricism, yet the question on how best to investigate it are left unanswered. What is clear, however, is that the matter cannot be subsumed within disciplinary boundaries, or unpacked by standard disciplinary tools such as those developed within geography. If space is not just physical, but also mental and social; if it is equally a matter of social interactions, representations, and lived experiences as it is about physical form, "spatiology" is the interdisciplinary subject par excellence. As Arnowitz (2015) writes, *The Production of Space* defies the fragmentation of knowledge that marks most of the social sciences. Lefebvre succeeds in invoking the specificity of various domains, even as he is able to link apparently disparate discourses…" (p. 74). It is unsurprising then that Lefebvre's spatial insights have been taken up widely and far beyond the borders of geography or urban studies.

Lefebvre's writings on social space provide a theoretical lens through which to critically consider any number of "objects," even those not so obviously spatial. On the other hand, more obviously spatial phenomena are, through Lefebvre's conceptual framework, imbued with a new dimensionality. It follows that Lefebvre's social space requires new methodologies and methods for studying space. Yet*, The Production of Space* is no how-to guide. As Pierce and Martin (2015) note, Lefebvre was more concerned with developing a "conceptual apparatus" than on "how to methodologically explore it" (p. 1286). Lefebvre's theory of socio-spatial production presents a methodological problem. How can we know such an expansive, complex, and dialectical space? Lefebvre's theory is *anti-methodological* in the sense that it resists systematization.[13] Lefebvre's writings on space are provocative and generative rather than

---

[13] In a review essay comparing Lefebvre and Nietzsche, Merrifield (1995) discusses Lefebvre's (Nietzchean) emphasis on Eros over Logos and strong distaste for systematization. For Lefebvre, "it was a specialist knowledge that gave ruling classes a certain legitimacy which enabled them to perpetuate their position of privilege" (p. 297).

prescriptive; his concepts are at once strikingly bold and also tentative and *in process*. Lefebvre was always moving-on, developing new concepts and lines of thought to address the central problem of human alienation.[14] Even the widely cited spatial triad, so influential in the Spatial Turn of the 1980s and 90s, receives surprisingly little focused attention in *The Production of Space*.

Lefebvre's theory of social space radically opened-up space to novel methodological approaches that transcend disciplinary boundaries. The question, however, remains: how to address the "gap between the theory of spatial production and the methodological investigation of instances or elements within the processes of production" (Pierce & Martin, 2015). Clues are found in the diverse body of empirical research that has developed around Lefebvre's theory of social space (Borden, 2001; Granzow, 2010; Wells, 2007). While Lefebvre (1991) proposed a "unitary theory" of socio-spatial production, researchers taking-up his theory face the methodological problem of necessarily dividing up what are ultimately aspects of a unity. Lefebvre himself provides conceptual guidance on what might fall under the categories of *representations of space*, *spatial practice*, and *representational space*. For instance, he refers to *representations of space* as conceptualized space, the space of scientists, planners, urbanists, technocratic subdividers and social engineers…all of whom identify what is lived and what is perceived with what is conceived. In order to operationalize Lefebvre's spatial triad, one might reasonably locate state urban redevelopment plans under the category of *representations of space*. Yet, even Baron Haussmann's plan to modernize Paris, an often-discussed exemplar of "dominant space," is not pure *representation of space*. As soon as we are dealing with actually

---

[14] Shields (1999) notes, "what unites all of his work – from his first to most mature works – is his deeply humanistic interest in alienation" (p. 2). For Lefebvre, "it is not technological progress, the absence of war, or ease of life, or even length of life, but the chance for a *fully lived life* that is the measure of a civilization" (p. 2).

existing spaces (i.e. places), we are within a relational space, so that even the most dominant space contains seeds of counterspace.

In the empirical chapters that follow, I draw on a methodological approach grounded in the socio-spatial theory of Lefebvre. Translating Lefebvre's ontic position on space to a methodologically useful approach begins with identifying particular places of interest. As Merrifield (1993) argues, in order to empirically study Lefebvre's social space you must begin with places. Places, like gardens, cities, or regions, are for Merrifield (1993) snapshots of social space. If place and space are "different aspects of a unity" (p. 527), it follows that it is possible to study space by way of place.[15] Pierce and Martin (2015) see "placing Lefebvre" as a way to overcome the methodological shortcomings of *The Production of Space*. Contra Lefebvre's emphasis on spatial unity, the authors propose a more modest approach that recognizes multiple ways of knowing and embraces incompleteness and uncertainty. This is not a watering-down of Lefebvre's theory of social space, but a recognition of its epistemological limits. In order to study social space, researchers need to look at actually existing places; as Pierce and Martin (2015) note, "examining place in its constituent parts is not merely possible but methodologically necessary" (p. 1294).

Socio-spatial Mapping as Methodology

The concept of socio-spatial mapping is a useful shorthand for the general methodological approach developed in this dissertation. Each of the chapters below contribute to a mapping of socio-spatial processes involved in the production of local food space. In contrast to a mapping of bounded territories, the following analyses of Prairie Urban Farm (Chapter Three) and Alberta

---

[15] In his Lefebvrian reconciliation of the concepts of space and place, Merrifield (1993) see space and place as "different aspects of a unity…as the wave and particle aspect of matter is assumed in quantum physics" (p. 527).

Flavour (Chapter Four) contribute to a mapping of processes constitutive of local food space.[16]

Perhaps more akin to anti-mapping, the purpose of socio-spatial mapping is not to enclose and delineate, but to explode seemingly fixed places or initiatives into their constitutive and heterogenous processes. Rather than taking boundaries to be fixed, socio-spatial mapping explores boundaries, seeking to understand the processes by which they are formed and maintained. Moreover, socio-spatial mapping recognizes the multiplicity of social space, and thus acknowledges that there are many ways of knowing any one place. As Pierce and Martin write:

> The parts (of place) are knowable through different lenses – and even different epistemologies – as components that can be traced/teased/examined separately. While analytically we understand each part as one component of a whole, changing, contested assemblage, methodologically they must be known partially/separately. Their consilience – that is, the precise nature of their "jumping together" – cannot be precisely viewed empirically (p. 1295).

Socio-spatial mapping allows for an expanded empiricism, opening-up the investigation of local food space to include a consideration of spatial practices, lived experiences, and various representations. Mapping is, by its nature, incomplete. With so many ways of knowing social

---

[16] The idea of mapping local food is not new. Edible maps, for example, have become a popular way for non-profits, cities, community and campus groups, to show where people can find food in the city. In summer 2017 the City of Edmonton launched an open data edible fruit tree map where citizens can view all the edible fruit trees owned and maintained by the city. This is the first step in the City's plans to produce a more comprehensive food asset map that would include information on local grocery stores, meal programs, and other community food initiatives. The Edmonton edible fruit tree map follows from more high-profile initiatives. For example, the US based non-profit group Falling Fruit launched an interactive map of urban edibles. Thus far, Falling Fruit has mapped nearly 2000 types of edibles in over one million locations around the world. In an academic study involving edible maps, Tomkins (2012) used mapping as a research tool to facilitate thinking about the relationship between the city and food production. The chapters that comprise this dissertation suggest a distinct but related, non-visual form of urban food mapping. Instead of providing an inventory of locally available food, this dissertation maps and analyzes various processes contributing to the production of local food as an emergent social space in Edmonton.

space, we can only ever get a partial picture of Lefebvre's total space. This dissertation focuses largely on two empirical cases, Prairie Urban Farm and Alberta Flavour. This analytical focus already limits what can be inferred more generally about local food space in Edmonton. Moreover, the specific questions I posed regarding these two cases and the ways I went about researching presents another narrowing of the analytical frame. Focusing on a different set of cases, or, alternatively, looking at the same cases through a different epistemological lens, would without doubt result in distinct, perhaps even contradictory, findings. This, however, is not a weakness, but a methodological reality. As Lefebvre (1991) writes, "every social space is the outcome of a process with many aspects and many contributing currents, signifying and non-signifying, perceived and directly experienced, practical and theoretical" (p. 110). Translating Lefebvre's ontological arguments on space into a workable methodology involves setting aside the notion of spatial unity and focusing instead on the aspects of space most pertinent to the research question or concern at hand.

The chapters that follow each contribute to a socio-spatial mapping of local food space. The cases discussed were not chosen as archetypes from which to extrapolate broad socio-spatial dimensions of local food space (as a spatial unity), but rather as specific articulations of local food space as it is taking place in Edmonton. The purpose of socio-spatial mapping is to: 1) foreground relational space by focusing on socio-spatial processes, and 2) tease out the meaning and politics of space.[17] Through an analysis of Prairie Urban Farm (Chapter Three) and Alberta Flavour (Chapter Four), this dissertation presents a partial socio-spatial mapping of the local foodscape in Edmonton. Both Prairie Urban Farm and Alberta Flavour are considered as sites of

---

[17] As methodology, socio-spatial mapping may itself be considered *representational space*. Lefebvre (1991) describes representational space as space directly lived by inhabitants, but also as the space of artists, writers, and philosophers "who *describe* and aspire to do no more than describe" (p. 39). Perhaps such a space is also found in research methodologies that attempts to know space as social space, in all its complexity.

the (re)production of local food space. But how exactly are these sites analyzed? While this question is addressed in the methods sections of the following chapters, it is important to outline the general methodological reasoning behind the combination of methods chosen.

Socio-spatial mapping is a methodological approach open to the "many contributing currents" of social space (Lefebvre, 1991, p. 110). Building on Lefebvre's (1991) theory of social space, socio-spatial mapping accommodates an expanded empiricism, allowing for the study of *representations of space*, *spatial practices*, or *representational spaces*. However, socio-spatial mapping is not burdened by the ambition of knowing space in its totality. Instead, and in accordance with Pierce and Martin's (2015) place-based approach, it embraces experimentation, the inevitability of incompleteness, and the need for multiple epistemological lenses. Socio-spatial mapping enables the exploration of different elements of a "single" space, from its historical development, to its design and intended purpose, to the way it is perceived, performed, and lived. To do this it accommodates a diverse array of research methods from across different disciplines, or what has been articulated previously through the concept of bricolage (Denzin & Lincoln, 2000; Kincheloe, 2001, 2005; Lévi-Strauss, 1966) and more recently "spatial bricolage" (Roberts, 2018). Commonly understood in relation to its emphasis on interdisciplinarity and a corresponding rejection of epistemological reductionism, bricolage is built on a "principle of difference," which "does not simply *tolerate* difference, but *cultivates* it is as a spark to researcher creativity (Kincheloe, 2001, p. 687).[18] Lefebvre ardently rejects rigid, discipline-specific understandings of space, pulling at strands from across myriad fields including history, psychoanalysis, semiotics, and beyond in an attempt to knit a unified theory of social space.

---

[18] In Chapter Three I cultivate creative readings of Prairie Urban Farm through "reading for difference" (Gibson-Graham, 2006). This approach helps make local food and urban agriculture visible in ways that go beyond established representations and understandings (e.g. "food security," "sustainability," "community," "social capital").

Lefebvre's theory of social space compliments bricolage, not only in its creative incorporation of different ways of knowing space, but in the way it encourages what de Certeau (1984) called the art of "making do" (p. xv). Bricolage as methodological "making do" refers to the ways in which the researcher uses what tools (i.e. methods) are on hand to get the job (i.e. research) done. It encourages a somewhat improvised ad hoc approach that rejects totality and finality and reframes the idea of rigor; as Roberts (2018) writes:

> The bricoleur – as compared to, say, the scientist or engineer – is arguably less governed by an overarching awareness that they are embarked on a 'project', and that, correspondingly, they are performing in compliance with a clearly defined set of 'aims' or 'objectives'. The idea that research might be conducted under conditions of aimlessness and without a clear objective in mind does not necessarily mean that it lacks the rigours of 'accomplishment and execution' but that much of what is fashioned in the process is contingent of factors that cannot always be foreseen. (p. 3).

As a methodological approach, socio-spatial mapping embraces the ideas of researcher as bricoleur, encouraging multi-method and ad hoc approaches to the study of social space. As argued above, such an approach is particularly well-suited to studying relational space. In the absence of the possibility of an epistemological approach that "gets at" the totality of social space as theorized by Lefebvre (1991), socio-spatial mapping allows for an adaptive, collage-inspired approach (see Butler-Kisber & Poldma, 2010) to exploring various moments of spatial production. Taken as a whole, this dissertation constitutes a partial socio-spatial mapping of local food space in Edmonton. Each of the empirical chapters represent distinct and independent exploration of *local food as social space*. Of course, what is mapped through this dissertation is necessarily incomplete and partial; however, it pulls at strands of local food space that are

significant, underappreciated, and, when considered together, take us beyond the reach of any single discipline-specific methodological approach.

This dissertation is a case study of a cross section of the production of local food space in Edmonton. In general, I found stakeholders at these sites generous with their time and was able to conduct 33 qualitative interviews with urban farmers, city planners, members of the Edmonton Food Council, and municipal officials. Interviews were conducted between January, 2016 and June, 2019; they were semi-structured, and usually lasted between 45 minutes and one hour. In addition to interviews, I conducted participant observations at Prairie Urban Farm between 2016 and 2019. Dedicated sections outlining the specific methods employed are provided in each of the published empirical chapters (i.e., Chapters Three and Four).

Given the above discussion of socio-spatial mapping, and in particular its intersection with bricolage, these qualitative methods may seem rather traditional. Indeed, this research draws on semi-structured interviews, participant observations, and self-ethnography. Although my methods conform to these well-established practices of a case study, they nonetheless arose through a process-based encounter with the evidence at hand. As Yin (2014) notes, "case study's unique strength is its ability to deal with a full variety of evidence – documents, artifacts, interviews, and observations" (p. 12). In this way, the case study research remains open to the spirit of bricolage as it does not require a particular apriori integration of methods; rather, methods emerge from the logic by which certain case-specific questions can be answered (Mason, 2002, p. 30). This dissertation is, therefore, born from researching local food space through chance collaborations and opportunities that these sites afforded. This allowed me to freely explore an area of interest, while developing a methodological approach along the way. Iterative in its course, socio-spatial mapping also allowed for the possibility of new

epistemological lenses, which is made evident in the development of the idea of "gardening as epistemology" in Chapter Three.

In summary, this dissertation employs multiple qualitative methods, including qualitative interviews, participant observations, and self-ethnography to contribute to a socio-spatial mapping of urban agriculture and local food space in Edmonton. This multi-method approach arises from an engagement with Lefebvre's core theoretical insights on social space.

Overview of Chapters

I began my PhD with the goal of producing a traditional-format dissertation, and had completed a draft introduction, methodology, and theory chapter under this assumption. It was relatively late in the process, towards the end of 2018, that I made the decision to switch to developing a paper-based dissertation on the topic of local food and urban agriculture. The decision was made for several reasons, in part as a way to accommodate what were somewhat unexpected turns in the trajectory of my research. In particular, as is explained further in the overview of Chapter Four below, the paper-based form allowed me to better incorporate my research on institutional food procurement in Alberta into the dissertation. Moreover, the paper-based approach suits the exploratory nature of this dissertation, representing what has been a serpentine and multidisciplinary doctoral path, and allowing me to reflect on a set of interrelated but distinct themes and questions that advance the socio-spatial analyses of urban food space.

Chapter Two, entitled "Space, Food and the City: Towards A Lefebvrian Analysis of Urban Agriculture," builds on the theoretical foundations of Henri Lefebvre and other more recent critical scholarship to consider urban agriculture through a "trial by space" lens. Recently published in *The Routledge Handbook of Henri Lefevbre, the City and Urban Society* (Granzow & Shields, 2020), this chapter considers the relevance of Lefebvre's spatial triad to the question

of urban agriculture in particular. While reiterating other Lefebvre-inspired work connecting, for

example, the question of urban agriculture to discussions of "the right to the city" (Lefebvre,

1996), *spatialisations of food* are presented and explored as a way to re-emphasize the dialectical

approach at the heart of Lefebvre's analysis. This chapter serves to introduce the reader to a

production of space lens that informs subsequent chapters. In addition, the chapter represents a

theoretical intervention into critical scholarship on urban agriculture. While more theoretical than

empirical, this chapter also draws on qualitative interviews with planners, urban farmers, and

others involved with urban agriculture in Edmonton. Whereas most studies using Lefebvre to

understand urban agriculture have focused on the tactics involved in claiming the "right to the

city" through gardening practice, we emphasize the need to open inquiry up to a broader,

dialectical inquiry into the production of urban agriculture space.

Conceptually, the chapter contributes to a socio-spatial mapping of local food in

Edmonton by providing a focused look at urban agriculture as "trial by space." Through a critical

analysis of urban agriculture and the development of the concept of *spatialisations of food* this

chapter sets the stage for a socio-spatial look at local food. In drawing attention to the contested

landscape of urban agriculture, Chapter Two helps establish the dissertation as a contribution to

what Wise (2019) calls the "second wave" of Food Studies. This "second wave" is defined by a

move away from a narrow focus on food and food systems towards an integration of socio-

spatial approaches to food-related questions. Chapter Two is not an empirically focused chapter,

but a theoretical contribution to recent discussions on urban agriculture, emphasizing a socio-

spatial and dialectical approach. This chapter was the earliest completed and published

contribution to this dissertation, and, within the context of the dissertation as a whole, acts both

to further theoretically frame the project and provide an expanded review of the relevant literature.

Chapter Three, "Urban Agriculture in the Making or Gardening as Epistemology," is a substantive empirical chapter based on an in-depth case study of Prairie Urban Farm (PUF). This chapter is a revised and expanded version of an article recently published in *Local Environment: The International Journal of Justice and Sustainability* (Granzow & Jones, 2020). Drawing on 20 semi-structured interviews with regular volunteers, as well as personal experiences and observations, reflections are presented on the messy, everyday work of building and participating in an urban agriculture project in Edmonton. Exploring the case through the interrelated rubrics of "urban agriculture in the making," "everyday urban agriculture" and "gardening as epistemology," we attempt to make sense of the ambivalent and contested understandings of PUF, and in so doing, also identify certain lines of flight that push the boundaries of what it means to be a "successful" urban agriculture initiative. In our analysis, we identify a tension between official representations of PUF as a sustainability and food security initiative and participants' diverse sets of understandings and values. In addition to identifying participants' alternative readings and experiences of PUF, we point to and reflect on the ambivalence that pervades understandings of the initiative. Rather than seeing this ambivalence as a *barrier* to success, we see it as an opportunity to reimagine what success might look like. As an emergent social space bordering urban agriculture and community gardening, PUF provides both an interesting empirical case study of urban agriculture in Edmonton as well as an opportunity to re-evaluate and (re)imagine the possibilities of local food space more generally.

Whereas Chapter Two furthers a theoretical framework for the study of local food as social space, Chapter Three provides an example of socio-spatial mapping in action. PUF is examined

as a "relational place" (Pierce & Martin, 2015) that is part of a larger and emergent local food space in Edmonton. While multiple qualitative methods were used in "mapping" PUF, the chapter focuses largely on an analysis of interviews as well as autoethnographic reflections. Semi-structured interviews with regular volunteers reveal understandings and experiences of PUF defined by multivocality and ambivalence and suggest alternative interpretive frames for the study urban agriculture space more broadly. Similarly, autoethnographic reflections hint at lived experiences and rhythms that constitutive of PUF as a relational place. Autoethnography also provides a way into acknowledging, and openly incorporating into the discussion, my own dual-role as researcher and participant.[19] The analyses reveals PUF as "differential space" (Lefebvre, 1991), highlighting the qualities of uncertainty, ambivalence, and difference as an under-represented aspects of urban agriculture space. Above all, the case study contributes to the literature an emphasis on urban agriculture as a reflexive space where urban futures are not only enacted, but continually negotiated through everyday practice. The chapter concludes with the proposal of *gardening as epistemology* as a way to foreground everyday practice and cultivate uncertainties and ambivalences as potential opportunities rather than barriers. The socio-spatial mapping undertaken in Chapter Three questions official framings of PUF as a food security and sustainability initiative, making the case for an expanded urban agriculture imaginary.

Chapter Four departs from an analysis of urban agriculture in particular, exploring institutional procurement as another site of the socio-spatial production of local food space. Entitled "Making Place for Local Food: Reflections on Institutional Procurement and the Alberta Flavour Learning Lab," this chapter is a revised and expanded version of an article recently published in the *Journal of Agriculture, Food Systems, and Community Development* (Granzow

---

[19] The methodological approach taken in Chapter Three intersects with Participatory Action Research (see Reason, 1994).

& Beckie, 2019). Part case study, part reflective essay, the chapter examines questions of place and scale in relationship to institutional procurement. A recent emphasis on "place-based" rather than "local" food systems presents an opportunity to ask, what would local food look like *here*? The province of Alberta, Canada is a unique place defined by a set of geographical, historical, and cultural relationships around and connections to food. Introducing the case of the Alberta Flavour Learning Lab, an institutional procurement initiative focused on scaling-up local food, I discuss how an increased emphasis on place activates strategic directions for thinking about food system change. Rather than reinforcing divides between conventional and alternative food systems, the Alberta Flavour Learning Lab interfaces between the broader values of the local food movement and the realities of Alberta's agri-food landscape and culture. Thanks to the support of a MITACS internship, I was able to spend 12 months writing and communicating profiles of local initiatives at Alberta Flavour. The chapter argues that Alberta Flavour's hybrid and pragmatic approach to "getting more local food on more local plates," while not radical, nonetheless contributes to positive food system change.

Chapter Four extends the empirical focus of the dissertation beyond urban agriculture as a productive activity to study an institutional procurement initiative organized around the goal of "scaling-up" local food. Continuing with a socio-spatial mapping of local food space, this chapter uses self-ethnography (Alvesson, 2003) as a way to reflexively study Alberta Flavour's mediation and spatialisation of "local food." The chapter uses self-ethnography to interrogate the meaning and politics of a local food initiative with which I was, at the time, actively involved. In exploring the production of local food space in Edmonton, I took advantage of my existing involvement with both PUF and Alberta Flavour. This was, in the spirit of bricolage, a kind of "making do" – using the opportunities and resources available to creatively theorize and explore

local food as a social space. The analysis presented in Chapter Four blurs the line between traditional case study and reflective essay, providing unique insight into the performance and politics of a local food space from the perspective of an insider. Chapter Four sees Alberta Flavour considered as a moment of "scalecraft" (Fraser, 2010), where local food is actively constructed and scaled towards a "strategic localism."

The fifth and final chapter provides a brief summary and overview of the key contributions of this dissertation, while also returning to and further developing Lefebvre's socio-spatial framework in relation to the production of local food space. In addition, the concluding chapter introduces and discusses the concept of the "urban agriculture imaginary" as a contribution to recent discussions on the politics of local food. In particular, this concept helps emphasize the ways in which urban agriculture exists as a symbolic landscape – a set of widely circulated representations and ideas about the practice that recasts the city in different ways.

References

Alaimo, K., Reischl, T. M., & Allen, J. O. (2010). Community gardening, neighborhood meetings, and social capital. *Journal of Community Psychology*, *38*(4), 497–514. https://doi.org/10.1002/jcop.20378

Alaimo, K., Packnett, E., Miles, R. A., & Kruger, D. J. (2008). Fruit and vegetable intake among urban community gardeners. *Journal of Nutrition Education and Behavior*, *40*(2), 94–101.

Altieri, M. A., Companioni, N., Cañizares, K., Murphy, C., Rosset, P., Bourque, M., & Nicholls, C. I. (1999). The greening of the "barrios": Urban agriculture for food security in Cuba. *Agriculture and Human Values*, *16*(2), 131–140. https://doi.org/10.1023/A:1007545304561

APA. (2017, May 24). *Policy guide on community and regional food planning*. Retrieved from https://www.planning.org/policy/guides/adopted/food.htm

Aronowitz, S. (2015). *Against orthodoxy: Social theory and its discontents*. New York, NY: Palgrave Macmillan.

Armstrong, D. (2000). A survey of community gardens in upstate New York: Implications for health promotion and community development. *Health & Place*, *6*(4), 319–327.

Blomley, N. (2004). Un-real estate: Proprietary space and public gardening. *Antipode, 36*(4), 614-641.

Beckie, M. A., Hanson, L. L., & Schrader, D. (2013). Farms or freeways? Citizen engagement and municipal governance in Edmonton's food and agriculture strategy development. *Journal of Agriculture, Food Systems, and Community Development*, 1-17.

Blair, D., Giesecke, C. C., & Sherman, S. (1991). A dietary, social and economic evaluation of the Philadelphia urban gardening project. *Journal of Nutrition Education*, *23*(4), 161–167. https://doi.org/10.1016/S0022-3182(12)81191-5

Brenner, N. (2014). *Implosions/explosions: Towards a study of planetary urbanization*. Berlin: Jovis.

Brenner, N., & Schmid, C. (2012). Planetary urbanization. In M. Gandy (Ed.), Urban Constellations (pp. 10-13). Berlin: Jovis.

Cep, C. (2014). The allure of the map. *The New Yorker*. Retrieved from https://www.newyorker.com/books/page-turner/the-allure-of-the-map

Classens, M. (2015). The nature of urban gardens: toward a political ecology of urban agriculture. *Agriculture and Human Values, 32*(2), 229-239.

Cockrall-King, J. (2012). *Food and the city: Urban agriculture and the new food revolution*. New York: Prometheus Books.

Colasanti, K. J. A., Hamm, M. W., & Litjens, C. M. (2012). The City as an "Agricultural Powerhouse"? Perspectives on Expanding Urban Agriculture from Detroit, Michigan. *Urban Geography*, *33*(3), 348–369.

Davidson, D. J. (2017). Is urban agriculture a game changer or window dressing? A critical analysis of its potential to disrupt conventional agri-food systems. *International Journal of Sociology of Agriculture and Food, 23*(2), 63-76.

Demailly, K.-E., & Darly, S. (2017). Urban agriculture on the move in Paris: The routes of temporary gardening in the neoliberal city. *ACME: An International Journal for Critical Geographies*, *16*(2), 332–361.

Despommier, D. (2010). *The Vertical Farm: Feeding the world in the 21st century*. New York: Thomas Dunne Books.

F. Dhams, H. (2009). Retheorizing global space in sociology. In B. Warf & S. Arias (Eds.), *The spatial turn: Interdisciplinary perspectives* (pp. 88–101). Routledge.

Davis, M. (2006). *Planet of Slums*. London: Verso.

Egan, M. (2005). Organizing Protest in the Changing City: Swill Milk and Social Activism in New York City, 1842–1864. *New York History*, *86*(3), 205–225.

Ernwein, M. (2017). Urban Agriculture and the Neoliberalization of What? 2017, 16(2), 27.

Felski, R. (2012). Critique and the Hermeneutics of Suspicion. *M/C Journal*, *15*(1). Retrieved from http://journal.media-culture.org.au/index.php/mcjournal/article/view/431

Firth, C., Maye, D., & Pearson, D. (2011). Developing "community" in community gardens. *Local Environment*, *16*(6), 555–568.

Foucault, M. (1983). *This is not a pipe* (J. Harkness, Trans.). Berkeley: University of California Press.

Fournier, A. (2019, February 1). What is Edmonton's Jeopardy claim to fame?. *CBC*. Retrieved from https://www.cbc.ca/news/canada/edmonton/edmonton-jeopardy-answer-1.5003336

Fox, T. J. *Urban farming: Sustainable city living in your backyard, in your community, and in the world* (2nd ed). Mount Joy, PA: Fox Chapel Publishing.

Gibson-Graham, J. K. (2006). *A Postcapitalist Politics*. Minneapolis: University of Minnesota Press.

Glover, T. D., Parry, D. C., & Shinew, K. J. (2005). Building Relationships, Accessing Resources: Mobilizing Social Capital in Community Garden Contexts. Journal of Leisure Research, 37(4), 450–474. https://doi.org/10.1080/00222216.2005.11950062

Granzow, M., & Jones, K. E. (2020). Urban agriculture in the making or gardening as epistemology. *Local Environment*, *25*(5), 381–396. https://doi.org/10.1080/13549839.2020.1753666

Granzow, M. (2017). The Production of Public Space in a Small Canadian City: An Analysis of Spatial Practices in the Revitalizing of Galt Gardens. *Space and Culture*, *20*(3), 344–358. https://doi.org/10.1177/1206331217707473

Granzow, M., & Beckie, M. (2019). Making Place for Local Food: Reflections on Institutional Procurement and the Alberta Flavour Learning Lab. *Journal of Agriculture, Food Systems, and Community Development*, *9*(A), 215–229. https://doi.org/10.5304/jafscd.2019.091.042

Granzow, M., & Shields, R. (2020). Urban Agriculture: Food as Production of Space. In M. E. Leary-Owhin & J. P. McCarthy (Eds.), *The Routledge handbook of Henri Lefebvre: The city and urban society* (pp. 287–297). London: Routledge.

Guthman, J. (2007). The Polanyian way? Voluntary food labels as neoliberal governance, *Antipode*, 39(3), 456-478.

Guthman, J. (2008). Neoliberalism and the making of food politics in California, *Geoforum*, 39(3), 1171-1183.

Hinrichs, C. C. (2000). Embeddedness and local food systems: Notes on two types of direct agricultural market. *Journal of Rural Studies*, *16*(3), 295–303. https://doi.org/10.1016/S0743-0167(99)00063-7

Jones, K. E., Granzow, M., & Shields, R. (2019). Urban virtues and the innovative city: An experiment in placing innovation in Edmonton, Canada. *Urban Studies*, *56*(4), 705–721.

Kingsbury, N., & Richardson, T. (2005). *Vista: The culture and politics of gardens*. London: Frances Lincoln.

Kingsley, J. "Yotti," & Townsend, M. (2006). 'Dig In' to social capital: Community gardens as mechanisms for growing urban social connectedness. *Urban Policy and Research*, *24*(4), 525–537.

Kingsley, J. 'Yotti,' Townsend, M., & Henderson-Wilson, C. (2009). Cultivating health and wellbeing: Members' perceptions of the health benefits of a Port Melbourne community garden. *Leisure Studies*, *28*(2), 207–219.

Krueger, R., & Gibbs, D. (Eds.). (2007). *The sustainable development paradox: Urban political economy in the United States and Europe*. New York: The Guilford Press.

Ladner, P. (2011). *The urban food revolution: Changing the way we feed cities*. Gabriola Island, BC: New Society Publishers.

Latour, B. (1999). Pandora's hope: Essays on the reality of science studies. Cambridge, MA: Harvard University Press.

Latour, B. (2004). Why has critique run out of steam? From matters of fact to matters of concern. Critical Inquiry, 30, 225-248.

Lawson, J. L. (2005). *City bountiful: A century of community gardening in America.* Berkeley: University of California Press.

Lefebvre, H. (1991). *The production of space* (D. Nicholson-Smith, Trans.). Oxford: Blackwell.

Lefebvre, H. (1996). The right to the city. In E. Kofman, E. Lebas, & E. Lebas (Eds.), & E. Kofman (Trans.), *Writings on cities* (pp. 63–184). Oxford: Blackwell.

Lennon, K. (February 19, 2014). Edmonton's Lost Chinese Market Gardens. *Spacing Edmonton*. Retrieved from http://spacing.ca/edmonton/2014/02/19/edmontons-lost-chinese-market-gardens/

Mah, A. (2012). *Industrial ruination, community, and place*. Toronto: University of Toronto Press.

Mansfield, B., & Mendes, W. (2012). Municipal food strategies and integrated approaches to urban agriculture: Exploring three cases from the global north. *International Planning Studies, 18*(1), 37-60.

Marcuse, P. (2009). From critical urban theory to the right to the city. *City*, *13*(2–3), 185–197. https://doi.org/10.1080/13604810902982177

Marx, K. (1976). Capital: A critique of political economy (Vol. 1). London: Penguin.

Mason, J. (2002). *Qualitative researching* (2nd ed.). London: Sage.

McKay, G. (2011). *Radical gardening: Politics, idealism & rebellion in the garden*. London: Frances Lincoln Ltd.

McClintock, N. (2010). Why farm the city? Theorizing urban agriculture through a lens of metabolic rift. *Cambridge Journal of Regions, Economy and Society, 3*(2), 191-207.

McClintock, N. (2014). Radical, reformist, and garden-variety neoliberal: Coming to terms with urban agriculture's contradictions. *The International Journal of Justice and Sustainability, 19*(2), 147-171.

McClintock, N., & Simpson, M. (2018). Stacking functions: Identifying motivational frames guiding urban agriculture organizations and businesses in the United States and Canada. *Agriculture and Human Values*, *35*(1), 19–39. https://doi.org/10.1007/s10460-017-9784-x

Merchant, C. (1995) Reinventing Eden: Western Culture as a Recovery Narrative. In. W. Cronon (Ed.), *Uncommon Ground: Rethinking the Human Place in Nature* (pp. 132-170). New York: W.W. Norton & Company.

Merrett, K. C. (2015). *Why grow here: Essays on Edmonton's gardening history*. Edmonton, AB: University of Alberta Press.

Merrett, K. C. (2001). *A History of the Edmonton City Market*. Calgary, AB. University of Calgary Press.

Merrifield, A. (1995). Lefebvre, Anti-Logos and Nietzsche: An Alternative Reading of the Production of Space. *Antipode*, *27*(3), 294–303. https://doi.org/10.1111/j.1467-8330.1995.tb00279.x

Moore, S. (2006). Forgotten roots of the green city: Subsistence gardening in Columbus, Ohio, 1900-1940. *Urban Geography*, *27*(2), 174–192.

Mougeot, L. (2000). Definitions, presence, potentials and risks. In N. Bakker, M. Dubbeling, S. Gundel, U. Sabel-Koschella, & H. d. Zeeuw (Eds.), *Growing cities, growing food: Urban agriculture on the policy agenda; A reader on urban agriculture*. Feldafing, DE: DSE.

Nordahl, D. (2009). *Public Produce: The New Urban Agriculture*. Washington: Island Press.

Ostertag, J. (2018). Of Grids and Gardens: School Gardening and the Unsettling Attachments of Teaching Beside the Grid. In S. Gerofsky (Ed.), *Contemporary Environmental and Mathematics Education Modelling Using New Geometric Approaches: Geometries of Liberation* (pp. 81–99). https://doi.org/10.1007/978-3-319-72523-9_6

Page, B. (2002). Urban agriculture in Cameroon: An anti-politics machine in the making? *Geoforum*, 33(1), 41-54.

Pearson, L. J., Pearson, L., & Pearson, C. J. (2010). Sustainable urban agriculture: Stocktake and opportunities. *International Journal of Agricultural Sustainability*, *8*(1–2), 7–19. https://doi.org/10.3763/ijas.2009.0468

Peck, J., Theodore, N., & Brenner, N. (2009). Neoliberal Urbanism: Models, Moments, Mutations. *SAIS Review of International Affairs*, *29*(1), 49–66. https://doi.org/10.1353/sais.0.0028

Pink, S. (2012). *Situating everyday life*. Los Angeles: SAGE.

Pudup, M. B. (2008). It takes a garden: Cultivating citizen-subjects in organized garden projects. Geoforum, 39(3), 1228-1240.

Quastel, N. (2009). Political ecologies of gentrification. Urban Geography, 30(7), 694-725.

Razack, S. H. (Ed.) (2002). *Race, space, and the law: Unmapping a white settler society*. Toronto: Between the Lines.

Reason, P. (1994). Three approaches to participative inquiry. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 324-339). Thousand Oaks: Sage.

Reynolds, K. (2015). Disparity Despite Diversity: Social Injustice in New York City's Urban Agriculture System. *Antipode*, *47*(1), 240–259. https://doi.org/10.1111/anti.12098

Redwood, M. (2009). *Agriculture in urban planning: Generating livelihoods and food security*. London: Earthscan.

Ricoeur, P. (1970). *Freud & philosophy: An essay on interpretation*. Yale University Press: New Haven.

Rosol, M. (2012). Community Volunteering as Neoliberal Strategy? Green Space Production in Berlin. *Antipode*, *44*(1), 239–257. https://doi.org/10.1111/j.1467-8330.2011.00861.x

Saed. (2012). Urban Farming: The Right to What Sort of City? *Capitalism, Nature, Socialism; Abingdon*, *23*(4), 1.

Santo, R., Palmer, A., & Kim, B. (2016). *Vacant lots to vibrant plots: A review of the benefits and limitations of urban agriculture*. Retrieved from http://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/_pdf/research/clf_reports/urban-ag-literature-review.pdf

Scherer, J., & Davidson, J. (2011). Promoting the 'arriviste'city: Producing neoliberal urban identity and communities of consumption during the Edmonton Oilers' 2006 playoff campaign. *International Review for the Sociology of Sport*, 46(2), 157-180.

Scherer, J. (2016). Resisting the world-class city: Community opposition and the politics of a local arena development. *Sociology of sport journal*, 33(1), 39-53.

Shields, R. & Jones, K.E. (in press) Place and Community Responses to Opportunity: An Example from Nanoscience Innovation. Innovation

Shields, R. (2013). *Spatial questions: Cultural topologies and social spatialisation*. Sage.

Soja, E. W. (2009). Taking space personally. In B. Warf & S. Arias (Eds.), *The spatial turn: Interdisciplinary perspectives* (pp. 11–35). Routledge.

Solnit, R. (2010). *Infinite city: A San Francisco atlas*. Berkeley: University of California Press.

Speake, S. W. (2015). *Debating milk: milk as nutritious and safe* (Doctoral Dissertation). Retrieved from https://era.library.ualberta.ca/items/a6e35ddc-348b-4fff-94a7-bd3ca3341e99

Stone, C. (2016). *The urban farmer: Growing food for profit on leased and borrowed land*. Gabriola Island, BC: New Society Publishers.

Swyngedouw, E., & Heynen, N. C. (2003). Urban Political Ecology, Justice and the Politics of Scale. *Antipode*, *35*(5), 898–918. https://doi.org/10.1111/j.1467-8330.2003.00364.x

Tomkins, M. (2014). *Making space for food: Everyday community food gardening and its contribution to urban agriculture.* (Doctor of Philosophy), University of Brighton. Retrieved from http://eprints.brighton.ac.uk/12919/1/Mikey%20Tomkins.pdf

Tomkins, M. (2012). You are Hungry: Flâneuring, Edible Mapping and Feeding Imaginations. *FOOTPRINT*, 15–36. https://doi.org/10.7480/footprint.6.1-2.747

Tornaghi, C. (2014). Critical geography of urban agriculture. *Progress in Human Geography*, *38*(4), 551–567.

Tornaghi, C. (2017). Urban Agriculture in the Food-Disabling City: (Re)defining Urban Food Justice, Reimagining a Politics of Empowerment. *Antipode*, *49*(3), 781–801.

Tornaghi, C., & Certomà, C. (Eds). (2019). *Urban Gardening as Politics*. New York: Routledge.

Urry, J. (2004). The sociology of space and place. In J. R. Blau (Ed.), *The blackwell companion to sociology* (pp. 3–15).

Viljoen, A., & Bohn, K. (Eds.). (2014). *Second nature urban agriculture: Designing productive cities*. London: Routledge.

Warf, B., & Arias, S. (Eds.). (2009). *The spatial turn: Interdisciplinary perspectives*. Routledge.

Walker, S. (2015). Urban agriculture and the sustainability fix in Vancouver and Detroit. *Urban Geography*, 1-20.

Webb, N. L. (2011). When is enough, enough? Advocacy, evidence and criticism in the field of urban agriculture in South Africa. *Development Southern Africa*, *28*(2), 195–208.

Wekerle, G. R., & Classens, M. (2015). Food production in the city: (re)negotiating land, food and property. *Local Environment, 20*(10), 1175-1193.

Wise, M. D. (2019). Introduction: The Spatial Turn and the "Second Wave" of Food Studies. *Historical Geography*, *47*, 32–36. https://doi.org/10.1353/hgo.2019.0024

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Los Angeles: Sage.

Chapter Two

Space, Food and the City: Towards A Lefebvrian Analysis of Urban Agriculture

(Based on a Paper Co-authored with Dr. Rob Shields)

Understood through the lens of spatialisation, urban agriculture is not a descriptive category, but a new ordering of urban natures, places, and publics. Once considered out of place in cities, food production has become a popular urban practice, one that is increasingly being incorporated into city and regional planning strategies. Lefebvre's conception of the "right to the city" provides a useful way to position urban agriculture as a set of spatial interventions that make particular claims on urban space. Indeed, existing critical research on the topic of urban agriculture has tended to emphasize the tactics through which urban inhabitants claim space challenge neoliberal urbanism. We review this research, while also emphasizing the shifting and complex landscape of urban agriculture where once clear lines between strategies and tactics have become increasingly blurred. In presenting this new urban agriculture landscape as a "trial by space," we conclude by grappling with the production of urban agriculture space through a re-emphasis on Lefebvre's spatial dialectics.

