Conflicting Identities of Garrison Creek

By

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Abstract

Toronto's Garrison Creek has gained a near mythical quality in both the minds and the plans of the city's people. In the century since its burial and integration into the combined sewer network, there has been a growing tension between the creek's identity as an ecological entity, and its identity as a sewer. This research explores these two faces of the Garrison, the creek and the sewer in turn, and explores how different groups have come to relate to the creek in various ways. Due to these two identities, Garrison Creek exemplifies a false division in how we have come to value urban water by celebrating water on the landscape and simultaneously dismissing the water that flows through our pipes. Garrison Creek reminds us that these systems are the same. This division limits our ability to think comprehensively about urban water and recognize the complexity of these systems that we interact with daily.

In the past 20 years, several plans and projects have made the creek a key element and have attempted to "bring it back" in ways both physical and symbolic. Through a critical exploration of these plans and projects through the lens of urban political ecology, this research attempts to gain a deeper understanding of the complexity of our relationship these urban watersheds. This research provides a fine-grain exploration of the city's relationship to its buried water and the evolution of these relationships over time. While based in the history of this place, this research also attempts to look forward to understand how our relationship to urban water can be improved in the face of both increased urban flooding and a need for reconciliation in Canada.

Foreword

My studies focus on planning for urban watersheds and exploring ideas of nature in the city. The inspiration for this research came from a desire to connect more deeply with the place I have come to inhabit and explore the hidden histories of this watershed. Through the phases of MES I and MES II I gained a comprehensive understanding of the principles and structures of planning within the context of Ontario and focused particularly on approaches to environmental planning. This research has allowed me to combine all three components of my plan of study – urban political ecology, environmental planning and design, and socio-natures of water – and gain a deeper understanding of the intersections between these components. The courses I took through MES played a fundamental role in developing my basis of understanding in planning (ENVS 5152, ENVS 6120, ENVS 6321), ecology and conservation (ENVS 5112, ENVS 6112, ENVS 6132) and politics (ENVS 6173, GS/ANTH 5195, ENVS 6599) all of which contributed to the development of this research. My field experience with the Toronto and Region Conservation Authority gave me additional insight and expertise in watershed-based planning and the implementation of policies and plans at the watershed scale. Through the completion of this Major Research, I have gained the vital experience and knowledge necessary for completion of my Plan of Study and position myself as a leader in watershed-based management and open space planning.

Acknowledgements

There are many people I am indebted to for their support in the completion of this major research and degree. To my supervisor, Dr. Laura Taylor, I am grateful for your support, advice and feedback throughout the research and writing process for this paper. Your help in focusing my ideas and providing a cohesive vision for this study has been invaluable. To my advisor, Dr. Jennifer Foster, thank you for your academic guidance and helping find my feet and passions in this program.

To my other half Adam, you have been my constant companion on this journey, and I am ever grateful for your love and support. I am also grateful to my family who has always supported my academic pursuits. I could not have done this without you. To my fellow MES students, thank you for continually pushing me to think more deeply and your solidarity throughout this process. It has been a great privilege to work with you and gain valuable friendships throughout this process.

I am grateful to all those who agreed to be interviewed for the research. Your experience and insight provided the bedrock of this research. Thank you for taking the time out of your busy lives to contribute to this work. Finally, I want to acknowledge the land on which this research took place and the non-human actors who contributed to my understanding it. These lands and waters are the traditional territory of Seneca, Petun, Huron-Wendat and, most recently, the Mississauga of the New Credit, and are governed by the Dish with One Spoon. I am grateful for the opportunity to learn and conduct research on this territory.

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Chapter One: Introducing Garrison Creek

1.1 A Creek Runs Through Here

If you walk into the centre of Trinity Bellwoods Park in the City of Toronto, you will inevitably find yourself looking down into a 'bowl'. This large, somewhat kidney-shaped, indentation in the topography of the park is mostly used these days as an off-leash dog area or as a place, for mainly young people, to gather and lounge on the slope for picnics or outdoor movies in the summer. It is here in this bowl that I had my first interactions with the Garrison Ravine. This "bowl", far from being some strange topographical fluke, is, in fact, one of the few remaining vestiges of what was once the largest ravine system between Toronto's Don and Humber rivers. Along the creek's former length, the Garrison has left us numerous clues or markers of what once flowed here. Some markers, like the bowl, are distinct impressions in the landscape. Others, however, are markers that have been left by human hands, such as the large metal map implanted into the ground at Trinity Bellwoods Park or in Stanley Park that marks the former path of the now 'lost' Garrison Creek. Walking through the area, I would find more markers of the creek and become fascinated with the relationship between this creek and the city that grew up around it. Today, this area is as defined as much by the absence of the creek as it ever was by its existence. This research is the culmination of that fascination.

Figure 1 - Map of Garrison Creek at Stanley Park

The City of Toronto's Park, Forestry, and Recreation division has the motto of "A City Within a Park". These words adorn every name sign for every park in the city and is plastered across their published materials. Toronto has also been called a "City of Ravines" at various times in popular media due to the unique presence of many ravines snaking through the city down to Lake Ontario. Some of these ravine lands, such as those associated with the Don River or Black Creek, still have water flow through them. Others, such as the Cedarvale Ravine, are the vestiges of rivers that have been lost to urbanization. In any case, these designations promoted by the city might, to an outsider, make Toronto seem very 'green'; and in many ways, it is. It has a great urban canopy, requires green roofs on new buildings, and has pockets of wilderness in the heart of Canada's largest urban centre. However, like many cities globally, Toronto has a complex relationship with the environment it inhabits. It is a city that has struggled with balancing livability and growth, with heritage and progress, with the relationship between public and private space. In the 183 years since its incorporation, the landscape of Toronto has been dramatically altered, and a booming metropolis, the fourth largest in North America, has taken shape. In that time, the relationship between the city and its landscape and the attitudes that people hold have also changed. Garrison Creek has borne the brunt of many of these changes and exemplifies the complex and evolving socioecological relationship in this place. It is a small microcosm of many of the changes that this landscape, specifically regarding water. As the city's ravine system has remained complex and vital to the city's livability, this system has been integrated with the massive urban water infrastructure needed to keep our toilets flushing and our streets from flooding.

Garrison Creek's path runs and its associated floodplain through some of the oldest parts of the City of Toronto. Its name refers to the garrison at Fort York founded adjacent to where the creek let out into Lake Ontario, now at the intersection of Fort York Boulevard and Bathurst Street. Because

of this institution and its central location, the city grew up around the creek. The banks of its ravines became the site of some of the first park estates of prominent citizens, churches, and early industry in the young city. Due to the impacts of increased growth and urbanization, by the 19th century the creek, like most of Toronto's water, had become heavily polluted (Robertson & Stewart, 2008). Both the public and city officials came to view the creek at a public health concern and the process of transforming it into what it is today, Garrison Sewer, began (Cook, 2008).

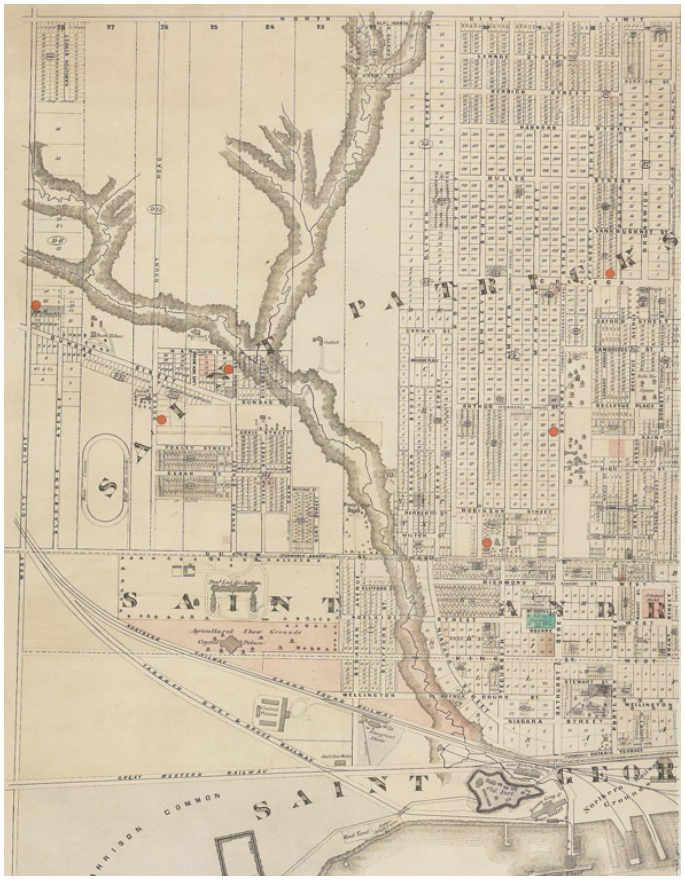

Figure 2 - 1872 Wadsworth & Unwin: Map of the City of Toronto (Courtesy of Library and Archives Canada)