Introduction

The landscape of urban agriculture extends beyond the fences of community gardens and backyard chicken coops and bee hives to entangle an increasing assortment of places and spaces – local and global; urban and rural; public and private; real and imagined. Defined simply as the growing of food within city boundaries, urban agriculture has been a part of the urban environment since the dawn of cities. However, the origins of a more narrowly defined urban agriculture movement is often traced back to the establishment of English allotment gardens towards the end of the eighteenth century (Burchardt, 2002). Originating as a response to land

enclosures and the resultant widespread poverty, the idea of allotment gardens spread quickly across Europe and North America. Since then, forms community gardening movements have expanded across the globe. Scholarly literature around community gardening has tended to focus on ideas of community, social capital, and individual health and wellbeing.

In addition to community gardening literature, there is a growing body of work tracing the rise of urban agriculture in the Global North as a grassroots political response to a variety of food related problems. While notions of urban agriculture now often include community gardening practice, the relatively recent discursive shift from gardening to urban agriculture signals a new emphasis on the cultivation of *productive* urban landscapes geared towards feeding cities through the cultivation of local, sustainably grown food (Viljoen, 2005). Indeed, much of the focus of urban agriculture research over the last decade has been around its productive potential, or lack thereof. While proponents of urban agriculture often overemphasize its ability to feed cities, critics have, on the other hand, downplayed its potential (Davidson, 2017).

While assessing the quantity of food that urban agriculture contributes to the food security of cities is important, there is, as Tomkins (2014) notes, also "a need to move beyond the notion that the objective or objects of harvest alone can represent practice" (p. 13). Drawing on Lefebvre's dialectical model of spatial production, we contend that urban agriculture is not only a means of food production or community building, but constitutes a new and contested socio-spatial practice that is reshaping cities across the Global North in meaningful ways. In this chapter we consider the general relevance of Lefebvre's research to questions around the rise of urban agriculture as both spatial tactic and strategy with a broader "production of space" framework. Lefebvre helps us consider urban agriculture in a way that goes beyond description or activism to critically grasp it as a contingent moment in the co-production of cities.

Introducing Lefebvre

Towards the end of *The Production of Space*, Lefebvre (1991) writes: "nothing and no one can avoid *trial by space* – an ordeal which is the modern world's answer to the judgement of God or the classical conception of fate" (p. 416). Lefebvre's *trial by space* relates closely to his thesis that a mode of production can survive and indeed thrive insofar as it manages to produce a space that absorbs its contradictions. That the spaces in which our everyday lives are played out often appear to us as commonsensical, natural, and desirable is, for Lefebvre, an effect of the inextricable relationship between capitalism and space. It was in *The Survival of Capitalism* that Lefebvre (1976) first formulated his thesis:

> What has happened is that capitalism has found itself able to attenuate (if not resolve) its internal contradictions for a century, and consequently, in the hundred years since the writing of *Capital*, it has succeeded in achieving 'growth'. We cannot calculate at what price, but we do know the means: *by occupying space, by producing space*. (p. 21).

In the nearly half-century since Lefebvre began his inquiry into questions around both "the urban" (2003) and "space" (1991), an impressive and interdisciplinary literature has emerged around these questions. Whether such work is officially coded as sociology, geography, cultural studies, or urban planning, Lefebvrian studies of space tend to invite interdisciplinarity (see Fraser, 2015). This is appropriate given Lefebvre's deep distaste for systematisation and specialisation. However, there is a certain unicity in the resulting arguments that it is through dispossession and expropriation of others' wealth and spaces that capitalism has maintained its political and economic growth.

While Lefebvre's (1991) insights into the social character of space are accepted widely in the academic literature, the term "space" continues to denote a neutral void in colloquial English. While most readers of this volume are likely familiar with Lefebvre's trialectic model of space, it nonetheless deserves a brief introduction. Through the concepts of *representations of space*, *spatial practice*, and *representational space* Lefebvre outlines a dialectical model for examining the production of space under capitalism. *Representations of space* refers to "conceptualized space, the space of scientists, urbanists, technocratic subdividers and social engineers…all of whom identify what is lived and what is perceived with what is conceived" (p. 38). Such representations are contrasted with spatial practices – actually existing spatial arrangements and their intersection with everyday routines and perceptions. Finally, representational space is "space as directly *lived* through its associated images and symbols, and hence the space of 'inhabitants' and 'users,' but also of some artists and perhaps those, such as a few writers and philosophers, who describe and aspire to do more than describe" (p. 39). A dialectical thinker influenced by Nietzsche, Lefebvre vehemently rejected static categories, emphasizing instead instability, conflict and change (Merrifield, 1995). As tempting as it may be to use Lefebvre's trialectic to simply categorize or identify spaces, these concepts do not map neatly onto space; rather, they are better considered as tools to help grasp socio-spatial contradictions and illuminate moments of differential space (Lefebvre, 1991).

The concept of "spatialisation" as developed by Shields (1991) is useful in distilling Lefebvre's socio-spatial insights into a unified concept. Spatialisation incorporates Lefebvre's social understanding of space, referring to an ongoing, highly charged placing and spacing of bodies, activities, and events. In this chapter, we consider urban agriculture as a re-spatialisation of, most basically, relationships between food and the city, but also between place, publics, and

nature. We call for an interrogation of this emergent spatialisation through analyses of the complex relationship between urban agriculture strategies and practices, along with a re-emphasis on urban agriculture as a site of urban imagining.

Coming to Terms with Urban Agriculture

Discussion around urban agriculture first emerged in the context of the Global South as a way to address poverty and food insecurity. For many in the US, Canada, and other countries in the Global North, the specter of food insecurity and malnutrition largely vanished with the mass industrialization of food that followed WWII (Morgan & Sonnino, 2010). Thus, for the latter half of the twentieth century, urban agriculture was viewed almost exclusively as a crisis measure for poorer nations. This is reflected in the academic literature, which continues to focus on the rapidly urbanizing context of the Global South. Writing just over a decade ago, Mougeot (2005) commented that urban agriculture "has spread to become a critical source of food for urban populations in countries affected by natural disasters (Honduras), economic crisis (Togo), civil wars (Armenia) and disease epidemics (Malawi)" (p. 3). In the last decade, as the industrial agriculture model that promised a bottomless supply of cheap, accessible food weakens, urban agriculture has increasingly gained attention in the Global North.

Urban agriculture is most commonly defined as the growing and processing of food *within* or *near* cities. Despite recent warnings of what Born and Purcell (2006) have called the "local trap," it remains difficult to find detailed descriptions of urban agriculture that are not overdetermined by the question of the distance between "farm and fork." While such considerations are certainly important, they cannot be meaningfully understood outside broader urban contexts.

Many urban agriculture advocates are quick to point out that the seemingly natural separation of the urban from the agricultural is a modern phenomenon, occurring largely in the post WWII era, and most dramatically in the context of North America. Pointing to the long history of urban food growing practices, advocates argue that there is in fact nothing new about growing food in cities. The point of this discourse is to disrupt the urban/agricultural division, showing how the post-war modern North American city, where food growing was largely out of place is an outdated representation of space. While this constitutes an important critique of the artificial division of the city and the country, it is also important to attend to the historical differences and shifts in meaning through which urban food growing practices have taken place over time and how they are currently taking place differently across space.

If urban agriculture is considered as solely a question of form defined by the placing of food growing practices *in* or *near* the city, we could identify it in different contexts across time and space, from ancient city gardens to Havana's famous organoponicos to the trend of vertical farming in many North American cities. Indeed, it is common for contemporary scholars to speak of the recent resurgence of urban agriculture. It should be emphasized, however, that even urban agriculture initiatives existing at the same period of time in a single city can be quite diverse (McClintock, 2014), let alone urban food growing initiatives across time and space. Foregrounding Lefebvre (1991), we theorize urban agriculture as an emergent, contested, and contradictory spatialisation implicated in the co-production of urban natures, places, and publics differently across time and space. Such a framing also means considering urban agriculture as a set of practices that overlap with, but also potentially challenge, dominant urban sustainability frameworks.

As Campbell notes, "in the battle of big public ideas, sustainability has won: the task of the coming years is simply to work out the details, and to narrow the gap between its theory and practice" (in Krueger & Gibbs, 2007, p. 1). Since emerging as a response to the environmental concerns of the 1960s and 70s, sustainability has become a pervasive, almost unquestionable, good. It is this nearly universal acceptance of sustainability as the solution to the environmental, social, and economic crises that signals for Swyngedouw (2010) its post-political impotency. Drawing on the work of Slavoj Žižek and Chantal Mouffe, Swyngedouw sees sustainability as curtailing political possibility through the universalizing of particular demands. In a similar vein, Marcuse (1998) argues that urban sustainability rhetoric can trap us into believing "that if we all simply recognized our common interests everything would be fine, we could end poverty, exploitation, segregation, inadequate housing, congestion, ugliness, abandonment, and homelessness" (p. 105). For both Swyngedouw and Marcuse, the problem with sustainability is precisely that that *there is no problem*. The absence of conflict precludes difference and ignores the structural inequalities and divergent interests that prevent what Swyngedouw calls the "politics of the possible" (p. 195).

Voicing another perspective, Whitehead (2007) sees sustainability as a set of spatialities rather than the outcome of international policy developments. In doing so, he avoids reducing sustainability to the policy developments that have coalesced as "sustainable development," which he defines as "the dominant international ideology of sustainability" (p. 16). For Whitehead, sustainability is best understood, not through fixed definitions, but as a broader set of utopian ideas regarding a post-industrial future. With the recognition that the unregulated expansion of industrial capitalism was quickly ruining the very natural environment that it relied upon for its survival and growth, sustainability emerges as a utopian vision of a common future.

Whitehead's conception of sustainability as utopia differs from Swyngedouw's (2010) more critical diagnosis of sustainability as a fantasy that "imagines the possibility of an originally fundamentally harmonious Nature, one that is now out-of-synch, but which, if 'properly' managed, we can and have returned to by means of a series of technological, managerial, and organizational fixes" (p. 192).

Furthermore, this fantasy seems to rest on the implication that we can have our cake and eat it too. If the environmental and social movements of the 1960s and 70s represented a moment of crisis open to political possibility, sustainability emerged as both fix (see While et al., 2004; Harvey, 1982) and fantasy – "fix" in that it addressed the lack of environmental protections through regulation and green development and "fantasy" in that this fix was positioned as a long-term solution that resolved the environmental question while at the same time bolstering economic growth. According to Harvey, such spatial and sustainable fixes belie the fact that these solutions cannot resolve the contradictions at the root of the problems they claim to fix.

Whereas sustainability for Swyngedouw is post-political, Whitehead makes a distinction between sustainability and sustainable development. Like Whitehead, we acknowledge the need to critique sustainability in its dominant globalized form (i.e. sustainable development), while at the same time being open to "actually existing sustainabilities" (Krueger & Agyeman, 2005) and engaging in a meaningful way with urban agriculture as it exists in relation to the particularities of place.

Whitehead (2007) notes:

> My problem with these depictions of sustainability is that they tend to (often
>
> inadvertently) reduce sustainability to the historical emergence of a singular concept of
>
> social and ecological development – that of *sustainable development*. To consider the

spatialities of the sustainable society, then, is to become aware of the stories, struggles

and values which cut across the history of sustainable development (p. 5).

We make a similar point regarding urban agriculture. While definitions of urban agriculture are usually broad, including everything from window sill herb gardens to regional food systems, these diverse forms are held together by a discourse of sustainability that is producing similar spatialisations of urban agriculture in a growing number of cities. At a basic level, this sameness results from the fact that major cities often face similar practical challenges around land use, development pressures, rents, etc. Thus, while we see urban agriculture strategies making space for local food, very rarely are such strategies as "revolutionary" as is sometimes claimed in popular literature titles (see Cockrall-King, 2012). For example, urban agriculture strategies usually do not impinge on sancrosanct ideas of private property, at least not at the level of urban policy. Looking at official urban food strategies, we tend to find representations of urban agriculture as seamlessly fitting in with broader urban and regional plans that repeatedly fall back on the familiar pillars of sustainability within the dictates of capitalist socioeconomic relations. Moreover, urban agriculture is often positioned as lower-level concern at the mercy of the priorities reflected in the productivist principle of "highest and best use."

Rather than subsume the question of urban agriculture under the umbrella of sustainable development, we consider it as a contingent and contested spatialisation in its own right. The explosion of urban agriculture in popular literature, academic scholarship, and on the agenda of city planners and policy makers is evidence of its recent claims on urban space. Lefebvre offers a way to critically consider the rise of urban agriculture dialectically, through its representations, practices, and imaginaries. In the remainder of this chapter we open the topic up to new forms of

investigation rooted in the writings of Lefebvre to frame urban agriculture as produced and contested space.

Lefebvre and Urban Agriculture: Cultivating the Right to the City

Lefebvre meant something quite specific by "the urban." For him, urban society is roughly akin to what is often called post-industrial society. In contrast to the setting of the city, the urban is a historical and spatial formation linked to a post-industrial capitalist mode of production. Lefebvre (2003) sees the urban as a productive force "modifying the relations of production without being sufficient to transform them" (p. 15). The urban reorganizes internal city space, while also shaping the country side, agriculture, and nature to its uses (p. 4). This relational understanding of the urban has been taken up by recent studies in Urban Political Ecology with its emphasis on urban metabolism (see Heynen et al., 2006).

Lefebvre's conception of the urban allows us to look at cities not as located *in* the country, but as part of a larger production of space driven by accumulation and profit that has fundamentally shaped the relations between the city and country. As scholars such as Williams (1973) and Cronon (1991) have argued, the distinction of the city and the country is ideological in that it masks the complex metabolic relations between cities and rural landscapes that produce both places. Moreover, it produces a particular landscape or "power geometry" (Massey, 1994) where cities are given primacy and the countryside is positioned as backward and simple. The rise of urban agriculture helps to illuminate the dynamism of this spatialisation, presenting the relation between urban and agriculture as a *cultural topology* that is slowly being torqued and re-moulded (Shields, 2013).

Work establishing urban agriculture as a critical socio-spatial question is already underway (Tornaghi, 2014; Blomley, 2004; Purcell and Tyman, 2015; Classens, 2015;

Shillington, 2013; McClintock, 2014; Tomkins, 2014), and a handful of authors have drawn on

the work of Lefebvre, with particular emphasis placed on "the right to the city." Lefebvre's

(1996) formulation of the right to the city is closely tied up with the everyday practices of

"inhabitants," who he contrasts with the "bourgeois aristocracy" who do not inhabit the city, but

"go from grand hotel to grand hotel, or from castle to castle, commanding a fleet of a country

from a yacht" (p. 158). Merrifield (2006) relates the alienation and drudgery often experienced

by the inhabitant to "a loss of the city as *oeuvre*, a loss of *integration* and *participation*" (p. 69).

"Indeed," says Merrifield, "it is to denigrate one of humanity's great works of art - not one

hanging on a museum wall but a canvas smack in front of our noses, wherein we ourselves are

would-be artists, would-be architects" (p. 69). While some have argued that the concept of the

"right to the city" is underdeveloped (Attoh, 2011), others find value its openness (Mitchell and

Heyen, 2009; Harvey, 2012). Mitchell and Heyen (2009) argue that the concept's "capaciousness

is valuable because it allows for solidarity across political struggles while at the same time

focusing attention on the most basic conditions of survivability, the possibility to inhabit, to live"

(p. 616).

The few studies that have used Lefebvre to grapple with urban agriculture have tended to

focus on issues of spatial appropriation, with an emphasis on "guerilla" practices. For example,

Gillian Wales (2013) draws on Lefebvre's spatial triad to examine guerrilla gardening in

Glasgow, finding that gardeners demonstrate "alternative spatial practice" beyond the gaze of the

state. The Spanish Architect and Philosopher Ignasi de Solà-Morales (2014) coined the term

"terrain vague" to refer to those spaces that exist "outside the city's effective circuits and

productive structures" (p. 26). It is in these spaces that guerrilla gardening thrives, with plots

often showing up in forgotten or unvalued land along rail lines and in abandoned or vacant lots.

It was the proliferation of "terrain vague" in post-industrial cities such as Detroit that allowed for urban agriculture practices to flourish.

Once the bustling heart of the global automotive industry, Detroit has seen dramatic socio-economic decline, becoming the largest municipality in the history of the U.S. to declare bankruptcy (Firth, Maye, & Pearson, 2011). The former industrial centre has become the archetype of post-industrial ruination in the US, providing new spaces of urban experimentation and attracting artists and writers interested in the dystopian sublime. In particular, Detroit has also become a unique opportunity to rethink relationships between public space, food, and the city and explore alternative urban agriculture imaginaries. While many residents of Detroit have supported investment in urban agriculture (see LaCroix, 2010) as a potential way forward for the city, others have been less optimistic. Speaking informally about the rebuilding of Detroit, Richard Florida (2011) queried, "why would you want to turn a great city into a corn field?" This comment deems certain futures to be regressive and anti-urban. It seems that for Florida, Detroit's embracing of urban agriculture is as backward as trying to revive the region's manufacturing and auto industry. Florida (2010) suggests we see beyond the "old order" (xxii) and recognize the new "realities" of the post-crisis creative economy.

Urban agriculture is not necessarily about "turning cities into cornfields," but presents a way of re-imagining the very idea of the city; it is not a return to an imagined past (though such imaginaries might certainly be a part of it), but an emergent site of struggle over relationships between cities, people, food, as well as the very idea of the urban. Considered as a spatialisation, urban agriculture is not merely a geographical expansion and entrenchment of older gardening practices in the city, but a reconstitution and politicisation of those practices. Even the recent shift from a discourse of community gardening to urban agriculture presents an important change

in meaning and a reorienting of practice. With this discursive shift we see the emergence of new places (e.g. vertical gardens, agri-hoods) and shifting subjectivities (urban farmers, food planners). Whereas post-war suburban gardening in North America was largely coded as a space of leisure and/or of family, urban agriculture discursively re-orients food growing practice towards pressing social and ecological challenges that range from community alienation, to local food insecurity, to urban decline and ruination. In another well-known example, New York City saw an explosion of community gardens during the recession of the 1970s. It was in this moment of inner-city decline and divestment that the term "guerilla gardening" was coined by the New York artist Liz Christy. Speaking of Christy's activist group the Green Guerrillas, Reaven and Zeitlin (2006) note, "on the surface their mission was all about gardens. Just below the surface lurked the radical idea of bringing into the public domain land that once had been privately held but now had been callously abandoned" (p. 274).

Radical moments of urban agriculture based on spatial appropriation of city lands easily lend themselves to a "right to the city" framing. As with other form of tactical urbanism, guerrilla gardening can act as a form of spatial resistance - a way to contest space as conceived by planners and developers and present an alternate view of what the city might be. Through an analysis of contested community gardens in New York and the case of South Central Farm in Las Angeles, Purcell and Tyman (2015) consider urban agriculture as both "spatial contestation" and "spatial autogestion." The authors emphasize Lefebvre's radical optimism, calling on other researchers to search out everyday moments of resistance already occurring, and illuminate the ways in which these moments may work to break through the monotony and drudgery that pervades much of urban existence. In another recent and notable study, Tornaghi (2014) draws on Lefebvre to sketch out what a critical geography of urban agriculture might look like.

Working with Marcuse's (2009) formulation of "the right to the city" and his related formulation of "critical urban planning" (p. 194), Tornaghi politicizes urban agriculture through a social justice lens: "given the political and strategic role which urban agriculture can play in the future, the development of its critical theorization will set the parameters for evaluating what type of initiatives are fit for non-regressive and socially just urban food policies" (p. 4). In yet another study, Shillington (2013) explicitly links the idea of the right to the city to urban agriculture and processes of urban metabolism. Through her research in barrio San Augusto in Managua, Nicaragua, Shillington discusses local urban agriculture initiatives and patterns of consumption as socio-spatial practices that make a particular claim on the city. Shillington connects mundane practices of everyday life in San Augusto to a larger spatial politics. She argues that through the cultivation of fruit trees and everyday consumption of refrescos, local inhabitants (especially women) intervene in urban metabolisms, producing a particular socio-natural space. This is a significant development of the literature as it narrows the focus to the agency of a specific gender-class and Indigenous intersectional group – that is, poor women, displaced from the countryside to a marginal barrio who mobilize urban agriculture to create a "habitable space."

As illustrated by these studies, the existing literature linking Lefebvre to urban agriculture focuses largely on the spatial tactics of urban inhabitants, emphasizing everyday practice, with less written about the changing nature of these tactics in relation to emergent urban strategies. In the remainder of the chapter we ask how Lefebvre might help us to better conceptualize the current urban agriculture moment, where it is increasingly cities themselves that are taking an interest in food and developing strategic pathways forward.

Urban Agriculture on Trial: Reconciling Tactics and Strategies

We began the chapter by introducing Lefebvre's idea of "trial by space" as a way to orient the reader towards a critical questioning of urban agriculture. Thus far, we have theorized urban agriculture as, not merely a descriptive category of local food growing, but a spatialisation that rests in large part on challenging dominant socio-spatial orders. In other words, we have identified ways in which urban agriculture includes elements of counter-space that potentially resist, not only the global regime of cheap food, but also the assumption that cities are best organized by professionals (i.e. government officials, planners, and policy makers). At the same time, we must re-iterate that urban agriculture is not in itself an emancipatory spatialisation, a point made by Nathan McClintock (2014). "Contradictory processes of capitalism," writes McClintock, "both create opportunities for [urban agriculture] and impose obstacles to its expansion. Identifying these contradictions requires analysis of [urban agriculture's] various forms and functions at multiple scales' (p. 148). Where many have been quick to praise the expansion of urban agriculture as a move towards goals of urban sustainability, we emphasize the need to consider both the particular politics and limits of this expansion as it is taking place in different contexts. To subject urban agriculture to Lefebvre's trial by space is to critically evaluate the current urban agriculture moment that is occurring in so many cities across the Global North.

The recent urban agriculture moment is defined in part by cities' acceptance of certain food-related sustainability imaginaries. The fact that food was not really considered by urban planners prior to the first decade of the 21st Century (APA, 2007) is evidence of an ideological blind spot rooted in a constructed distinction of the rural and the urban, and the association of food production with the realm of the rural. Since 2007, however, food policy and planning have

exploded onto the scene, with municipalities across North America and Europe enthusiastically taking up a food systems lens. The American Planning Association's 2007 report suggests a number of possible reasons why planners were so late to embrace food as a planning issue, the first of which is the view that food systems only indirectly affect the built environment of cities. It was not that food systems did not shape the built environment before the rise of urban agriculture, but rather that the way that these systems shaped urban environments was difficult to see and therefore easy to ignore.

Over the course of the last decade, many cities in the Global North have embraced urban agriculture as part of developing broader urban food strategies. Our own city of Edmonton established itself as a center of urban agriculture in Canada in 2010 when the City officially incorporated a food and agricultural strategy into its municipal development plan. Momentum and support for the integration of urban agriculture into broader planning and governance frameworks has continued, resulting in the approval of an official food and urban agriculture strategy, the amending of local bylaws, and the creation of a local food council. Such emergent interrelations between food and the city, and the rise of urban food strategies are part of what Morgan and Sonnino (2010) have called "the new food equation." As we have argued, the rise of urban agriculture equally presents both a new urban equation and an opportunity to continue to re-think relationship between food, space, and the city in relation to our collective urban futures.

New urban food equations re-cast urban agriculture as a legitimate and even desirable urban land use that has emerged in a context of a failing industrial, globalized food model that positions productivity above all other considerations. Gaining prominence after WWII, the productivist model of agriculture subsumes any different or idiosyncratic practice to a singular emphasis on output and, ultimately, profit (Halfacree, 2007, p. 130). The dominant turn-of-the

millennium industrial food spatialisation separated each stage of production and consumption and refrigerated global shipping linked different sites of production and consumption into a complex global system. For example, harvest is often in a naturally-advantaged location or low-regulation region where food can be grown easily. Processing is in a different low-wage factory location. Heavily packaged and often chemically or sugar treated foods are sold via supermarkets, which are located in specifically zoned and serviced city locations separated from residential areas. Finally, foods are consumed in individual households with limited need for preparation and in ways that grow more similar everywhere in the world. Industrial food production was largely invisible until the emergence of the food movement of the 1970s, which saw large numbers of people becoming concerned with where their food came from and how it was produced. Increasingly this social movement has gained ground in relation to what is generally acknowledged to be a food crisis in the global system of agricultural production. The food crisis is inextricably linked to industrial, export oriented agriculture and food production under capitalism. This food crisis corresponds to a regime of "cheap food" in the globally dominant societies of Europe and North America. Since World War II this regime has been risen victorious in a global trial by space, transforming the rural into a productivist, profit oriented landscape.

Industrial agriculture has overcome several crises through various agricultural revolutions, and it is attempting to overcome the latest through pesticides and GM crop "fixes." Food has had a dominant spatial footprint on late capitalism. Inherited from the Feudal European divide between cities with their guild production and rural fiefdoms with peasant agriculture, industrialized agriculture has pushed toward oil-reliant, mechanized and pesticide-dependent practices in increasingly depopulated rural areas. "Cheap food" is a particular spatialisation – a

global and overlooked geography that has reached the point of being unsustainable. However, urban agriculture is by no means the natural or only answer to the multifaceted problems of cheap food. For example, while much writing on urban agriculture has emphasized its environmental benefits, its actual impacts are less clear. In their overview of the benefits and limitations of urban agriculture, Santo et al. (2016) found that the ability of urban agriculture to mitigate greenhouse gas emissions is overstated. There is, however, clear evidence supporting other benefits of urban agriculture, such as its "ability to increase social capital, community well-being, and civic engagement with the food system" (Santo et al., 2016, p. 22).

Speaking to the politics of urban agriculture in Camaroon, Page (2002) highlights the stark difference between dominant conceptions of urban agriculture and the reality of its implementation within a context of austerity and structural adjustment. As Page argues, Buea's urban farmers

set out to reduce their bills in food markets and ended up helping to diffuse the social discontent associated with the reconfiguration of the Cameroonian political contract that had been prompted by the forced shrinking of the government's wage bill. (p. 51).

This darker side of urban agriculture has also been highlighted by scholars studying cities in the Global North. Looking at the cases of Vancouver, British Columbia and Detroit Michigan, Walker (2016) raises questions about the radical potential of city-led urban agriculture strategies. Unlike most critical studies of urban agriculture, Walker focuses on the role of the state as opposed to the grassroots practices of urban farmers and organizers. White there exist important differences between contexts, Walker finds that both cities have pursued urban agriculture as a sustainability fix designed to foster economic development. This critical approach to the politics of urban agriculture, pursued also in the work of McClintock (2014), Pudup (2008), and

Tornaghi (2014), highlights the ways in which urban agriculture is, in many cases, the forces that on the surface it seems to challenge.

Urban agriculture has emerged as both *tactic* and *strategy*; it can equally be implicated in the production of counterspace (Lefebvre, 1991, p. 349; p. 367; p. 381-3; Leary-Owen, 2016) as it can with that of neoliberal space. As McClintock (2013) argues, urban agriculture practice 'is not simply radical or neoliberal, but both, operating at multiple scales' (p. 165). Recognizing the contingency of urban agriculture practice is the first step, but a Lefebvrian analysis requires us to go further to critically consider such practices as they are actually taking place. By thinking through the conceived, lived, and perceived elements of urban agriculture space, we can begin to asses it through the lens of *trial by space*.

Lefebvre's *trial by space* rests on the assumption that a mode of production can survive and thrive insofar as it manages to produce a space that absorbs its contradictions. On one hand, we can view certain instances of urban agriculture as consistent with abstract conceptions of space that ultimately prioritize creating economic value and the pursuit of capital. On the other hand, there are many documented ways in which grass roots urban agriculture challenges neoliberal urbanism, making claims on urban space that create counterspaces and lend themselves to new urban imaginaries. Where much research on urban agriculture has privileged the more obviously radical, grassroots elements of the practice, more research is needed to understand how urban strategies are incorporating urban agriculture into their policy frameworks. We recommend caution in rushing to position the urban planners and the local state as sole the progenitors of abstract space. State implemented urban agriculture policy does not necessarily mean the co-optation of more radical visions presented by grassroots urban agriculture movements.

In a 2015 essay, Neil Brenner acutely points out the dangers of equating tactical urbanism with radical urbanism, identifying specifically the ways in which tactical urbanism's "anti-planning rhetoric" can actually reinforce neoliberal logics:

> The anti-statist, anti-planning rhetoric of many tactical urbanist interventions may, in practice, significantly erode their capacity to confront the challenges of upscaling their impacts. To the degree that advocates of tactical urbanism frame their agenda as an alternative to an activist role for public institutions in the production of urban space, they are at risk of reinforcing the very neoliberal rule-regimes they ostensibly oppose.

Brenner's point is not to draw attention away from the complicity of the state in producing urban spaces according to neoliberal logics that alienate urban inhabitants. Rather, the point is that elements of neoliberalism can be found in what might appear at first to be counterspace. A version of this point was nicely articulated by Blomely (2004, p. 637): 'let us not take the politics of neo-liberalism at face value. Even neo-liberalism can contain. . .forms of neo-socialism' (p. 637).

Critical geographers such as Harvey and Marcuse are right to emphasize the complicity of planning in shaping the city to serve the interest of capital; that said, the current moment of neoliberal urbanism presents a situation where even the most ostensibly radical moments of urban praxis do not necessarily exist outside neoliberal spatial logics. Where there has been a tendency in critical studies of urban agriculture to prioritise the everyday actions and experiences of inhabitants, we see value in examining more closely the recent urban agriculture moment as an emergent spatialisation that cannot be grasped without a dialectical approach. In other words, we must attend to, not only spaces of representation, but of the dialectical relations between all three moments of spatial production as they emerge in sometimes surprising places.

To view urban agriculture through Lefebvre's concept of trial by space is to shift emphasis to the ways in which the practice is recasting the city. urban agriculture is not merely a mode of producing more local and sustainable food, but an opportunity to begin to imagine and actualize alternative urban futures. In Lefebvre's emphasis on the dialectics of spatial production, we see a need to expand studies of urban agriculture to be sensitive to differential space, wherever it may exist.

Conclusion

We have considered urban agriculture beyond questions of local food or urban sustainability, drawing on Lefebvre to frame it instead as an emergent and contested spatialisation. However small the plot, placing agriculture in cities amounts to a spatial gesture that disturbs, recomposes, and questions the separation between the urban and rural, built environment and natural environment. By mixing up the urban and rural in a provocative manner, urban agriculture in its various forms challenges the established order dividing the civilized *polis*, as the heart of culture and rational economic public sphere, from the rural hinterland.

Urban agriculture as a food spatialisation is practiced and anchored in participatory production and everyday consumption. It recasts what can be imagined and located within the category of the urban and the built environment of the city, thus providing a living laboratory in which we can observe the shifting topology of spatialisations. Applying both Lefebvre's triad of practice, representation and imagined spatial frameworks while keeping to the dialectical spirit of his thought, "food spatialisations" emerge as a regime of places and relations between them across space. They enter a "trial by space" in contest with other frameworks that source and process food globally and rigorously separate consumers' dinner tables from producers' fields.

They separate the site of consumption, from retail supermarket, from processing in low-wage factories, and from harvest in naturally-advantaged, but pesticide-permissive and labour-exploiting regions.

Where most studies using Lefebvre to understand urban agriculture have focused on the tactics involved in claiming the "right to the city" through gardening practice, we emphasize the need to open inquiry up to a broader, dialectical inquiry into the production of urban agriculture space. With many cities incorporating urban agriculture into sustainable development frameworks, we should consider carefully the ways in which such strategies may support or negate the claiming of urban space by urban inhabitants. While incorporating urban agriculture into dominant modes of urban planning may in some cases constitute the incorporation of the contradictions between truly sustainable food production and neoliberalism, we must not lose sight of Lefebvre's dialectical approach.

References

APA. (2017, May 24). *Policy guide on community and regional food planning.* Retrieved from
https://www.planning.org/policy/guides/adopted/food.htm

Attoh, K. A. (2011). What kind of right is the right to the city? *Progress in Human Geography*,
35(5), 669–685.

Blomley, N. (2004). Un-real Estate: Proprietary Space and Public Gardening. *Antipode*, *36*(4),
614–641.

Born, B. and Purcell, M. (2006). Avoiding the local trap: Scale and food systems in planning
research. *Journal of Planning Education and Research*, 26(2), 195-207.

Brenner, N. (2015). Is 'tactical urbanism' an alternative to neoliberal urbanism? *Post: Notes on
Modern & Contemporary Art Around the Globe*. Retrieved from
http://post.at.moma.org/content_items/587-is-tactical-urbanism-an-alternative-to-
neoliberal-urbanism

Burchardt, J. (2002). *The allotment movement in England - 1793-1873*. Woodbridge, UK:
Boydell Press.

Classens, M. (2015). The nature of urban gardens: Toward a political ecology of urban
agriculture. *Agriculture and Human Values*, *32*(2), 229–239.
https://doi.org/10.1007/s10460-014-9540-4

Cockrall-King, J. (2012). *Food and the city: Urban agriculture and the new food revolution*.
New York: Prometheus Books.

Cronon, W. (1991). *Nature's metropolis: Chicago and the Great West,* New York: W. W.
Norton.

Davidson, D. J. (2017). Is Urban Agriculture a Game Changer or Window Dressing? A Critical
Analysis of Its Potential to Disrupt Conventional Agri-food Systems. *International
Journal of Sociology of Agriculture & Food*, *23*(2), 63–76.

Firth, C., Maye, D., & Pearson, D. (2011). Developing "community" in community gardens.
Local Environment, *16*(6), 555–568.

Florida, R. (2010). *The great reset*. Toronto: Random House Canada.

Florida, R. (2011). Detroit: The next American ghost town? Retrieved from
http://bigthink.com/videos/detroit-the-next-american-ghost-town

Fraser, B. (2015). *Toward an urban cultural studies: Henri lefebvre and the humanities.* New
York: Palgrave Macmillan.

Halfacree, K. (2007). Trial by space for a 'radical rural': Introducing alternative localities, representations and lives. *Journal of Rural Studies*, 23(2), 125-141.

Harvey, D. (1982). *The limits to capital*. Oxford: Basil Blackwell.

Harvey, D. (2012). *Rebel cities: From the right to the city to the urban revolution*. London: Verso.

Heynen, N. C., Kaika, M., & Swyngedouw, E. (2006). *In the nature of cities: Urban political ecology and the politics of urban metabolism*. London: Routledge.

Krueger, R., & Agyeman, J. (2005). Sustainability schizophrenia or "actually existing sustainabilities?" toward a broader understanding of the politics and promise of local sustainability in the US. *Geoforum*, *36*(4), 410–417. https://doi.org/10.1016/j.geoforum.2004.07.005

Krueger, R. & Gibbs, D. (2007). *The sustainable development paradox: Urban political economy in the United States and Europe*. New York: The Guilford Press.

LaCroix, C. J. (2010). Urban agriculture and other green uses: Remaking the shrinking city. *The Urban Lawyer*, *42*(2), 225–285. https://doi.org/10.2307/27895787

Leary-Owhin, M. E. (2016). *Exploring the production of urban space: Differential space in three post-industrial cities*. Bristol, UK: Policy Press.

Lefebvre, H. (1976). *The survival of capitalism: Reproduction of the relations of production*. London: Allison & Busby.

Lefebvre, H. (1991). *The production of space*. Oxford: Blackwell.

Lefebvre, H. (1996). The right to the city. In E. Kofman, E. Lebas, & E. Lebas (Eds.), & E. Kofman (Trans.), *Writings on cities* (pp. 63–184). Oxford: Blackwell.

Lefebvre, H. (2003). *The urban revolution*. Minneapolis: University of Minnesota Press.

Marcuse, P. (1998). Sustainability is not enough. *Environment and Urbanization*, 10(2), 103-112.

Marcuse, P. (2009). From critical urban theory to the right to the city. *City*, *13*(2–3), 185–197. https://doi.org/10.1080/13604810902982177

Massey, D. B. (1994). *Space, place, and gender*. Minneapolis: University of Minnesota Press.

McClintock, N. (2014). Radical, reformist, and garden-variety neoliberal: Coming to terms with urban agriculture's contradictions. *Local Environment*, *19*(2), 147–171. https://doi.org/10.1080/13549839.2012.752797

Merrifield, A. (1995) Lefebvre, anti-logos and Nietzsche: An alternative reading of the production of space. *Antipode*, 27(3), 294-303.

Merrifield, A. (2006). *Henri Lefebvre: A critical introduction*. New York: Routledge.

Mitchell, D., & Heyen, N. (2009). The geography of survival and the right to the city: Speculations on surveillance, legal innovation, and the criminalization of intervention. *Urban Geography*, *30*(6), 611–632.

Morgan, K., & Sonnino, R. (2010). The urban foodscape: World cities and the new food equation. *Cambridge Journal of Regions, Economy and Society*, *3*(2), 209–224. https://doi.org/10.1093/cjres/rsq007

Mougeot, L. (2005). *Agropolis: The social, political and environmental dimensions of urban agriculture*. London: Earthscan.

Page, B. (2002). Urban agriculture in Cameroon: An anti-politics machine in the making? *Geoforum*, 33(1), 41-54.

Pudup, M. B. (2008). It takes a garden: Cultivating citizen-subjects in organized garden projects. *Geoforum*, *39*(3), 1228–1240.

Purcell, M., & Tyman, S. K. (2015). Cultivating food as a right to the city. *Local Environment*, *20*(10), 1132–1147. https://doi.org/10.1080/13549839.2014.903236

Reaven, M. & Zeitlin, S. J. (2006). *Hidden New York: A guide to Places that Matter*. New Brunswick, N. J.: Rivergate Books.

Santo, R., Palmer, A., & Kim, B. (2016). *Vacant lots to vibrant plots: A review of the benefits and limitations of urban agriculture*. Retrieved from John Hopkins Centre for a Livable Future website: http://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/_pdf/research/clf_reports/urban-ag-literature-review.pdf

Shields, R. (1991). *Places on the margin: Alternative geographies of modernity*. New York: Routledge.

Shields, R. (2013). *Spatial questions: Cultural topologies and social spatialisation*. London: Sage.

Shillington, L. J. (2013). Right to food, right to the city: Household urban agriculture, and socionatural metabolism in Managua, Nicaragua. *Geoforum*, *44*, 103–111. https://doi.org/10.1016/j.geoforum.2012.02.006

Solà-Morales, I. D. (2014). Terrain vague. In M. Mariani & P. Barron (Eds.), *Terrain vague: Interstices at the edge of the pale* (pp. 24–30). New York: Routledge.

Swyngedouw, E. (2010). Impossible sustainability and the post-political condition. In M. Cerreta, V. Monno, & G. Concilio (Eds.), *Making strategies in spatial planning*. London: Springer.

Tomkins, M. (2014). *Making space for food: Everyday community food gardening and its contribution to urban agriculture.* (Doctor of Philosophy), University of Brighton. Retrieved from http://eprints.brighton.ac.uk/12919/1/Mikey Tomkins.pdf

Tornaghi, C. (2014). Critical geography of urban agriculture. *Progress in Human Geography*, *38*(4), 551–567. https://doi.org/10.1177/0309132513512542

Viljoen, A. (2005). *Continuous productive urban landscapes: Designing urban agriculture for sustainable cities.* Oxford: Architectural Press.

Wales, G. (2013). *Gardens of transgression, spaces of representation: An analysis of guerrilla gardens using the works of Lefebvre as a theoretical framework*. University of Strathclyde, Strathclyde, UK.

Walker, S. (2016). Urban agriculture and the sustainability fix in Vancouver and Detroit. *Urban Geography*, *37*(2), 163–182. https://doi.org/10.1080/02723638.2015.1056606

While, A., Jonas, A. E. G., & Gibbs, D. (2004). The environment and the entrepreneurial city: Searching for the urban 'sustainability fix' in Manchester and Leeds. *International Journal of Urban and Regional Research*, *28*(3), 549–569. https://doi.org/10.1111/j.0309-1317.2004.00535.x

Whitehead, M. (2007). *Spaces of sustainability: Geographical perspectives on the sustainable society.* London: Routledge.

Williams, R. (1973). *The country and the city*. New York: Oxford University Press.

Chapter Three

Urban agriculture in the making or gardening as epistemology

(Based on a Paper Co-authored with Dr. Kevin E. Jones)

This chapter explores the production of Prairie Urban Farm, an urban agricultural initiative in the Canadian city of Edmonton, Alberta. Motivated by our involvement in the initiative and guided by a broader interest in the evolving meaning and politics of urban agriculture, the paper presents Prairie Urban Farm as a negotiated and emergent social space. Rather than limit understandings of the initiative to official representations and discourses, the analysis draws on interviews with regular volunteers as well as personal reflections to emphasize *everyday urban agriculture* – those practices, understandings, and motivations often subsumed under official framings or tropes that together characterize the everyday, lived aspects of urban agriculture. The paper pursues tensions between Prairie Urban Farm understood as a sustainability and food security initiative and more ambivalent understandings. We ask, is Prairie Urban Farm, officially presented as an urban agriculture and food security project, not simply a community garden by another name? Obscuring these boundaries through a detailed ethnographic and qualitative analysis, we make an argument for finding value in urban agriculture beyond discursive tropes and in relation to the reflexive possibilities engendered within a view of gardening as epistemology.

Introduction

Prairie Urban Farm (PUF) is a 1.5-acre mixed crop urban garden established in 2013 as a sustainability and food security initiative and located on the University of Alberta's agricultural lands. Following what is a wider discursive shift from "community gardening" to "urban agriculture," PUF exists within an emergent and newly politicized landscape of urban food

production. In a context where even small-scale urban gardening projects are increasingly framed by complex, uncertain, and pervasive risk scenarios (i.e. climate change and food security), it is important to consider how such meanings are negotiated and performed within the everyday relations and institutional contexts in which these gardens are situated. It is important because concepts such as sustainability and justice, which surround the creation of local food movements, are normative, contested, limited and sometimes contradictory. Instead of essentializing the relationship between the local, small scale and urban as pathways to sustainability, we explore the ways in which urban agriculture is actively negotiated in practice.

Whereas the assumption might be that to study urban agriculture we should examine extraordinary cases or instances such as, for example, its role in reshaping post-industrial Detroit, we look for urban agriculture in the margins. We do this in two senses. First, in focusing on Prairie Urban Farm, we bring attention to an urban agriculture initiative existing in a relatively peripheral urban context – Edmonton, Alberta, Canada. Second, within this context, we focus on the everyday experiences and constructions of PUF as urban agriculture. Here we emphasize the value of a more interpretive frame of analysis than observed in the mainstream of the academic literature on urban agriculture. We draw inspiration from Erving Goffman's (1990) dramaturgical analysis in pointing to the performative aspects of urban agriculture as one means of coming to terms with the ways in which sustainability values are exhibited and construed within the different activities of PUF. Rather than approach PUF as a community defined by a shared set of interests and motivations, we explore the ways in which individual participants frame their own involvement in the project. Despite the growing body of research on community gardens and urban agriculture, it remains uncommon to hear the nuanced perspectives of gardeners themselves (see Wakefield, 2007, p. 93). Recognizing this gap, Turner (2011)

emphasizes the importance of attending to the everyday experiences and motivations of gardeners; she writes, "Listening to and engaging with the everyday experiences of community gardeners is vital to understanding the ways in which these spaces can be used to promote more sustainable urban lifestyles" (p. 510). We too are interested in how individual participants understand and experience PUF, and in particular, what such interpretations suggest in relation to the meaning and politics of the space. The focus of this paper is less the promotion of "more sustainable urban lifestyles" and more in furthering our understanding of the meaning and politics of both PUF and urban agriculture in Edmonton more generally. As such, the paper contributes to a large and growing literature on the contentious politics of community gardening and urban agriculture initiatives (Blomley, 2004; Certomà & Tornaghi, 2015; Ernwein, 2017, Ghose & Pettygrove, 2014; Horst et al., 2017; McClintock, 2014; Schmelzkopf, 1995, 2002; Shillington, 2013; Passidomo, 2016; Purcell & Tyman, 2015; Reynolds, 2015; Rosol, 2012; Staeheli et al., 2002 Tornaghi, 2014; Walker, 2015; Wekerle & Classens, 2015), offering a unique contribution to such literature through the examination of PUF as "differential space" (Lefebvre, 1991).

As a final introductory note, it is important to make clear that our interest in the meaning and politics of urban agriculture stems in large part from our own close involvement with PUF. Both authors have been volunteering with the project for the past six seasons, and we have individually been involved in shaping its conception and development, as well as participating as scholarly proponents, mentors, market sellers, and growers. This article brings together many of the conversations and personal reflections on what we have achieved through this project, where we have not been successful and what is possible through a project of this nature. We invite the reader to experience PUF with us through a montage of participants' accounts, photos, and

personal reflections. By tracing the emergence of PUF in relationship to a growing emphasis on urban agriculture, we aim to contribute an analysis of the ways in which social and cultural values (particularly as related to sustainability) are trialed, tested, and acted upon.

Figure 1 - Welcome to Prairie Urban Farm, 2018

Figure 2 - Volunteers working in the twilight. Prairie Urban Farm, 2018.

From the Garden to Urban Agriculture

Growing alongside the re-emergence and reinvigoration of community gardening in North American cities is a burgeoning academic literature. This literature has by-and-large been celebratory, with numerous case studies documenting an ever-expanding catalogue of social and environmental benefits. Positive connections are drawn between gardening and community development, highlighting the role of gardens in connecting people to place, building relationships, supporting diversity and fostering social capital (Alaimo et al., 2010; Firth et al., 2011; Ghose and Pettygrove, 2014; Kingsley & Townsend, 2006; McVey et al., 2018). Individual health and wellbeing are additionally seen to positively correlate with gardening (Armstrong, 2000; Kingsely et al., 2009; Sanchez & Liamputtong, 2017; Wakefield et al., 2007; Zick et al., 2013) and community gardens perceived as therapeutic places (Pitt, 2014). Here, particular benefits are articulated for marginalized groups including immigrants, seniors (Beckie & Bogdan, 2010) and refugees (Hartwig & Mason, 2016; Strunk & Richardson, 2019; Abramovic et al., 2019).

Colasanti et al. (2012) usefully distinguish between this documentary body of work and an overlapping "activist-practitioner" literature which moves from charting benefits to advocating for gardens as political spaces. Here, local politics of land use, community building and food are translated, or carried up, in ways which situate gardens in relation to, or even as agents of, wider social, economic, and ecological change (Horst et al., 2017). Links to food security and food justice stand out in the literature as does the move to see gardens as sites for contesting perceived neoliberal food systems, and the structural inequities of contemporary capitalism (Ghose & Pettygrove, 2014). Gardens become the new commons, reorienting spatial and socio-economic relations (Baker, 2004; Eizenberg, 2012; Granzow & Shields, 2020;

Follmann & Viehoff, 2015; Tornaghi, 2017). They can be considered as possible counters to

alienation and as building capacities for imagining alternate forms of labour and consumption

(Mincyte and Dobernig, 2016). While gardens can certainly be read as a symptom of a crisis in

capitalism (McClintock, 2010, p. 2), similarly dominant paradigms of sustainable development,

and the sustainability of urban growth loom large (see Campbell, 1996). If gardens were once

considered sites of domesticity and leisure, within the North American context at least, the

reinvigoration of growing food in the city has made gardening a much more serious business. As

Ghose and Pettygrove (2014) argue, today the act of gardening is imagined as an act of critical

citizenship, the basis of new social and food movements, and a potential basis for transformation.

Much of this ambition is captured in the more recent uptake of the language of "urban

agriculture" and its increasing prominence over talk of "gardening" in discussions of the

motivations, benefits, and policies of growing food in the city. It is in part the rising interest in

urban agriculture (itself part of a broader urban food movement) that has driven the popularity of

community gardens. Where literature recognizes the dual frames of urban agriculture and

community gardening, the latter is often presented as a sub-type of the former. For instance,

Beilin and Hunter (2011) write that "urban agriculture encompasses the wide range of agriculture

food production practices occurring within city boundaries," adding that community gardens are

"a distinct component of" urban agriculture (p. 523). Here we note some caution, as gardening

and urban agriculture, both discursively in academic scholarship and as situated in the landscape,

are more diverse and messy than such definitions suggest. In putting forth a conceptual

framework for understanding numerous rationales across urban agriculture initiatives in North

America, McClintock and Simpson (2018) echo previous work on gardens which finds a

diversity of values and meanings (Kurtz, 2001). These authors note a strong tendency towards

development and urban growth dynamics in the rise of urban agricultural initiatives, in which the spatial politics of the sustainable city are contested.

Our interest in the evolution of a discourse of urban agriculture is not one of drawing boundaries and classifying different types of food initiatives, but to explore urban agriculture as signalling a moment in which to examine the interpretive shift in our understanding of what it means to grow food in the city. How are the frameworks that we use to rationalize the garden and embed it with our values constructed in regard to social, economic, and ecological contexts? Rather than accept clear definitional boundaries between urban agriculture and community gardening or simply present the latter as a case of former, this paper focuses on the negotiated tensions between these two framings of urban food growing. Doing so recognizes that the shift from talking about gardens to the serious work of urban agriculture is not a settled historical fact, but an ongoing process involving a negotiation of meaning across myriad contexts and scales.

This paper is framed by an interest in everyday accounts and understandings of PUF. Although to a lesser extent, the paper also draws upon another trajectory of everyday life thought – a "counter-tradition" (Gardiner, 2000) associated with the writings of Henri Lefebvre and Michel de Certeau. Beyond a focus on the quotidian and the ways in which urban agriculture is experienced and co-created through everyday talk and social interaction, we take from this more critical tradition an orientation towards *what is possible* within the realm of the everyday. Specifically, we invoke Lefebvre's (1991) concept "differential space" to highlight the negotiated aspects of urban agriculture and help present alternative readings beyond normative sustainability frames. As with many of Lefebvre's concepts, when considered in isolation, the meaning of differential space is somewhat abstract and difficult to pin down. This is in part due to Lefebvre's penchant for developing new and overlapping concepts and distaste for closed,

systematic approaches (Kofman & Lebas, 1996; Shields, 1999). This difficulty can also be attributed to Lefebvre's unwavering dialectical approach; differential space, often roughly equated with resistance, exists in "dialectical tension" with abstract space and appropriated space (Leary-Owhin, 2016, p. 266). If abstract space is defined by "the devastating conquest of the lived by the conceived" (Lefebvre in Wilson, 2013, p. 366), differential space emerges in the interstices of this conquest, where people's appropriation of space illuminates other possible worlds "on the horizon" (Lefebvre, 1991, p.422-423). The concept of differential space emerged around the same time as his writings on the right to the city, in the context of social and political upheaval in 1960s France (Leary-Owhin, 2016). In his discussion of the two concepts and how they relate to and inform each other, Leary-Owhin contributes to a right to the city literature that has tended to focus on a narrow form of contestation – that is, physical struggles between identifiable groups over urban spaces such as parks and gardens (see Mitchell, 1995; Schmelzkopf, 1995). Differential space emphasises the "right to difference" within the idea of the "right to the city," which as we illustrate below, avoids co-optation through an appreciation of uncertainty and ambivalence.

A number of critical studies have focused on urban gardens as sites of contestation and struggle – battlegrounds over the use, meaning, and potentiality of urban space (Purcell & Tyman, 2015). Schmelzkopf's (1995, 2002) early studies present the community gardens in New York's Lower East Side as contested spaces. While the establishment and maintenance of these gardens was supported and celebrated by the City during the economic crisis of the 1970s, their status was soon threatened with the gentrification of the Lower East side in the following decade. The story of gardeners' and activists' fight to save the community gardens of New York from development in the 1980s and 90s is now a touchstone for those considering urban food

cultivation through a politics of space lens. The case of South Central Farms in Las Angeles provides another high profile case illustrating a central mode of contestation that defines much of the critical literature on community gardens and urban agriculture (see Purcell & Tyman, 2015; Mares & Peña, 2010). This mode of contestation is defined by a fundamental tension between urban space as defined by use value and urban space as defined by exchange value. Illustrating this tension, Purcell and Tyman (2015) comment on the process of creating urban agriculture space in the city: "This process is starkly different from a capitalist approach to urban land, which conceives of it as property, reduces its value to exchange value, and is only able to imagine a financial return on investment" (p. 1138). As is the case with Purcell and Tymann, this critical literature often finds strong theoretical resonance with the ideas of Henri Lefebvre, and in particular in his writings on urban space and the right to the city (1991, 1996). Further analyses by Staeheli et al. (2002), Schmelzkopf (2002), Eizenberg (2012), Shillington (2013), and Follman and Viehoff (2015) build their analyses on Lefebvre's critical understanding of the city, and urban space more broadly, as an arena of political contestation – a battleground against the injustices of "neoliberal urbanism" (Peck et al., 2009). Considered through this theoretical lens, urban gardens are of interest primarily by way of their potential as moments of counterspace (Lefebvre, 1991; Leary-Owen, 2016). The majority of Lefebvre-influenced research on urban gardens considers the organization, values, and goals of such community initiatives against the homogenizing forces of capitalist and neoliberal development logics. In cases where the existence of gardens is directly and immediately threatened by development, the theme of contestation is clear (see Smith and Kurtz, 2003; Schmelzkopf, 1995, 2002). Indeed, the community garden and urban agriculture movements lend themselves well to such framings as they, in many cases, do not align with priorities identified through considerations of "highest and

best use" and other development criteria. In the context of Edmonton's urban agriculture movement, hundreds of citizens fought for the preservation of prime agricultural lands within city boundaries, but were eventually defeated by a "business as usual" approach prioritizing development and resulting in continued urban sprawl (Beckie et al., 2013).

Focusing on the direct struggle between community organizations on the one hand and developers and/or local state actors on the other is important to understanding the opportunities and limits as well as the politics of urban gardening projects. However, this paper focuses on another mode of contestation, one grounded in an interpretative approach that examines the contested meanings and politics of urban agriculture. While recent *politics of space* research on urban gardens gravitates towards a "right to the city" approach (Purcell & Tyman, 2015; Shillington, 2013; Follmann & Viehoff, 2015), relatively little has been said about intra-garden contestation. There is often an assumption that the meaning and politics of community gardens and urban agriculture initiatives can be gleaned from their organizational structure or by looking to official representations (e.g., mission statements). Urban gardens are often discussed as "communities" of actors united by common interests and goals. For example, juxtaposing the efforts of urban gardeners with the capitalist approaches to city development, Purcell and Tyman (2015) write that "people join together into communities of mutual interest in order to understand and manage the complex task of building and maintaining their gardens" (p. 118). While creating urban gardening projects requires a level of coordination and commonality, these "communities" are often shot through with different sets of goals and values, some of which may be contradictory.

These differences represent another mode of contestation defined, not necessarily by direct conflict between unified groups or communities, but by different understandings,

interpretations and motivations among members of such communities. In her ethnography of South American cities' central plazas, Setha Low (2000) writes that, while attending to direct conflict and resistance is important, "the contest over public space is also about plaza meaning, which reflects differences in a war of cultural values and visions of appropriate behaviour and societal order" (p. 128). Applying Low's insight to the realm of urban agriculture, we explore intra-garden tensions around the meaning of PUF, with a particular focus on the constructed differences in meaning between urban agriculture and community gardening and the potential politics of those constructed differences.

Prairie Urban Farm: A Brief History

PUF was established in 2013 as a sustainability and food security initiative, largely through the work of Sharon Campbell, a professor of Environmental Sociology at the University of Alberta. In the years leading up to 2013, Campbell had been exploring opportunities to "do something different with [the] giant agricultural research station…in the middle of the city of Edmonton" (6:51). According to Campbell, initial proposals for an urban garden on South Campus were regularly met with enthusiasm by University administrators; however, securing the necessary land and resources proved difficult. The initiative that would become PUF finally got its start in late May 2013 when Campbell received an email from the manager of the South Campus farm informing her that there was some land available. Upon hearing the news, Campbell immediately began recruiting people to help lay a claim to the land: "I just started very quickly pushing emails to anybody and everyone I could think of who could help me colonize this piece of land and I had about six takers. So that first season there were about six of us out there and we frantically started clearing the land and putting seeds in the ground and we only managed to maybe cover a quarter of the space that we were allocated" (10:40). Driven by a

personal passion for growing food, a dedication to food citizenship, and a strong academic

interest in creating more sustainable communities, Campbell had finally managed to get seeds in

the ground of South Campus and a foot in the door towards building a community-led

sustainability and food security initiative on university land. Following the 2013 season, and

recognizing the need for institutional support and recognition, Campbell applied for funding

from the university's Office of Sustainability.[20] The application was successful, and the majority

of funds were used to hire a part-time staff person for two years, which greatly aided in the

development of the garden. According to Campbell, the institutional recognition that came with

being awarded grant funding brought with it some controversy: "from what I understand there

were some heated conversations that I was not involved in between various officers who make

decisions with respect to the development of the university…There was concern about the

precedent that this was setting because at the time, and I think it's still the case, that the whole

property of South Campus is contentious because the university is in a fiscally precarious

situation and that's a potential bread basket out there and so the topic of selling it off and

developing it or leasing it out comes up a lot and so there are concerns about establishing

something out there…" (11:47). With the financial support and recognition that came with a

grant from the Office of Sustainability and the fact that the project fulfills the research and

teaching mandate of South Campus, the project was able to become formalized and establish a

degree of permanency.

Despite such support, PUF is not an institutional sustainability initiative but has more of

the status of a community garden located on university lands. As mentioned, PUF received start-

up funding through a university office. Moreover, not only is PUF located on University

---

[20] The University of Alberta's Office of Sustainability has since been replaced by the Sustainability Council.

property, the university provides the garden with vital resources, including water, manure, and

mulch. PUF has also benefitted from being promoted through the university's institutional media

channels, including the online magazine *Folio*.[21] It is difficult to imagine PUF without the

support of the University of Alberta. At the same time, while PUF even has an unofficial home

in a university department (The Faculty of Agriculture, Life & Environmental Sciences), it does

not receive continuing funding from the university.[22] The administration of the university has

allowed PUF to exist but has not embraced the project as a research, teaching, or sustainability

priority.[23] The acre-and-a-half plot is a volunteer-run, collectively organized garden that stands

out from the surrounding fields, the landscape of 379 acres of university agricultural research

facilities. Its participants span both the surrounding neighbourhoods and student and faculty

members of the academic community.

PUF's unique history, geographical location, connection to the university, and

organizational model distinguishes it from other gardens in Edmonton. Academic studies classify

community gardens along a number of lines (McClintock, 2014; Pudup, 2008), including

whether they are for-proft or non-profit, communally or individually cultivated, how food is

distributed, governance style, or whether they are "place-based" or "interest-based" (see Firth et

al., 2011; Veen et al., 2016). From the start, PUF has been organized as a communal garden. This

means that rather than individuals tending their own individual plots, volunteers work together to

---

[21] See https://www.folio.ca/new-south-campus-garden-grows-conversation-on-food-security/ and
https://www.folio.ca/embracing-citified-agriculture-means-rethinking-land-use-priorities-says-u-of-a-researcher/ for
examples of PUF in *Folio*.
[22] As such, PUF exists in a liminal space between formality and informality, between university urban agriculture
initiative and grassroots community garden.
[23] As we discuss below, PUF's connection to the university is ambiguous even among volunteers, some of whom
were not even aware that any such connection existed.

cultivate the garden as a whole. The food produced at PUF is distributed among volunteers as well as local charitable organizations and sold for suggested donations as a means of fundraising.

As Pudup (2008) argues, "community garden" is an evocative term that has come to refer to a diverse set of initiatives. Pudup (2008) prefers the term "organized garden project" to "community garden" as a way to question the centrality and meaning of "community" in such projects and, more broadly, to theorize "the tangle of 'community garden' possibilities" (p. 1231). While they maintain the usefulness of the term "community gardens," Firth et al. (2011) also critically analyze the meaning of "community," focusing on measures of social capital and making a distinction between "place-based" and "interest-based" gardens. For Firth et al. (2011), "place-based" gardens are geographically situated within particular neighbourhoods or communities; they emerge from the bottom-up (i.e. from community members themselves) and are oriented towards community development and the strengthening of social bonds. "Interest-based" gardens, on the other hand, are defined by outside leadership and participation. As Firth et al. (2011) write, "community gardens which are led by individuals or groups from outside the local community are likely to be interest-based" (p. 565). Veen et al. (2016) build on Firth et al.'s distinction between "place-based" and "interest-based" gardens; however, the authors temper Firth et al.'s (2011) analytical emphasis on *location*, arguing that it is participant *motivation* that is the more salient factor. If, for example, community gardeners are primarily motivated by growing vegetables (as opposed to more "social" aspects), Veen et al. (2016) would classify the garden as interest-based. On the face of it, PUF seems to be an interest-based "community garden." PUF does not exist in a residential neighbourhood, but on university research lands. While PUF has made attempts to recruit volunteers from surrounding neighbourhoods, including nearby Park Allen and Lendrum Place, its membership is comprised

of people from across Edmonton. However, as is discussed in detail below, the interest in PUF

goes well beyond the activity of gardening or growing food, or even the social benefits as often

discussed in the literature. The unique array of interests that define PUF may be in part due to its

organizational objectives as an urban agricultural initiative. We will return to the question of

"place-based" vs. "interest-based" gardens, and in particular what our findings contribute to this

categorization, in our concluding discussion.

Prairie Urban Farm in the Making

We employ a mixed-method approach to our analysis of PUF as an urban agriculture and

food sustainability project. Our hybrid approach has relevance for our own continued work with

PUF, while also filling a gap in the literature by providing an in-depth and reflexive look at

debates around the meaning and politics of urban agriculture. We draw on interviews, participant

observations, and autoethnographic tools to cultivate in-depth understandings of our research

context. PUF, we note, is first and foremost a community, and the collective work of that

community. In what follows we provide a brief overview of the methodological strategies

informing our analysis.

This paper draws on twenty semi-structured interviews with PUF volunteers. Interviews

were conducted between 2016 and 2019. Participants were chosen in part based on their regular

involvement with the project, but also based on their relationship to the authors. We selected

participants with whom we had already developed a level of rapport, and who we felt would be

willing to discuss their experiences. Interviews were designed with an emphasis on the co-

creation of meaning rather than the excavation of data.[24] Rather than simply learning from

---

[24] This emphasis on the co-creation of meaning finds resonance in Denzin's (2003) idea of the interview as a reflexive and performative event. As Denzin writes, "the interview is a way of writing the world, of bringing the world into play" (p. 80).

participants, the interviews were sites of self-reflection and dialogue around the meaning and politics of PUF, and urban agriculture more generally.

Interview questions touched on a range of topics, while maintaining an overarching focus on how participants made sense of urban agriculture and how they understood and represented their activities at PUF. For example, we explored how volunteer experiences with and ideas about PUF aligned with the project's official framing as a sustainability and food security project. Relatedly, we wondered if volunteers saw their participation as political, and, if so, what that meant to them. Where previous research has considered disjunctures *between* official representations of the politics of urban agriculture practice (Lyson, 2014; McClintock, 2014), we emphasize the ongoing negotiation of such tensions *within* a single initiative.

In addition to interviews, this research draws on informal participant observation in the form of a history of active participation at PUF over the last six seasons. Furthermore, beginning in September 2016, the first author began more directed participant observations as part of his doctoral dissertation project on urban agriculture in Edmonton. These observations were conducted between 2016 and 2019, involving over 200 hours of field research. While secondary to participation, observations have provided valuable first-hand experience and knowledge of the everyday practices of PUF.

Finally, this paper hinges on an autoethnographic component, if a somewhat loose definition of this term might be accepted here. As part of our analysis, we provide a selective account of our experiences with PUF. Autoethnographies stand outside of traditional forms of research production where the researcher is obscured by methodological convention, or where reflexivity is an afterthought. Rather, while inevitably partial, they "retrospectively and

selectively" (Ellis et al., 2011, p. 276) present the narratives, experiences, and meanings of the author in ways which give meaning to a social context.

Constituting Sustainability and Urban Agriculture

Our collective efforts to cultivate a small acre-and-a-half piece of land was framed from the beginning by discourses of sustainability and food security. We describe PUF in this way through a variety of outward facing and definitional presentations. On our website, we describe PUF as being established with the stated goal of "enhanc[ing] campus sustainability and community food security by providing local food in our campus food system and food bank, and encouraging skill-building in food production and preservation within our community" (PUF Facebook page). During annual orientations PUF is positioned within a context of crisis defined in relation to the challenges of climate change, the reliance on industrialized food system, and pernicious problems of food insecurity. A recent grant proposal to the City of Edmonton for developing a new learning space at the garden, for instance, states:

> We believe that the lack of resilience of our agri-food systems is one of the biggest
> challenges facing our communities today. Our goals are to demonstrate and provide skill-
> building opportunities in alternative, regenerative ways of growing food within the city
> and to grow food security: access to sufficient, safe, and nutritious food.

Similar framings are present in everyday talk at the farm and were commonly heard during interviews. For example, Sam, a volunteer and former PUF mentor, discussed the initiative with a view of urban agriculture as a response to conventional agriculture:

> [Urban agriculture] has risen up as an alternative way of growing our food, so it's very
> different from the conventional ways we are growing our food right now...When you
> think of the different crises we are facing, a lot of the time our large-scale or industrial

food production systems are a part of the reason why those crises are happening, whether

it's the drought in California...or soil erosion, things like that…

While individual presentations of PUF may vary, there nevertheless remains a strong sense of

stability, or "frame alignment" (Snow et al., 1986), across PUF's formal messaging. These

closely correspond to dominant and predictable messaging identifiable across a broad spectrum

of urban agriculture initiatives. McClintock and Simpson (2018), in a comparative study of the

motivations behind urban agriculture in North America outline six overlapping frames for urban

agriculture. These include the Educational frame, the Entrepreneurial frame, the DIY

Secessionist frame, the Eco-Centric frame, the Radical frame, and the Sustainable Development

frame. Yet, despite finding this diversity of motivations, the authors note that "the most all-

encompassing statistical cluster of motivations for urban agriculture initiatives includes food

security, food quality, public health/nutrition, sustainability, self-sufficiency, and community

building" (McClintock & Simpson, 2018, p. 28). The authors combine this broad range of

motivations together under the umbrella of the Sustainable Development frame.

Sociologist Erving Goffman (1990) reminds us that performances are never wholly

unoriginal, but tend to reflect pre-existing, institutionalized frameworks: "when an actor takes on

an established social role, usually he finds that a particular front has already been established for

it" (p. 37). Given that "fronts tend to be selected, not created," it is perhaps not surprising that

initiatives coalescing under the banner of urban agriculture, often characterized by a large degree

of diversity in terms of organization, motivations and practice, tend to be described in

homogeneous ways.

Representations of PUF as an urban agriculture initiative focused on sustainability and

food security belie more complicated, contradictory, and ambivalent understandings. This is not

to say that dominant framings are untrue or even misleading, but that in order to begin to grasp the meaning of PUF, we must dig a little deeper, attending to the everyday practices and lived experiences involved in the ongoing co-production of PUF as a social space. A good start would be a quick visit. But how do you get there?

Everyday Urban Agriculture and Ambivalence

If you type "Prairie Urban Farm" into Google Maps, you will see it exists more or less in the middle of the city.[25] If you click on Google Street View, you might be surprised to find what looks to be a rural landscape – a white pickup truck heads down a gravel road surrounded by fields; pigeons fly near a cluster of barns; and, if you take some time to explore your surroundings, you will come across plenty of other signs of rural life - a corral, scattered farm equipment, and grain silos, to name a few. There are also, however, hints that this landscape might not be as rural as it first appears. Low-rise apartments poke up from the horizon, and if you follow the gravel road north it soon turns to asphalt, leading to a large indoor sports centre, and beyond that, a suburban residential neighbourhood.

---

[25] Google periodically updates its maps; this description was relevant as of August 19, 2020.

Figure 3 - The country in the city. Prairie Urban Farm in the context of the University of Alberta's South Campus, and bordered by the residential neighbourhood of Lendrum Place, 2019.

Figure 4 - Bird's eye view of Prairie Urban Farm, 2019.

Landscaped in the shape of a large mandala of interconnected and geometric paths, PUF stands out within the broad fields and parallel planting of the South Campus. Depending on the season, day of the week, and time of day, you might find volunteers planting kale, digging potatoes, harvesting haskaps, thinning carrots, staking tomatoes, selling produce, or occupied with one of the many other tasks required to successfully sustain the farm. You might also find people gathered around a picnic table, chatting or maybe even sharing in some of the year's harvest. Depending on who you talk to, you might get a description of urban agriculture that includes mention of the university, sustainability, and food security. Or PUF might be introduced as a community garden. After spending some time looking around, you'd likely begin to develop a richer sense of the place beyond introductory classifications.

In taking account of the diversity of spatial practices that make up PUF, the dominant "urban agriculture as sustainability" frame is both reinforced and unsettled. The place itself seems to add a question mark to the predictable set of discourses that surround it. Walking PUF's pathways reveals a diverse set of spatial practices that variously connect and overlap with the broad idea of sustainability. For example, hügelkulturs, herb spirals, companion plantings and dense growing beds all point to influences from the permaculture movement and its pragmatic approach to building sustainability (Hathaway, 2016). Similarly, signs, community art projects, and the addition of a covered seating area identify PUF as a place for school trips, enhancing food literacy, and for helping build a community of volunteers. Yet another vision of sustainability is found in the proposed "Living Lab," a container farm and educational space epitomizing technological and entrepreneurial approaches to urban agriculture. Examining the spatial politics of PUF reveals both coherence and divergence with the dominant sustainability frame described above; while most of what goes on at PUF could be understood through the lens

of sustainability, the diverse practices can also be read as a hodgepodge of different visions, approaches, and failures.

While PUF is officially framed as an urban agriculture and sustainability initiative, this was not always reflected in conversations with participants. Rather, it became clear that there was some uncertainty around the meaning of PUF, even regarding its identity and purpose. Sam, a long-time volunteer leader at the farm, described a tension between the vision of PUF as an urban farm and PUF as a community garden: "when I explain Prairie Urban Farm...a lot of people come out and they see that it's basically just a big garden." Sam went on to describe how she was regularly put in the position of explaining why PUF was not *just* a community garden, highlighting, for example, its emphasis on producing food towards the goal of community food security. While Sam identified some shortcomings of PUF as an urban agriculture project, her interest in the project was decidedly as an urban agriculture rather than community garden project. A few other volunteers we spoke with also identified and supported PUF as clearly an urban agriculture initiative. As Jennifer noted, "I think the community garden is really limited. I think there is opportunity there, but I actually think how Prairie Urban Farm does it is better" (9:00). This view, however, was an exception, with the majority of volunteers interviewed describing PUF as more closely resembling a community garden, and many not connecting the initiative to the question of food security. Christa, for example, recalled not knowing about PUF's urban agriculture and food security framing when she started volunteering: "You mentioned food security...I actually didn't know anything about that when I started. It seemed like it was just a community garden...I didn't actually know that it was tied to some of the research at the U of A with sustainability and food security" (14:28). Christa went on to note, "I had no idea. I imagine with other volunteers, it might be a surprise as well" (15:23). Christa's

comment points to a broader ambivalence surrounding PUF's connection to the official

sustainability goals of the University of Alberta. While PUF is located on university lands, this

institutional connection was rarely discussed by interviewees. Indeed, it became clear through

our discussions that many PUF participants were either uncertain or unaware of the garden's

relationship to the university. Beyond pointing to a discrepancy between PUF "on paper" and

PUF as understood and experienced by volunteers, this suggests that the goals and priorities of

the university where not a major part of participants' ongoing participation at PUF.

It was clear from our interviews that PUF's "urban agriculture as sustainability and food

security" frame was not of major significance or even particularly well understood among many

volunteers. We found an ambivalence around PUF's identity, both across the regular volunteer

base and across the views expressed by individual volunteers. This ambivalence is expressed

through a disjuncture between an abstracted sustainability politics and everyday experiences and

motivations. When asked about the politics of his participation at PUF, Chris mentioned some

familiar themes including the unsustainability of Kentucky bluegrass, the potential of replacing

front lawns with food, as well as the value of learning where our food comes from. He describes

such activities as a kind of "rebellion" against "mega corporations" and "a way of taking your

life into your own hands," before adding, "but I don't think of any of that there." Chris went on

to emphasize a theme he repeated throughout our conversation that relaxation and happiness

motivated him: "I think of it [the politics] in reflection, but the whole purpose is more just the

happiness of it" (19:00). This lack of explicitly political motivation for participation was echoed

by other participants. When asked about political motivations such as food security or alternative

approaches to conventional agriculture, Abe remarked, "I wasn't thinking about it when I joined.

Most of my reasons to join were just going out and having a good time and learning." It became

evident later on in the discussion that Abe was unfamiliar with, not only PUF's aim of addressing food security, but the very idea of food security itself.

In reflecting on our own participation at PUF, we identify a similar disjuncture and ambivalence. During our day-to-day at the farm, we found ourselves giving little thought to the project's broader guiding themes of food security and sustainability. While such discourses provided readymade legitimizing talking points when introducing the initiative to new volunteers or visitors, our everyday experiences were largely defined by a rather prosaic set of concerns. We refer to this as *everyday urban agriculture*. De-emphasising official representations, the term focuses attention on people's everyday practices, understandings, and experiences as they relate to urban agriculture. We elaborate the concept through reflection on a recurrent and mundane experience, the seasonal tilling of the soil.

Figure 5 - Tilling the soil. Prairie Urban Farm, 2018.

The tilling was largely left to us. It is a task both of us have accepted, and often find enjoyable. There is a feeling of anticipation and accomplishment that comes with turning over a swath of hardened earth, revealing the dark soil beneath. The preparing of land for planting brings with it a certain optimism, an opening up of possibilities for a new season or plot. It is often the times spent tilling that we feel the greatest sense of accomplishment, the results of our labour marked clearly in tracts of readied soil. Through tilling we create and organize the physical farm space, marking areas to plant and maintaining pathway edges. Throughout the season we also till the perimeter of the garden to guard against ever-encroaching grasses and weeds. Tilling is part of the necessary and physically demanding work of gardening, but it is also a gratifying task. It provides relief from academic work, as well as from the responsibilities of organizing and directing volunteers.

That said, managing a 300-pound tiller is not all peaceful reflection. Tilling PUF's compacted clay soils can be hard, noisy work, and too many hours behind the tiller is physically exhausting and damaging. During the spring push, tilling can become especially difficult. During long stretches of tilling, we have more than once found ourselves wondering why we have chosen to spend our valuable free time doing the kind of labour many seek to avoid. These feelings are exacerbated when the tiller falls into disrepair, an all too regular occurrence.

Whether it is tinkering with a tiller that refuses to start, patching a broken irrigation line, mending tomato supports, or weeding carrots, *everyday urban agriculture* is often seemingly removed from high-level concerns about food security and sustainability, let alone debates around global agribusiness. The interview situation exists outside everyday urban agriculture, yet provides an opportunity to ask participants to reflect on their experiences and activities at PUF.

Turning again to our interviews, we reflect on the meaning and politics of PUF as described by volunteers.

Urban Agriculture: Permaculture or Production

Permaculture

Interviews revealed PUF to be a microcosm of sustainability politics defined by a set of contested visions and understandings. While it has been well established in the literature that urban agriculture takes a variety of socio-spatial and political forms (Valley and Wittman 2018; McClintock 2014), less is known about contested visions of urban agriculture *within* urban agriculture initiatives.

Here again, the tiller has become a symbolic focus for contested visions of PUF, which are themselves reflective of a broader set of politics. For example, volunteers expressed concerns about the tiller's impact on soil compaction, voicing a preference for less invasive cultivation techniques. This was touched on during an interview with Tracey, who commented, "I'm not keen on the tilling...I think it's bad for the soil" (33:00). She specifies its damaging effects, describing how the tiller:

> cuts off all the dandelions so you can't weed them, and then they will sprout and come up. Also, if you do till with heavy machinery, you're compacting the soil. You loosen the bit that you're tilling, but you're compacting what's below that because of the weight of the machine and the banging down (34:00).

Tracey goes on to describe how using a broadfork instead of the tiller protects the soil structure, and in particular the microbes in the top nutrient-rich layer:

By using broadfork, you're not always putting all those soil organisms that want to be

near the surface and get the air, you're not tilling them right down to where they...can

die. The whole idea is to keep the soil structure. (35:30).

Tracey concludes her comments on alternatives to mechanical tilling with mention of Daikon

Radishes, which, when left to decompose, naturally aerate, soften, and build soil. Tracy's vision

of PUF includes an emphasis on permaculture, a system of food production integrating natural

systems and environmental design principles (see Ferguson & Lovell 2014).

Understandings of PUF as a site of permaculture was emphasized by other volunteers as

well, including by Sam, a key organizer who helped early on to shape the direction of PUF. Sam

described her educational background in ecology and permaculture as influencing her approach

to urban agriculture:

I took this permaculture design course, and it made me think about ecologically minded

design in a more general sense, and not just conservation, but how to work in these

ecological ideals into our human systems. It just kind of led me towards urban

agriculture. (2:00).

Similarly, Jenny described her educational background, interest, and experience in permaculture

as central to her understanding of urban agriculture and a major reason she was attracted to PUF.

When asked what appealed to her about PUF, Jenny noted, "I just thought it was just so

interesting, having a permaculture farm" (14:36).

Not only was permaculture frequently discussed by PUF volunteers, it is woven into the

spatial layout and practice of the site. For example, the decision early on to forgo long straight

planting rows and instead design the farm in the shape of a mandala signals an unconventional

approach to urban agriculture. Conversations with the landscape designer who came up with

PUF's site plan revealed an emphasis on a systems approach and site-specific design priorities, considering factors such as the direction of prevailing winds and sun exposure. The designer also emphasized social aspects of gardening through the incorporation of a central meeting area.

Production

The permaculture framing of PUF is somewhat at odds with another, more productivist, framing that emerged during interviews. This framing emphasizes pragmatism, efficiency, marketization, professionalism and, above all, production. This productivist frame aligns with an urban agriculture imaginary that emphasizes industry aims to marketize local urban food production and feed cities.

Considered through this frame, the tiller is not a barrier to success, but an indispensable (even if currently inadequate) piece of equipment. Cultivating an acre and a half plot by hand would be both time and labour intensive. The tiller is also an effective tool in what is an ongoing battle against weeds and encroaching grasses, saving volunteers from hours of hand weeding. In sum, ditching the tiller would likely result in decreased food production and harvest, the central tenet of the productivist frame.

While the theme of food production was often mentioned, a few interviewees emphasized a decidedly productivist vision of PUF. Tom, for example, discussed his goal of making PUF as efficient as possible by advocating for investment in new technologies and repeatedly emphasizing the productive *potential* of the farm. As Tom noted during our interview:

> We're not working that professionally because of the nature of the place because it's a hobbyist farm. To get good results, you need to do things professionally. You need to do things the right way and take it very seriously... Give [PUF] to a professional farmer and they will produce 20 times what we did. (24:00).

This quotation illustrates the productivist vision of urban agriculture that emerged during several interviews, and that we have become well acquainted with during our time at PUF. For volunteers like Tom, doing things "the right way" means leveraging "science" and "centralized management" towards the goal of "maximum efficiency." Tom concluded our discussion by commenting on the limitations of PUF as a food security project, noting "as long as it's a hobbyist thing, I hate to tell you, as long as it's a for-fun project...I doubt it will ever achieve this kind of result. It can still...produce some food, but I don't expect much from it using this model" (25:20).

Other participants echoed Tom's appraisal. Kyle described PUF as "as inefficient as it gets" (14:28) and expressed a desire to see the project grow into a year-round, self-sustaining business. Part of this vision included "exponential growth" with the first step of developing a business strategy. As Kyle enthusiastically remarked:

Our potential is so unlimited that eventually we're going to have to actually start organizing a business to have it function. Any of the functions that I would want to see [PUF] get to, ultimately, where we could produce year-round, we're going to have to start talking about employees and wages and stuff like that. (19:40).

Other interviewees made a more general connection between urban agriculture and industry. Jennifer spoke at length about the opportunity for urban agriculture to provide much needed employment opportunities in cities, the question being, as she put it, "How do we make that a priority?" (26:58).

Figure 6 - Late potato harvest. Prairie Urban Farm, 2016.

What we have presented as a tension between permaculture and productivism does not only exist between participants, but is also found at the level of individuals. For instance, Kyle grappled with the "fine balance" (14:00) between PUF as community garden and PUF as urban agriculture. While he praised PUF's emphasis on permaculture, experimentation, education, and sociality, he saw these attributes as at times conflicting with the goal of sustainable local food production: "If we were going to be a for-profit industry, we would have to start trending towards...less of the outreach [and] social interaction and it becomes more of a business" (14:00). For many of the volunteers we spoke with, it is the positioning of urban agriculture as an "industry" that distinguishes it most clearly from community gardening.

While the *permaculture* and *productivist* frames are in certain respects conflicting, they both pertain to understanding PUF as a space centred around food. There were, however, numerous other framings that emerged in discussions with volunteers – framings that push the limits of understanding offered by much of the existing literature on both community gardening

and urban agriculture, and on which we focus the remainder of our analysis. In this final analytic section, we emphasize both the ambivalence and potential of urban agriculture as *differential space*.

Beyond Community: Alternative Readings of Prairie Urban Farm

In a review of urban agriculture practice in the Global North, Santo et al. (2016), found that "[T]he preponderance of evidence suggests that urban agriculture's most significant benefits centre around its ability to increase social capital, community well-being, and civic engagement with the food system" (p. 4). When asked about their motivations for participation, PUF volunteers regularly mentioned interaction, connections, community, and other factors that align with a social benefits framing. Rather than reinforce this framing, we dug deeper into participants' accounts of their experiences and thoughts about PUF in an effort to "read for difference" (Gibson-Graham, 2006). According to Gibson-Graham, this means refusing the pull of pre-existing frames of understanding. Rather than "collapsing what it aggregates into fewer categories," reading for difference spreads out to the limits of our tolerance for dimensionality and detail (xxxi). It is important to note that in a landscape where urban agriculture is overdetermined by a narrow emphasis on production, a social benefits lens already expands understandings. Yet, our analysis of interviews and reflections reveals even further dimensionality, detail, and possibility. "Reading for difference" allowed us to avoid *already* framing participants' responses through, for example, a "community building" lens, enabling us to attend to *other*, less immediately apparent dimensions. Our analysis identified themes of encounter, commoning, escape, informality, experimentation and, on a broader level, contradiction and ambivalence. We visit some of themes in more detail as elements that speak to

a particular potentiality of urban agriculture outside a dominant reading of urban agriculture as "sustainability," "food security," or even "social benefits" frame.