It was channelized and buried in stages, and when the excavated material from the construction of the Bloor subway needed to be put somewhere, the ravine landscape was also filled in until there were very few signs that a creek had ever run through here (Anderson, 2008). What remains are a series of open and green spaces, parks like Trinity Bellwoods, but also schoolyards and parking lots, that owe their existence to the creek that once was. The overall goal of this research is to explore these dual identities of the Garrison, as both a creek and a sewer, how they flow into each other, and how they have been used by other actors in reshaping our relationship to the landscape.

1.2 Research Question

Guiding my approach to this analysis on Garrison Creek is the following question: What can a comprehensive understanding of the political ecology of Garrison Creek and its associated landscape

teach us about our relationship to water and public space in Toronto? Garrison Creek has a long and tumultuous history, and while I will explore some portions of that history throughout this work, my chronological focus will be on the actions and activities that have surrounded the creek since the early 1990s or the last 25 years. Applying an urban political ecology lens to work undertaken in this period will shed some light on the dynamics that have intersected the creek and the ways that the creek has been used discursively and materially to promote various ideas about water and nature in the city.

This is a big question and it can be broken down into three smaller questions that I will address in the following chapters. First, there is the question of how the two identities of Garrison Creek, as the sewer and as the watercourse, have been embodied and the tension between those conflicting identities. It is essential to understand the Garrison as both these things and to understand how these dual identities function on the landscape. By understanding these, we can come to understand both the relation between them and with the larger environment, both physical and discursive, that they inhabit. Second, my goal is to understand how different actors have used these identities to advance different ideas about the utilisation and value of water and public space within this watershed. I want to learn why the Garrison has become such a touchstone in Toronto and how it has been memorialized on the landscape in various ways. Finally, I want to understand what all of this means for our relationships to the urban watersheds that we inhabit. Considering a growing global movement around water, a new strategy for managing Toronto's ravines, and an increased awareness and need for stormwater management due to climate change, I want to understand where buried rivers like Garrison Creek can fit into this moment. What can a deeper connection to our water mean to urban dwellers and what can urban political ecology tell us about these relationships?

1.3 Methodology

Gaining a comprehensive understanding of Garrison Creek required a mixed-methodological approach to the qualitative research. Research methods include literature and theory review, archival

research, key informant interviews and site visits. My research builds on existing literature on Urban Political Ecology, watershed-based planning and stormwater management, and human-nature relationships and addresses these in the context of Garrison Creek.

Archival research was necessary to understand the history of the creek. The City of Toronto Archives is home to an extensive collection of materials that shed some light on the history of the creek, the process of its burial, and its past iterations. The archival sources included photographs of the building of the Garrison Sewer, of Trinity College before it was moved to St. George campus and demolished, and the bridges at Crawford and Harbord Streets. Also, included in the archive were maps at various stages of the city's development including some with the Garrison Ravine depicted, and other, more informal maps. The archive also provided access to many documents used or distributed by some of the organisations examined in this piece, including the Garrison Creek Linkages Committee, the Brown and Storey Landscape Architects work, some of Lost Rivers work, and City of Toronto planning documents. This archival research informed the other methods used by providing direction for inquiry and highlighting key moments in the history of the creek.

The second method employed in this research was key informant interviews with people who had been associated with Garrison Creek either professionally or publically through their activism. Key informants were recruited based on these criteria, and they were contacted directly based on their work and their association with the creek. The archival research helped to identify some of these informants through their prominence in the archival documents. Others were identified through additional research into the more recent history of the creek which is not yet in the archives. Finally, the "snowballing" recruitment technique was used to identify some key informants. I identified and contacted a total of six key informants who agreed to participate in the research through interviews. The key informants included representatives of the Garrison Creek Linkages Project, Lost Rivers, Brown and Storey Landscape Architects, the Toronto Ravine Strategy Advisory Committee,