Figure 7 - Gardening together. Prairie Urban Farm, 2018

Emphasizing the value of urban agriculture as a social space, Alice recounted how she met someone who eventually became a close friend while volunteering at PUF (12:00). In another instance, Chris described PUF as a site of social connection and community:

I think I would almost come here even if I did move to a farther away place...I have history and people and almost a community there...It's nice just to be able to sit down there and...look at everything we did and be connected to everyone else who has helped this place grow. You're connected to everyone there. (43:00).

In examining these accounts of the social benefits of PUF, we identify important nuance. For example, Chris's emphasis on "connection" goes beyond understandings of PUF as a simple gathering or meeting place. As Chris went on to emphasize, PUF is valued as a site of unexpected and diverse encounters. He articulated this both in terms of meeting people from different backgrounds and cultures, but also in terms of the kinds of plants that are grown at

PUF. In particular, he appreciated learning how to grow and prepare unfamiliar plant varieties such as Chinese Cabbage and Jerusalem Artichokes:

> Communal sharing was really cool and getting to learn and ask people how to do things. You learn twenty different ways to cook Jerusalem artichokes and you're like, 'I have never even heard of this plant and here's however many ways to cook it too.' When you work with the plant there with the people, you also learn how to use it too and that's really cool. You get it from experience and not just by Googling it online. (15:30).

Others similarly identified unexpected and diverse encounters as benefits to participation at PUF. Kyle described such encounters as a "collateral" benefit; while not what originally drew him to the project, Kyle identified "growing the social network of people that I would otherwise probably not run into" as an important part of his involvement with PUF (5:00). Moreover, both Chris and Kyle made a link between the social benefits of participating at PUF and its collective model of organization. Kyle noted:

> I think the way that Prairie Urban Farm does it, [as a] communal community garden, where it's not just everyone's plots and you're just saying hi to your neighbouring plot..., but the communal approach to it, where everyone is sharing everything, I think, is really unique, and a reason why I probably stayed there. (5:00).

Most often examined as first and foremost an industry, studies of urban agriculture as examples of contemporary urban commons are relatively rare. In an exception, Eizenberg (2012) looks at community gardens in New York as "actually existing commons," providing a new lens through which to view these spaces as counterhegemonic and at the same time contributing to a broader discussion on the significance of urban commons. "Actually existing commons," writes Eizenberg, "are live relics of the ideal of the commons; they are never complete and perfect and

may even have components that contradict the ideal type" (765). In her analysis of residential gardening in Minneapolis, Minnesota, Lang (2014) uncovers a diversity of everyday commoning practices, thereby complicating the binary between private property and urban commons. On the whole, volunteers we spoke with appreciated PUF's collective model. This appreciation was in some cases described as emergent – that is, as something that volunteers came to appreciate over time rather than an immediate draw. For example, as Kyle noted, "I didn't really understand the value of [the communal model] until recently" (43:00). Kyle went on to describe the sense of openness and acceptance that comes with organizing the plots and harvest as a common resource as opposed to the predominant community garden model found in Edmonton.

Interviewees also describes some of the challenges of PUF's collective approach. Helen, while on the whole positive about PUF's collective approach, suggested that some people "take advantage of the situation." Such "tragedy of the commons" concerns were at times presented as an inevitable "downside" rather than a substantial or final judgment, reflecting an ambivalence regarding the model. As Tom noted:

> If you are responsible for a piece of land and you don't go for a couple of weeks, basically your plants will die, right? That's the good thing about having shared responsibility between everybody. If you're away, other people are taking care of the plants. The bad part is [when] it's everybody's responsibility, it's no one's responsibility...sometimes, no one ends up doing anything (8:40).

A similar concern was expressed by Sam, who emphasized the importance of "ownership" and "attachment":

> I think the ownership is important and I think when you have over an acre of land kind of collectively run, if you don't have enough volunteers and enough leaders and

coordination, there's not enough for ownership and responsibility, and then it becomes daunting and people don't feel attached. I think we need to find a happy medium. (38:00).

Sam's comment speaks to another, broader ambivalence to emerge from our discussions about what was identified as PUF's informal structure. Several interviewees enjoyed the informality and flexibility that came with participation of PUF. Abe, for example, liked how PUF does not require a strict time commitment: "If you're free then you can show up and help out and if you're not then you could take a day off" (5:00). Others emphasized an openness and informality around time spent at the farm. As Chris commented:

> It's nice to be able to work but take a step back if you need and just to be able to talk and go at a slower pace and be social...and if you want to just go off and be on your own and sit on your butt in the dirt and feel the plants as you pull up the weeds then yes you can do that. (34:00).

This informality was also described in a negative light. Later in our conversation Chris described how the informal structure of PUF had led to many moments of frustration, in particular around lack of direction and scheduling. In a similar vein, Christa saw value in the collective approach, while at the same time noting that "if the goal is to...grow then the collective maybe needs a little bit of structure" (13:20). Kyle was also divided in his thought, identifying the potential benefits of increased structure while also wary of the potential consequences:

> That's my fear...as we grow and it has to get more organized and turn into a more legit organization, at what point does it get bastardized? At what point does the skate park that the skateboarders made, that's underground and sweet, turn into the, "Oh well, there's a safety risk because it's a city-owned skate park?"

It was clear throughout our conversation that Anna was especially interested in the farm as a site

of experimentation. As illustrated in Kyle's comments above, this experimentation was directed

in large part towards increasing production, but was also concerned with building a compost

system to curtail food waste and enrich the soil:

> I'm like, 'Man, I'm still throwing out my vegetable waste, and this is really starting to
>
> irritate me.' Like I'm throwing this in a plastic bag into the landfill. I'm not completing
>
> the cycle...That was a big driver of the compost system...If it wasn't for Prairie Urban
>
> Farm's model and openness, I wouldn't be able to...experiment with that system. (16:00).

Several other interviewees discussed experimentation as crucial to PUF's success. Tracey was

particularly outspoken about the value of PUF as a site to "experiment and find out what works

locally." She emphasized that it was the promise of experimentation that initially drew her to

PUF, noting that this element distinguishes the initiative from other food initiatives she has

participated in. However, Tracey also saw room for improvement, lamenting how the pressures

of production are often prioritized at the cost of more experimental and creative approaches.

Both Kyle and Tracey saw value in PUF as a collective testing ground where people could learn

from others as well as through trial and error, to change their own everyday practice. Closely

related to this framing is the understanding of PUF as a place to *demonstrate possibility*. Sam

considers PUF as urban agriculture rather than community gardening in part because of its

potential to demonstrate what is possible in terms of growing food in a variety of plots

throughout the city. Yet, while Sam identifies certain areas of PUF where demonstration is

prioritized, she finds PUF lacking in this respect:

> We have 1.5 acres...but it's not super dense. There's a lot of space that isn't
>
> planted…[W]e say we're trying to demonstrate what it looks like to grow food in the city,

[but] people can't really walk around and get a lot of take-home messages from what we're doing because we have so much space...Space isn't really a force that's pushing us to grow in a different way. (14:00).

Sam identifies a tension between PUF as a site of production and demonstration, her suggestion being that the effort that goes into producing large quantities of, to use her example, tomatoes, detracts from the farm's success as an effective demonstration space.

Conclusions

An early prompt for this paper and the questions it raises came from a presentation by geographer Jamie Peck at a seminar at the University of Alberta. Something of a throwaway and humorous one-liner, Peck (2014) asked if the "left" was too comfortable being "led down the community garden path" – resigning its political voice to be cloistered away in local initiatives and lifestyle politics. The question pokes awkwardly at the tensions between locally organized environmental activities and the ability to impact widespread change in response to so-called wicked problems. What, if anything, did gardening and PUF have to do with social and environmental change? We thus have asked the partly rhetorical question, "is an academic urban food security project not simply a community garden by another name?"

The simple answer, and the one undergirding official representations of PUF and other similar initiatives, is "no." As we have illustrated, PUF is officially framed as an urban agriculture initiative oriented towards the urgent work of addressing global food-related crises at the local level. It is a frame which is often pervasive in academic framings of urban agriculture, and which is reflected in our intellectual roots and desires, including those which helped shape PUFs initial development. Sustainability and food security can also be part of the more general *lingua franca* of what is described as the "food movement".

However, our experience also suggests that such familiar "Sustainable Development fram[ings]" (McClintock and Simpson, 2018) are unsettled when we move beyond official discourses and surface descriptions to consider the motivations, understandings and practices of *everyday urban agriculture*. To equate PUF with the particular front through which it was established is to prioritise a scripted and legitimating language over everyday practice and experience. Not paying attention to the relationships, values and creative construction of PUF does a disservice to the diversity of representations and hopes attached to our shared endeavour. This is important, not least because there is conflicting evidence as to whether urban agriculture can sustainably feed the city (see Santo et al., 2016; Davidson, 2017; Valley & Wittman, 2019). Paying attention to the construction of PUF, also opens up discourse and understanding to the multiplicity of readings of urban agriculture. PUF, through our practice as gardeners and researchers, reveals itself to be more than any one thing, a project which is being continually defined and redefined through the experience and contributions of various participants. It is simultaneously a place for experimentation, a source of friendship and community, a learning opportunity, a place to re-experience the city, and a productive urban farm. It may be that such diversity can be recognized as multifunctional pathways towards food system change and increased sustainability (Davidson, 2017). A useful avenue of research might therefore ask how urban agricultural projects, such as PUF might better value multiplicity and integrate diverse contributions within a shared sustainability project. In honing in and reinforcing these themes, the findings of this paper could easily add to a burgeoning literature on the many and diverse benefits of urban agriculture.

Yet, most interesting for us were those moments where the assumed values and meanings of "urban agriculture as sustainability and food security" were unsettled and new opportunities

presented. The temptation to define PUF in relation to dominant frames, or to divide

participation between different value models or sustainability paths (Valley & Wittman, 2019), is

complicated by strong uncertainties and contradictions in the PUF experience. Ambivalence,

thus emerges as an overarching theme in our analysis. Dominant frames did not always

correspond with individual motivations, elevated values could easily be betrayed by practice and

outcomes, and performances of those values were negotiated and subject to change. In other

words, behind a dominant "urban agriculture as sustainability and food security" front we found

a more ambivalent, diverse, and creative set of concerns, aspirations and garden practices. Rather

than disregarding alternative readings and uncertainties, we have foregrounded these elements.

Is this messiness fatal to the political aims of PUF? Have we simply been led down the

community garden path, instead of more productively engaging sustainability and food politics

elsewhere, or at other scales? Have we failed to do justice to the socio-spatial politics of PUF by

not focusing on the experiences of groups identified along lines of class, gender, and race?[26] We

don't think so, and are encouraged by a reading of PUF as a "differential space" (Lefebvre,

1991). Although the concept, like many of those (un)developed by Lefebvre, is "frustratingly

undefined" (Harvey, 2000, p. 183), it helps illuminate the value and potential of PUF. In his

interpretation of differential space as "Thirdspace," Soja (1996) writes: "Thirdspace is

intentionally incomplete, endlessly explorable, resistant to closure" (p. 36). This reading of

differential space emphasizes its close relationship to uncertainty and ambivalence. Groth and

Corijn (2005) similarly emphasize these qualities, defining differential space as "a space created

and dominated by its users from the basis of its given conditions. It remains largely unspecific as

to its functional and economic rationality, thus allowing for a wide spectrum of use which is

---

[26] Despite the diversity of perspectives explored in this paper, the interviews did not reveal cleavages along the lines of class, gender, or ethnicity, but foregrounded other allegiances and alignments.

capable of integrating a high degree of diversity, and stays open for change" (p. 521). Beyond recognizing the contradictions that exist at the heart of urban agriculture practice (McClintock, 2014), Lefebvre's "differential space" foregrounds the value of ambivalence, expanding the idea of counterspace to include those indeterminate spaces where alternative urban (and food) futures are in *play*.

In their treatise on the formation of a new urban epistemology, Brenner and Schmid (2015) ask, "through what categories, methods and cartographies should urban life be understood?" The authors call for an epistemological reflexivity that questions the "conceptual and methodological frameworks being used to investigate the urban process" (p. 159). When the meaning of urban agriculture is confined to dominant sustainability and food security framings, other uses, values, and meanings may go unnoticed (Valley & Wittman, 2019). Our findings point not only to the importance of recognizing alternative ways of knowing and researching urban agriculture, but also to urban agriculture space itself as contributing to alternative or ways of knowing. PUF is a differential space that invites more questions than it provides answers. It is a messy social and geographic space where what is urban agricultural and what is sustainable is continually being tested against a myriad of constraints, negotiated within its rotating communities of volunteers, and emerging over the seasons and life-cycle of the garden. To lose sight of this, or to prioritise cleaner narratives emphasizing successes over ambivalence, contestation, and contradiction, risks limiting what is possible, both at PUF and in regards to urban agriculture more broadly. It is in reflexivity, in the interrogating of practice and posing questions, that the potential of urban agriculture might be opened up beyond the confines of a narrowly defined sustainability politics.

Making sense of gardens, Cooper (2008) argues in *A Philosophy of Gardens*, is not foremost a definitional problem. We share implicit understandings of what gardens are, even if we share different relationships, knowledge, and experiences of gardens. Cooper's case, in other words, does not rest on the idea that gardens reflect an agreed upon or easily bounded entity, but rather in steering the reader away from the garden as object to the practice of the garden. He is interested, in other words, more in how gardens are done than in what they are (85). Cooper is interested in the virtues of practice for fomenting the "good life," and more boldly in contributing an awareness of our "truths" as humans in the world. This distinction between object definition and being in the garden, are at the centre of our analysis. We thus find value in PUF, not in relation to its constitution as any one discourse, or collection of functions, but as a means of experimentation and knowing where a sustainable future might lie. It is in this sense we offer the conclusion that PUF is valuable, not as only as a forum for studying urban agriculture in the making, but also as an epistemology. PUF is a reflexive experiment for confronting the challenges of sustainability, not as we research and write about them, but in the everyday practices and limitations of growing a garden, and in the shared problem of reimagining and rebuilding urban life in shifting and uncertain contexts.

In an era where a progressive academia is keen to speak to hard problems with authority and truth (Jasanoff & Simmet, 2017), we are reminded of the need to approach such challenges through dialogue, engagement and co-creation of knowledge within communities. As we have illustrated in the paper, there is not a single cohesive language, method, or vision for PUF. It is a continually negotiated space developed *around* ideas of urban agriculture, sustainability, and food security, and defined by myriad other values as well, in large part by ambivalence and contestation. It is both quasi-urban and quasi-public, both grassroots and university-led, both

garden and farm. In emphasizing gardening as epistemology, we see in these ambivalences an opportunity to practice and think urban agriculture differently and continually reimagine its relationship to our future communities, cities, regions, and world.

But what about the unease of talking about gardening? Is it not the heightened politics of urban agriculture that distinguishes it from mere gardening? Such a division between gardening and urban agriculture might be useful, but also belies what is itself a highly disparate and political history of gardening (see McKay, 2011). Moreover, it limits our understanding of what counts as political. If urban agriculture is increasingly imagined as an industry with an emphasis on production, perhaps we should not too quickly abandon the language and philosophy of gardening. With gardening, there is less certainty and more reflection. There is a poetics in gardening that is an affront to the serious work of urban agriculture. When, upon asking a volunteer if he would like to help with the planting of some native grasses, he responded with the question, "can you eat it?" This volunteer was interested only in working on things that would contribute to the production of food, asserting, "That's why we're here isn't it?" Whereas urban agriculture is, under the rubric of sustainability, commonly understood as an *answer* to an apparently obvious and agreed set of problems or crises, gardening is on the whole far more ambivalent. It is, as such, an essential space for exploring, knowing and acting upon our shared future.

References

Abramovic, J., Turner, B., & Hope, C. 2019. "Entangled Recovery: Refugee Encounters in Community Gardens". *Local Environment 24* (8): 696-711.

Alaimo, K., Reischl, T. M., & Allen, J. O. 2010. "Community Gardening, Neighborhood Meetings, and Social Capital." *Journal of Community Psychology 38* (4): 497–514.

Armstrong, D. 2000. "A Survey of Community Gardens in Upstate New York: Implications for Health Promotion and Community Development." *Health & Place 6* (4): 319–327.

Baker, L.E. 2004. "Tending Cultural Landscapes and Food Citizenship in Toronto's Community Gardens." *The Geographical Review* (94) 3: 305-325.

Beilin, R., & Hunter, A. 2011. "Co-Constructing the Sustainable City: How Indicators Help us "Grow" More Than Just Food in Community Gardens." *Local Environment 16* (6): 523-538.

Beckie, M. A., Hanson, L., & Schrader, D. 2013. "Farms or Freeways? Citizen Engagement and Municipal Governance in Edmonton's Food and Agriculture Strategy Development." *Journal of Agriculture, Food Systems, and Community Development*, *4*(1), 15–31–15–31. https://doi.org/10.5304/jafscd.2013.041.004

Beckie, M., & Bogdan, E. 2010. "Planting Roots: Urban Agriculture for Senior Immigrants." *Journal of Agriculture, Food Systems, and Community Development 1* (2): 77-89.

Certomà, C., & Tornaghi, C. 2015. "Political gardening. Transforming cities and political agency." *Local Environment*, *20*(10), 1123–1131. https://doi.org/10.1080/13549839.2015.1053724

Campbell, S. 1996. "Green Cities, Growing Cities, Just Cities?: Urban Planning and the Contradictions of Sustainable Development." *Journal of the American Planning Association 62* (3): 296-312.

Colsanti, K.J., Hamm, M.W. and Litjens, C.M. 2012. "The City as an 'Agricultural Powerhouse'? Perspectives on Expanding Urban Agriculture from Detroit, Michigan." *Urban Geography 33* (3): 348-369.

Cooper, B. 2008. *A Philosophy of Gardens*. Oxford: Oxford University Press.

Davidson, D. J. 2017. "Is Urban Agriculture a Game Changer or Window Dressing? A Critical Analysis of its Potential to Disrupt Conventional Agri-Food Systems." *International Journal of Sociology of Agriculture and Food 23* (2): 63-76.

Denzin, N. (2003). *Performance ethnograpphy: Critical pedagogy and the politics of culture*. CA: Thousand Oaks.

Eizenberg, E. 2012. "Actually Existing Commons: Three Moments of Space of Community Gardens in New York City." *Antipode 44* (3): 764-782.

Ernwein, M. 2017. "Urban Agriculture and the Neoliberalization of What?" *ACME: An International Journal for Critical Geographies*, *16*(2), 249–275.

Ellis, C., Adams, T.E and Bochner, A.P. 2011. "Autoethnography: An Overview." *Forum: Qualitative Social Research 12* (1) Art. 10.

Ferguson, R. S., and Lovell, S. T. 2014. "Permaculture for Agroecology: Design, Movement, Practice, and Worldview. A Review." *Agronomy for Sustainable Development 34* (2): 251-274.

Firth, C., Maye, D., & Pearson, D. 2011. "Developing 'Community' in Community Gardens." *Local Environment 16* (6): 555–568.

Follmann, A., & Viehoff, V. 2015. "A Green garden on red clay: Creating a new urban common as a form of political gardening in Cologne, Germany." *Local Environment*, *20*(10), 1148–1174. https://doi.org/10.1080/13549839.2014.894966

Gardiner, M. 2000. *Critiques of Everyday Life: An Introduction*. New York: Routledge.

Ghose, R. & Pettygrove, M. 2014. "Urban Community Gardens as Spaces of Citizenship." *Antipode* 46 (4): 1092–1112.

Gibson-Graham, J.K. 2006. *A Postcapitalist Politics*. London: University of Minnesota Press.

Goffman, E. 1990. *The Presentation of Self in Everyday Life*. London: Penguin.

Granzow, M., & Shields, R. 2020. "Urban Agriculture: Food as production of space." In M. E. Leary-Owhin & J. P. McCarthy (Eds.), *The Routledge Handbook of Henri Lefebvre: The city and urban society* (pp. 287–297). London: Routledge.

Groth, J., & Corijn, E. 2005. "Reclaiming urbanity: Indeterminate spaces, informal actors and urban agenda setting." *Urban Studies (Routledge)*, *42*(3), 503–526. https://doi.org/10.1080/00420980500035436

Hartwig, K. A., & Mason, M. 2016. "Community Gardens for Refugee and Immigrant Communities as a Means of Health Promotion." *Journal of Community Health 41* (6): 1153-1159.

Hathaway, M.D. 2016. "Agroecology and Permaculture: Addressing Key Ecological Problems by Rethinking and Redesigning Agricultural Systems." *Journal of Environmental Studies and Sciences* 6 (2): 239-250.

Horst, M., McClintock, N., & Hoey, L. 2017. "The Intersection of Planning, Urban Agriculture, and Food Justice: A Review of the Literature." *Journal of the American Planning Association*, *83*(3), 277–295. https://doi.org/10.1080/01944363.2017.1322914

Jasanoff, S. and Simmet, H.R. 2017. "No Funeral Bells: Public Reason in a 'Post-Truth' Age." *Social Studies of Science 47* (5): 751-770.

Kingsley, J. "Yotti," & Townsend, M. 2006. "'Dig In' to Social Capital: Community Gardens as Mechanisms for Growing Urban Social Connectedness." *Urban Policy and Research 24* (4): 525–537.

Kingsley, J. 'Yotti,' Townsend, M., & Henderson-Wilson, C. 2009. "Cultivating Health and Wellbeing: Members' Perceptions of the Health Benefits of a Port Melbourne Community Garden." *Leisure Studies 28* (2): 207–219.

Kofman, E., & Lebas, E. 1996. "Lost in transposition – Time, space and the city." In H. Lefebvre (Ed.), Writings on cities (pp. 3-62). Oxford, England: Blackwell.

Kurtz, H. 2001. "Differentiating Multiple Meanings of Garden and Community." *Urban Geography*, *22*(7), 656–670.

Lang, U. 2014. "The Common Life of Yards." *Urban Geography* 35 (6): 852-869.

Leary-Owhin, M. E. 2016. *Exploring the production of urban space: Differential space in three post-industrial cities*. Bristol, UK: Policy Press.

Lefebvre, H. 1991. *The Production of Space*. Oxford: Blackwell.

Lefebvre, H. (1996). "The Right to the City." In E. Kofman, E. Lebas, & E. Lebas (Eds.), & E. Kofman (Trans.), *Writings on cities* (pp. 63–184). Blackwell.

Low, S. M. 2000. *On the Plaza: The politics of public space and culture*. University of Texas Press.

Lyson, H. C. 2014. "Social Structural Location and Vocabularies of Participation: Fostering a Collective Identity in Urban Agriculture Activism." *Rural Sociology 79* (3): 310–335.

Marcuse, P. 2009. "From critical urban theory to the right to the city." *City*, *13*(2–3), 185–197. https://doi.org/10.1080/13604810902982177

McClintock, N. 2010. "Why Farm the City? Theorizing Urban Agriculture through a Lens of Metabolic Rift." *Cambridge Journal of Regions, Economy and Society 3* (2): 191–207.

McClintock, N. 2014. "Radical, Reformist, and Garden-Variety Neoliberal: Coming to Terms with Urban Agriculture's Contradictions." *The International Journal of Justice and Sustainability 19* (2): 147-171.

McClintock, N., and Simpson, M. 2018. "Stacking Functions: Identifying Motivational Frames Guiding Urban Agriculture Organizations and Businesses in the United States and Canada." *Agriculture and Human Values 35* (1): 19-39.

McKay, G. 2011. *Radical Gardening: Politics, Idealism and Rebellion in the Garden*. London: Frances Lincoln Ltd.

McVey, D., Nash, R. and Stansbie, P. 2018. "The Motivations and Experiences of Community Garden Participants in Edinburgh, Scotland." *Regional Studies, Regional Science* 5 (1): 40-56.

Mincyte, D. & Dobernig, K. 2016. "Urban Farming in the North American Metropolis: Rethinking Work and Distance in Alternative Food Networks. *Environment and Planning A: Economy and Space* 48 (9): 1767–1786.

Passidomo, C. 2016. "Community gardening and governance over urban nature in New Orleans's Lower Ninth Ward." *Urban Forestry & Urban Greening*, *19*, 271–277. https://doi.org/10.1016/j.ufug.2016.01.001

Peck, J. 2014. "Beyond variety: Explorations in variegated capitalism." Seminar presented at the department of political science seminar series, Edmonton Alberta.

Pitt, H. 2014. "Therapeutic Experiences of Community Gardens: Putting Flow in its Place." *Health & place 27*: 84-91.

Purcell, M., & Tyman, S. K. 2015. "Cultivating food as a right to the city." *Local Environment*, *20*(10), 1132–1147. https://doi.org/10.1080/13549839.2014.903236

Pudup, M. B. 2008. "It takes a garden: Cultivating citizen-subjects in organized garden projects." *Geoforum*, *39*(3), 1228–1240. https://doi.org/10.1016/j.geoforum.2007.06.012

Rosol, M. 2012. "Community Volunteering as Neoliberal Strategy? Green Space Production in Berlin." *Antipode*, *44*(1), 239–257. https://doi.org/10.1111/j.1467-8330.2011.00861.x

Santo, R., Palmer, A., & Kim, B. 2016. *Vacant Lots to Vibrant Plots: A Review of the Benefits and Limitations of Urban Agriculture*. Baltimore, MD: Johns Hopkins Center for a Livable Future.

Sanchez, E. L., & Liamputtong, P. 2017. "Community Gardening and Health-Related Benefits for a Rural Victorian Town." *Leisure Studies 36* (2): 269-281.

Schmelzkopf, K. 1995. "Urban community gardens as contested space." *Geographical Review; New York*, *85*(3), 364–381.

Schmelzkopf, K. 2002. "Incommensurability, Land Use, and the Right to Space: Community Gardens in New York City." *Urban Geography*, *23*(4), 323–343. https://doi.org/10.2747/0272-3638.23.4.323

Shields, R. 1999. *Lefebvre, love and struggle: Spatial dialectics*. London: Routledge.

Shillington, L. J. 2013. "Right to food, right to the city: Household urban agriculture, and socionatural metabolism in Managua, Nicaragua." *Geoforum*, *44*, 103–111. https://doi.org/10.1016/j.geoforum.2012.02.006

Snow, D. A., Rochford, E. B., Worden, S. K., and Benford, R. D. 1986. "Frame Alignment Processes, Micromobilization, and Movement Participation." *American Sociological Review 51* (4): 464-481.

Soja, E. W. 1996. *Thirdspace: Journeys to Los Angeles and other real-and-imagined places*. Cambridge, Mass.: Blackwell.

Staeheli, L. A., Mitchell, D., & Gibson, K. 2002. "Conflicting rights to the city in New York's community gardens." *GeoJournal*, *58*(2–3), 197–205. https://doi.org/10.1023/B:GEJO.0000010839.59734.01

Strunk, C., & Richardson, M. 2019. "Cultivating Belonging: Refugees, Urban Gardens, and Placemaking in the Midwest, USA." *Social & Cultural Geography 20* (6): 826-848.

Tornaghi, C. 2017. "Urban Agriculture in the Food-Disabling City: (Re)defining Urban Food Justice, Reimagining a Politics of Empowerment." *Antipode*, *49*(3), 781–801. https://doi.org/10.1111/anti.12291

Valley, W., & Wittman, H. 2019. "Beyond feeding the city: The multifunctionality of urban farming in Vancouver, BC". *City, Culture and Society*, *16*, 36–44. https://doi.org/10.1016/j.ccs.2018.03.004

Veen, E. J., Bock, B. B., Van den Berg, W., Visser, A. J., & Wiskerke, J. S. C. 2016. "Community gardening and social cohesion: Different designs, different motivations." *Local Environment*, *21*(10), 1271–1287. https://doi.org/10.1080/13549839.2015.1101433

Wakefield, S., Yeudall, F., Taron, C., Reynolds, J., & Skinner, A. 2007. "Growing Urban Health: Community Gardening in South-East Toronto." *Health Promotion International 22* (2): 92-101.

Wekerle, G. R., & Classens, M. 2015. "Food production in the city: (Re)negotiating land, food and property." *Local Environment*, *20*(10), 1175–1193. https://doi.org/10.1080/13549839.2015.1007121

Wilson, J. 2013. "The Devastating Conquest of the Lived by the Conceived": The Concept of Abstract Space in the Work of Henri Lefebvre. *Space and Culture*, *16*(3), 364–380. https://doi.org/10.1177/1206331213487064

Zick, C. D., Smith, K. R., Kowaleski-Jones, L., Uno, C., & Merrill, B. J. 2013. "Harvesting More than Vegetables: The Potential Weight Control Benefits of Community Gardening." *American Journal of Public Health 103* (6): 1110-1115.

Chapter Four

Making Place for Local Food: Reflections on Institutional Procurement and the Alberta Flavour Learning Lab

(Based on a Paper Co-authored with Dr. Mary Beckie)

Part case study, part reflective essay, this chapter examines questions of place and scale in relationship to local food initiatives and, in particular, institutional procurement. A recent emphasis on "place-based" rather than "local" food systems presents an opportunity to ask, what would local food look like *here*? The province of Alberta, Canada is a unique place defined by a set of geographical, historical, and cultural relationships around and connections to food. Introducing the case of the Alberta Flavour Learning Lab (Alberta Flavour), an institutional procurement initiative focused on scaling-up local food, we discuss how an increased emphasis on context and place activates strategic directions for thinking about food system change. We consider Alberta Flavour as a site of strategic localism that involves actively crafting a scale of local food that functions within a particular context. Rather than reinforcing divides between conventional and alternative food systems, Alberta Flavour interfaces between the broader values of the local food movement and the current realities of Alberta's agri-food landscape and culture. We argue that the initiative's hybrid and pragmatic approach to "getting more local food on more local plates," while not radical, nonetheless contributes to positive food system change through "transformative incrementalism" (Buchan et al., 2018).

Introduction

When people think about the "local" in "local food" they tend to think about proximity – the geographical distance between field and fork. The "100-mile diet" and the "food mile" capture this location-based understanding of local food. As the name suggests, local food

initiatives are defined largely by efforts to decrease food miles, increase local capacity and economic benefits, and improve food security. Such localization efforts are commonly understood, either explicitly or not, as political – a response to an unsustainable and globalized food system defined by its heavy reliance on agrochemicals, fossil fuels, cheap labour, and mobility of products and capital in the global marketplace. This has resulted in a global vs. local food imaginary that continues to frame belief and action for many in the food movement. Speaking of the US context, Dupuis & Goodman (2005) note that a "normative localism places a set of pure, conflict-free local values and local knowledges in resistance to anomic and contradictory capitalist forces" (p. 359). Indeed, "local" has become more or less synonymous with resistance.

However, this tidy local versus global political imaginary fails to map onto the complexity and messiness of contemporary life. The assumption that localizing food systems necessarily represents a social and ecological good against the evils of globalization has been described by Born & Purcell (2006) as a "trap." This is not to deny or diminish the potential value of localizing food systems, but rather to acknowledge the myriad factors that must be considered when evaluating the politics of *any* scale of food system (see Harvey, 1996; Hinrichs, 2003; Mansfield, 2005; Fraser, 2010). For example, well intended local boosterism may result in a "defensive localism" that blinds itself to the plight of people and places on the margins.

A recent turn towards talk of both regional and place-based rather than local food systems presents an opportunity to reflect on the commonly assumed link between local and sustainable, and invites us to ask how an increased emphasis on context and place might activate new and productive directions for thinking about food systems and political possibility. We take the idea of "place-based" as an invitation to reflect theoretically on the relationship between food, scale,

and place with a focus on the western Canadian province of Alberta. In particular, we look at the case of the Alberta Flavour Learning Lab (Alberta Flavour), a community of practice[27] formed in 2014 in the Edmonton Capital Region, focused on scaling up institutional local food procurement.[28] The initiative is the only one of its kind in the province, involving a diverse group of participants,[29] including institutional food buyers, distributors, processors, producers, retailers, researchers, and government representatives (Beckie, Hedberg & Radies, 2019). Members of Alberta Flavour convene around the shared goal of creating "a positive community impact by getting more local food on more local plates" through scaling up institutional local food procurement.

The goal of institutional procurement is to leverage the purchasing power of anchor institutions, like hospitals and schools, in order to generate new economies of scale that create benefits throughout the local supply chain and wider community (Friedmann, 2007; Reynolds & Hunter, 2017; Beckie, Hedberg & Radies, 2019). Institutional procurement initiatives exist, however, in a somewhat ambiguous space between conventional and transformative food systems, leaving some scholars asking how much of an alternative they really offer (Allen & Guthman, 2006; DeLind, 2011). In the spirit of "reflexive localism" (DuPuis and Goodman, 2005), we consider Alberta Flavour as a "key case" (Thomas, 2011), illustrating some of the debates and tensions involved in scaling-up local food. Rather than something to be avoided or casually glossed over, we pursue these apparent tensions and contradictions as an opportunity for critical reflection and productive self-critique.

---

[27] Wenger (2011) defines communities of practice as "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (p. 1).
[28] www.albertaflavour.com
[29] Members of Alberta Flavour include Northlands Agriculture Society, Alberta Agriculture and Forestry, Alberta Health Services, Covenant Health, the City of Edmonton, Shaw Conference Centre, Erdmann's Gardens and Greenhouses, the University of Alberta, Northern Alberta Institute of Technology, MacEwan University, Aramark, Sysco, and Gordon Food Services.

As regular participants in Alberta Flavour, we are uniquely positioned to reflect on the initiative's origins and development. The second author, a sustainable agriculture and food studies scholar at the University of Alberta, has been affiliated with Alberta Flavour since its inception in 2014. She has been directly involved in conducting research on this evolving community of practice, including the annual measurement and evaluation of institutional local food purchases, as well as overseeing the development of web and social media presence for this initiative. The first author, a PhD candidate in sociology at the University of Alberta, has worked as a research intern with Alberta Flavour since 2017. His role has involved profiling local food initiatives, managing social media accounts, and developing web content.

We consider Alberta Flavour to be a particular scaling and emplacement of local food that, through a focus on institutional procurement throughout a political territory, aims to scale-up the benefits of local food through a forging of strategic alliances. In addition, we reflect on Alberta Flavour as a re-negotiating of Alberta's place image where large-scale, export oriented industrial agriculture and, in particular, Alberta beef have been dominant. Considering place as *process* rather than *container* (See Harvey, 1996; Swyngedouw, 2004; Massey, 2005), we examine Alberta Flavour as a site of relational place-making (Pierce et al., 2011) where understandings of Alberta food are reconfigured through an interfacing with Alberta's existing food system and cultural mythos.

In what follows, we outline the methods used for our analysis, before turning to an interdisciplinary discussion of place and scale in relation to local food. Employing a constructivist analytical frame marked by an emphasis on the processes by which place and scale are continually made and remade, we consider Alberta Flavour as a strategic intervention into Alberta's unique local food landscape. We go on to consider the politics of up-scaling, to address

critiques of institutional procurement, and to complicate distinctions between conventional and alternative food systems. We conclude by situating Alberta Flavour's efforts as an example of transformative incrementalism (Buchan et al., 2018), presenting the initiative's recipe of scaling-up through the development of cross-sector alliances and ambivalent messaging as a tactic towards the goal of broader food system change.

Methods

This paper draws on a methodological approach of self-ethnography (Alvesson, 2003) to study a key case of the scaling up of local food in Alberta. As Thomas writes, "the key-ness…of the case is manifested in its capacity to exemplify the analytical object of the inquiry" (p. 514). Alberta Flavour is a novel local food initiative in the province, but one that also represents a broader trend of scaling-up local food through institutional procurement occurring across North America (Fitch & Santo, 2016; Reynolds & Hunter, 2017).

Our positionality as participants in Alberta Flavour has given us privileged access to our case. We recognize that our involvement in the group inevitably shapes our analysis, both in ways we are conscious of and ways we are not. While we are aware of the methodological challenges that come with insider research (see Bourke, 2014; Brannick et al., 2007; Alvesson, 2003), we see it as not only a valid approach, but one particularly well suited to the aims of this paper. Outlining some advantages of self-study, Alvesson (2003) writes, "self-ethnography may develop reflexivity in relation to one's own organizational practice, thus combining theory and practice, and transcend the border between doing research and being an organizational member in other capacities" (p. 189). We use this paper as an opportunity to reflect on and develop knowledge about Alberta Flavour as a re-scaling and placing of local food in Alberta, while at the same time working in other capacities to support the initiative's goals.

We make no claims of impartiality or objectivity in the following analysis. On the contrary, we consider our investment and ongoing participation in Alberta Flavour as, not only a primary motivation for our research, but a methodological strength (see Alvesson, 2003). Self-ethnography rejects many of the criteria of traditional ethnography (Alvesson, 2003). According to Alvesson (2003),

> self-ethnography is a study and a text in which the researcher-author describes a cultural setting to which s/he has a 'natural access', is an active participant, more or less on equal terms with other participants" (p. 174). The researcher then works and/or lives in the setting and then uses the experiences, knowledge and access to empirical material for research purposes. (p. 174).

While some may see our closeness to our research subject as invalidating (Morse, 1998), such views have come under increasing criticism (Bannick & Coghlan, 2007; Alvesson, 2003; Attia & Edge, 2017). No researcher can observe from an Archimedean point outside of a subjective position. Acknowledgment of this fact is evinced by an increasing emphasis on positionality in social research. Part of a broader emphasis on reflexivity, positionality entails consciously situating yourself in relation to research, and reflecting on potential influences and biases.

The following analysis straddles the line between case study and reflective essay, linking personal experiences, insight and knowledge with data analysis and theoretical discussion. As part of our study we met numerous times to discuss our perceptions of and experiences with Alberta Flavour. We also met with and interviewed other members of Alberta Flavour. These meetings involved self-reflection on key moments in Alberta Flavour's history, including the group's defining of "local food." In addition, we analyzed and reflected on Alberta Flavour's online messaging with a focus on its Twitter feed, looking for connections between local food

and place. The first author has managed the Alberta Flavour Twitter account since 2017, growing

its following to close to 3000 and sharing approximately 1460 tweets per year. Alberta Flavour's

Twitter activity was identified as an important component of the group's collective goal of

external storytelling (Beckie, Hedberg & Radies, 2019). Below, we analyze Alberta Flavour's

Twitter messaging as an active and ongoing constructing and negotiating of the meaning of local

food in the Alberta context. Finally, our study included an analysis of Alberta Flavour's branding

in relation to dominant cultural images and imaginaries of Alberta food.

Placing Local Food

The food movement is a response to a globalized agri-food system where food has been

transformed into a commodity like any other. It can be understood as a countermovement

defined by efforts to re-embed food within both ecological and social processes (see Raynolds,

2010). The local food movement in particular has been framed by a discourse of embeddedness

(see Hinrichs, 2000), challenging the instrumentalism of conventional food systems and

promoting more direct relationships between producers and consumers.

Yet, much scholarship emphasizing the connection between local food systems and social

embeddedness fails to reflect in much depth on the idea and role of place. If "local" emphasizes

spatial proximity, "place" includes the cultural attachments, meanings, and practices associated

with, but not necessarily bounded to, particular locations. While it can be said that location and

context are aspects of place, place also includes how people relate to, identity with or feel

towards particular locales. Beyond this, place is further distinguished by its close relationship to

culture, a relationship explored by human and cultural geographers.

Beginning in the 1970s, geographers began developing a humanist approach based on

phenomenological ideas that acted as a counterpoint to what was becoming a tendency to

overlook place in favour of the abstractions of space (see Cresswell, 2015). A key contributor to these discussion, Yi-Fu Tuan (1977) refused to divide space from place, emphasizing the close relationship between the two. This approach finds resonance in the writings of the French philosopher Henri Lefebvre, who emphasized the dialectical relationship between place and space through the development of his spatial triad (see Merrifield, 1993). Drawing on Lefebvre, Shields (1991) uses the term social spatialisation to reconcile space and place. Massey (2005) adopts a similar ontological position on the relationship between space and place, but with a particular focus on place. Through descriptions of the "throwntogetherness" and "event" of place, Massey emphasize places as moments of continual negotiation and potential change. As she writes, "[i]n sharp contrast to the view of place as settled and pre-given, with a coherence only to be disturbed by 'external' forces, places as presented here in a sense necessitate invention; they pose a challenge" (p. 141). The apparent stability and coherence of place hides the fact that it is continually renegotiated and thus radically open. It is through this lens emphasising the relational aspects of place, that we understand Alberta Flavour as engaged in a form of place-making (See Pierce et al., 2011).