PUBLICWORK, and the Homegrown National Park Project. These interviews all took place in Toronto between mid-February and mid-March 2017. The interviews were conducted in a semi-structured style to allow for a more conversational approach and to allow the informants to speak to their areas of expertise and have some control over the direction of the conversation. A list of questions was composed prior to the interviews and there were core questions asked to all participants in the research, but the inquiry was also tailored to the individual informants and their areas of expertise. These questions were provided to the informants prior to their interviews for their review and to ensure that they were comfortable with the line of questioning that the research was pursuing. Interviews were conducted in person and lasted approximately one hour. Four out of the six informants had the audio of the interview recorded. These interviews were subsequently transcribed for analysis. Interviewees will remain anonymous but the organizations they represent may be noted if necessary for context.

In order to analyse the interviews, the responses were coded and then organized into major themes and sub-themes. Four major themes were identified through the interviews and helped to shape further inquiry and the form of the research. This methodological approach based in 'grounded theory' and an inductive analytical approach (Herbert, 2010). This strategy builds the theory up from the data and while also recognize the conceptual frameworks by which the data is approached (Herbert, 2010). Using grounded theory, I approached the data knowing the frame by which I had constructed the interviews and used a rational methodology to deduce the emerging themes. These were Garrison Creek's evolving landscape, relationality, the politics of space and valuing the public realm. Each of these will be examined further in the following section.

Finally, I conducted several site visits along the length of the creek. These site visits were necessary to understand how the creek asserts itself on the landscape and to see the markers of the various campaigns that have been carried out along its length in the past two decades. I conducted

four visits in between one and three hours in length along different sections of the creek in March and April for explicitly research purposes. However, by living near the area, I have passed through the site area more than fifty times and have made casual observations on these trips that have contributed to this research. These site visits also provided an opportunity to engage in a reflective practice and to think about my relationship to the research. I draw on Haraway's rejection of a "view from nowhere" (Haraway, 1988) and the work of Indigenous scholars (Kovach, 2009; Louis, 2007) in engaging in a reflective practice and situating myself within my research. Indigenous research methodologies demand that researchers pay close attention to place in developing their approach (Kovach, 2009). These site visits provided an opportunity for me to reflect upon my relationship to this place and why I was drawn to this research. I am a new arrival to this area and have not lived here long. My roots are in Ottawa, an area also defined by water and the meeting of the Rideau and Ottawa Rivers but with the very different topography of a river valley. Through this research, I am also attempting to understand my perspective in engaging with this watershed I have come to inhabit. Louis (2007) speaks to the primacy of 'relational accountability' in Indigenous research where researchers are accountable to 'all your relations' through the research. While I am not engaged in Indigenous research in this work, as someone engaging in research on the land and with water, the site visits provided an opportunity for me to reflect on my own obligations to this land as a treaty person and how this research can help to improve the relationships we have with each other. Together, this mixed-methodological approach provides a holistic understanding of Garrison Creek in the present moment while also situating myself as the researcher in this moment.

There were limits to my methodological approach in the scope of this study. Most significantly, the short time-frame of this study meant that my ability to interview key informants was limited. As a result, two important perspectives were not included in this study. I was unable to organize an interview with a member of the Mississauga of the New Credit First Nation which would have

provided important insight into their relationship with Toronto's buried water and their perspective of reconciliation though the landscape. Second, I this study would have benefited from an interview with City of Toronto planning staff who could have provided a perspective on the implementation of plans relevant to Garrison Creek. The nature of this study also did not provide an opportunity to engage with the wider public's perception of the creek which could have been assessed through surveys or other qualitative methods. The decision to focus on key informants means that there is an inherent bias towards perspectives that are already heavily engaged in conversations around urban watersheds that does not reflect the types of conversations that might be more prominent in the general population. The scope of this study was also quite broad to provide a comprehensive picture of the creek, however, this limited my ability to provide a very focused analysis of any of the events and projects explore herein.

1.4 Themes & Approach

1.4.1 Analytical Themes

I explore the central question of the identities of Garrison Creek through four themes that have emerged from my research. These themes were established through the process of coding and analyzing the content of the interview data with the principal informants. These themes provide important linkages through Garrison Creek history and help to identify the context in which change has occurred in this watershed.