In the context of the food movement and local food scholarship, this turn toward place-based thinking was tied to the rejecting of a globalized, corporate and "placeless" food system that emphasized efficiency, scale, and profit above all else. Food regime scholars have discussed this as a difference between "food from nowhere" and "food from somewhere" (see McMichael, 2009; Campbell, 2009). As Wendell Berry (2015) writes: "The great and characteristic problem of industrial agriculture is that it does not distinguish one place from another. In effect, it blinds its practitioners to where they are. It cannot, by definition, be adapted to local ecosystems, topographies, soils, economies, problems, and needs" ("Farmland Without Farmers," para. 4).

DeLind (2011) argues that rooting local food in place would result in "a deeper, more holistic description of local processes, voices, and landscapes (natural, cultural and political)" (p. 280). While the tendency has been to prioritise social and ecological embeddedness, it is also important to consider the cultural embeddedness of local food initiatives in order to develop robust place-based food systems (Feagan, 2007). This is true even when the cultural context in question does not align neatly with the predominant values of the local food movement, such as in Alberta.

If, as Allen et al. (2003) note, "the local is not everywhere the same," a central question for local food advocates is, "what does local mean here?" And, perhaps more pertinently, "what might local mean here?" Throughout this paper we ask, what is Alberta food? Alberta is not just a political territory or geographical setting of local food, but a unique place in the Canadian context defined by a set of historical and cultural relationships around and connections to food. While an in-depth study of food culture in Alberta goes beyond the purview of this paper, we take a moment to consider the idea of place-based food in a province where cattle, commodity crops, and cowboy culture prevail.

Local Food in Alberta

Figure 8 - Alberta, Canada

Alberta (pop. 4,286,134) has a total land area of 163 million acres, but only 51 million acres

(32%) are used for agriculture, with 26 million acres in native rangeland or tame pasture and 25

million acres in annual crop production (Statistics Canada, 2016). Agriculture in the province is

dominated by large-scale, export-oriented livestock and crop operations, and although interest in

selling into local markets is growing, currently only 2062 farms or 5.1% of the total number of

farms in the province are selling direct (AAF, 2016). This percentage is below the national

average (12%) and provincially is the second lowest, next to Saskatchewan (3.8%) (Statistics

Canada, 2016). Farms in Alberta selling into local markets are distributed throughout the

province, such that no one geographic area dominates, but clustering can be seen around large

urban centres, particularly Calgary (pop. 1,240,000), in southern Alberta, and Edmonton (pop.

980,000), the provincial capital in central Alberta (Kienlen & Blair, 2018; Statistics Canada,

2016). These farms are also distributed across all types of farming operations (i.e. crop,

livestock, horticulture). Additionally, although there is significant geographic distance (from

north to south and east to west) in Alberta, the profile of what can be grown in the province does not change that significantly, regardless of the location. However, certain types of agricultural production are better suited to some regions than others; for example, commercial scale vegetable production is concentrated in central and southern Alberta, which has a longer growing season and more frost-free days than northern regions.

Consistent with the global trend, consumer demand for local food is increasing significantly in Alberta (AAF, 2016). In 2016, the total market value estimate for farmers' markets, farm retail and local food restaurants was CA$1.624 billion, quadruple that of 2004 (AAF, 2016). Currently, growth in demand exceeds supply, hence why Christine Anderson, a local food specialist with the Department of Alberta Agriculture and Forestry's Explore Local Division, states that "there's room for plenty more [farmers]" to capture benefits associated with this trend (Kienlen & Blair 2018). Local food in Alberta is defined by the provincial Department of Agriculture and Forestry (AAF) as "food grown, made and/or harvested in Alberta and then marketed in Alberta".[30] Using this regional framework, as opposed to the popular '100 mile' association, is beneficial given the context described above.

Alberta Terroir

The idea that place can be tasted is denoted by the French term terroir. With most understandings of terroir, "the physical environment (soil, weather, topography), not the tiller of the soil, the shepard, or the vintner, is the primary source of the distinctive tastes of French wine and cheese" (Trubeck, 2008, p. 20). As Trubek goes on to point out, however, terroir has also always been a strategic framing of the relationship between food and place propagated through the efforts of "tastemakers" and "taste producers" (p. 21).

---

[30] https://www.alberta.ca/local-food-engagement.aspx

Canada Beef[31], a national industry lobby group, has recently taken up a vocabulary of terroir as a

marketing tool. The director of the Canadian Beef Centre of Excellence is quoted saying on their

website, "[w]here grape vines grow, the climate, the soil, how vines are tied and tended to; all

these factors affect how a wine will taste. Canadian beef has a parallel story to be told. Raised in

the great outdoors of Canada's varying landscapes, excellence in Canadian beef is shaped by the

terroir on which the cattle are reared."[32] In contrast to this recent national marketing initiative,

the rise and influence of Alberta beef has had little to do with terroir, relying on a much different

socio-cultural configuration of food and place – one that has relied on the forging of a link

between beef and a particular image and mythology of the Canadian west (see Blue, 2008).

Ask most Albertans about Alberta food, and you will likely hear about beef. If you spend

some time in the province you may even glimpse an "I love Alberta beef" plastered on a nearby

bumper. Alberta is beef country, with the largest number of cattle in Canada (Statistics Canada,

2017). Gwendolyn Blue (2008) of the University of Calgary recounts how Alberta beef came to

be a "defining feature of Albertan identity" (p. 70). "'Alberta beef' does not simply refer to a

geographically located agricultural commodity; rather, in very complex ways, it is bound up with

regional identity" (p. 73). With Albertan's consuming 16 percent or 117,128 tons of Alberta beef

produced in 2017 (Alberta Agriculture, 2018), it is not a stretch to say that beef is an integral part

of the province's "local" food system. Yet, as Blue (2008) reports, the rise of Alberta beef has

had little to do with the values of the local food movement and a lot to do with culture,

community, and sense of place. Blue shows how Alberta beef came to stand in for a "cultural

mythos" where Alberta is "portrayed as a maverick agrarian region that is distinct, politically,

---

[31] www.canadabeef.ca
[32] https://canadabeef.ca/makeitbeef/taste-and-terroir-a-sensory-celebration-of-canadian-beef-canadian-wine/

socially and economically, from the rest of Canada" (p. 74). Despite the increasing urbanization of the province, "the image of Alberta as an agrarian culture alienated from, and at times under siege by the rest of the nation still captures the public imaginary" (Blue, 2008, p. 75).

The case of Alberta beef complicates simplistic narratives of local food in two ways. Firstly, the linking of Alberta with beef as described in Blue's (2008) analysis can be considered an example of defensive localism whereby a food product comes to symbolize a conservative identity that stands in opposition to others. Secondly, the case challenges the idea that local food exists as distinct from and in opposition to conventional, export-oriented food systems. While Alberta beef is both produced and widely consumed in the province (Alberta Agriculture, 2018), it remains largely oriented towards international markets. Moreover, in terms of climate change beef is widely understood to be one of the worst offenders (Gerber et al., 2013; NRDC, 2017). By highlighting how a food may be simultaneously considered local while also being embroiled in conventional, export-oriented food systems, we set the stage for our analysis of Alberta Flavour as a strategic intervention into and reconfiguring of the idea and image of local food in the province.

Re-scaling Local Food

Spatial concepts such as local, scale, and place, are not pre-existing categories, but are themselves actively constructed in a wide array of contexts. Regarding the question of scale, Smith (1995) writes, "geographical scales are the product of economic, political and social activities and relationships; as such they are as changeable as those relationships themselves...Scale is the geographical organizer and expression of collective social action" (p. 60). As we have suggested, "local" is not a neutral description of proximity, but a contingent socio-spatial product that expresses and reproduces certain social, political and economic

arrangements. Our analysis of Alberta Flavour is grounded in a constructionist view that rejects fixed conceptions of "local," "regional" or "global" and recognizes both the contingency and the politics of scale (Born and Purcell, 2006; Fraser, 2010). As Winter (2003) writes, "the turn to local food may cover many different forms of agriculture, encompassing a variety of consumer motivations and giving rise to a wide range of politics (in Dupuis & Goodman, 2005, p. 362).

Scale is a key concept for Alberta Flavour; indeed, the organization describes its efforts as scaling-up local food towards the goal of getting "more local food on more local plates." Yet, as others have pointed out, scaling-up is never a uniform expansion, but an uneven reterritorialization. It would be naive to assume that scaling-up local food necessarily equates a proportionate expansion of the commonly reported benefits of local food. Rather, any such expansion of benefits is likely to be distributed unevenly across time and space; in addition, "jumping scale" also involves new socio-spatial configurations that may in fact contradict or counteract the foundational goals of the movement of which the organization is a part. Rather than assuming, for example "bigger is better," human geographers in particular have implored that we take the politics of scale seriously.

Fraser (2010) asks, 'what is the most effective scale for organizing?'" (p. 339). The local food movement's version of this question is "what scale is most effective in positively reforming the current food system?" In addition to adhering to particular ideas of local, local food initiatives are, whether they themselves recognize it or not, always involved in their production – that is, in the process of enacting local. Fraser's (2010) concept of "scalecraft" highlights the now widely accepted view that scale is a meaningful and political social product, re-focusing attention on the craft involved with such a process.

To say Alberta Flavour is a moment of scalecraft (Fraser, 2010) is to emphasize the ways in which it is an active and strategic production of the local scale, and also to point out that such a construction has particular political effects. As Fraser (2010) writes:

> Human actors, whether individuals, social groups, or governing bodies (such as governments or state agencies) 'produce' and 'use' scale in all manner of attempts to create some sort of advantage, to establish associations, connections, or solidarities across social divides, or to represent their interests (to be heard or seen) amidst oppressive or otherwise difficult conditions. (p. 332).

For Alberta Flavour, what began with a simple question of how to get "more local food on more local plates" set in motion a set of relationships and connections that has resulted in a viable version of the local scale. We turn now to looking at the definition of local generated by Alberta Flavour participants as a foundational moment of scalecraft.

Defining Local: Two out of Three Ain't Bad

Definitions of local are strategic constructs – they differ across time and space depending on organizational goals and the interests of actors involved. Regardless of what individuals might think about local food, the local scale must be operationalized in ways that function for specific initiatives. From the beginning, Alberta Flavour was focused on getting large players in Alberta's food system to the table as participants in the local food conversation. Enrolling institutional actors and private distribution corporations into a collaborative network focused on increasing local food procurement is no easy task, and it became clear early on that scaling-up local food would require a strategic definition of local.

In 2014 members of Alberta Flavour came up with three criteria of local food: 1) ingredients grown in Alberta, 2) food processed in Alberta, and 3) business owned by Albertans.

Instead of requiring all three criteria, it was decided that two out of three were sufficient for a food item to be considered local. This definition prioritizes the development of a regional food system, foregrounding the political territory of Alberta. It is important to note, however, that this definition also allows for a degree of fluidity to accommodate the extra-local geographies and players that shape our current food system. Illustrating Hinrichs' (2003) point that the "boundaries between the local and the non-local are now borders, rather than barricades" (p. 37), Alberta Flavour's definition aims to translate the concept of "local" into a set of criteria that resonates with institutions and corporations. It translates what might be understood by large players in the food system as a chimeric ideal into something actually achievable.

The large institutions at the core of Alberta Flavour require large volumes of food that are consistently available and, because of this, are predominantly dependent on established purchasing channels controlled by large distributors such as Sysco and Gordon Food Services (GFS). Alberta Flavour also includes participants from Aramark, a multinational food service provider currently under contract with the University of Alberta. Including such participants in Alberta Flavour has been key to linking large institutions into a local food equation. Sysco and GFS have participated regularly in group meetings and have reorganized their product inventory to reflect Alberta Flavour's definition of local food. This initial work proved instrumental in identifying local foods available through major distributors and provided key data for Alberta Flavour's initial baseline study on the institutions' local food purchasing.

With the increased appetite for local food in Alberta, there exists unprecedented opportunity to scale-up production and distribution. Flexible, regionally-focused definitions of local food are advantageous for larger institutions and companies looking to benefit from the rising tide of local. Yet, such flexible definitions of local food have been criticized by food

scholars and activists as a kind of gerrymandering – a convenient shifting of boundaries designed to serve the interests of actors unwilling or unable to ascribe to more limited and effective definitions of local (DeLind, 2011). The worry for DeLind is that "the local food movement…may be distancing itself from its systemic roots, exchanging rhetoric for the harder work of contextual analysis" (p. 275).

Alberta Flavour might be seen as an opportunity for corporations that continue to have large stakes in conventional food systems to gain credibility and visibility and take advantage of the value added that comes with local branding. Moreover, Alberta Flavour's flexible definition of local has resulted in some questionable product promotions, including that of Lay's potato chips. Lay's chips are processed in Taber and are made from potatoes grown in Alberta. This means that according to Alberta Flavour's criteria, a product produced by Frito Lay, a subsidiary of Pepsi, is local.[33] Promoting Lay's potato chips as local food seems like precisely the kind of "local-washing" (Roberts, 2011) that local food initiatives may wish to avoid. When large corporations co-opt "local," (re)branding and marketing their products in the race to capture market share and stay competitive in a rapidly evolving global food system, they detract from a movement grounded in deeper social and environmental values (see Cleveland, 2014). If scaling-up local through institutional procurement means enrolling multinational companies beholden to the bottom line, perhaps it is a sign that we are indeed "hitching our wagons to the wrong stars" (DeLind, 2011). DeLind concludes her discussion of "the Wal-Mart emphasis" with Audre Lorde's acute observation that "the master's tools will never dismantle the master's house" (p. 278). While a truly radical alternative to the current food system may require not only new distribution systems, but a completely re-imagined economic and political system, we propose

---

[33] For a description of how Lay's has been involved in a local marketing campaign (see DeLind, 2011, p. 277).

that "working with the master's tools" is not necessarily antithetical to this cause, and may contribute to transformational change.

Bridging the Divide: Strategic Localism and the Politics of Alberta Flavour

While Alberta Flavour strives towards a broad set of values and goals associated with the food movement (Beckie, Hedberg & Radies, 2019), it is reliant on buy-in from institutions and companies that are bound by market logics. Exploring this tension more broadly, Fitch & Santos (2016) have commented on the tendency for institutional procurement initiatives to prioritize economic viability over other sustainability factors. Would institutional procurement initiatives such as Alberta Flavour be more effective in contributing to the development of a more sustainable and socially just food movement if they reduced their emphasis on economic viability, thereby disengaging from the dominant food system? While some have made arguments suggesting this to be the case (Allen et al. 2003; Hinrichs, 2000), the answer continues to be both uncertain and highly complex (see Sonnino & Marsden, 2006; Smith, 2006). In their analysis of the interactions between innovation networks and their environment Klerkx et al. (2010) found that, while actors or organizations are inevitably bounded by structural influences, they can nonetheless engage in "effective reformism" (Roep et al., 2003).

Rather than rejecting the conventional food system, Alberta Flavour emphasizes alignment between a diverse membership working within existing structures towards a "transformative incrementalism" (Buchan et al., 2018). Whereas transformative change is often associated with sudden and drastic shifts or breaks, Buchan et al. suggest that, although it is more difficult to observe, such change is also achieved incrementally in institutional contexts. The authors emphasize the "slow and cumulative actions" that food system planners engage in towards transformative change (p. 24). Their nuanced discussion of the relationship between

change and power mitigates easy categorical distinctions between "conventional" and "alternative" local food initiatives. Smith (2006), skeptical of "unchallenging, middle-of-the-road" (p. 455) innovations that concede to the requirements of existing systems, draws attention to a paradox at the heart of Alberta Flavour: "that a niche which is in tune with the incumbent regime will not demand very great changes in sociotechnical practices; whereas radical niches…will not diffuse much at all" (p. 443). In the end, however, Smith highlights the tensions surrounding incremental change while also acknowledging its value. "The main lesson," he writes,

> is that it is essential for niches to be both radical and reforming. That is, there can be niche elements which can be appropriated by the mainstream relatively easily and which may form a first step towards mildly more sustainable reforms. Meanwhile, the more radical practices will continue to be pursued by committed actors within a renewed niche. They remain advocates for more radical systems innovations. (p. 455).

Alberta Flavour represents an overarching strategy of hybridity and dialogue. This is true not only in terms of the way it navigates conventional and alternative food systems, but also in terms of the stories it tells about local food in Alberta. As Pratt (2007) argues, developing alternative food systems involves both organizational and discursive strategies (p. 298). In addition to dealing with the logistic challenges of scaling up, local food initiatives benefit from framing their efforts in ways that support their strategic goals. This includes highlighting certain scales of practice and visions of place. Through its branding and Twitter messaging, Alberta Flavour promotes a particular local food story – one that bridges Alberta's cultural and economic investments in conventional, export-oriented agriculture with smaller-scale, urban-focused, initiatives.

Figure 9 - The Alberta Flavour Logo

Alberta Flavour's marketing included the development of a logo depicting a fork set against an

outline of the province of Alberta (see Figure 8). Whether designed with the intention or not,

using the silhouette of Alberta in the context of a local food conversation immediately evokes the

"I love Alberta beef" marketing campaign discussed above. The logo interfaces with the success

of this campaign, while also leveraging that success to promote other "local" foods, many of

which are commodity crops. The Alberta Flavour logo subtlety frames a local food conversation

within both a context of both regional food systems as well as a particular culture of what many

would consider to be unsustainable conventional agriculture. Even in the very nature of its logo,

Alberta Flavour aims to tell a unique story around local food in Alberta - one that resists the

conventional vs. alternative imaginary that permeates contemporary food politics. This particular

story is told and retold daily through both the Alberta Flavour website and its Twitter messaging.

The Alberta Flavour Twitter account (@AlbertaFlavour) is dedicated to telling the story

of Alberta Flavour through showcasing local initiatives and advocating for benefits of local food

more generally. Alberta Flavour created the hashtag #ABFoodFacts to help draw attention to and discuss the food landscape in Alberta. This hashtag is usually attached to facts about what foods are being produced and/or processed in the province, the goal being to help make Alberta's food system more visible to consumers. These food facts are taken from a variety of publications, including the annual Canadian Agriculture census and data from Alberta Agriculture and Forestry. One of the most liked and retweeted #ABFoodFacts reads: "DYK #Alberta is the largest honey producing province in #Canada?!" Another example reports that "#Alberta is the largest #potato producing province in #WesternCanada, growing over 1,800,000,000 lbs of potatoes a year". When considered as a whole, the tweets gathered under #ABFoodFacts are characterized by a strong emphasis on the productive capacity of Alberta, with little said about, for example, the sustainability implications of producing food (local or not) at that scale and predominantly for the purpose of export.

The productivist focus of the #ABFoodFacts discussion is, however, accompanied by Alberta Flavour's messaging on alternative and urban focused local food initiatives. For instance, @AlbertaFlavour regularly reports on topics such as the potentials of urban agriculture and foraging, sharing articles from outlets such as City Lab and Civil Eats. In addition to promoting the possibility of growing food in the city, such messaging advocates around issues such as permaculture, food hubs, food sovereignty and social justice. One representative tweet citing a relevant CBC article reads, 'Calling all foodies, gardeners, nature lovers and proponents of pollinators: bee hotels are up for grabs from the Edmonton and Area Land Trust so Edmontonians can help preserve the bee population.' To cite another example, the Alberta Flavour Twitter account retweeted a Globe and Mail article on urban foraging, celebrating the

"incredible variety of food hidden in Alberta's landscape." Alberta Flavour also regularly re-tweets content from Civil Eats[34], an online publication emphasising radical food system change.

These two sides of Alberta Flavour's twitter messaging illustrate the initiative's recognition of the realities of Alberta's agri-food context and its culture. In refusing to play into the divide between rural versus urban or conventional versus alternative food systems, Alberta Flavour opens itself up to the possibility of contradiction. Such apparently confused or ambivalent messaging might be seen as signaling a watered-down food politics that, in attempting to speak to everyone, fails to speak to anyone. However, in a world increasingly defined by the false comforts of a "filter bubble," online spaces that interface between what are often presented as oppositional visions of local food have value. In accordance with Mount (2012) who argues that "recognition of hybridity may be a sign of an adaptive, more reflexive localism" (p. 112), Alberta Flavour crafts a story of Alberta food that recognizes local food culture and food values while also bridging a continued urban-rural divide. Through this strategy, Alberta Flavour helps create a common ground for involving more people in the local food conversation.

Conclusion

Alberta Flavour has an important story to tell. In contrast to a defensive localism that reifies fixed local boundaries, the initiative presents a strategic and pragmatic approach to the question of scaling-up local food. As suggested by its name, the local food movement was defined in large part by efforts to scale-down food systems, re-embedding these systems in community, ecology, and place (Renting et al., 2003; Allen, 2008). As the movement has evolved, however, practitioners and researchers alike have re-evaluated previously-held

---

[34] https://civileats.com/about/

assumptions around scale, calling into question the presumed superiority of local (Allen et al.,

2003; Hinrichs, 2003; DuPuis & Goodman, 2005; Born & Purcell, 2006; Sonnino, 2010). Alberta

Flavour works to scale-up the benefits of local food through leveraging the purchasing power of

large institutions. Enrolling such institutions in the Alberta context means working with large

corporations such as Sysco and Aramark. While the development of such alliances may be

criticized for its "Wal-Mart emphasis" (DeLind, 2011), the analysis should not stop there. As we

have argued in relation to Alberta Flavour's strategic localism, "working with the master's tools"

is not necessarily antithetical to building alternative food futures, but is one tactic in a larger

movement towards food system change.

A main strength of capitalism has always been its ability to absorb its own critique,

turning potential contradictions or sites of resistance into new sources of accumulation and profit

(Marcuse, 1964). Incorporating potentially transformative ideas into existing structures often

involves co-optation. DeLind is right to worry that if we let "market potential" and "economic

outcomes" (p. 275) guide local food practices and ignore other values (e.g. ecology, culture,

biological diversity, etc.) we will be left with a watered down and consumable commodity

hollowed of any actual alternative. Yet, as evinced by the case of Alberta Flavour, the line

between conventional and alternative food systems is not always clear. As Pratt (2007) writes,

these systems "shape each other and often overlap in highly significant ways" (Pratt, 2007, p.

285).

Local food activists and scholars should remain vigilant and not be too quick to celebrate the

embracing and scaling-up of local food by large corporations. At the same time, working with

corporations through models such as institutional procurement does not automatically preclude

the possibility of transformative change. Alberta Flavour disrupts local/global and conventional/alternative divides through a strategic localism defined by a re-scaling and emplacing of local food in the unique Alberta context. The initiative's hybrid and pragmatic approach to "getting more local food on more local plates," while not radical, nonetheless contributes to positive food system through "transformative incrementalism" (Buchan et al., 2018).

Alberta Flavour's strategic localism is defined, not only by its scalecraft (Fraser, 2010), but also by its emplacing of local food in Alberta. As Tuan (1977) writes, "place exists at different scales. At one extreme a favourite armchair is a place, at the other extreme the whole earth" (p. 149). While much attention has been given to the construction of place at the level of the nation-state (Anderson, 1991), less is written on the relationship between place and the region (see Cresswell, 2015, p. 14; Paasi, 2002). Alberta is both a region and a place defined in large part by commodity exports and a unique cultural mythos exemplified by Alberta beef. Rather than ignore this cultural context or reject it outright as regressive and antithetical to the local food movement, Alberta Flavour uses branding and social media to interface between agricultural productivism and food system change. If such messaging is at times contradictory, this too can be considered a gesture of dialogue – an opportunity to critically reflect on differing visions of local food in the province. We have framed these efforts as active sites of place-making (Pierce et al., 2011) where the idea of Alberta food and by extension Alberta as a meaningful place are negotiated. Conceiving of "place as event" (Massey, 2005, p. 141), we have positioned Alberta Flavour as an opportunity to constructively intervene in the existing constellation of practices, discourses, and imaginaries linking Alberta with an industrial, export-oriented food-system increasingly recognized as unsustainable.

References

Allen, P. (1999). Reweaving the food security safety net: Mediating entitlement and entrepreneurship. *Agriculture and Human Values*, *16*(2), 117–129.

Allen, P., Fitz Simmons, M., Goodman, M., & Warner, K. (2003). Shifting plates in the agrifood landscape: the tectonics of alternative agrifood initiatives in California. *Journal of Rural Studies*, *19*(1), 61–75.

Allen, P. 2008. "Mining for justice in the food system: perceptions, practices, and possibilities." *Agriculture and Human Values* 25 (2):157-161.

Alberta Agriculture. (2018). Who Eats Alberta Beef. *Mountain View Gazette*. Retrieved from: https://www.mountainviewgazette.ca/article/who-eats-alberta-beef-20180815

Attia, M., & Edge, J. (2017). Be(com)ing a reflexive researcher: a developmental approach to research methodology. *Open Review of Educational Research*, *4*(1), 33–45.

Beckie, M. A., Hedberg, L., & Radies, J. (2019). Creating a local food procurement community of practice: The Alberta Flavour Learning Lab. *Canadian Food Studies / La Revue Canadienne Des Études Sur l'alimentation*, *6*(1), 155–169.

Berry, W. (2015). Farmland Without Farmers. *The Atlantic*. Retrieved from https://www.theatlantic.com/national/archive/2015/03/farmland-without-farmers/388282/

Blue, G. (2008). If It Ain't Alberta, It Ain't Beef. *Food, Culture & Society*, *11*(1), 69–85.

Born, B., & Purcell, M. (2006). Avoiding the Local Trap: Scale and Food Systems in Planning Research. *Journal of Planning Education and Research*, *26*(2), 195–207.

Bourke, B. (2014). Positionality: Reflecting on the Research Process. *The Qualitative Report*, *19*(33), 1–9.

Buchan, R., Cloutier, D. S., & Friedman, A. (2018). Transformative incrementalism: Planning for transformative change in local food systems. *Progress in Planning*. https://doi.org/10.1016/j.progress.2018.07.002

Brannick, T., & Coghlan, D. (2007). In Defense of Being "Native": The Case for Insider Academic Research. *Organizational Research Methods*, *10*(1), 59–74.

Cleveland, D. A. (2014). *Balancing on a Planet: The Future of Food and Agriculture*. Berkeley, CA: University of California Press.

Cresswell, T. (2015). *Place: An introduction*. Malden, MA: Wiley.

DeLind, L. B. (2011). Are local food and the local food movement taking us where we want to go? Or are we hitching our wagons to the wrong stars? *Agriculture and Human Values*, *28*(2), 273–283.

DuPuis, E. M., & Goodman, D. (2005). Should we go "home" to eat?: toward a reflexive politics of localism. *Journal of Rural Studies*, *21*(3), 359–371.

Feagan, R. (2007). The place of food: mapping out the 'local' in local food systems. *Progress in Human Geography*, *31*(1), 23–42.

Fitch, C., & Santo, R. (2016). Instituting change: An overview of institutional food procurement and recommendations for improvement. *Johns Hopkins Center for a Livable Future.* Retrieved from https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/_pdf/research/Instituting-change.pdf

Fraser, A. (2010). The Craft of Scalar Practices. *Environment and Planning A: Economy and Space*, *42*(2), 332–346.

Friedmann, H. (2007). Scaling up: Bringing public institutions and food service corporations into the project for a local, sustainable food system in Ontario. *Agriculture and Human Values*, *24*(3), 389–398.

Friedmann, H., & Mcnair, A. (2008). Whose Rules Rule? Contested Projects to Certify 'Local Production for Distant Consumers'. *Journal of Agrarian Change*, *8*(2–3), 408–434.

Gerber, P.J., Steinfeld, H., Henderson, B., Mottet, A., Opio, C., Dijkman, J., Falcucci, A. & Tempio, G. 2013. Tackling climate change through livestock – A global assessment of emissions and mitigation opportunities. Food and Agriculture Organization of the United Nations (FAO), Rome. Retrieved from: http://www.fao.org/3/a-i3437e.pdf

Harvey, D. (1996). *Justice, nature, and the geography of difference*. Cambridge, Mass.: Blackwell.

Hinrichs, C. C. (2000). Embeddedness and local food systems: notes on two types of direct agricultural market. *Journal of Rural Studies*, *16*(3), 295–303.

Hinrichs, C. C. (2003). The practice and politics of food system localization. *Journal of Rural Studies*, *19*(1), 33–45.

Kienlen, A. & Blair, J. (2018) Local food is putting down deep roots. Alberta Farmer Express. July 30, 2018, pg 1. Retrieved from: https://www.albertafarmexpress.ca/2018/07/30/local-food-is-putting-down-deep-roots/

Klerkx, L., Aarts, N., & Leeuwis, C. (2010). Adaptive management in agricultural innovation systems: The interactions between innovation networks and their environment. *Agricultural Systems*, *103*(6), 390–400.

Lefebvre, H. (1991). *The production of space*. Oxford: Blackwell.

Mansfield, B. (2005). Beyond rescaling: reintegrating the `national' as a dimension of scalar relations. *Progress in Human Geography*, *29*(4), 458–473.

Marcuse, H. (1964). *One-Dimensional Man*. Boston: Beacon Press.

Massey, D. (2005). *For space*. London: Sage.

Mount, P. (2012). Growing local food: scale and local food systems governance. *Agriculture and Human Values*, *29*(1), 107–121.

NRDC. (2017). Less beef, less carbon. Retrieved from: https://www.nrdc.org/sites/default/files/less-beef-less-carbon-ip.pdf

Paasi, A. (2002). Place and region: Regional worlds and words. *Progress in Human Geography*, *26*(6), 802–811.

Pierce, J., Martin, D. G., & Murphy, J. T. (2011). Relational place-making: The networked politics of place. *Transactions of the Institute of British Geographers*, *36*(1), 54–70.

Pillow, W. (2003). Confession, catharsis, or cure? Rethinking the uses of reflexivity as methodological power in qualitative research. *International Journal of Qualitative Studies in Education*, *16*(2), 175–196.

Pratt, J. (2007). Food Values: The Local and the Authentic. *Critique of Anthropology*, *27*(3), 285–300.

Raynolds, L. T. (2000). Re-embedding global agriculture: The international organic and fair trade movements. *Agriculture and Human Values*, *17*(3), 297–309.

Reynolds, J., & Hunter, B. (2017). Purchasing Power: 10 lessons on getting more local, sustainable, and delicious food in schools, hospitals and campuses. Report from the J.W. McConnell Family Foundation and Food Secure Canada. Retrieved from: http://mcconnellfoundation.ca/assets/PDFs/Purchasing%20Power_Sustainable%20Food%20Systems.pdf

Renting, H., T. K. Marsden, and J. Banks. 2003. "Understanding alternative food networks: exploring the role of short food supply chains in rural development." *Environment And Planning A* 35 (3):393-411.

Roberts, W. (2011). Citywatch: Food's a trip, actually a baker's dozen of trips. Retrieved from: http://wayneroberts.ca/archives/778

Roep, D., Van Der Ploeg, J. D., & Wiskerke, J. S. C. (2003). Managing technical-institutional design processes: Some strategic lessons from environmental co-operatives in the Netherlands. *NJAS - Wageningen Journal of Life Sciences*, *51*(1–2), 195–217.

Sage, C. (2003). Social embeddedness and relations of regard: Alternative 'good food' networks in south-west Ireland. *Journal of Rural Studies*, *19*(1), 47–60.

Shields, R. (1991). Places on the margin: Alternative geographies of modernity. New York: Routledge.

Smith, A. (2006). Green Niches in Sustainable Development: The Case of Organic Food in the United Kingdom. *Environment and Planning C: Government and Policy*, *24*(3), 439–458.

Smith, N. (1995). Remaking Scale: Competition and Cooperation in Prenational and Postnational Europe. In H. Eskelinen & F. Snickars (Eds.), *Competitive European Peripheries* (pp. 59–74). Berlin, Heidelberg: Springer Berlin Heidelberg.

Sonnino, R., & Marsden, T. (2006). Beyond the divide: Rethinking relationships between alternative and conventional food networks in Europe. *Journal of Economic Geography*, *6*(2), 181–199.

Statistics Canada. (2017). Alberta has the most beef cattle in Canada and the second largest total farm area. Retrieved from: https://www150.statcan.gc.ca/n1/pub/95-640-x/2016001/article/14808-eng.htm

Swyngedouw, E. (2004). Globalisation or 'glocalisation'? Networks, territories and rescaling. Cambridge Review of International Affairs, 17(1), 25–48.

Thomas, G. (2011). A typology for the case study in social science following a review of definition, discourse, and structure. Qualitative Inquiry, 17(6), 511-521.

Tuan, Y.F. (1977). *Space and place*. London: Arnold.

Winter, M. (2003). Embeddedness, the new food economy and defensive localism. *Journal of Rural Studies*, *19*(1), 23–32.

Willis, K. S., & Frosch, K. (n.d.). Re-placing Food: Place, Embeddedness, and Local Food. Retrieved from https://opus4.kobv.de/opus4-fhbrb/frontdoor/index/index/year/2016/docId/1368

Chapter Five

The Production of Local Food Space: Concluding Reflections

The three primary aims of this final chapter are to: 1) provide brief summaries of each of the substantive chapters, 2) clarify the relationship between the case of Prairie Urban Farm (PUF) and that of the Alberta Flavour Learning Lab (Alberta Flavour) through a socio-spatial lens, 3) contribute to an analysis of the socio-spatial politics of local food through the introduction and development of the concept of the *urban agriculture imaginary*, and finally, 4) provide a brief summary discussion of contributions and future research directions. Although Chapters Two, Three, and Four of this dissertation have been separately published in peer-reviewed journals or in an academic collection, I further develop their linkages in this concluding chapter. While the ideas of Henri Lefebvre, and in particular his concept of "trial by space," are most directly addressed in Chapter Two, it is my use of his broader insights on the production of space as well as a wider body of scholarship on relational space that tie this dissertation together. In this concluding chapter, I return to Lefebvre's socio-spatial framework, providing a novel way to consider the recent expansion of local food practices in Edmonton, Alberta, Canada, and beyond.

In what follows, as I summarize and synthesize the content of the preceding chapters to develop an understanding of local food through a socio-spatial lens, I consider a number of important questions. First and foremost, I ask, what does it mean to look at local food, most commonly understood as a food system and/or social movement, as a *space*? In addition, what is the value of providing a socio-spatial analysis of local food? In his commentary on the rising popularity of a sociology of space, Gans (2002) cautions against "the danger of reconceptualizing the obvious," by which he means "doing studies to show that all social life

exists in space" (p. 330). Indeed, this point has been well established, and has a rich (if often unrecognized) history within the discipline of sociology (Fuller & Low, 2017). Rather than simply documenting a geography of local food, I propose a relational understanding of space that, drawing on Lefebvre (1991), focuses on *processes* (e.g., representations, perceptions, practices, etc.) in order to study local food.

As discussed in Chapter One, the food movement is broad and diffuse, referring to a wide spectrum of values, issues, and concerns. Even narrowing the focus to a consideration of "local food" reveals a diverse range of ideals rooted in particular and sometimes contradictory concerns and values, that are both geographically and culturally specific. It is thus no surprise then that a myriad of sometimes compatible, and sometimes competing, interests and approaches to local food are represented in both the popular and academic literatures which have exploded over the last few decades. "Local food" has been studied as a characteristic of sustainable and regenerative agriculture (Dahlberg, 1993), an economic development strategy (O'Hara & Pirog, 2013), a social movement (Star, 2010; Werkheiser & Noll, 2014), a form of lifestyle politics (Guthman, 2003, 2008), and a site of community development (Sumner et al., 2010; Ohmer et al., 2009).

Chapter One of this dissertation presents an ontological and epistemological position on space rooted in Henri Lefebvre's (1991) theory of social space. As discussed in Chapter Two, Lefebvre's idea of "trial by space" closely links to his more general thesis that a mode of production can survive only through a corresponding production of space (Lefebvre, 1976; 1991). In alignment with his research into everyday life as an overlooked site of the reproduction of and resistance to capitalism, Lefebvre adds an analysis of social space. For Lefebvre, space is not merely a reflection of capitalism, but a requisite for its very existence and continuation.

Capitalism, like the modes of production that preceded it, transformed space in its own image. Yet, crucially for Lefebvre, the production of space is never perfect nor complete. Commenting critically on Lefebvre's political economy approach, Gans (2002) writes: "[Lefebvre] defined space so all inclusively that he sometimes framed capitalism as an evil form of land use" (p. 336). Though this may at times appear to be the case, what Gans fails to recognize is that Lefebvre's definition of space is so broad precisely in order to guard against such reductionism. Rather than simply outlining an all-inclusive and thus meaningless definition of space, Lefebvre offers a dialectical model through which to understand space as a multidimensional and complex *process*. In his well-known spatial triad, Lefebvre outlines three key moments in the production of space: *representations of space*, *spatial practices*, and *representational space*. That these three moments exist in continual tension with each other provides the epistemological backbone for Lefebvre's analysis of social space (see Merrifield, 2006, p. 109). Lefebvre's specific insights regarding what Soja (1996) called the "trialectics of spatiality" have informed each of three published works that comprise this dissertation.

Chapter Two set the stage for a socio-spatial investigation of urban food space by examining urban agriculture. The chapter was initially organized around a "right to the city" (Lefebvre, 1996) framing, which is well represented in the literature on community gardening and urban agriculture (see Purcell & Tyman, 2015; Schmelzkopf, 2002; Shillington, 2013; Staeheli et al., 2002). The case of New York's contested community gardens in the 1990s (see Schmelzkopf, 1995, 2002) provides what is perhaps the most cited case of inhabitants' on-the-ground struggles against the threat of market-driven development. While such cases align well with a "right to the city" framing, the narrative is complicated when the right to grow food in the city is in conflict with other urban priorities, such as the right for affordable housing (see

Schmelzkopf, 2002) or when it is the state or private developers leading the integration of community gardens and urban agriculture (Saed, 2012; Walker, 2015). While Lefebvre's writings on the "right to the city" provide a useful framework for the analysis of community gardeners fighting for the right to cultivate urban space, it becomes less useful once the line between, to use Lefebvre's (1991) terms, the lived and the conceived, is muddied. If conceived space is, as Lefebvre suggests, the space of planners, urbanists, and architects (p. 38), what do we make of recent efforts by cities and their planners to incorporate urban agriculture strategies? Is the local state's involvement with and sanctioning of particular kinds of urban agriculture an appropriation of the practice's more radical potential as counterspace?

In Chapter Two, I argue that a broader engagement with Lefebvre's spatial dialectics, provides a more incisive set of tools for examining the production and politics of urban agriculture. In addition to contributing to the literature on critical approaches to urban agriculture, Chapter Two sets the stage for a Lefebvrian investigation of, not only the production of urban agriculture, but of urban food space more generally. The theoretical influence of Lefebvre, while less prominent in subsequent chapters, deeply informed the analytical approaches taken throughout the dissertation.

Chapter Three marks a shift away from a discussion of urban agriculture in general, towards a concrete analysis of the specific case of Prairie Urban Farm (PUF). As discussed in the introduction, my interest in urban agriculture emerged in large part from my participation in PUF beginning in the spring of 2013. Yet, despite early suggestions by committee members that I focus my research on this site, I was initially hesitant to turn my attention to the initiative. This was in part due to my close involvement with the farm, and in particular my worries about the potential tensions and challenges that come with insider research (see Adler & Adler, 1987). I

also struggled with how to situate PUF within the broader context of urban agriculture and local food in Edmonton. I wondered how learning about this nascent and relatively small-scale urban agriculture project could help us understand the meaning, politics, and possibilities of urban agriculture in Edmonton, let alone further afield.

Rather than approach PUF through a particular frame - for example as *already* counterspace (see Leary-Owhin, 2016), Chapter Three adopted an inductive, exploratory approach. Starting off informally with conversations around the meaning of Prairie Urban Farm, co-author Kevin Jones and I began to appreciate our unique positionality as engaged scholars. We honed our thinking through the development of a paper presented in August, 2018 at the annual Ethnography Symposium at the University of Liverpool. Drawing loosely on autoethnography, the paper was organized around the question of legitimacy, asking "is urban agriculture just community gardening under another name?" Chapter Three expanded on this initial analysis, drawing on semi-structured interviews to consider the thoughts, perceptions, and experiences of Prairie Urban Farm's volunteers.

More specifically, this chapter explored the tensions between official representations of PUF as an urban agriculture and food security project and the diverse and conflicting motivations expressed by participants. We found Prairie Urban Farm's more or less stable "front" (Goffman, 1990, p. 37) to be unsettled by the motivations and meanings brought to the initiative by its diverse volunteer base. While it was possible to fit participants' responses into pre-existing urban agriculture frames (e.g. "individual health," "food security," "social benefits," etc.), we remained open to difference (Gibson-Graham, 2006), committed to the specifics of how volunteers themselves understood their participation in PUF. On one level, our analysis may be read as supporting the multifunctionality of urban agriculture recently emphasized in the literature

(Valley & Wittman, 2018; Davidson, 2017; Leeuwen, 2010; Lovell, 2010). However, this reading bends understanding towards a continued normative emphasis on functional benefits emphasizing the positive integration of urban agriculture within existing urban logics and imaginaries (i.e., urban agriculture as functioning both as urban industry and leisure space).