The first theme that stood out was the creek's evolving landscape. This theme is based on an understanding of environmental history but also had a unique dimension of romanticism and nostalgia in making sense of this landscape. For many interviewees, their relationship to the green spaces that are remnant of the ravine landscape became enriched when they discovered this past as a significant waterway in the city. This environmental history has a distinct materiality to it; it is palpable on the landscape, in albite subtle ways. There is a memory in this landscape, and it can teach us about the

changing relationships between it and the built environment. The final key element of this theme is how the environmental history of this area became integrated into the modern planning process. The Fort York neighbourhood master planning process set a precedent for thinking about how to blend the environmental history into the plan of an area, and the Garrison Creek Linkages Plan is explicit about doing this work. Other, more modern development plans in the area integrate the Garrison in different ways and provide insight into how we have come to think about this space.

The second major theme to emerge was that of relationality. By relationality, I mean the ways that various actors have engaged with each other and the ways that these relationships impact outcomes with the creek. All the work that has been done in engagement with the creek has required different types of relationship-building at various scales between both human and non-human actors. One key scale was that of the neighbourhood; this has been particularly prominent in some of the community organizing that took place around the creek. This scale also revealed the conflicts that are inherent in any community and the diversity of interests that are competing for public space. A somewhat larger scale was those relationships between different levels of grassroots organizing around the creek. The largest scale was that of the relationship between the projects and the public, and the attempts to engage the broader public with the creek. Some attempts could generate a great deal of public interest, but the value of such interest can be difficult to quantify. Vital to all the work done however was the human-non-human relationship between people and the watershed. All the work has been based around reshaping this fundamental relationship.

The third theme to emerge was that of the politics of space. The landscapes of power that overlay the physical landscape of the creek have been influential. Here, I think of politics in the more Gramscian sense as the translation of the everyday experience and the definition of people's interests. While the politics of city hall are a part of this I am also looking beyond to the everyday experience of the urban environment. Power, take to mean our ability to act, be acted upon, and influence decision-

making and narrative building. Of course, within this context there are a few key players whose influence is notable. For one, City Hall, and councillors and planners, have had the ability to make or break the success of projects around the creek. This political capital is an essential element of this theme that will be examined in greater detail. The imbalances of power have also led to conflicts around the creek and the public spaces they have left behind, and there will be an examination of the ways that grassroots organizing has been able to or not been able to deal with these conflicts.

Finally, the last key theme is that of the value public space. Garrison Creek has left behind a legacy of public spaces snaking up through the city from Fort York to Davenport Road and the Lake Iroquois Escarpment. Interest in these public spaces has manifested in projects as a thrust to create new civic spaces and well as improving existing public spaces and green spaces utilizing the narrative of the creek. A major factor in these instances of grassroots and official planning was that of "connectivity". A popular term in Toronto right now, Garrison, like other linear networks, is promoted as a valuable area for increasing linkages. This desire for connectivity is perceived as a potential city-building exercise that can be engaged in and many projects sought to do this. Fundamentally, this was also about how we deal with and address water in public spaces in our cities, where better stormwater management and low-impact development solutions are desperately needed. By extension, this leads to discussions about making space for nature in the city and the ways that we design public space to allow for people to engage with the landscape and the ecology of a place. These themes will weave themselves through this research and provide valuable connections throughout the piece.

1.4.2 Theoretical Approach

The approach that I have found can best be used to examine these themes is that of Urban Political Ecology. This school of thought examines both the ecological and political forces that shape our environments and understand space and nature as constructed. Political ecology, and especially

Urban Political Ecology (UPE), come from a Marxist tradition of political economy combined with an understanding of ecology and environmental concerns (Loftus, 2009). As such, it is ultimately emancipatory and critical in nature. It is concerned with the ways that social power operates through constructions of nature. Ultimately UPE is about creating a more democratic and inclusive production of nature (Swyngedouw, Kaika, & Castro, 2002). A key concept to emerge in UPE is that of 'urban metabolism' which examines the material flows in and out of the city (Keil, 2005). Within the tradition of UPE, this metabolism is not simply material but also must account for political change and the social dynamics between people and nature that drive the metabolic process (Keil, 2005). Water, by its very nature, provides a tangible and visual representation of this metabolism in cities. As such, UPE has as tradition also has a strong background in analysing water in the urban context. As Gandy states, "the history of cities can be read as a history of water" (2003, p. 22). These are simultaneously political economic and political ecological processes. Water is unique in its ability to connect and define a place. Fundamentally, "water provides one of the most concrete examples of how the production of a commodity on which all of us depend unites us to broader circuits of power and much wider environmental processes" (Loftus, 2009, p. 966). Moreover, beyond just the water, Toronto's ravine landscape plays the role of a connector; lacing our city together through these deep cuts in the landscape. As Jason Ramsey-Brown put it, "the wilderness outside the window, under the bridge, down the alley, or right in our own backyard is perhaps far more the soul of the city than any of its buildings, roads, or historic landmarks" (2015, p. 11). So, what happens when the soul of an area is ripped out? Or, in this case, buried under mounds of dirt and debris. Can it be restored or does something else take its place? This work is not about getting back something that was lost; it is about rebuilding a relationship with something that we may not recognize and about how we can connect to our urban landscapes.