Interviews with participants and my time as a participant observer at PUF revealed an urban agriculture initiative shot through with uncertainty and contestation. PUF was found to be an ambivalent space where participants articulate and enact divergent understandings and values. Researchers have pointed to the diverse politics *across* different urban agriculture initiatives (McClintock, 2014; McClintock & Simpson, 2018; Tornaghi & Certomà, 2019). However, there is little written on internal divisions *within* such initiatives. While PUF's relaxed governance structure, relatively discreet "front," and inclusive atmosphere may make it ripe for internal differences, it seems likely that such ambivalence and division might be found in other urban agriculture initiatives as well.

The case study of PUF offers a number of contributions to the literature on urban agriculture and community gardening. First, this study helps fill a lacuna in academic literature on both community gardening and urban agriculture in Edmonton and western Canada. While academic research into the topic has been done in Canada, it has largely focused on Toronto, as well as other larger urban centres such as Vancouver and Montreal. This in part reflects some of the unique challenges of developing urban agriculture in the prairie provinces where winters are long and cold. Yet, as discussed in the introduction, Edmonton has a rich gardening and agricultural history. It has also seen, along with many other cities, a recent upsurge of interest in urban agriculture and local food. This is reflected in the development of *Fresh*, Edmonton's food and urban agriculture strategy and the increasing popularity of community gardens and urban

farming in the city. Second, our case study of PUF offers a unique look into the multiple interests and values existing within a single urban agriculture initiative. Beyond a mere description of differing interests and values, Chapter Three highlights tensions between representations of PUF as an urban agriculture space and the ways participants actually understand and use the space. While a detailed examination of Lefebvre is not the focus of the chapter, his insights, particularly regarding the production of space are central to both our methodological approach to studying space[35] and our concluding emphasis on PUF as a site of possibility. The concept of "gardening as epistemology" intersects with Lefebvre's "differential space" in its emphasis of the way in which the meaning of PUF is both continually negotiated and performed, while at the same time open and contingent. Third, the chapter illustrated the virtue of ambivalence in relation to urban agriculture. Rather than view ambivalence as a decidedly negative quality getting in the way of, for example, contributing to goals of community food security and urban sustainability, it is read as an opportunity to open up PUF, and spaces of local food more broadly, to alternative urban imaginaries.[36]

Chapter Four represents an expanded version of a paper that originated with a Mitacs funded research project I joined in January 2017. Working as a research assistant with the Alberta Flavour Learning Lab (Alberta Flavour), I was tasked with helping to tell the story of the group through profiling local food initiatives and developing a website and Twitter account. As part of this internship, I developed an original research paper on the initiative. My analysis of

---

[35] See Chapters One and Two for a more detailed discussion of Lefebvre, and the overarching methodological approach taken in Chapter Three and throughout this dissertation.

[36] See below for a more detailed discussion of the concepts of "urban imaginary" and "urban agriculture imaginary."

Alberta Flavour contributes to the understanding of local food practice in Edmonton by examining the scaling up of local food through institutional procurement.[37]

The potential of institutional procurement to scale-up sustainability benefits has in recent years been given more attention by academic researchers, practitioners, and policy makers. Institutional procurement refers to the potential of large organizations, such as cities and municipalities, schools, hospitals, and conference centres to leverage their significant purchasing power in ways that contribute to the development of more sustainable and socially just food systems and communities. Speaking in the context of the UK, Morgan writes:

> Of all the powers at the disposal of the UK state, none has been as neglected as the power of purchase. This is more surprising than it may seem because the public procurement budget amounts to some £150 billion per annum, and this constitutes an incredibly powerful mechanism for the state to promote sustainable practices throughout the national economy. (Morgan, 2008, p. 1238).

Morgan and Morley (2014) refer to this latent potential for change through the idea of the power of the "public plate" (See also Morgan & Sonnino, 2013). The authors focus on public purchasing, and in particular on the potential of school food programs in the UK. However, it is not only the public plate that holds power, but the institutional plate. Indeed, private and third sector organizations may, depending on the national context, have significant purchasing power.

The central idea behind institutional procurement, whether concerning the public, private, or third sector, is that in redirecting the food purchasing budgets of large institutions lies an

---

[37] I presented a draft of this chapter at the Place-Based Food Systems Conference held in Vancouver from August 9-10, 2018, and a developed version of that paper was published in the *Journal of Agriculture, Food Systems, and Community Development* (Granzow & Beckie, 2019).

opportunity to challenge dominant, unsustainable food systems. As Morley et al. (2012) put it, food is "an ideal prism through which we can examine the complex interrelations between the environmental, social, and economic dimensions of sustainable development (p. 116). It follows that food procurement offers a unique opportunity to shift these relationships towards creating more sustainable food systems.

In recent years, the potential of the institutional plate has been brought to the fore of the food movement, with growing number of studies documenting its successes and continued challenges (Friedmann, 2007; Morgan & Morley, 2014; Sumner & Stahlbrand, 2019). Such studies have reiterated the potential of the institutional plate, while also shedding light on the barriers that stand in the way. Morgan and Morley (2014) identify several barriers to sustainable procurement, pointing in particular to the common, but misleading and detrimental image of the public plate as a quick and easy fix. Writing on school food reform in the UK, the authors describe how the "prosaic image" of such institutional reform "conceals a degree of complexity that belies its appearance" (p. 90). Morgan and Morley further highlight the deeply contextual nature of such complexity. In other words, while it is possible to outline common barriers to sustainable procurement (see Reynolds and Hunter, 2019), the specific nature of such barriers varies significantly across local contexts. Unique complexities are not only evident at the global or regional scale, for example between countries in the Global South and Global North, but also within individual nations. "[T]his level of complexity presents problems both in terms of identifying representative systems and propagating institutional innovation and best practice" (Morgan & Morley, 2014, p. 91). In other words, while research suggests that institutional procurement is one of the most effective ways to scale-up the benefits of local food (Friedmann, 2007; Morgan & Morley, 2014; Reynolds & Hunter, 2017, 2019), there exists no one-size-fits-all

solution. Rather, researchers and practitioners interested in the promise of institutional procurement need to understand the specificities of local institutional and cultural contexts. The path to a potentially transformational sustainable or local institutional plate begins with a reckoning of place.

Alberta Flavour began with a question: Was there sufficient interest in forming a group dedicated to scaling-up local food through institutional procurement in the Edmonton region? As it turns out, there was. As Beckie et al. (2019) report, "By the end of the first [Alberta Flavour Learning Lab] meeting there was unanimous support for continuing to meet as a group focused on exploring ways to 'create a positive community impact by getting more local food on more local plates'" (p. 160). The Learning Lab was created as a Community of Practice focused on exploring opportunities to scale up local food rather than implementing any pre-defined set of changes. Communities of practice are defined by people coming together around commonly held interests or concerns; the concept emphasizes the social nature of learning as well as the importance of regular interaction between participants (see Lave & Wenger, 1998; Wenger, 2000). In the 2019 field report, Beckie et al. (2019) provide a detailed overview of Alberta Flavour as a Community of Practice, highlighting accomplishments, ongoing challenges, and future strategies. This report was included in a special issue of *Canadian Food Studies* dedicated to examining food procurement initiatives in Canada (Sumner & Stahlbrand, 2019). A number of contributions to this special issue deal with institutional procurement, often highlighting the challenge of coming up with meaningful, effective, and collectively held definitions. For example, Reynolds and Hunter (2019), found that while institutions have the power to "shift supply chains towards greater sustainability," they often face significant barriers including the lack of a shared definitions of "local" and "sustainable" (p. 10).

Chapter Four offers a unique perspective on institutional procurement and the problem of defining local. Rather than looking at Alberta Flavour through, for example, a community of practice or food systems lens, we examine it as a site of socio-spatial production - a strategic re-scaling and re-placing of "local food" in Alberta. This theoretical framing was inspired in-part by the following call for papers on the topic of place-based food systems:

> In the midst of the of the neo-liberal globalization juggernaut, we ask, how can ecological, economic, and social capital be strategically and effectively directed to advance place-based food systems – systems that respond to the needs of and nurture the development of communities within the regions they serve?

In reading this call, I was struck by the concept of "place-based." I wondered how engaging with ideas of "place" might shift or mediate discussions around local food. With "place-based" often going undefined, or simply being used as a stand-in for "local," this paper became an opportunity to critically reflect on the idea of place-based food systems through a case study of Alberta Flavour. Chapter Four is the outcome of thinking about Alberta Flavour as a site of spatial production - examining the ways in which the initiative, through its strategic defining of local and engagement with "local" culture and place, enacts a particular local food space.

The production of local food space

This dissertation has explored urban agriculture and institutional procurement through a production of space lens, highlighting ways that local food is taking place in the Edmonton context. Drawing on the socio-spatial framework outlined in the first two chapters of the dissertation, the cases of Alberta Flavour and PUF demonstrate the production of local food space in Edmonton. In addition to drawing on and developing a Lefebvrian approach to the

question of urban agriculture, I position these initiatives as related spatialisations of local food – sites where the meaning and politics of local food is both negotiated and contested.

To consider local food as part of a broader food *movement* implies a certain directionality. The movement implied is one *away* from our current dominant and unsustainable food system, *towards* a brighter, more sustainable future. By reducing the distance between sites of production and consumption, the push for local food is often understood as part of a wider rejection of what Merrifield (2006) has called "abstract food" (p. 138). Both PUF and Alberta Flavour are part of Edmonton's local food movement; both are looking for ways to, as the latter of the organizations phrases it, "get more local food on more local plates." Moreover, there are numerous other local food initiatives in Edmonton that also share this general goal, ranging from community garden and urban agriculture initiatives, to farmers' markets, to the City's recently established food council. One approach to studying the local food movement in Edmonton, or any other city, is to highlight new local food initiatives, examining how they uniquely contribute to food security, food justice, or to the broader food movement more generally. Indeed, it is this general approach that is often illustrated by the growing popular literature and journalistic reporting on the benefits of local food.

A critical reading of this literature, however, reveals that the idea of a politically unified local food movement is a myth. The local food movement, and the broader food movement of which it is a part, is characterized by several divergent trajectories and not one single direction (DeLind, 2011). Over the last two decades, agri-food scholars have been pointing to the dangers of celebrating the local as necessarily good, or a site of resistance, while at the same time being careful not to undermine its potential (Born & Purcell, 2006; DuPuis & Goodman, 2005; Feagan, 2007; Guthman, 2008; Hinrichs, 2003). In an influential 2011 article, scholar-activist Laura

DeLind asks, "Are local food and the local food movement taking us where we want to go? Or are we hitching our wagons to the wrong stars?" (p. 273). DeLind outlines "three problematic emphases" of the local food movement (the locavore emphasis, the Wal-Mart emphasis, and the Pollan emphasis), urging practitioners, scholars, and activists to "de-emphasize the individualism of the locavore, the economics of Wal-Mart, and the prescriptions of Pollan and…re-emphasize the movement's systemic roots" (p. 280). DeLind recognizes the ways in which popularized emphases on local are often stripped of the deeper values that are the seeds of transformative, democratic change. However, rather than dismiss "localism" as complicit with a neoliberal rationality that also includes consumer choice, entrepreneurialism, and self-improvement (see Guthman, 2008), DeLind is more interested in opening-up "local food" as a site of productive critique and dialogue. This line of thinking and research within the agri-food scholarship builds on relational and constructivist understandings of space, place, and scale largely developed within critical human geography. Key contributions from David Harvey, Doreen Massey, Ash Amin, and Neil Brenner (to name only a few) have spurred the development of what DuPuis and Goodman (2005) refer to as a "reflexive localism" within agri-food studies. As Born & Purcell write, "No matter what its scale, the outcomes produced by a food system are contextual: they depend on the actors and agendas that are empowered by the particular social relations in a given food system" (p. 196). In other words, the politics of local food are increasingly understood as both constructed and contingent - matters of concern rather than matters of fact (see Hill, 2015). Instead of taking the politics of local food at face value – as if they were innately beneficial – it is important to asses both critically and reflexively the production of local food space within specific contexts. Unified by a socio-spatial approach to the question of local food in Edmonton, this dissertation builds on the idea that, not only are particular places contested, but that space *as*

such is both produced and political (Harvey, 1989; Lefebvre, 1991; Massey, 2005; Massey et al., 2013). As Deutsche (1998) writes, "Space is…political, inseparable from the conflictual and uneven social relations that structure specific societies at specific historical moments" (p. xiv). I have already outlined Lefebvre's spatial triad, and now bring the cases of PUF and Alberta Flavour together through this dialectical model of spatial production.

Henri Lefebvre's theoretical insights on social space provide the ontological and epistemological background for the previous analyses of both PUF and Alberta Flavour. This is made clear in the theory and methodology outlined in detail in Chapter One and is further expanded upon in Chapter Two, where Lefebvre's dialectical model of spatial production is applied to the question of urban agriculture. We argue that the shift from talk of "community gardening" to "urban agriculture" signals the emergence of a new and contested socio-spatial practice. In other words, urban agriculture is not just gardening by another name, nor can it be solely characterized by an increased emphasis on production or discourses of sustainability; rather, urban agriculture is an emergent social space defined by various representations, practices, and imaginaries. By examining urban agriculture as a social space, we are able to more fully capture its meaning and politics, as well as its contradictions. In so doing, we consider the radical promise of *urban agriculture as counterspace* through its continued trial by space. We conclude the chapter by introducing the idea of "food spatialisations," a concept that allows for an analysis beyond urban agriculture and sets the stage for a consideration of local food space more broadly.

Chapter Three, beyond providing a descriptive account of PUF, explored the initiative as an instance of the broader production of local food space in the Edmonton context. Early on in the study I identified tensions between official representations of PUF as a sustainability and

food security initiative and my own lived experiences and understandings of the farm. This was followed by an analysis of other participants' thoughts, perceptions, and experiences of PUF. I was interested in going beyond official representations, not to reveal an underlying truth, but to draw out and reflect on elements of the space that get missed or downplayed when it is reduced to an idealized, purified form (i.e., an example of a "sustainability" or "food security" initiative). These elements are captured by *representational space* and *spatial practice* in Lefebvre's spatial triad. For Lefebvre (1991), representational space is the lived space of the inhabitant. Representational space escapes the dominant spatial scripts (i.e. representations of space) that tend to direct everyday spatial practice. While PUF may be represented as a sustainability and food security initiative in the context of, for example, a grant application or official presentation, it is experienced and understood by participants as something quite different. Moreover, it is experienced and understood *differently* by different participants, so that the meaning and politics of the space becomes difficult to identify with any certainty. As Kevin Jones and I argue, this ambiguity can be understood as a constituent part of PUFs value as an emergent social space. If PUF is, as one regular participant put it, "as inefficient as it gets," when it comes to the growing and distribution of food, productive capability is not the only yardstick for measuring the value of urban agriculture (Tomkins, 2014; Davidson, 2017). In addition to reinforcing arguments emphasizing the multi-functionality of urban agriculture, we "read for difference" (Gibson-Graham, 2006) in order to emphasize values of contradiction and ambivalence in developing a "politics of the possible" (see Guthman, 2008) in relation to urban agriculture. Before returning to a discussion of the politics of the possible below, I turn to another, quite different, moment in the production of local food space, that of institutional procurement and the specific case of Alberta Flavour. While community gardening and urban agriculture lend themselves socio-

spatial analyses, the socio-spatial elements institutional procurement initiatives are both less obvious and less researched.

In Chapter Four, Alberta Flavour's efforts towards "getting more local food on more local plates" are considered through a lens of socio-spatial politics – as negotiations of the meaning, scale, and place of "local" food in the context of a globalized industrial food system. Consistent with the approach in Chapter Three, I do not take the politics of institutional procurement at face value but subject the local food initiative to critical reflection and analysis. Efforts to scale-up the benefits of local food through institutional procurement have been criticized by activists and agri-food scholars for their focus on economic considerations and priorities. Indeed, Alberta Flavour itself has been criticized on such grounds, with an acknowledged "tendency to focus mostly on the economic criteria and impacts of institutional local food procurement" (see Beckie et al., 2019, p. 163). We might consider Alberta Flavour as illustrative of what local food looks like as a *representation of space*. Lefebvre (1991) defines representations of space as: "conceptualized space, the space of scientists, planners, urbanists, technocratic subdividers and social engineers … all of whom identify what is lived and what is perceived with what is conceived" (p. 38). To subject the values and goals of a broad and diverse local food movement to a logic of "scaling up" speaks to an acceptance of certain realities of the food system. As is discussed above, Alberta Flavour foregrounds a pragmatic approach to building a stronger local food system by finding openings and leveraging opportunities within the space of the dominant food system. While some may bristle at the prospect of inviting large corporate players into the local food discussion, Alberta Flavour enrolls the likes of Sysco and Gordon Food Services in an effort to get "more local food on more local plates." The question arises, are the efforts of Alberta Flavour and other similar institutional procurement initiatives better understood as

conventional or alternative? Sonnino and Marsden (2006) warn against the tendency to pose such a clear distinction, calling instead for the development of "new conceptual and methodological tools to explore the nature and dynamics of the alternative sector" (p. 184). Conceiving of "local food" as an industry, prioritizing its scaling, economic sustainability, and compatibility with extant food systems suggests at best a reformist approach to change - that is, change within the confines a particular *representation of space*. Perhaps part of the reason the potential of the institutional procurement of local food has gone unrecognized for so long (Morgan, 2008) is a reluctance to subject the values of the food movement to logics of the very system that this movement set out to transform. In other words, the worry for some is that emphases on values of economic viability and scaling up do not always align with, and indeed may undermine, the transformative potential of the local food movement. Over the last few decades, critical inquiries into the politics of the "conventionalisation" highlight potential costs of scaling up organic food (Buck et al., 1997; Guthman, 2004, 2008).

The well-documented processes involved in the seemingly inevitable conventionalization of alternative food practices, such as those signified by "organic" and "local," highlight a particular *representation of space* whereby potential *difference* gets co-opted, subsumed under a logic of capital accumulation. In opposition to co-opted representations of "local," scholars and activists have attempted to maintain purified understandings of local food space as counterspace - that is, as alternative or prefigurative space (Dupuis and Goodman, 2005). What emerges is a binary where radical spatialisations of local food, epitomized by the food-shed (see Kloppenburg *et al*., 1996), are set in clear opposition to conventional, globalized food chains. As illustrated in Chapter Four, the distinction between conventional and alternative food systems is not always clear cut. Lefebvre's (1991) concept of *spatial practice* mediates between *representations of*

space and *representational space*, discouraging either/or approaches and encouraging nuanced and relational consideration of the production of local food space. We position Alberta Flavour as a site of the production of local food space in the context of Edmonton. It would not be difficult to present Alberta Flavour as illustrative of the "Wal-Mart emphasis" (DeLind, 2011) - that is, as part of a broader co-optation of the values of the local food movement. However, we suggest attending to the initiative's spatial practice reveals a more complex picture defined by a contradictory, strategic localism. More than reflecting a simple logic of scaling up, Alberta Flavour is defined by efforts to construct and spatialize local food in a way that is strategically or deliberately grounded in the context and culture of Alberta.

In conceiving of local food as an industry and prioritizing its scaling and integration into established food chains, Alberta Flavour might be considered solely as *representation of space* – circumscribing the transformative potential of local food. Likewise, we might theorize PUF as a radical alternative to the dominant food system, defined by *representational space*. Such easy, birds-eye view classifications, in addition to ignoring internal dynamics and tensions, imply clarity or consensus concerning the politics of local food and what transformation looks like. Considered through the lens of Lefebvre's spatial triad, the dual case studies of Alberta Flavour and PUF provide an opportunity to reflect on how local food is taking place in Edmonton, and consider what the city-region's local food future might look like.

Towards a Study of the Urban Agriculture Imaginary

In this section, I introduce and build on the concept of the imaginary, and in particular the urban agriculture imaginary, as a research trajectory. Urban agriculture is an opportunity to re-cast relationships between food, cities, and people. At a fundamental level, the very term urban agriculture presents a spatial contradiction that opens up new avenues for thinking about and

practicing the city. In the summer of 2015, I took a trip to Berlin where I visited a number of

urban gardens including Prinzessinnengarten and Stadtteilgarten Schillerkiez. During these visits

I was struck by the gardens 'playful and imaginative use of urban space. While the gardens were

sites of local food production, concepts of "sustainability" and "food security" did not capture

the complexity and significance of what was happening in these spaces. In *The Poetics of Space*

Gaston Bachelard (1994) writes "in prolonging exaggeration, we may have the good fortune to

avoid the habits of *reduction*" (p. 219). To evaluate urban agriculture solely on its ability to feed

cities (see Martellozzo et al., 2014; Korth et al., 2014) reinforces mono-consequentialist (see

Agrawal & Chhatre, 2011; Davidson, 2017) framings that detract from its various other benefits.

For example, in a global scale analysis of urban agriculture, Martellozzo et al. (2014) found that

"in many countries [urban agriculture] cannot by itself ensure vegetable self-sufficiency for

urban dwellers, and even less solve the general problem of food security, simply because the

extent of urban area is limited" (p. 7). Studies that focus only on food output or sustainability

metrics fail to capture the imaginative potential of urban agriculture as a prefigurative space. In

what follows, I introduce the idea of the imaginary as a way to attend to (and perhaps even

exaggerate) those elements of urban agriculture that are sometimes lost in overly reductionist

approaches.

The Imaginary

The concept of the imaginary is used across a range of disciplines, including sociology,

geography, anthropology, political science, and cultural studies. Indeed, the list of more specific

imaginaries is long, and includes "the social imaginary" (Castoriadis, 1998), "the spatial

imaginary" (Watkins, 2015) "the urban imaginary" (Donald, 1999; Zukin et al., 1998), "the rural

imaginary," "the agrarian imaginary" (Mayes, 2014) "the ecological imaginary," (Clark, 1997;

Gandy, 2006), and "the suburban imaginary" (Park, 2014). Scholarly discussions of the imaginary tend to involve an interdisciplinary array of interlocuters, usually including Jacques Lacan, Cornelius Castoriadis, Benedict Anderson, and Charles Taylor (Park, 2014; Strauss, 2006; Lennon, 2015). In tracing the development of the imaginary as a key word, Strauss (2006) provides a concise overview of the major theoretical takes on the subject. In comparing and contrasting different theoretical approaches, Strauss is particularly interested in the question of how we can identify the imaginary empirically. This points to ontological and epistemological concerns around the imaginary.

Charles Taylor (2004) defines the social imaginary as "the ways people imagine their social existence, how they fit together with others, how things go on between them and their fellows, the expectations that are normally met, and the deeper normative notions and images that underlie these expectations" (p. 23). For Taylor, to imagine is not to engage in individuated creative acts. On the contrary, Taylor uses the term to refer to those normative and collectively held assumptions that preclude individuals 'thinking and acting in the world. Taylor's social imaginary is, in other words, the unconscious background knowledge that makes social life possible. "I adopt the term imaginary," writes Taylor, "because my focus is on the way ordinary people 'imagine' their social surroundings, and this is often not expressed in theoretical terms, but is carried in images, stories, and legends" (p. 23).

Within the field of human geography Taylor's insight is paralleled by a long-held interest in the way discourse shapes ideas of places and spaces, along with our own place in the world, has given rise to a rich literature on spatial imaginaries (Driver, 2014; Watkins, 2015). The concept of the spatial imaginary overlaps with that of the social imaginary, but with a focus on the constructed spatial divisions and hierarchies that underlie our everyday lives. Edward Said's

(1978) critique of Orientalism, with its foundational development of the concept "imaginative geography," demonstrates the ways in which widely accepted truths about other places and the people who occupy those places are hegemonic constructions. Gregory (2004) succinctly defines imaginative geographies as "constructions that fold distance into difference through a series of spatialisations" (p. 17). As Gregory notes, imaginative geographies are often acted upon as if they were real, becoming realized fictions. Combining insights from Michel Foucault and Antonio Gramsci, Said illustrated how colonial practices are reliant on the creating and maintaining of imaginative geographies. These imaginaries order the relationship between us/here and them/there, making places and people knowable and certain actions possible, or even seemingly inevitable.

Rob Shields (1991) extends scholarship on the spatial imaginary through the concept of social spatialisation, using the term "to designate the ongoing social construction of the spatial at the level of the social imaginary (collective mythologies, presuppositions) as well as interventions in the landscape (for example, the built environment)" (p. 31). With the concept of social spatialisation, Shields distills the rich and fragmentary history of spatial thinking on the margins of sociology into a widely applicable socio-spatial lens. Social spatialisation incorporates and extends Said's (1978) insights beyond the realm of Orientalism to consider the ways in which spatial imaginaries organize and influence everyday life. Shields writes, "[t]he coordinating role of social spatialisation represents an often-overlooked part of hegemonic systems of thought and supposition because spatialisation sets in motion more than an imaginary geography" (p. 46). This emphasises the coordinating role of social spatialisation as a structuring process.

The power and influence of social spatialisation is further demonstrated in Zukin et al.'s (1998) formulation of the "the urban imaginary." This notion draws on early theorizing of the social imaginary as well as social spatialisation to focus on the socially and culturally produced meanings of urban landscape: "Athough the imaginary derives from poststructuralist, psychoanalytic discussions of the unconscious, it is useful for demonstrating the social power exercised by cultural symbols on material forms – including, we think, on cities and regions" (p. 629). Zukin et al. (1998) go on to characterize the urban imaginary as assuming "a coherence between material and symbolic landscapes that is communicated through cultural meanings of specific place and has a continuing effect on both spaces and social practices" (p. 650). This "coherence between material and symbolic landscapes" results in a normative understanding about, for example, how cities are organized, including what kind of spaces they include, how those spaces should be used, and by whom. The urban imaginary, in other words, includes not only how we collectively imagine cities, but also our culturally prescribed assumptions about what it means to live in them. Beyond ideas, perceptions, or assumptions, the urban imaginary consists of an urban habitus characterized by patterns of bodily comportment and spatial practice. For example, while people may describe public spaces as ideally open and accessible to all, the practices that are actually encouraged or accepted in such spaces have been shown to be quite narrowly defined and differ greatly depending on how and whose bodies are occupying the space (Mitchell, 1995, 2003; Mitchel & Staeheli, 2006; Granzow, 2010; Low & Smith, 2006).

It is one thing to understand the urban imaginary on an abstract level, but where can we find it empirically? At once material and symbolic, the urban imaginary can be found through analyses of both representations and practices. Scholars of social and spatial imaginaries share a common emphasis on the intimate relationship between representations and reality. In his book

Modern Social Imaginaries, Taylor (2002) connects the social imaginary with everyday practice, noting that, "if the understanding makes practice possible, it is also true that it is the practice that largely carries the understanding" (p. 25). Expressing a similar relationship in regards to the urban imaginary, Zukin et al. (1998) write, "[w]hile the set of meanings of the social imaginary is conceptualized in symbolic languages, these meanings are materialized and become real in all sorts of spatial and social practices, from urban design to housing policies" (p. 629). Evidence of social and spatial imaginaries can be found through an investigation of both representations and practices. The researcher can look to images, novels, films, city plans, research or everyday talk, as well as to patterned uses of urban spaces. What counts as evidence of particular social and spatial imaginaries will depend to a large extent on the particulars and scale of those imaginaries in question.

The urban imaginary can be examined at different scales, from an investigation of the culturally ascribed meanings of particular urban places, such as parks, districts, or neighbourhoods, to examining cities or regions as a whole, such as Las Vegas, Shanghai, or Edmonton. At the broadest scale, the very meaning of the city or the urban can be explored. In *The Country and the City* Raymond William's (1973) provides a notable example, examining the meaning of the rural-urban divide in England and beyond through an analysis of literary texts. Our understandings about the country and the city, argues Williams (1973), are deeply shaped by cultural representations of these spaces as existing in relationship to each other. For Williams, these framings are more than descriptive; they reproduce meanings that have very real effects, not only in terms of material geographies, but in the structuring of peoples' experiences and consciousness. As Williams contends, "[c]learly the contrast of country and city is one of the major forms in which we become conscious of a central part of our experience and of the crisis

of our society" (p. 289). Spatial imaginaries not only structure our attitudes but often reveal collective fears and anxieties, as well as collective desires and fantasies (Gregory, 1995, p. 456). Williams documents how in the traditional urban imaginary, the city came to represent the "dark mirror" of the country, an antithesis to a rural mythologized as "Virgilian pastoral" (p. 17). The urban imaginary of 19th century England is illustrated through Thomas Hardy's description of London as "a monster whose body had four million heads and eight million eyes" (cited in Williams, 1973, p. 216). Indeed, early industrial cities were overcrowded, polluted, disease-ridden and, notably, devoid of the countryside – the idea of which was at the time itself a newly formed and rapidly developing imaginary. While the widespread negative literary reaction to the urbanization of the 19th century might be read as a simple reflection of the realities of the time, Burchardt (2002) cautions against such a reading. As he notes, "Writers never react in a direct and unmediated way to social change because they are virtually always working in a literary tradition as well as being participants in and observers of society more broadly" (p. 26). Burchardt identifies Pastoralism and Romanticism as the most significant literary traditions shaping authors' writing on 19th-century industrialization and urbanization. Whereas the pastoral tradition saw "an idealized countryside serving as a foil to the decadent town" (p. 27), the romantic tradition privileged the countryside even further as a space to commune with the "natural" and escape the "unnatural" confines of the city (p. 29).

In his review of the literature, Watkins (2015) divides spatial imaginaries research into three analytical categories: *place imaginaries*, *idealized space imaginaries*, and *spatial transformation imaginaries*. In this schema, idealized space imaginaries are characterized by their strong moral associations. Such spatial imaginaries are caricatures that work as normative cultural reference points, whether such reference points are positive or negative. Idealized spatial

imaginaries refer to those culturally charged images that exist above and beyond any actually existing places. For example, to speak of "the wrong side of the tracks" is to evoke a negative idealized spatial imaginary regardless of any actually existing referent. Moreover, as Watkins (2015) notes, idealized spatial imaginaries often preclude a normative or moral geography – one prescribing a proper place for this and place for that. As Watkins (2015) puts it, "[p]ositive associations often argue how specific places should remain an idealized kind of space (like a developed country), 'othering 'different places in the process. Negative associations are often used to argue specific places should change from a certain idealized space (like the ghetto) into something else (like the gentrified neighborhood)" (p. 513). Characterisations of spaces then, whether moral or degenerate or otherwise, do not exist outside of a broader system of representation, and in relation to other places.

The Garden City movement provides a key illustration of the urban imaginary at the beginning of the 20th Century. It was not a rejection of urban life in favour of a return to an imagined rural past, but the spatialisation of a new vision combining and mediating the idealized spaces of the country and the city. As urban planner and founder of the garden city movement Ebenezer Howard (1902) wrote, "Town and country *must be married*, and out of this joyous union will spring a new hope, a new life, a new civilization" (p. 48). The countryside was progressively idealized, eventually finding its re-introduction into cities in the form of urban parks and later through the development of Garden Cities in the late 19th and early 20th Century.[38]

---

[38] It is worth noting that Howard's use of marriage as an apt metaphor for the bringing together of town and country is as much a part of a binary system of discourse identified in the prior section: nature considered untouched and pristine, was also deeply associated with femininity, fertility, and the need for external cultivation and control.

While the dichotomy of city and country persists today, this more fundamental division of urban and nature increasingly frames city planning and development decisions, as well as people's everyday urban experiences in cities. From the start, city life involved a new attitude towards nature. As Gandy (2006) writes, "We find that modern consciousness finds extension through intensified pleasures of nature within the industrial metropolis" (p. 66). As with "rural life," "nature" was imbued with new meanings in the wake of the upheavals that came with urbanization. Yet, the imagined relationship between urban and nature that exists today is quite different than the Romanticism of the 19th century. Today it is a *crisis* of "nature" that increasingly pervades both our social and urban imaginaries, translating into new urban values, priorities, and practices.

Where New Urbanism relied heavily on pastoral tropes of small-town life (Gandy, 2006, p. 66), emergent idealized urban imaginaries are increasingly framed by the virtues of environmental sustainability. Whether through individual household-level decisions (should we buy a smart thermostat?) or at the level of city building (should we invest in composting infrastructure), values communicated through terms such as "sustainable," "green" or "ecological" have played an increasing role in the urban imaginary of the late 20th and early 21st century. Over the last few decades there has emerged an urban sustainability imaginary where cities are understood as part of a solution to, rather than a cause of, ecological crises. As Joss (2010) writes, "In the space of only a few years, in the second half of the 2000s, eco-cities appear to have become something of a global, mainstream phenomenon, with countries and cities competing to take a lead in developing and applying new socio-technological innovations and thus bringing about the next generation of sustainable towns and cities" (p. 240).

Urban Agriculture Imaginaries

Although growing food in cities has a long history (see Chapter One), interest in urban agriculture as a potential solution to social and environmental problems has exploded in recent decades. Understanding this relatively new focus on urban agriculture provides a context for why exploring the urban agriculture imaginary in its varied forms is worthwhile. The rise of sustainability as a dominant urban imaginary has reframed many aspects of urban life, including questions around food. This dissertation has examined four examples of the re-imagining of the relationship between food and cities, with Chapters One and Two highlighting elements of Edmonton's official food and urban agriculture strategy, Chapter Three exploring an urban farm in the city and Chapter Four presenting a case study of the institutional procurement of local food through the case of Alberta Flavour. Each of these examples illustrates the "new food equation" discussed by Morgan and Sonnino (2010).

Morgan and Sonnino (2010) stress that any former complacency around the state of the current global food system has been "shattered" by a series of crises occurring over the last decade, including rising food prices, increasing land conflicts, and the uncertainties brought about by climate change. This has resulted, they argue, in a "new food equation" defined by

> high-level political acceptance, by national and international governing bodies, of the
> multi-functional character of the agri-food system, which is now viewed and valued in
> more strategic terms because it is so deeply implicated in burgeoning public health costs,
> dwindling natural resources and escalating national security threats, for example.
> (Morgan & Sonnino, 2010, p. 210).

At the level of cities, the new equation is illustrated by the rapid growth of food policy councils in cities across North America. Scherb et al. (2012) report a growth from about 55 food policy

councils in 2000 to about 150 in 2011 (p. 4). The trend has continued upward with Sussman and

Bassarab (2017) reporting 324 food policy councils in North America in 2016. Speaking to the

Canadian context in 2013, MacRae and Donahue found that in "64 local and regional

municipalities across Canada have taken on the challenge of improving health, environmental

performance, food access, and local economic development, using food systems thinking and

changes in the food system to drive improvements" (p. 4). Such developments have included an

increased emphasis on urban agriculture as a way to contribute to the public good. As is reported

in Edmonton's Food and Urban Agriculture Strategy, the public benefits of urban agriculture

"could include a more resilient local food supply chain, increased community participation in the

food system, a greater diversity of fresh food sources, healthier ecosystems and improved

efficiencies in the distribution of food" (p. 33).

The potential of urban agriculture to give rise to these kinds of diverse public benefits

and contribute to new urban futures is central to the urban agriculture imaginary. Seemingly a

contradiction in terms, "urban agriculture" unites spaces constructed as separate (i.e., urban and

rural), opening up the city to new possibilities. Many urban farmers and gardeners I have spoken

with mentioned the way that becoming involved with urban agriculture changed the way they see

the city. This sentiment is illustrated in Moyles '(2015) profile of urban farmers in Canada:

> In the waning days of autumn in Edmonton, Cathryn Sprague, gets on her bicycle and
>
> rides, weaving in and around the city's residential neighbourhoods, searching for what
>
> most other passersby wouldn't give a second glance: empty spaces.
>
> She's looking for idle lots, for gaps in between people's houses that appear suddenly like
>
> missing teeth—the homely, bare spaces that only weeds love. These scraps of land are

everywhere, scattered through the city's neighbourhoods. For the majority, they're an

eyesore, or the opposite of that, they're invisible.

For Sprague, a twenty-six-year-old emerging urban farmer in Edmonton, they're

everything: potential land for repurposing into urban farms and for feeding

neighbourhoods.

Seeing the potential of "empty space" is the imaginative act at the heart of urban agriculture. As

Mudu and Marini (2018) write, "the existence of abandoned and 'empty' spaces is one of the

most important opportunities that enables the exercise of a collective power to affect the

processes of urbanization" (p. 552-553).[39] Whether sparked by an abandoned lot, a strip of

weedy boulevard, or barren rooftop, the urban agriculture imaginary thrives in the interstices of

the city.

It is no wonder that urban agriculture has captured the imagination of so many planners,

architects, researchers, and citizens interested in building more sustainable, resilient, and socially

just cities. The urban agriculture imaginary provides a framework to begin to activate urban

space in novel and exciting ways. This is illustrated through numerous examples from

Edmonton, including and the story of the creation of Prairie Urban Farm presented in Chapter

Three. However, while often celebrated as part of unified movement towards greener, more

sustainable cities, urban agriculture is not everywhere the same. Like other urban imaginaries

(i.e. "smart city," "global city," "sustainable city," "entrepreneurial city," etc.), urban agriculture

---

[39] It is important to point out that such romantic imaginaries at work in the claiming of ostensibly 'empty' space towards urbanization, however, also have roots in settler colonial practices of land theft. What appears 'empty' to those arriving whether on horseback or bikes, whether in the 19th or 20th century, only *appears* empty from the a-historical vantage point of those who have most recently arrived. Although not addressed here, nefarious aspects of the "opportunities" celebrated in urban imaginaries is as much about denying access to space (for some) as it is about making good use of that same space (for others).

has become a frame through which individuals, groups, and other organizations act out and articulate desired urban futures. Watkins (2015) writes that "the idea of the world city has become a 'frame 'through which governments pursue strategies to engender world city characteristics in the 'here and now', concluding that the world city imaginary materializes through concrete changes to urban policy and form, 'othering 'different ideas of 'successful cities '(p. 513). Similarly, urban agriculture is a frame through which various actors and groups offer visions of desirable urban change.

As Bohn & Viljoen (2014) write, "urban agriculture is always part of something. As a space use type, it may be part of more strategic concepts, such as [Continuous Productive Urban Landscape City] or Agrarian Urbanism or other development concepts adopted by a municipality" (p. 10). Or, as Walker (2016) has illustrated, urban agriculture may be part of neoliberal urban visions and strategies. To understand the meaning or politics of an urban agriculture project or policy, we must ask, what it is *part of*. In other words, we need to understand its meaning within broader socio-cultural contexts and urban strategies. Zukin et al. (1998) states, "[t]he *urban imaginary* suggests a range of new research methods for a 'new, new urban sociology' that joins political economy and cultural analysis. It does so by assuming a coherence between material and symbolic landscapes that is communicated through cultural meanings of specific places and has a continuing effect on both spaces and social practices" (p. 650). As with Zukin's urban imaginary, researching the urban agriculture imaginary requires a multidisciplinary approach that considers factors such as land use patterns, policy, and architectural forms, but crucially also cultural texts and representations that speak to the meaning of urban agriculture in specific contexts.

Unlike the Garden City, there exists no authoritative diagram for the urban agriculture imaginary. Instead, urban agriculture consists of a series of loosely connected practices and policies taking place differently in cities around the world. Drawing from my research in Edmonton and my broader engagement with the literature, I conclude this dissertation by introducing two urban agriculture imaginaries that emerged through my research, each of which links urban food growing activities to urban change in particular ways. I begin by introducing what I call the techno-determinist urban agriculture imaginary, before going on to examine an urban agriculture imaginary defined by its relation to public space and the urban commons. Both of these imaginaries suggest directions for future research.

The techno-determinist urban agriculture imaginary is organized around the use of urban spaces for hyper-efficient food growing infrastructure epitomized by the vertical farm and more experimental and integrative forms of "urban agritecture." this imaginary is presented as an innovative way to feed the city (see Despommier, 2010). This familiar imaginary offers up urban agriculture as a solution to a range of risk scenarios, from climate change to food security. With parallels to the "smart city," the techno-deterministic imagery of the vertical farm and related architectural innovations invites a re-imagining of city space, but largely within the existing logics of the city. Linking innovation and entrepreneurialism, the techno-deterministic imaginary has become a dominant image of urban agriculture in the 21st century. A Google search of urban agriculture reveals images and articles celebrating a high-tech, green urban future. Examples like Aero Farms in New Jersey, "a data-driven indoor vertical farming company" and Lufa Farms ' rooftop greenhouses in Montreal demonstrate the productive potential of the city. Such initiatives are understated compared to the large-scale "agritecture" developments currently being planned in Sweden and Dubai. Epitomizing the techno-deterministic urban agriculture imaginary, the

Swedish food-tech company Plantagon is currently developing a "Plantscraper" in the city of

Linköping, Sweden. Moreover, the companies Crop One Holdings and Emirates Flight Catering

have teamed up to develop a $40 million indoor farm in Dubai. According to Crop One's

website:

> The 130,000-square-foot controlled environment facility will produce three U.S. tons
>
> (6,000 pounds or 2,700 kg) of high-quality, herbicide and pesticide-free leafy greens,
>
> harvested daily, using 99 percent less water than outdoor fields, according to a press
>
> release. Its location will enable quick delivery of fresh products within hours of harvest,
>
> maintaining the food's nutritional value and reducing carbon emissions associated with
>
> transportation, according to the release.

These initiatives are widely celebrated as examples of innovation because of their integration of

economic and environmental priorities, presenting a shining image of sustainable urbanism.

Without detracting from the architectural and technological advances of a techno-deterministic

urban agriculture imaginary, there is reason, as discussed above, to be cautious when it comes to

"'win-win-wins 'between economic growth, social development and ecological protection"

(While et al., 2004, p. 554).

Chapter Two introduced some of the critical debates around sustainability and its

associated "win-win-wins." Over the last several decades, the sustainability imaginary has

gained prominence as the primary way to understand and address the complex social,

environmental, and economic problems faced by cities, nation-states, and the world as a whole.

As discussed in the chapter, critiques of sustainable development focus on the question of "what

is to be sustained" (Redclift & Woodgate, 2000). While et al. (2004) elaborate on this critique

through the concept of the "sustainability fix." Building off of Harvey's (1982) earlier idea of the

"spatial fix," the "sustainability fix" highlights "the selective incorporation of ecological goals" (p. 551), spurring us to wonder what kinds of urban interventions and futures are ruled out, deemed unworkable within the norms and logics of, for example, neoliberal urbanism (Peck et al., 2009). As touched upon in this conclusion, the norms and logics embedded in such projects are not innately or universally beneficial. Moreover, in holding up a set of technological and architectural advancements as the primary solution to social and environmental risk scenarios, techno-determinist urban agriculture imaginaries can act as spectacle detracting from less visible but potentially more transformative imaginaries.

I conclude this dissertation by emphasizing what is for me the most interesting and potentially transformative urban agriculture imaginary – one defined by the activation of new forms of urban spaces and property configurations including urban commons. Writing on the topic of the commons, Silvia Federici (2018) says of community gardens:

> Their significance cannot be overestimated. Urban gardens have opened the way to a 'rurbanization 'process that is indispensable if we are to regain control over our food production, regenerate our environment, and provide for our subsistence. The gardens are far more than a source of food security: they are centers of sociality, knowledge production, and cultural and intergenerational exchange. (p. 105-106).

Federici's framing of community gardening as radical commons has its roots in a long history of interest in what McKay (2011) calls "horticountercultural politics" (McKay, 2011, p. 6). From the commoning efforts of the Diggers in the 17th Century to the guerilla and community gardeners of today, producing food has long been about more than food; it has persisted as a symbol of resistance. As William Cobbett wrote, "If I sowed, planted or dealt in seeds; whatever I did had first in view the destruction of infamous tyrants" (in McKay, 2011, p. 7). Recent

studies have focused on commoning as a central element of community gardens. Eizenburg (2011), for example, finds that community gardens in New York City function as important "actually existing commons" providing an alternative space to the "actually existing neoliberalism" (Brenner and Theodore, 2002) encroaching on everyday life.

An emphasis on the urban agriculture commons brings back into focus the potential values of community gardening that are relevant at the urban scale and which have been lost in the narrowing of the discussion to urban agriculture and food security. In a *Guardian* article published in 2015, Justin McGuirk asks how we might expand our imaginary of the urban commons beyond the scale of the community garden. One answer is to begin to shift the frame through which we conceive of and evaluate urban agriculture. A radical urban agriculture imaginary might, for example, challenge private property rights, pursue food justice goals, or emphasize the expansion of an urban commons. We might look to examples like City Slicker Farms in Oakland (Curran & González, 2011; McClintock, 2014) or the Detroit Black Community Food Security Network (White, 2011) to see examples of radical urban agriculture imaginaries at play. Such initiatives are about far more than producing food; they are "spaces of hope" (Harvey, 2000) where values of justice and sovereignty are experimented with, and a vision of possible urban futures is offered up. Often incompatible with dominant urban norms and structures, such imaginaries are often only able to materialize in compromised, temporary, and highly insecure forms, if they materialize at all.

When hundreds of Edmontonians showed up unexpectedly at city hall demanding the protection of farmland within the city's boundaries, they were challenging the idea that private property rights and exchange values should be prioritized over the potential benefits of urban agriculture. City planners I spoke with about the citizen protests and subsequent public

engagements emphasized the impossibility of expropriating privately owned land from developers. This was born out in an extended public engagement process that, in the end, held up the property rights of developers. Yet, as discussed above, all was not lost. The radical urban agriculture imaginary represented by those initial demands for the protection of privately-owned agricultural lands within the city was the impetus for the development of *Fresh* and subsequent changes to Edmonton's land use and urban agriculture policies. This, in turn, has allowed for new urban agriculture initiatives to take root in the city, including the Vacant Lots for Urban Agriculture Pilot Project. While ultimately cancelled in October 2018 after only one season, this pilot project made available public lands for citizens to grow food during the summer months, further opening up the conversation about what is possible in Edmonton.

A growing body of literature emphasising the multifunctionality of urban agriculture (Davidson, 2017; McClintock et al., 2018; Poulsen et al., 2018; Valley & Wittman, 2019) has pointed to the wide array of social and ecological benefits that escape the "urban agriculture as sustainability and food security frame," helping to activate urban space in novel ways and inviting us to ask the question, what do we want urban agriculture to do for *our* cities? The analysis presented in Chapter Three highlights the diversity of motivations and values of volunteers at Prairie Urban Farm. As a form of "actually existing commons" (Eizenberg, 2012), the meaning and priorities of Prairie Urban Farm are a matter of ongoing negotiation. As noted in Chapter Three, this has resulted in some frustration, with volunteers lamenting the farm's inefficiencies and lack of strategic direction. At the same time, others have emphasized the benefits of Prairie Urban Farm's collective approach, reporting how it engendered diverse encounters and encouraged shared learning opportunities. These two interpretations point to

contrasting urban agriculture imaginaries, with the latter pointing to the value of urban

agriculture as urban commons and opening up new sets of questions for citizens and cities alike.

When McGuirk (2015) asks, "how is it that the pioneers of a new urban politics are

always planting kale and rhubarb?" he suggests a need to think beyond the boundaries of the

community garden commons to re-imagine the idea of the city as a whole. The concept of the

urban agriculture imaginary provides a way to hold the interplay and tensions between *what is*

and *what might be*, between possibilities and limitations, within a single concept. What makes it

an *urban* imaginary is that it takes the city as a whole as its object of change. The urban

agriculture imaginary allows us to connect even the most mundane or seemingly insignificant

examples of urban agriculture with a broader conversation about possible urban futures. In other

words, the concept helps us scale-up the politics, not just the production, of food in the city.[40]

Reducing the benefits of urban agriculture to the amount of food it can produce is

tantamount to reducing libraries to the number of books they hold. As Klinenberg (2018) has

recently pointed out, the value of libraries is not primarily about the supply of books, but what

they contribute to the social infrastructure. Similarly, while scholars in the natural sciences in

particular have been concerned with the ability of urban agriculture to feed cities, perhaps its

more transformative potential is in its connection to new urban imaginaries that unsettle the

logics and norms that allow food insecurity and injustice to continue to be a problem in even the

wealthiest of cities. In considering urban agriculture through the conceptual lens of the urban

imaginary I have emphasized its existence as a frame of action in the city. To identify an urban

agriculture imaginary is to point out that, in addition its material forms and spatial practices,

---

[40] Indeed, perhaps McGuirk's (2015) identification of the naivete of the pioneer points us in a crucial direction for the scale-up of the politics of food in the city, leading to an asking after how settler colonial priorities are embedded in such endeavours.

urban agriculture exists as a set of ideas and representations positing novel relationships between people, food, and cities.

Concluding Discussion

This dissertation is built on three independently published works that are tied together by the general theme of "local food." And yet, food as it is typically understood and studied in the Food Studies literature is peripheral to the above analyses and discussions. One of the contributions of this dissertation is a furthering of interdisciplinary approaches to food-related questions, or what Wise (2019) calls "the 'Second Wave' of Food Studies" (p. 32). "The time is 'ripe'," writes Wise, "for the blending of new kinds of interdisciplinary sensibilities in food studies" (p. 34). Beyond a focus on "local food," it is this dissertation's specific theoretical and methodological approach to this theme that provides the unifying thread, and which generates its contributions to scholarship.

Grounded in Lefebvre's (1991) theory of social space and subsequent theorizations of relational space (Fuller and Löw, 2017; Massey, 2005; Shields, 1991; Soja, 1989, 1993), this dissertation poses local food as a "spatial question" (Shields, 2013). As such, this work responds to Wise's (2019) question: "How might focusing on spatial questions – at an empirical level as well as on an epistemological register…– more deeply yield new energy and insights" for food studies? (p. 33). This dissertation is an inquiry into the socio-spatial production and politics of local food space in Edmonton. Using a methodological approach of socio-spatial mapping, Prairie Urban Farm (PUF) and Alberta Flavour are analyzed as very different, but also related, *moments* in the production of local food space. As described in Chapter One, socio-spatial mapping is, in fact, a kind of anti-mapping that looks beyond apparent boundaries and borders to highlight constituent processes. As a mapping of processes rather than things or bounded

territories, this exploratory approach renders space knowable in new and creative ways, teasing out tensions and contradictions, and encouraging methodological reflexivity. Applied to the topic of "local food," socio-spatial mapping involves attending to the many ways in which "local food" is spatialised through practices, lived experiences, and representations.

The theoretical and methodological orientation of the present work overlaps with recent critical scholarship on the politics of local food space. As discussed above (see especially Chapter Three), much of this literature has theoretical roots or affinities with Lefebvre, and, in particular, his writings on the "right to the city" (Eizenberg, 2012; Follman & Viehoff, 2015; Purcell & Tyman, 2015; Shillington, 2013; Staeheli et al., 2002). This research takes a particular type of contestation as its starting point, examining alternative food practice as counterhegemony (Johnston, 2008) and urban agriculture as a space of radical insurgency (Mares & Peña, 2010). In their study of two urban farms in the U.S., Mares and Peña describe how marginalized communities resist continual threats of enclosure through "vernacular foodscapes" (p. 246). Research on urban agriculture as counterspace tends to focus on informal initiatives, often understood through the lens of guerilla gardening (See Hardman et al., 2014, 2018) or informal appropriations of left over, indeterminate urban space, or what has been called "terrain vague" (Solà-Morales, 2014). Moreover, critical studies of urban agriculture tend to focus on identifiable groups appropriating urban space to grow food while at the same time generating a sense of place and resisting the injustices of neoliberal urbanism.

In their excellent examination of urban agriculture as insurgency, Mares and Peña (2010) focus on the creative efforts of immigrant and diasporic communities in the struggle for food sovereignty. The authors examine the plots of South Central Farm as "attempts by diasporic people to replicate the *huerto familiar* or hometown kitchen gardens in Mexico, Central

America, Puerto Rico, Cuba, or the Dominican Republic" (p. 245). In another analysis

combining insights from Lefebvre as interpreted through more recent theoretical developments

in urban political ecology, Shillington (2013) examines the cultivation of fruit trees and

consumption of *refrescos* by marginalized residents of barrio San Augusto in Managua,

Nicaragua. Shillington considers "patio ecologies" as a claim to the right to the city by the city's

poorer residents. As with other analyses of urban agriculture rooted in urban political ecology

(see Classens, 2015; McClintock, 2010), Shillington argues that any "right to the city" is not

merely a right to physical or social space, but must include a "right to metabolism" (p. 110).[41]

From the perspective of feminist political ecology, Hovorka (2006) similarly identifies urban

agriculture as way for women in Botswana to "negotiate their disadvantaged circumstances" and

make "new claims over commercial agricultural production from which they have been largely

excluded" (p. 220). Using an ecofeminist perspective, White (2011) documents the experiences

of black women members of the Detroit Black Community Food Security Network, examining

their participation in urban agriculture "as a strategy to exercise political agency and bring about

community transformation and, in the process, alleviate the food crises and demonstrate social

and political change" (p. 15).

These works are reflective of critical approaches to urban agriculture that focus on the

rights or empowerment of marginalized groups, whether based on class, ethnicity, gender,

immigration status.[42] Informed by critical scholarship, the present research set out to explore the

meaning and politics of urban agriculture. In researching PUF, I expected to find in my

---

[41] In the conclusion to what is a trenchant critique of urban agriculture, Saed (2012) writes, "Lefebvre-inspired urban leftist activists therefore beware: the right to the city can be a most suicidal political demand when biophysical processes and the state of ecosystems elsewhere (on which cities depend) are not made central to the struggle" (p. 7).
[42] For a structural critique of the many purported social benefits of urban agriculture through the lens of critical race theory, see Reynolds (2015).

interviews with volunteers a set of unified attributed meanings and interests. This would have

followed much of the critical literature, which tends to identify informal urban agriculture

initiatives as spatial expressions of resistance by a particular group. Instead, I found something

quite different, a social space characterized by uncertain and contradictory ideas and values.

Under the rubric of socio-spatial mapping, this project has been largely exploratory, both

in the sense of developing and testing a unique methodological approach, and in its inductive

approach to getting to know local food space in Edmonton. Integrating Gibson-Graham's (2006)

emphasis on "reading for difference" helped mitigate a pre-emptive collapsing of responses into

established categories, such as community or social benefits. Chapter Three documents the

diversity of participant responses and associated politics. While PUF is officially coded as a food

security and sustainability initiative, participants' attach to the space a highly diverse and at

times contradictory sets of meanings and politics. This key finding bolsters existing scholarship

on the multivocality and multifunctionality of urban farms and gardens (Davidson, 2017;

McClintock et al., 2016; Scheromm, 2015; Kurtz, 2001; Valley & Wittman, 2020), while going

further to identify and theorize ambivalence itself as a virtue of urban agriculture space. While

ambivalence may stand in the way of any singular organizational focus (e.g., contributing to the

goals of local food security, food literacy, etc.), it is also an opportunity to think and act urban

agriculture outside dominant interpretive frames. It is through its ambivalence and harbouring of

difference (i.e. different approaches to and understandings of urban agriculture) that PUF acts as

a kind of "differential space" (Lefebvre, 1991), calling into question the meaning and politics of

urban agriculture with implications beyond the boundaries of the farm itself.

There are many forms of urban agriculture, representing diverse values and politics that

the gamut from radical to neoliberal (McClintock, 2014). While PUF is not representative of

urban agriculture in general, mapping this initiative contributes to understanding Edmonton's

local food landscape, while also revealing an aspect of urban agriculture that has thus far

received little scholarly attention. While the idea of contestation is central to much critical

scholarship on urban agriculture, little has been said about intra-garden tensions and the politics

of ambivalence, which constitute another type of tension. Going beyond identifying participants'

different perspectives on PUF, Chapter Three theorizes ambivalence as an opportunity to chart

new and creative directions forward, potentially disembedding practice from dominant frames of

understanding and re-imagining urban agriculture in relation to specific contexts. It is by way of

ambivalence that the case of PUF links to the idea of urban agriculture imaginaries discussed

above. Ambivalence is a virtue, not only in its accommodating of difference, but in that it

suggests a view of urban agriculture "in the making," rooted in everyday practice and an ongoing

negotiation of meaning and direction.[43] In highlighting tensions between official representations

and participants' understandings and experiences, the concept of ambivalence emerges as an

opportunity to interrogate and (re)negotiate the meaning and politics of urban agriculture

initiatives as they exist in different places and contexts. In short, ambivalence is a chance to

cultivate new, perhaps more radical, urban agriculture imaginaries from the ground up. The

analysis of PUF in Chapter Three reveals no single "community garden path," but rather PUF as

a fork in the road – an opportunity to navigate difference through everyday practice and

reflexively consider future directions in relation to different urban agriculture imaginaries.

---

[43] Chapter Three is itself a *representation of space* (Lefebvre, 1991) - a discursive intervention into PUF as a social space. It is not, however, intended to be the last word. I plan to organize a workshop where participants can engage with and reflect on the findings and ideas discussed in the chapter. This would provide an opportunity for participants to reflect on the meaning and politics of PUF and collectively discuss and (re)negotiate future trajectories.

The analysis of Alberta Flavour in Chapter Four departs from a consideration of urban agriculture practice, shifting focus to another moment of the production of local food space in Edmonton. A review of the literature reveals there has been far less critical scholarship looking at institutional procurement through a politics of space lens. Moreover, no studies that I could find specifically drew on Lefebvre's theoretical framework to study the institutional procurement of local food. Indeed, as a more formalized and institutionalized approach that focuses on the scaling up of local food, it may be at first difficult to see the relevancy of Lefebvre theoretical framework. However, building on this approach renders Alberta Flavour visible in ways that highlight constituent and conflicted processes. As illustrated in the chapter, Alberta Flavour is a moment in the ongoing production of local food space. It is defined by tensions and contradictions, that, as I argue in Chapter Four, elide easy distinctions between conventional and alternative food systems. As is the case with the analysis offered in Chapter Three, the analysis of Alberta Flavour does not present a traditional critical approach rooted primarily in the interests of identifiable groups. Instead, it focuses on the place-making and scale-building approaches of Alberta Flavour, revealing the contingent, contradictory, and strategic elements of what is a unique local food initiative.

As previously discussed in the introduction to this dissertation, socio-spatial mapping provides an epistemological answer to Lefebvre's ontological theorizing of social space. In other words, it is an approach that recognizes the futility of trying to grasp social space in its entirety, while at the same time emphasizing the multidimensionality and hybridity of social space (see also Pierce & Morgan, 2015). As an introduction to and development of socio-spatial mapping, this dissertation orients future research, not only towards understanding local food initiatives as multidimensional social spaces, but also examining such initiatives in relation to each other.

The case study of PUF is the empirical heart of this dissertation. Yet, it is arguably the analysis of PUF and Alberta Flavour together and through the same methodological frame that is this dissertation's most innovative and promising contribution to scholarship. In general, urban agriculture and institutional procurement represent very different approaches to the question of local food. This is reflected by the fact that these two areas exist largely within their own scholarly niches. Bringing an analysis of urban agriculture and institutional procurement in relation to each other through socio-spatial mapping situates them as related moments in a broader landscape of local food. Thus, while this dissertation is centred around three independently published works, the contribution to the scholarship is more than the sum of its parts. Socio-spatial mapping not only allows for the mapping of individual local food initiatives, but encourages the analysis of a diversity of such initiatives together and in relation to each other. This leads to a more comprehensive and in-depth understanding of the meaning and politics at play in the local foodscape.

Beyond simply recognizing PUF and Alberta Flavour as both part of a broadly defined local food movement, a socio-spatial mapping invites the examination of the specific processes by which each initiative constitutes local food space, and how such processes might relate to or contradict one another. For example, rather than considering PUF and Alberta Flavour as expressions of the same local food movement, or, alternatively, wholly contradictory approaches, socio-spatial mapping is uniquely suited to deal with the complexity of interrelations, identifying both resonances and dissonances. And yet, this methodological strength is left only partially explored in this dissertation. While this is indeed a limit of the present work, it also provides motivation and direction to future research.

The seeds of this dissertation were planted at Prairie Urban Farm. It was through the practice of urban agriculture that I first began thinking about the politics and possibilities of urban agriculture as a spatial question. My early thinking and research focused largely on urban agriculture in particular as an emergent spatialisation. It was in incorporating an analysis of Alberta Flavour and the concurrent developing of my thinking around theory and methodology that I came to broaden the scope of analysis to include a wide array of local food space.

Beyond this dissertation, I am developing my theoretical and methodological scholarship through continued exploration and expanded empirical analysis.[44] In examining emergent local food spaces such as food hubs, agri-hoods, or community fridges in specific contexts and in relation to each other, I aim to gain further understanding of the politics and possibility of local food as a social space. Moreover, such an analysis would position local food spaces in relation to the urban imaginary, attending to both their material and symbolic aspects, and considering them in relation to possible urban futures. The continued socio-spatial mapping of local food spaces would also contribute to, not only a reflexive localism, but a reflexive urbanism, encouraging a critical examination of how local food intersects with urban values, such as the importance of public space.

---

[44] Hardman et al. (2018) have pointed to the need for such theorizing: "We suggest that [urban agriculture] is under-theorized as previous research has focused on practicalities and activism" (p. 1).

References

Adler, P. A., & Adler, P. (1987). *Membership roles in field research*. Newbury Park: Sage.

Agrawal, A., & Chhatre, A. (2011). Against mono-consequentialism: Multiple outcomes and their drivers in social-ecological systems. *Global Environmental Change*, *21*, 1–3.

Bachelard, G. (1994). *The poetics of space*. Boston: Beacon Press.

Blomley, N. (2004). Un-real estate: Proprietary space and public gardening. *Antipode, 36*(4), 614-641.

Bohn, K. & Viljoen, A., (Eds.). (2014). *Second nature urban agriculture: Designing productive cities*. London: Routledge.

Buck, D., Getz, C., & Guthman, J. (1997). From Farm to Table: The Organic Vegetable Commodity Chain of Northern California. *Sociologia Ruralis*, *37*(1), 3–20.

Castoriadis, C. (1998). *The imaginary institution of society*. Cambridge: MIT Press

Clark, J. (1997). A social ecology. *Capitalism, Nature, Socialism*, 8(3), 3-33.

Curran, C., & González, M. (2011). Food Justice as Interracial Justice: Urban Farmers, Community Organizations and the Role of Government in Oakland, California. *The University of Miami Inter-American Law Review*, 43(1), 207-232.

Dahlberg, K. (1993). Regenerative food systems: Broadening the scope and agenda of sustainability. In Food for the future, ed. P. Allen, 75-102. New York: Wiley.

Davidson, D. J. (2017). Is Urban Agriculture a Game Changer or Window Dressing? A Critical Analysis of Its Potential to Disrupt Conventional Agri-food Systems. *International Journal of Sociology of Agriculture & Food*, *23*(2), 63–76.

Delind, L. B. (2011). Are local food and the local food movement taking us where we want to go? Or are we hitching our wagons to the wrong stars? *Agriculture and Human Values; Dordrecht*, *28*(2), 273–283.

Despommier, D. (2010). *The vertical farm*: *Feeding the world in the 21st century*. New York: Thomas Dunne Books.

Deutche, R. (1998). *Evictions: Art and spatial politics*. Cambridge: MIT Press.

Donald, J. (1999). *Imagining the modern city*. Minneapolis: University of Minnesota Press

Driver, F. (2014). Imaginative geographies. In *Introducing human geographies*, 3rd edition, eds. Paul Cloke, Philip Crang, and Mark Goodwin. New York: Routledge, pp. 234-248

DuPuis, E. M., & Goodman, D. (2005). Should we go "home" to eat?: toward a reflexive politics of localism. *Journal of Rural Studies*, *21*(3), 359–371.

Eizenberg, E. (2012). Actually Existing Commons: Three Moments of Space of Community Gardens in New York City. *Antipode, 44*(3), 764-782.

Elden, S. (2004). *Understanding Henri Lefebvre: Theory and the possible*. London: Continuum.

Federici, S., 2018. *Re-enchanting the world: feminism and the politics of the commons*. Oakland, CA: PM Press.

Fuller, M. G., & Löw, M. (2017). Introduction: An invitation to spatial sociology. *Current Sociology*, *65*(4), 469–491. https://doi.org/10.1177/0011392117697461

Gandy, M. (2006). Urban nature and the ecological imaginary. In *In the nature of cities: Urban political ecology and the politics of urban metabolism*, Questioning cities, eds. Nik Heynen, Maria Kaika, Erik Swyngedouw, and Sophie Watson. New York: Routledge.

Gans, H. J. (2002). The Sociology of Space: A Use–Centered View. *City & Community*, *1*(4), 329–339. https://doi.org/10.1111/1540-6040.00027

Gieryn, T. F. (2000). A space for place in sociology. *Annual Review of Sociology*, *26*, 463–496.

Goffman, I. (1959). *The presentation of self in everyday life*. New York: Anchor.

Granzow, M., & Beckie, M. (2019). Making Place for Local Food: Reflections on Institutional Procurement and the Alberta Flavour Learning Lab. *Journal of Agriculture, Food Systems, and Community Development*, *9*(A), 215–229. https://doi.org/10.5304/jafscd.2019.091.042

Granzow, M. (2015). The promise of urban agriculture. *Space and Culture*. Retrieved August 4, 2019, from https://www.spaceandculture.com/2015/11/25/industrial-ruin-and-the-promise-of-urban-agriculture/

Granzow, M. (2017). The Production of Public Space in a Small Canadian City: An Analysis of Spatial Practices in the Revitalizing of Galt Gardens. *Space and Culture*, *20*(3), 344-358. https://doi.org/10.1177/1206331217707473

Gregory, D. (2004). Palestine and the "War on Terror." *Comparative Studies of South Asia, Africa and the Middle East*, *24*(1), 183–195.

Guthman, J. (2003). Fast food/organic food: Reflexive tastes and the making of "yuppie chow." *Social & Cultural Geography*, *4*(1), 45–58.

Guthman, J. (2008). Neoliberalism and the making of food politics in California. *Geoforum*, *39*(3), 1171–1183. https://doi.org/10.1016/j.geoforum.2006.09.002

Hardman, M., Clair, R. S., Adams, D., Armitage, R., Barry, V., Larkham, P., & Sherriff, G. (2018). *Urban agriculture: Evaluating informal and formal practices. 18*, 11.

Harvey, D. (1996). *Justice, nature, and the geography of difference*. Cambridge, Mass.: Blackwell.

Harvey, D. (2000). *Spaces of hope*. Berkeley: University of California Press.

Harvey, D. (1982). *The limits to capital*. Oxford: Basil Blackwell.

Harvey, D. (2012). *Rebel cities: From the right to the city to the urban revolution*. Verso.

Hill, A. (2015). Moving from "matters of fact" to "matters of concern" in order to grow economic food futures in the Anthropocene. *Agriculture and Human Values*, *32*(3), 551–563.

Howard, E. (2007). *Garden cities of tomorrow*. Cambridge: MIT Press.

Joss, S. (2010). Eco-cities – A global survey 2009. *WIT Transactions on Ecology and The Environment*, 129, 239-250.

Klinenberg, E. (2018). *Palaces for the people: How social infrastructure can help fight inequality, polarization, and the decline of civic life*. New York: Crown.

Korth, M., Stewart, R., Langer, L., Madinga, N., Rebelo Da Silva, N., Zaranyika, H., … de Wet, T. (2014). What are the impacts of urban agriculture programs on food security in low and middle-income countries: A systematic review. *Environmental Evidence*, *3*(1), 21. https://doi.org/10.1186/2047-2382-3-21

Leary-Owhin, M. E. (2016). *Exploring the production of urban space: Differential space in three post-industrial cities*.

Lennon, K. (2015). *Imagination and the Imaginary*. New York: Routledge.

Lefebvre, H. (1996). The right to the city. In E. Kofman, E. Lebas, & E. Lebas (Eds.), & E. Kofman (Trans.), *Writings on cities* (pp. 63–184). Oxford: Blackwell.

Lefebvre, H. (1976). *The survival of capitalism: Reproduction of the relations of production*. London: Allison & Busby.

Levkoe, C.V. (2011). Towards a Transformative Food Politics. *Local Environment*, *16*(7), 687-705.

Low, S., & Smith, N. (Eds.). (2006). *The politics of public space*. New York: Routledge.

Mares, T. M., & Peña, D. G. (n.d.). *Urban agriculture in the making of insurgent spaces in Los Angeles and Seattle.* 14.

Martellozzo, F., Landry, J. S., Plouffe, D., Seufert, V., Rowhani, P., & Ramankutty, N. (2014). Urban agriculture: A global analysis of the space constraint to meet urban vegetable demand. *Environmental Research Letters*, *9*(6).

Massey, D. (2005). *For space*. London: Sage.

Massey, D. B., Featherstone, D., & Painter, J. (Eds.). (2013). *Spatial politics: Essays for Doreen Massey*. Chichester, West Sussex: Wiley-Blackwell.

Mayes, C. (2014). An Agrarian Imaginary in Urban Life: Cultivating Virtues and Vices Through a Conflicted History. *Journal of Agricultural and Environmental Ethics*, *27*(2), 265–286.

McKay, G. (2011). *Radical gardening: Politics, idealism & rebellion in the garden*. London: Frances Lincoln Ltd.

McClintock, N. (2010). Why farm the city? Theorizing urban agriculture through a lens of metabolic rift. *Cambridge Journal of Regions, Economy and Society*, *3*(2), 191–207. https://doi.org/10.1093/cjres/rsq005

McClintock, N. (2014). Radical, reformist, and garden-variety neoliberal: coming to terms with urban agriculture's contradictions. *Local Environment*, *19*(2), 147–171.

McClintock, N., & Simpson, M. (2018). Stacking functions: Identifying motivational frames guiding urban agriculture organizations and businesses in the United States and Canada. *Agriculture and Human Values*, *35*(1), 19–39. https://doi.org/10.1007/s10460-017-9784-x

McDougall, R., Kristiansen, P., & Rader, R. (2019). "Small-Scale Urban Agriculture Results in High Yields but Requires Judicious Management of Inputs to Achieve Sustainability." *Proceedings of the National Academy of Sciences* 116(1), 129–34.

McGuirk, J. (2015, June 15). Urban commons have radical potential – it's not just about community gardens. *The Guardian*. Retrieved from https://www.theguardian.com/cities/2015/jun/15/urban-common-radical-community-gardens

Mitchell, D. (2003). *The right to the city*. New York: The Guilford Press.

Morgan, K., & Sonnino, R. (2010). The urban foodscape: World cities and the new food equation. *Cambridge Journal of Regions, Economy and Society*, *3*(2), 209–224. https://doi.org/10.1093/cjres/rsq007

Morgan, K., & Sonnino, R. (2013). The School Food Revolution…

Mougeot, L. (2000). Definitions, presence, potentials and risks. In N. Bakker, M. Dubbeling, S. Gundel, U. Sabel-Koschella, & H. d. Zeeuw (Eds.), *Growing cities, growing food: Urban agriculture on the policy agenda; A reader on urban agriculture*. Feldafing, DE: DSE.

Moyles, T. (2015). Women farming in the city. Retrieved August 5, 2019, from GUTS website: http://gutsmagazine.ca/women-farming-in-the-city-2/

Mudu, P., & Marini, A. (2018). Radical Urban Horticulture for Food Autonomy: Beyond the Community Gardens Experience. *Antipode*, *50*(2), 549–573.

O'Hara, J. K., & Pirog, R. (2013). Economic Impacts of Local Food Systems: Future Research Priorities. *Journal of Agriculture, Food Systems, and Community Development*, *3*(4), 35–42–35–42. https://doi.org/10.5304/jafscd.2013.034.003

Park, O. (2014). The Suburban Imaginary: Ambivalence, Strangeness, and the Everyday in Contemporary Representations of the Suburb. https://doi.org/10.7939/R3JD4PV3D

Peck, J., Theodore, N., & Brenner, N. (2009). Neoliberal Urbanism: Models, Moments, Mutations. *SAIS Review of International Affairs*, *29*(1), 49–66. https://doi.org/10.1353/sais.0.0028

Pierce, J., & Martin, D. G. (2015). Placing Lefebvre. *Antipode*, *47*(5), 1279–1299.

Saed. (2012). Urban Farming: The Right to What Sort of City? *Capitalism, Nature, Socialism; Abingdon*, *23*(4), 1.

Said, E. W. (1978). *Orientalism*. New York: Pantheon Books.

Poulsen, M. N., Neff, R. A., & Winch, P. J. (2017). The multifunctionality of urban farming: Perceived benefits for neighbourhood improvement. *Local Environment*, *22*(11), 1411–1427. https://doi.org/10.1080/13549839.2017.1357686

Reynolds, K. (2015). Disparity Despite Diversity: Social Injustice in New York City's Urban Agriculture System. *Antipode*, *47*(1), 240–259. https://doi.org/10.1111/anti.12098

Santo, R., Palmer, A., & Kim, B. (2016). *Vacant lots to vibrant plots: A review of the benefits and limitations of urban agriculture*. Retrieved from John Hopkins Centre for a Livable Future website: http://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/_pdf/research/clf_reports/urban-ag-literature-review.pdf

Shields, R. (1991). *Places on the margin: Alternative geographies of modernity*. New York: Routledge.

Shields, R. (1999). *Lefebvre, love & struggle: Spatial dialectics*. London: Routledge.

Shields, R. (2013). *Spatial questions: Cultural topologies and social spatialisation*. London: Sage.

Solà-Morales, I. D. (2014). Terrain vague. In M. Mariani & P. Barron (Eds.), *Terrain vague: Interstices at the edge of the pale* (pp. 24–30). Routledge.

Sonnino, R., & Marsden, T. (2006). Beyond the divide: Rethinking relationships between alternative and conventional food networks in Europe. *Journal of Economic Geography*, *6*(2), 181–199. https://doi.org/10.1093/jeg/lbi006

Starr, A. (2010). Local Food: A Social Movement? *Cultural Studies ↔ Critical Methodologies*, *10*(6), 479–490. https://doi.org/10.1177/1532708610372769

Strauss, C. (2006). The Imaginary. *Anthropological Theory*, *6*(3), 322–344. https://doi.org/10.1177/1463499606066891

Taylor, C. (2004). *Modern Social Imaginaries*. Durham, NC: Duke University Press.

Tomkins, M. (2014). *Making space for food: Everyday community food gardening and its contribution to urban agriculture* [University of Brighton]. http://eprints.brighton.ac.uk/12919/1/Mikey%20Tomkins.pdf

Tornaghi & Certomà. (2019). *Urban Gardening as Politics*. London: Routledge.

Valley, W., & Wittman, H. (2019). Beyond feeding the city: The multifunctionality of urban farming in Vancouver, BC. *City, Culture and Society*, *16*, 36–44. https://doi.org/10.1016/j.ccs.2018.03.004

Walker, S. (2016). Urban agriculture and the sustainability fix in Vancouver and Detroit. *Urban Geography*, *37*(2), 163–182. https://doi.org/10.1080/02723638.2015.1056606

Watkins, J. (2015). Spatial Imaginaries Research in Geography: Synergies, Tensions, and New Directions. *Geography Compass*, *9*(9), 508–522. https://doi.org/10.1111/gec3.12228

Werkheiser, I., & Noll, S. (2014). From Food Justice to a Tool of the Status Quo: Three Sub-movements Within Local Food. *Journal of Agricultural and Environmental Ethics; Dordrecht*, *27*(2), 201–210.

While, A., Jonas, A. E. G., & Gibbs, D. (2004). The environment and the entrepreneurial city: Searching for the urban 'sustainability fix 'in Manchester and Leeds. *International Journal of Urban and Regional Research*, *28*(3), 549–569. https://doi.org/10.1111/j.0309-1317.2004.00535.x

Williams, R. (1973). *The country and the city*. New York: Oxford University Press.

Williams, R. (1983). *Keywords: A vocabulary of culture and society*. New York: Oxford University Press.

Wilson, J. (2013). "The devastating conquest of the lived by the conceived": The concept of abstract space in the work of Henri Lefebvre. *Space and Culture*, *16*(3), 364–380.

Wise, M. D. (2019). INTRODUCTION: The Spatial Turn and the "Second Wave" of Food Studies. *Historical Geography*, *47*, 32–36. https://doi.org/10.1353/hgo.2019.0024

Zukin, S., Baskerville, R., Greenberg, M., Guthreau, C., Halley, J., Halling, M., … Wissinger, B. (1998). From Coney Island to Las Vegas in the Urban Imaginary: Discursive Practices of Growth and Decline. *Urban Affairs Review*, *33*(5), 627–654.

References

Abramovic, J., Turner, B., & Hope, C. (2019). Entangled recovery: Refugee encounters in community gardens. *Local Environment, 24*(8), 696-711.

Adler, P. A., & Adler, P. (1987). *Membership roles in field research*. Newbury Park: Sage.

Agrawal, A., & Chhatre, A. (2011). Against mono-consequentialism: Multiple outcomes and their drivers in social-ecological systems. *Global Environmental Change*, *21*, 1–3.

Alaimo, K., Reischl, T. M., & Allen, J. O. (2010). Community gardening, neighborhood meetings, and social capital. *Journal of Community Psychology*, *38*(4), 497–514. https://doi.org/10.1002/jcop.20378

Alaimo, K., Packnett, E., Miles, R. A., & Kruger, D. J. (2008). Fruit and vegetable intake among urban community gardeners. *Journal of Nutrition Education and Behavior*, *40*(2), 94–101.

Alberta Agriculture. (2018). Who Eats Alberta Beef. *Mountain View Gazette*. Retrieved from: https://www.mountainviewgazette.ca/article/who-eats-alberta-beef-20180815

Allen, P. (1999). Reweaving the food security safety net: Mediating entitlement and entrepreneurship. *Agriculture and Human Values*, *16*(2), 117–129.

Allen, P., Fitz Simmons, M., Goodman, M., & Warner, K. (2003). Shifting plates in the agrifood landscape: the tectonics of alternative agrifood initiatives in California. *Journal of Rural Studies*, *19*(1), 61–75.

Allen, P. (2008). Mining for justice in the food system: perceptions, practices, and possibilities. *Agriculture and Human Values*, 25(2), 157-161.

Altieri, M. A., Companioni, N., Cañizares, K., Murphy, C., Rosset, P., Bourque, M., & Nicholls, C. I. (1999). The greening of the "barrios": Urban agriculture for food security in Cuba. *Agriculture and Human Values*, *16*(2), 131–140. https://doi.org/10.1023/A:1007545304561

APA. (2017, May 24). *Policy guide on community and regional food planning*. Retrieved from https://www.planning.org/policy/guides/adopted/food.htm

Aronowitz, S. (2015). *Against orthodoxy: Social theory and its discontents*. New York, NY: Palgrave Macmillan.

Armstrong, D. (2000). A survey of community gardens in upstate New York: Implications for health promotion and community development. *Health & Place*, *6*(4), 319–327.

Attia, M., & Edge, J. (2017). Be(com)ing a reflexive researcher: a developmental approach to research methodology. *Open Review of Educational Research*, *4*(1), 33–45.

Attoh, K. A. (2011). What kind of right is the right to the city? *Progress in Human Geography*, *35*(5), 669–685.

Bachelard, G. (1994). *The poetics of space*. Boston: Beacon Press.

Baker, L.E. (2004). Tending cultural landscapes and food citizenship in Toronto's community gardens. *The Geographical Review*. *94*(3), 305-325.

Beckie, M. A., Hanson, L. L., & Schrader, D. (2013). Farms or freeways? Citizen engagement and municipal governance in Edmonton's food and agriculture strategy development. *Journal of Agriculture, Food Systems, and Community Development*, 1-17.

Beckie, M. A., Hedberg, L., & Radies, J. (2019). Creating a local food procurement community of practice: The Alberta Flavour Learning Lab. *Canadian Food Studies / La Revue Canadienne Des Études Sur l'alimentation*, *6*(1), 155–169.

Beckie, M., & Bogdan, E. (2010). Planting roots: Urban agriculture for senior immigrants. *Journal of Agriculture, Food Systems, and Community Development. 1*(2), 77-89.

Beilin, R., & Hunter, A. (2011). Co-constructing the sustainable city: How indicators help us "grow" more than just food in community gardens. *Local Environment, 16*(6), 523-538.

Berry, W. (2015). Farmland Without Farmers. *The Atlantic*. Retrieved from https://www.theatlantic.com/national/archive/2015/03/farmland-without-farmers/388282/

Blair, D., Giesecke, C. C., & Sherman, S. (1991). A dietary, social and economic evaluation of the Philadelphia urban gardening project. *Journal of Nutrition Education*, *23*(4), 161–167. https://doi.org/10.1016/S0022-3182(12)81191-5

Blomley, N. (2004). Un-real estate: Proprietary space and public gardening. *Antipode, 36*(4), 614-641.

Blue, G. (2008). If It Ain't Alberta, It Ain't Beef. *Food, Culture & Society*, *11*(1), 69–85.

Bohn, K. & Viljoen, A., (Eds.). (2014). *Second nature urban agriculture: Designing productive cities*. London: Routledge.

Born, B. and Purcell, M. (2006). Avoiding the local trap: Scale and food systems in planning research. *Journal of Planning Education and Research*, 26(2), 195-207.

Bourke, B. (2014). Positionality: Reflecting on the research process. *The Qualitative Report*, *19*(33), 1–9.

Brannick, T., & Coghlan, D. (2007). In defense of being "native": The case for insider academic research. *Organizational Research Methods*, *10*(1), 59–74.

Brenner, N. (2014). *Implosions/explosions: Towards a study of planetary urbanization*. Berlin: Jovis.

Brenner, N. (2015). Is 'tactical urbanism' an alternative to neoliberal urbanism? *Post: Notes on Modern & Contemporary Art Around the Globe*. Retrieved from http://post.at.moma.org/content_items/587-is-tactical-urbanism-an-alternative-to-neoliberal-urbanism

Brenner, N., & Schmid, C. (2012). Planetary urbanization. In M. Gandy (Ed.), Urban Constellations (pp. 10-13). Berlin: Jovis.

Buchan, R., Cloutier, D. S., & Friedman, A. (2018). Transformative incrementalism: Planning for transformative change in local food systems. *Progress in Planning*. https://doi.org/10.1016/j.progress.2018.07.002

Buck, D., Getz, C., & Guthman, J. (1997). From Farm to Table: The Organic Vegetable Commodity Chain of Northern California. *Sociologia Ruralis*, *37*(1), 3–20.

Burchardt, J. (2002). *The allotment movement in England - 1793-1873*. Woodbridge, UK: Boydell Press.

Campbell, S. (1996). "Green cities, growing cities, just cities?: Urban planning and the contradictions of sustainable development. *Journal of the American Planning Association, 62*(3), 296-312.

Castoriadis, C. (1998). *The imaginary institution of society*. Cambridge: MIT Press.

Cep, C. (2014). The allure of the map. *The New Yorker*. Retrieved from https://www.newyorker.com/books/page-turner/the-allure-of-the-map

Certomà, C., & Tornaghi, C. (2015). Political gardening. Transforming cities and political agency. *Local Environment*, *20* (10), 1123–1131. https://doi.org/10.1080/13549839.2015.1053724

Clark, J. (1997). A social ecology. *Capitalism, Nature, Socialism*, 8(3), 3-33.

Classens, M. (2015). The nature of urban gardens: Toward a political ecology of urban agriculture. *Agriculture and Human Values, 32*(2), 229-239.

Cleveland, D. A. (2014). *Balancing on a Planet: The Future of Food and Agriculture*. Berkeley, CA: University of California Press.

Cockrall-King, J. (2012). *Food and the city: Urban agriculture and the new food revolution*. New York: Prometheus Books.

Colasanti, K. J. A., Hamm, M. W., & Litjens, C. M. (2012). The city as an "agricultural powerhouse"? Perspectives on expanding urban agriculture from Detroit, Michigan. *Urban Geography*, *33*(3), 348–369.

Cooper, B. 2008. *A Philosophy of Gardens*. Oxford: Oxford University Press.
Cresswell, T. (2015). *Place: An introduction*. Malden, MA: Wiley.

Cronon, W. (1991). *Nature's metropolis: Chicago and the Great West,* New York: W. W. Norton.

Curran, C., & González, M. (2011). Food justice as interracial justice: Urban farmers, community organizations and the role of government in Oakland, California. *The University of Miami Inter-American Law Review*, 43(1), 207-232.

Dahlberg, K. (1993). Regenerative food systems: Broadening the scope and agenda of sustainability. In Food for the future, ed. P. Allen, 75-102. New York: Wiley.

Davidson, D. J. (2017). Is urban agriculture a game changer or window dressing? A critical analysis of its potential to disrupt conventional agri-food systems. *International Journal of Sociology of Agriculture and Food, 23*(2), 63-76.

Davis, M. (2006). *Planet of Slums*. London: Verso.

Delind, L. B. (2011). Are local food and the local food movement taking us where we want to go? Or are we hitching our wagons to the wrong stars? *Agriculture and Human Values; Dordrecht*, *28*(2), 273–283.

Denzin, N. (2003). *Performance ethnograpphy: Critical pedagogy and the politics of culture*. CA: Thousand Oaks.

Demailly, K.-E., & Darly, S. (2017). Urban agriculture on the move in Paris: The routes of temporary gardening in the neoliberal city. *ACME: An International Journal for Critical Geographies*, *16*(2), 332–361.

Despommier, D. (2010). *The vertical farm*: *Feeding the world in the 21st century*. New York: Thomas Dunne Books.

Deutche, R. (1998). *Evictions: Art and spatial politics*. Cambridge: MIT Press.

Donald, J. (1999). *Imagining the modern city*. Minneapolis: University of Minnesota Press

Driver, F. (2014). Imaginative geographies. In *Introducing human geographies*, 3rd edition, eds. Paul Cloke, Philip Crang, and Mark Goodwin. New York: Routledge, pp. 234-248

DuPuis, E. M., & Goodman, D. (2005). Should we go "home" to eat?: Toward a reflexive politics of localism. *Journal of Rural Studies*, *21*(3), 359–371.

Egan, M. (2005). Organizing Protest in the Changing City: Swill Milk and Social Activism in New York City, 1842–1864. *New York History*, *86*(3), 205–225.

Eizenberg, E. (2012). Actually Existing Commons: Three Moments of Space of Community Gardens in New York City. *Antipode, 44*(3), 764-782.

Elden, S. (2004). *Understanding Henri Lefebvre: Theory and the possible*. London: Continuum.

Ellis, C., Adams, T.E and Bochner, A.P. (2011). Autoethnography: An Overview. *Forum: Qualitative Social Research*, *12* (1) Art. 10.

Ernwein, M. (2017). Urban agriculture and the neoliberalization of what? 2017, 16(2), 27.

F. Dhams, H. (2009). Retheorizing global space in sociology. In B. Warf & S. Arias (Eds.), *The spatial turn: Interdisciplinary perspectives* (pp. 88–101). Routledge.

Feagan, R. (2007). The place of food: mapping out the 'local' in local food systems. *Progress in Human Geography*, *31*(1), 23–42.

Federici, S., 2018. *Re-enchanting the world: feminism and the politics of the commons*. Oakland, CA: PM Press.

Ferguson, R. S., and Lovell, S. T. (2014). Permaculture for agroecology: Design, movement, practice, and worldview. A review. *Agronomy for Sustainable Development, 34*(2), 251-274.

Felski, R. (2012). Critique and the Hermeneutics of Suspicion. *M/C Journal*, *15*(1). Retrieved from http://journal.media-culture.org.au/index.php/mcjournal/article/view/431

Firth, C., Maye, D., & Pearson, D. (2011). Developing "community" in community gardens. *Local Environment*, *16*(6), 555–568.

Fitch, C., & Santo, R. (2016). Instituting change: An overview of institutional food procurement and recommendations for improvement. *Johns Hopkins Center for a Livable Future.* Retrieved from https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/_pdf/research/Instituting-change.pdf

Florida, R. (2010). *The great reset*. Toronto: Random House Canada.

Florida, R. (2011). Detroit: The next American ghost town? Retrieved from http://bigthink.com/videos/detroit-the-next-american-ghost-town

Follmann, A., & Viehoff, V. (2015). A Green garden on red clay: Creating a new urban common as a form of political gardening in Cologne, Germany. *Local Environment*, *20*(10), 1148–1174. https://doi.org/10.1080/13549839.2014.894966

Foucault, M. (1983). *This is not a pipe* (J. Harkness, Trans.). Berkeley: University of California Press.

Fournier, A. (2019, February 1). What is Edmonton's Jeopardy claim to fame?. *CBC*. Retrieved from https://www.cbc.ca/news/canada/edmonton/edmonton-jeopardy-answer-1.5003336

Fox, T. J. *Urban farming: Sustainable city living in your backyard, in your community, and in the world* (2nd ed). Mount Joy, PA: Fox Chapel Publishing.

Fraser, A. (2010). The craft of scalar practices. *Environment and Planning A: Economy and Space*, *42*(2), 332–346.

Fraser, B. (2015). *Toward an urban cultural studies: Henri lefebvre and the humanities.* New York: Palgrave Macmillan.

Friedmann, H. (2007). Scaling up: Bringing public institutions and food service corporations into the project for a local, sustainable food system in Ontario. *Agriculture and Human Values*, *24*(3), 389–398.

Friedmann, H., & Mcnair, A. (2008). Whose rules rule? Contested projects to certify 'local production for distant consumers'. *Journal of Agrarian Change*, *8*(2–3), 408–434.

Fuller, M. G., & Löw, M. (2017). Introduction: An invitation to spatial sociology. *Current Sociology*, *65*(4), 469–491. https://doi.org/10.1177/0011392117697461

Gandy, M. (2006). Urban nature and the ecological imaginary. In *In the nature of cities: Urban political ecology and the politics of urban metabolism*, Questioning cities, eds. Nik Heynen, Maria Kaika, Erik Swyngedouw, and Sophie Watson. New York: Routledge.

Gans, H. J. (2002). The sociology of space: A use–centered view. *City & Community*, *1*(4), 329–339.

Gardiner, M. 2000. *Critiques of Everyday Life: An Introduction*. New York: Routledge.

Gerber, P.J., Steinfeld, H., Henderson, B., Mottet, A., Opio, C., Dijkman, J., Falcucci, A. & Tempio, G. 2013. Tackling climate change through livestock – A global assessment of emissions and mitigation opportunities. Food and Agriculture Organization of the United Nations (FAO), Rome. Retrieved from: http://www.fao.org/3/a-i3437e.pdf

Ghose, R. & Pettygrove, M. (2014). Urban community gardens as spaces of citizenship. *Antipode*, 46(4), 1092–1112.

Gibson-Graham, J. K. (2006). *A postcapitalist politics*. Minneapolis: University of Minnesota Press.

Gieryn, T. F. (2000). A space for place in sociology. *Annual Review of Sociology*, *26*, 463–496.

Glover, T. D., Parry, D. C., & Shinew, K. J. (2005). Building relationships, accessing resources: Mobilizing social capital in community garden contexts. *Journal of Leisure Research*, 37(4), 450–474. https://doi.org/10.1080/00222216.2005.11950062

Goffman, I. (1959). *The presentation of self in everyday life*. New York: Anchor.

Granzow, M. (2014). Review essay: Industrial ruins and ruination. *Space and Culture*. Retrieved from http://www.spaceandculture.com/2014/12/02/michael-granzow-review-essay-industrial-ruins-and-ruination/

Granzow, M., & Beckie, M. (2019). Making place for local food: Reflections on institutional procurement and the Alberta Flavour Learning Lab. *Journal of Agriculture, Food Systems, and Community Development*, *9*(A), 215–229. https://doi.org/10.5304/jafscd.2019.091.042

Granzow, M., & Jones, K. E. (2020). Urban agriculture in the making or gardening as epistemology. *Local Environment*, *25*(5), 381–396. https://doi.org/10.1080/13549839.2020.1753666

Granzow, M., & Shields, R. (2020). Urban agriculture: Food as production of space. In M. E. Leary-Owhin & J. P. McCarthy (Eds.), *The Routledge handbook of Henri Lefebvre: The city and urban society* (pp. 287–297). London: Routledge.

Granzow, M. (2015). The promise of urban agriculture. *Space and Culture*. Retrieved August 4, 2019, from https://www.spaceandculture.com/2015/11/25/industrial-ruin-and-the-promise-of-urban-agriculture/

Granzow, M. (2017). The production of public space in a small Canadian city: An analysis of spatial practices in the revitalizing of Galt Gardens. *Space and Culture*, *20*(3), 344-358. https://doi.org/10.1177/1206331217707473

Gregory, D. (2004). Palestine and the "war on terror." *Comparative Studies of South Asia, Africa and the Middle East*, *24*(1), 183–195.

Groth, J., & Corijn, E. (2005). Reclaiming urbanity: Indeterminate spaces, informal actors and urban agenda setting. *Urban Studies (Routledge)*, *42*(3), 503–526. https://doi.org/10.1080/00420980500035436

Guthman, J. (2003). Fast food/organic food: Reflexive tastes and the making of "yuppie chow." *Social & Cultural Geography*, *4*(1), 45–58.

Guthman, J. (2007). The Polanyian way? Voluntary food labels as neoliberal governance, *Antipode*, 39(3), 456-478.

Guthman, J. (2008). Neoliberalism and the making of food politics in California. *Geoforum*, *39*(3), 1171–1183.

Halfacree, K. (2007). Trial by space for a 'radical rural': Introducing alternative localities, representations and lives. *Journal of Rural Studies*, 23(2), 125-141.

Hardman, M., Clair, R. S., Adams, D., Armitage, R., Barry, V., Larkham, P., & Sherriff, G. (2018). *Urban agriculture: Evaluating informal and formal practices. 18*, 11.

Hartwig, K. A., & Mason, M. (2016). Community gardens for refugee and immigrant communities as a means of health promotion. *Journal of Community Health, 41*(6), 1153-1159.

Harvey, D. (1996). *Justice, nature, and the geography of difference*. Cambridge, Mass.: Blackwell.

Harvey, D. (2000). *Spaces of hope*. Berkeley: University of California Press.

Harvey, D. (1982). *The limits to capital*. Oxford: Basil Blackwell.

Harvey, D. (2012). *Rebel cities: From the right to the city to the urban revolution*. London: Verso.

Hathaway, M.D. (2016). Agroecology and permaculture: Addressing key ecological problems by rethinking and redesigning agricultural systems. *Journal of Environmental Studies and Sciences, 6* (2): 239-250.

Heynen, N. C., Kaika, M., & Swyngedouw, E. (2006). *In the nature of cities: Urban political ecology and the politics of urban metabolism*. London: Routledge.

Hill, A. (2015). Moving from "matters of fact" to "matters of concern" in order to grow economic food futures in the Anthropocene. *Agriculture and Human Values*, *32*(3), 551–563.

Hinrichs, C. C. (2000). Embeddedness and local food systems: Notes on two types of direct agricultural market. *Journal of Rural Studies*, *16*(3), 295–303. https://doi.org/10.1016/S0743-0167(99)00063-7

Hinrichs, C. C. (2003). The practice and politics of food system localization. *Journal of Rural Studies*, *19*(1), 33–45.

Horst, M., McClintock, N., & Hoey, L. (2017). The intersection of planning, urban agriculture, and food justice: A review of the literature. *Journal of the American Planning Association*, *83*(3), 277–295. https://doi.org/10.1080/01944363.2017.1322914

Howard, E. (2007). *Garden cities of tomorrow*. Cambridge: MIT Press.

Jasanoff, S. and Simmet, H.R. (2017). No funeral bells: Public reason in a 'post-truth' age." *Social Studies of Science, 47*(5), 751-770.

Jones, K. E., Granzow, M., & Shields, R. (2019). Urban virtues and the innovative city: An experiment in placing innovation in Edmonton, Canada. *Urban Studies*, *56*(4), 705–721.

Joss, S. (2010). Eco-cities – A global survey 2009. *WIT Transactions on Ecology and The Environment*, 129, 239-250.

Kienlen, A. & Blair, J. (2018) Local food is putting down deep roots. Alberta Farmer Express. July 30, 2018, pg 1. Retrieved from: https://www.albertafarmexpress.ca/2018/07/30/local-food-is-putting-down-deep-roots/

Kingsbury, N., & Richardson, T. (2005). *Vista: The culture and politics of gardens*. London: Frances Lincoln.

Kingsley, J. "Yotti," & Townsend, M. (2006). 'Dig in' to social capital: Community gardens as mechanisms for growing urban social connectedness. *Urban Policy and Research*, *24*(4), 525–537.

Kingsley, J. 'Yotti,' Townsend, M., & Henderson-Wilson, C. (2009). Cultivating health and wellbeing: Members' perceptions of the health benefits of a Port Melbourne community garden. *Leisure Studies*, *28*(2), 207–219.

Klerkx, L., Aarts, N., & Leeuwis, C. (2010). Adaptive management in agricultural innovation systems: The interactions between innovation networks and their environment. *Agricultural Systems*, *103*(6), 390–400.

Klinenberg, E. (2018). *Palaces for the people: How social infrastructure can help fight inequality, polarization, and the decline of civic life*. New York: Crown.

Kofman, E., & Lebas, E. (1996). Lost in transposition – Time, space and the city." In H. Lefebvre (Ed.), Writings on cities (pp. 3-62). Oxford, England: Blackwell.

Korth, M., Stewart, R., Langer, L., Madinga, N., Rebelo Da Silva, N., Zaranyika, H., … de Wet, T. (2014). What are the impacts of urban agriculture programs on food security in low and middle-income countries: A systematic review. *Environmental Evidence*, *3*(1), 21. https://doi.org/10.1186/2047-2382-3-21

Krueger, R., & Agyeman, J. (2005). Sustainability schizophrenia or "actually existing sustainabilities?" toward a broader understanding of the politics and promise of local sustainability in the US. *Geoforum*, *36*(4), 410–417.

Krueger, R., & Gibbs, D. (Eds.). (2007). *The sustainable development paradox: Urban political economy in the United States and Europe*. New York: The Guilford Press.

Kurtz, H. (2001). Differentiating multiple meanings of garden and community. *Urban Geography*, *22*(7), 656–670.

LaCroix, C. J. (2010). Urban agriculture and other green uses: Remaking the shrinking city. *The Urban Lawyer*, *42*(2), 225–285. https://doi.org/10.2307/27895787

Ladner, P. (2011). *The urban food revolution: Changing the way we feed cities*. Gabriola Island, BC: New Society Publishers.

Lang, U. (2014). The common life of yards, *Urban Geography* 35(6), 852-869.

Latour, B. (1999). Pandora's hope: Essays on the reality of science studies. Cambridge, MA: Harvard University Press.

Latour, B. (2004). Why has critique run out of steam? From matters of fact to matters of concern. Critical Inquiry, 30, 225-248.

Lawson, J. L. (2005). *City bountiful: A century of community gardening in America.* Berkeley: University of California Press.

Leary-Owhin, M. E. (2016). *Exploring the production of urban space: Differential space in three post-industrial cities*. Bristol, UK: Policy Press.

Lefebvre, H. (1991). *The production of space* (D. Nicholson-Smith, Trans.). Oxford: Blackwell.

Lefebvre, H. (1996). The right to the city. In E. Kofman, E. Lebas, & E. Lebas (Eds.), & E. Kofman (Trans.), *Writings on cities* (pp. 63–184). Oxford: Blackwell.

Lefebvre, H. (1976). *The survival of capitalism: Reproduction of the relations of production*. London: Allison & Busby.

Lefebvre, H. (2003). *The urban revolution*. Minneapolis: University of Minnesota Press.

Lennon, K. (2015). *Imagination and the Imaginary*. New York: Routledge.

Lennon, K. (February 19, 2014). Edmonton's Lost Chinese Market Gardens. *Spacing Edmonton*. Retrieved from http://spacing.ca/edmonton/2014/02/19/edmontons-lost-chinese-market-gardens/

Levkoe, C.V. (2011). Towards a transformative food politics. *Local Environment*, *16*(7), 687-705.

Low, S. M. (2000). *On the Plaza: The politics of public space and culture*. University of Texas Press.

Low, S., & Smith, N. (Eds.). (2006). *The politics of public space*. New York: Routledge.

Lyson, H. C. (2014). Social structural location and vocabularies of participation: Fostering a collective identity in urban agriculture activism. *Rural Sociology, 79* (3): 310 - 335.

Mah, A. (2012). *Industrial ruination, community, and place*. Toronto: University of Toronto Press.

Mares, T. M., & Peña, D. G. (n.d.). *Urban agriculture in the making of insurgent spaces in Los Angeles and Seattle*. 14.

Mansfield, B. (2005). Beyond rescaling: reintegrating the `national' as a dimension of scalar relations. *Progress in Human Geography*, *29*(4), 458–473.

Mansfield, B., & Mendes, W. (2012). Municipal food strategies and integrated approaches to urban agriculture: Exploring three cases from the global north. *International Planning Studies, 18*(1), 37-60.

Marcuse, H. (1964). *One-Dimensional Man*. Boston: Beacon Press.

Marcuse, P. (1998). Sustainability is not enough. *Environment and Urbanization*, 10(2), 103-112.

Marcuse, P. (2009). From critical urban theory to the right to the city. *City*, *13*(2–3), 185–197. https://doi.org/10.1080/13604810902982177

Mares, T. M., & Peña, D. G. (n.d.). *Urban agriculture in the making of insurgent spaces in Los Angeles and Seattle*. 14.

Martellozzo, F., Landry, J. S., Plouffe, D., Seufert, V., Rowhani, P., & Ramankutty, N. (2014). Urban agriculture: A global analysis of the space constraint to meet urban vegetable demand. *Environmental Research Letters*, *9*(6).

Marx, K. (1976). Capital: A critique of political economy (Vol. 1). London: Penguin.

Mason, J. (2002). *Qualitative researching* (2nd ed.). London: Sage.

Massey, D. (2005). *For space*. London: Sage.

Massey, D. (1994). *Space, place, and gender*. Minneapolis: University of Minnesota Press.

Massey, D. B., Featherstone, D., & Painter, J. (Eds.). (2013). *Spatial politics: Essays for Doreen Massey*. Chichester, West Sussex: Wiley-Blackwell.

Mayes, C. (2014). An Agrarian Imaginary in Urban Life: Cultivating Virtues and Vices Through a Conflicted History. *Journal of Agricultural and Environmental Ethics*, *27*(2), 265–286.

McKay, G. (2011). *Radical gardening: Politics, idealism & rebellion in the garden*. London: Frances Lincoln Ltd.

McClintock, N. (2010). Why farm the city? Theorizing urban agriculture through a lens of metabolic rift. *Cambridge Journal of Regions, Economy and Society*, *3*(2), 191–207. https://doi.org/10.1093/cjres/rsq005

McClintock, N. (2014). Radical, reformist, and garden-variety neoliberal: coming to terms with urban agriculture's contradictions. *Local Environment*, *19*(2), 147–171.

McClintock, N., & Simpson, M. (2018). Stacking functions: Identifying motivational frames guiding urban agriculture organizations and businesses in the United States and Canada. *Agriculture and Human Values*, *35*(1), 19–39. https://doi.org/10.1007/s10460-017-9784-x

McDougall, R., Kristiansen, P., & Rader, R. (2019). Small-scale urban agriculture results in high yields but requires judicious management of inputs to achieve sustainability. *Proceedings of the National Academy of Sciences* 116(1), 129–34.

McGuirk, J. (2015, June 15). Urban commons have radical potential – it's not just about community gardens. *The Guardian*. Retrieved from https://www.theguardian.com/cities/2015/jun/15/urban-common-radical-community-gardens

McKay, G. (2011). *Radical gardening: Politics, idealism and rebellion in the garden*. London: Frances Lincoln Ltd.

McVey, D., Nash, R. and Stansbie, P. (2018). The motivations and experiences of community garden participants in Edinburgh, Scotland. *Regional Studies, Regional Science,* 5(1), 40-56.

Merchant, C. (1995) Reinventing Eden: Western Culture as a Recovery Narrative. In. W. Cronon (Ed.), *Uncommon Ground: Rethinking the Human Place in Nature* (pp. 132-170). New York: W.W. Norton & Company.

Merrett, K. C. (2015). *Why grow here: Essays on Edmonton's gardening history*. Edmonton, AB: University of Alberta Press.

Merrett, K. C. (2001). *A History of the Edmonton City Market*. Calgary, AB. University of Calgary Press.

Merrifield, A. (1995). Lefebvre, Anti-Logos and Nietzsche: An Alternative Reading of the Production of Space. *Antipode*, *27*(3), 294–303. https://doi.org/10.1111/j.1467-8330.1995.tb00279.x

Merrifield, A. (2006). *Henri Lefebvre: A critical introduction*. New York: Routledge.

Mincyte, D. & Dobernig, K. (2016). Urban farming in the North American metropolis: Rethinking work and distance in alternative food networks. *Environment and Planning A: Economy and Space,* 48(9): 1767–1786.

Mitchell, D. (2003). *The right to the city*. New York: The Guilford Press.

Mitchell, D., & Heyen, N. (2009). The geography of survival and the right to the city: Speculations on surveillance, legal innovation, and the criminalization of intervention. *Urban Geography*, *30*(6), 611–632.

Moore, S. (2006). Forgotten roots of the green city: Subsistence gardening in Columbus, Ohio, 1900-1940. *Urban Geography*, *27*(2), 174–192.

Morgan, K., & Sonnino, R. (2010). The urban foodscape: World cities and the new food equation. *Cambridge Journal of Regions, Economy and Society*, *3*(2), 209–224. https://doi.org/10.1093/cjres/rsq007

Mougeot, L. (2005). *Agropolis: The social, political and environmental dimensions of urban agriculture*. London: Earthscan.

Mougeot, L. (2000). Definitions, presence, potentials and risks. In N. Bakker, M. Dubbeling, S. Gundel, U. Sabel-Koschella, & H. d. Zeeuw (Eds.), *Growing cities, growing food: Urban agriculture on the policy agenda; A reader on urban agriculture*. Feldafing, DE: DSE.

Mount, P. (2012). Growing local food: scale and local food systems governance. *Agriculture and Human Values*, *29*(1), 107–121.

Moyles, T. (2015). Women farming in the city. Retrieved August 5, 2019, from GUTS website: http://gutsmagazine.ca/women-farming-in-the-city-2/

Mudu, P., & Marini, A. (2018). Radical Urban Horticulture for Food Autonomy: Beyond the Community Gardens Experience. *Antipode*, *50*(2), 549–573.

Nordahl, D. (2009). *Public Produce: The New Urban Agriculture*. Washington: Island Press.

NRDC. (2017). Less beef, less carbon. Retrieved from: https://www.nrdc.org/sites/default/files/less-beef-less-carbon-ip.pdf

O'Hara, J. K., & Pirog, R. (2013). Economic impacts of local food systems: Future research priorities. *Journal of Agriculture, Food Systems, and Community Development*, *3*(4), 35–42–35–42.

Ostertag, J. (2018). Of grids and gardens: School gardening and the unsettling attachments of teaching beside the grid. In S. Gerofsky (Ed.), *Contemporary Environmental and Mathematics Education Modelling Using New Geometric Approaches: Geometries of Liberation* (pp. 81–99). https://doi.org/10.1007/978-3-319-72523-9_6

Paasi, A. (2002). Place and region: Regional worlds and words. *Progress in Human Geography*, *26*(6), 802–811.

Page, B. (2002). Urban agriculture in Cameroon: An anti-politics machine in the making? *Geoforum*, 33(1), 41-54.

Park, O. (2014). *The suburban imaginary: Ambivalence, strangeness, and the everyday in contemporary representations of the suburb*. https://doi.org/10.7939/R3JD4PV3D

Passidomo, C. (2016). Community gardening and governance over urban nature in New Orleans's Lower Ninth Ward. *Urban Forestry & Urban Greening*, *19*, 271–277. https://doi.org/10.1016/j.ufug.2016.01.001

Pearson, L. J., Pearson, L., & Pearson, C. J. (2010). Sustainable urban agriculture: Stocktake and opportunities. *International Journal of Agricultural Sustainability*, *8*(1–2), 7–19. https://doi.org/10.3763/ijas.2009.0468

Peck, J. (2014). Beyond variety: Explorations in variegated capitalism. Seminar presented at the department of political science seminar series, Edmonton Alberta.

Peck, J., Theodore, N., & Brenner, N. (2009). Neoliberal Urbanism: Models, Moments, Mutations. *SAIS Review of International Affairs*, *29*(1), 49–66. https://doi.org/10.1353/sais.0.0028

Pierce, J., & Martin, D. G. (2015). Placing Lefebvre. *Antipode*, *47*(5), 1279–1299.

Pierce, J., Martin, D. G., & Murphy, J. T. (2011). Relational place-making: The networked politics of place. *Transactions of the Institute of British Geographers*, *36*(1), 54–70.

Pillow, W. (2003). Confession, catharsis, or cure? Rethinking the uses of reflexivity as methodological power in qualitative research. *International Journal of Qualitative Studies in Education*, *16*(2), 175–196.

Pink, S. (2012). *Situating everyday life*. Los Angeles: SAGE.

Pitt, H. (2014). Therapeutic experiences of community gardens: Putting flow in its place. *Health & place, 27*, 84-91.

Pratt, J. (2007). Food Values: The Local and the Authentic. *Critique of Anthropology*, *27*(3), 285–300.

Pudup, M. B. (2008). It takes a garden: Cultivating citizen-subjects in organized garden projects. Geoforum, 39(3), 1228-1240.

Purcell, M., & Tyman, S. K. (2015). Cultivating food as a right to the city. *Local Environment*, *20*(10), 1132–1147. https://doi.org/10.1080/13549839.2014.903236

Poulsen, M. N., Neff, R. A., & Winch, P. J. (2017). The multifunctionality of urban farming: Perceived benefits for neighbourhood improvement. *Local Environment*, *22*(11), 1411–1427. https://doi.org/10.1080/13549839.2017.1357686

Quastel, N. (2009). Political ecologies of gentrification. *Urban Geography*, 30(7), 694-725.

Raynolds, L. T. (2000). Re-embedding global agriculture: The international organic and fair trade movements. *Agriculture and Human Values*, *17*(3), 297–309.

Reynolds, J., & Hunter, B. (2017). Purchasing Power: 10 lessons on getting more local, sustainable, and delicious food in schools, hospitals and campuses. Report from the J.W. McConnell Family Foundation and Food Secure Canada. Retrieved from: http://mcconnellfoundation.ca/assets/PDFs/Purchasing%20Power_Sustainable%20Food%20Systems.pdf

Razack, S. H. (Ed.) (2002). *Race, space, and the law: Unmapping a white settler society*. Toronto: Between the Lines.

Reason, P. (1994). Three approaches to participative inquiry. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 324-339). Thousand Oaks: Sage.

Reaven, M. & Zeitlin, S. J. (2006). *Hidden New York: A guide to Places that Matter*. New Brunswick, N. J.: Rivergate Books.

Redwood, M. (2009). *Agriculture in urban planning: Generating livelihoods and food security*. London: Earthscan.

Reynolds, K. (2015). Disparity Despite Diversity: Social Injustice in New York City's Urban Agriculture System. *Antipode*, *47*(1), 240–259. https://doi.org/10.1111/anti.12098

Renting, H., T. K. Marsden, and J. Banks. 2003. Understanding alternative food networks: Exploring the role of short food supply chains in rural development. *Environment and Planning A,* 35(3), 393-411.

Ricoeur, P. (1970). *Freud & philosophy: An essay on interpretation*. Yale University Press: New Haven.

Roberts, W. (2011). Citywatch: Food's a trip, actually a baker's dozen of trips. Retrieved from: http://wayneroberts.ca/archives/778

Roep, D., Van Der Ploeg, J. D., & Wiskerke, J. S. C. (2003). Managing technical-institutional design processes: Some strategic lessons from environmental co-operatives in the Netherlands. *NJAS - Wageningen Journal of Life Sciences*, *51*(1–2), 195–217.

Rosol, M. (2012). Community volunteering as neoliberal strategy? Green space production in Berlin. *Antipode*, *44*(1), 239–257. https://doi.org/10.1111/j.1467-8330.2011.00861.x

Saed. (2012). Urban Farming: The Right to What Sort of City? *Capitalism, Nature, Socialism; Abingdon*, *23*(4), 1.

Sage, C. (2003). Social embeddedness and relations of regard: Alternative 'good food' networks in south-west Ireland. *Journal of Rural Studies*, *19*(1), 47–60.

Said, E. W. (1978). *Orientalism*. New York: Pantheon Books.

Sanchez, E. L., & Liamputtong, P. (2017). Community gardening and health-related benefits for a rural Victorian town." *Leisure Studies, 36*(2), 269-281.

Santo, R., Palmer, A., & Kim, B. (2016). *Vacant lots to vibrant plots: A review of the benefits and limitations of urban agriculture*. Retrieved from John Hopkins Centre for a Livable Future website: http://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/_pdf/research/clf_reports/urban-ag-literature-review.pdf

Scherer, J., & Davidson, J. (2011). Promoting the 'arriviste' city: Producing neoliberal urban identity and communities of consumption during the Edmonton Oilers' 2006 playoff campaign. *International Review for the Sociology of Sport*, 46(2), 157-180.

Scherer, J. (2016). Resisting the world-class city: Community opposition and the politics of a local arena development. *Sociology of sport journal*, 33(1), 39-53.

Shields, R. (1991). *Places on the margin: Alternative geographies of modernity*. New York: Routledge.

Shields, R. (1999). *Lefebvre, love & struggle: Spatial dialectics*. London: Routledge.

Shields, R. (2013). *Spatial questions: Cultural topologies and social spatialisation*. London: Sage.

Shillington, L. J. (2013). Right to food, right to the city: Household urban agriculture, and socionatural metabolism in Managua, Nicaragua. *Geoforum*, *44*, 103–111. https://doi.org/10.1016/j.geoforum.2012.02.006

Smith, A. (2006). Green Niches in Sustainable Development: The Case of Organic Food in the United Kingdom. *Environment and Planning C: Government and Policy*, *24*(3), 439–458.

Smith, N. (1995). Remaking scale: Competition and cooperation in prenational and postnational Europe. In H. Eskelinen & F. Snickars (Eds.), *Competitive European Peripheries* (pp. 59–74). Berlin, Heidelberg: Springer Berlin Heidelberg.

Snow, D. A., Rochford, E. B., Worden, S. K., and Benford, R. D. (1986). Frame alignment processes, micromobilization, and movement participation. *American Sociological Review, 51*(4), 464-481.

Soja, E. W. (2009). Taking space personally. In B. Warf & S. Arias (Eds.), *The spatial turn: Interdisciplinary perspectives* (pp. 11–35). Routledge.

Soja, E. W. (1996). *Thirdspace: Journeys to Los Angeles and other real-and-imagined places*. Cambridge, Mass.: Blackwell.

Solà-Morales, I. D. (2014). Terrain vague. In M. Mariani & P. Barron (Eds.), *Terrain vague: Interstices at the edge of the pale* (pp. 24–30). New York: Routledge.

Solnit, R. (2010). *Infinite city: A San Francisco atlas*. Berkeley: University of California Press.

Solà-Morales, I. D. (2014). Terrain vague. In M. Mariani & P. Barron (Eds.), *Terrain vague: Interstices at the edge of the pale* (pp. 24–30). Routledge.

Sonnino, R., & Marsden, T. (2006). Beyond the divide: Rethinking relationships between alternative and conventional food networks in Europe. *Journal of Economic Geography*, *6*(2), 181–199.

Speake, S. W. (2015). *Debating milk: milk as nutritious and safe* (Doctoral Dissertation). Retrieved from https://era.library.ualberta.ca/items/a6e35ddc-348b-4fff-94a7-bd3ca3341e99

Staeheli, L. A., Mitchell, D., & Gibson, K. (2002). Conflicting rights to the city in New York's community gardens. *GeoJournal*, *58*(2–3), 197–205. https://doi.org/10.1023/B:GEJO.0000010839.59734.01

Starr, A. (2010). Local Food: A Social Movement? *Cultural Studies ↔ Critical Methodologies*, *10*(6), 479–490.

Statistics Canada. (2017). Alberta has the most beef cattle in Canada and the second largest total farm area. Retrieved from: https://www150.statcan.gc.ca/n1/pub/95-640-x/2016001/article/14808-eng.htm

Stone, C. (2016). *The urban farmer: Growing food for profit on leased and borrowed land*. Gabriola Island, BC: New Society Publishers.

Strauss, C. (2006). The Imaginary. *Anthropological Theory*, *6*(3), 322–344.
https://doi.org/10.1177/1463499606066891

Strunk, C., & Richardson, M. (2019). Cultivating belonging: Refugees, urban gardens, and placemaking in the Midwest, USA." *Social & Cultural Geography, 20*(6), 826-848.

Swyngedouw, E. (2004). Globalisation or 'glocalisation'? Networks, territories and rescaling. Cambridge Review of International Affairs, 17(1), 25–48.

Swyngedouw, E. (2010). Impossible sustainability and the post-political condition. In M. Cerreta, V. Monno, & G. Concilio (Eds.), *Making strategies in spatial planning*. London: Springer.

Swyngedouw, E., & Heynen, N. C. (2003). Urban Political Ecology, Justice and the Politics of Scale. *Antipode*, *35*(5), 898–918. https://doi.org/10.1111/j.1467-8330.2003.00364.x

Taylor, C. (2004). *Modern Social Imaginaries*. Durham, NC: Duke University Press.

Thomas, G. (2011). A typology for the case study in social science following a review of definition, discourse, and structure. *Qualitative Inquiry*, 17(6), 511-521.

Tomkins, M. (2014). *Making space for food: Everyday community food gardening and its contribution to urban agriculture* [University of Brighton]. http://eprints.brighton.ac.uk/12919/1/Mikey%20Tomkins.pdf

Tomkins, M. (2012). You are hungry: Flâneuring, edible mapping and feeding imaginations. *FOOTPRINT*, 15–36. https://doi.org/10.7480/footprint.6.1-2.747

Tornaghi, C. (2014). Critical geography of urban agriculture. *Progress in Human Geography*, *38*(4), 551–567.

Tornaghi, C. (2017). Urban agriculture in the food-disabling city: (Re)defining urban food justice, reimagining a politics of empowerment. *Antipode*, *49*(3), 781–801.

Tornaghi, C., & Certomà, C. (Eds). (2019). *Urban Gardening as Politics*. New York: Routledge.

Tuan, Y.F. (1977). *Space and place*. London: Arnold.

Urry, J. (2004). The sociology of space and place. In J. R. Blau (Ed.), *The Blackwell companion to sociology* (pp. 3–15).

Valley, W., & Wittman, H. (2019). Beyond feeding the city: The multifunctionality of urban farming in Vancouver, BC. *City, Culture and Society*, *16*, 36–44. https://doi.org/10.1016/j.ccs.2018.03.004

Veen, E. J., Bock, B. B., Van den Berg, W., Visser, A. J., & Wiskerke, J. S. C. (2016). Community gardening and social cohesion: Different designs, different motivations. *Local Environment*, *21*(10), 1271–1287. https://doi.org/10.1080/13549839.2015.1101433

Viljoen, A. (2005). *Continuous productive urban landscapes: Designing urban agriculture for sustainable cities.* Oxford: Architectural Press.

Viljoen, A., & Bohn, K. (Eds.). (2014). *Second nature urban agriculture: Designing productive cities*. London: Routledge.

Wakefield, S., Yeudall, F., Taron, C., Reynolds, J., & Skinner, A. (2007). Growing urban health: Community gardening in south-east Toronto. *Health Promotion International, 22* (2), 92-101.

Wales, G. (2013). *Gardens of transgression, spaces of representation: An analysis of guerrilla gardens using the works of Lefebvre as a theoretical framework*. University of Strathclyde, Strathclyde, UK.

Walker, S. (2016). Urban agriculture and the sustainability fix in Vancouver and Detroit. *Urban Geography*, *37*(2), 163–182. https://doi.org/10.1080/02723638.2015.1056606

Walker, S. (2016). Urban agriculture and the sustainability fix in Vancouver and Detroit. *Urban Geography*, *37*(2), 163–182. https://doi.org/10.1080/02723638.2015.1056606

Warf, B., & Arias, S. (Eds.). (2009). *The spatial turn: Interdisciplinary perspectives*. Routledge.

Watkins, J. (2015). Spatial imaginaries research in geography: Synergies, tensions, and new directions. *Geography Compass*, *9*(9), 508–522. https://doi.org/10.1111/gec3.12228

Webb, N. L. (2011). When is enough, enough? Advocacy, evidence and criticism in the field of urban agriculture in South Africa. *Development Southern Africa*, *28*(2), 195–208.

Wekerle, G. R., & Classens, M. (2015). Food production in the city: (re)negotiating land, food and property. *Local Environment, 20*(10), 1175-1193.

Werkheiser, I., & Noll, S. (2014). From Food Justice to a Tool of the Status Quo: Three Sub-movements Within Local Food. *Journal of Agricultural and Environmental Ethics; Dordrecht*, *27*(2), 201–210.

While, A., Jonas, A. E. G., & Gibbs, D. (2004). The environment and the entrepreneurial city: Searching for the urban 'sustainability fix 'in Manchester and Leeds. *International Journal of Urban and Regional Research*, *28*(3), 549–569. https://doi.org/10.1111/j.0309-1317.2004.00535.x

Whitehead, M. (2007). *Spaces of sustainability: Geographical perspectives on the sustainable society.* London: Routledge.

Williams, R. (1973). *The country and the city*. New York: Oxford University Press.

Williams, R. (1983). *Keywords: A vocabulary of culture and society*. New York: Oxford University Press.

Willis, K. S., & Frosch, K. (n.d.). Re-placing Food: Place, Embeddedness, and Local Food. Retrieved from https://opus4.kobv.de/opus4-fhbrb/frontdoor/index/index/year/2016/docId/1368

Wilson, J. (2013). The devastating conquest of the lived by the conceived: The concept of abstract space in the work of Henri Lefebvre. *Space and Culture*, *16*(3), 364–380.

Winter, M. (2003). Embeddedness, the new food economy and defensive localism. *Journal of Rural Studies*, *19*(1), 23–32.

Wise, M. D. (2019). Introduction: The spatial turn and the "second wave" of food studies. *Historical Geography*, *47*, 32–36. https://doi.org/10.1353/hgo.2019.0024

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Los Angeles: Sage.

Zick, C. D., Smith, K. R., Kowaleski-Jones, L., Uno, C., & Merrill, B. J. (2013). Harvesting more than vegetables: The potential weight control benefits of community gardening. *American Journal of Public Health, 103* (6), 1110-1115.

Zukin, S., Baskerville, R., Greenberg, M., Guthreau, C., Halley, J., Halling, M., … Wissinger, B. (1998). From Coney Island to Las Vegas in the urban imaginary: Discursive practices of growth and decline. *Urban Affairs Review*, *33*(5), 627–654.