1.5 Structure

This paper has been organized into five chapters each exploring a different facet of Garrison Creek and the work done around it. Chapter one has been a review of the context of this study, the guiding questions and the methodology and approach. Chapter two will lay the theoretical groundwork and provide a literature review relevant to this subject while also laying out the broad history of the creek. Chapter three will look at Garrison Sewer and the role of the creek as part of Toronto's infrastructure system. Chapter four will examine the ways that the creek was returned to public consciousness after its burial and some of the plans in which it came to be defined. Chapter five will then build on these narratives and examine the new ways that the Garrison has been celebrated in the past 25 years. Together, these chapters will provide a comprehensive understanding of the political ecology of the creek and offer a way forward in how Toronto can rethink its relationship to buried water. Through this paper, I will demonstrate that an understanding Garrison Creek breaks down the false divisions that we have come to create between the water that flows over our landscapes and the water that flows through our taps. This creek demonstrates the fundamental connectivity of these systems and forces a re-examination of the ways that we have come to value our urban watersheds.

Chapter Two: Hidden Histories & Theoretical Groundwork

Figure 3 - Garrison Ravine Marker at Montrose Jr. Public School

Garrison Creek has developed into an urban environmental myth in Toronto over the past thirty years. Of all the city's buried creeks, it is the most well-known and has seen the most organisation and action around it. Garrison Creek's watershed has been the site of a series of community-organized actions and planning developments in its recent history as well as gross neglect in its not-so-distant past. Today, there are permanent signs of the impact these movements and plans have had along the creek's former landscape and floodplain. Sidewalks and pathways all along its former length are adorned with copper signs, artwork, maps, and other markers that function as reminders that a creek once flowed here. Yet, the creek itself remains buried and channelled in Garrison Sewer. This has led to a complex relationship between the creek and the city that goes back to the earliest days of the Town of York, the name of Toronto's first English settlement. This chapter will establish the basis of the theme of Garrison's evolving landscapes by providing an early history of the creek. The themes of the politics of space and the value of the public realm also emerge in key ways in this chapter.

To makes sense of this relationship and gain a comprehensive analysis, I draw from three important bodies of scholarship. First, I look to UPE as way to understand the dynamics of the socio-

natural relationship herein and provide a basis for understanding the temporal and scalar dimensions of this relationship. Second, I draw on the scholarship of environmental planning to understand how this relationship has been defined and formalized through planning processes in the city. Finally, I look to the scholarship on urban watersheds to understand the dynamics of urban water and the ways it has been impacted and acted upon in a modern context. This scholarly background must be placed first and foremost within the context of Garrison Creek. This chapter will relate the creek's role and history in the City of Toronto's development and then provide the theoretical background and literature review by which I come to understand Garrison Creek in the present moment.

2.1 Toronto's Creek

Garrison Creek and its associated landscape have seen a dramatic transformation through Toronto's two-hundred-year history as a European settlement. Of course, it had a long history before that, from its carving by glaciers, to slow changes in its meander, to resource use by Indigenous peoples. The Toronto area has been home to people for thousands of years. This territory has been occupied by the Huron-Wendat, Seneca, Petun and Mississauga and is subject to the Dish with One Spoon wampum. The Carrying Place trail along the banks of the Humber between Lake Ontario and Lake Simcoe was a vital and well-worn trade route between multiple nations (Levine, 2014). It is likely from the Mohawk word tkaronto that Toronto gets its name (Levine, 2014). However, for the purposes of this analysis, we shall focus our history of the creek within the colonial Town of York and its evolution to the megacity of Toronto.

2.1.1 Foundational Landform and Fort York

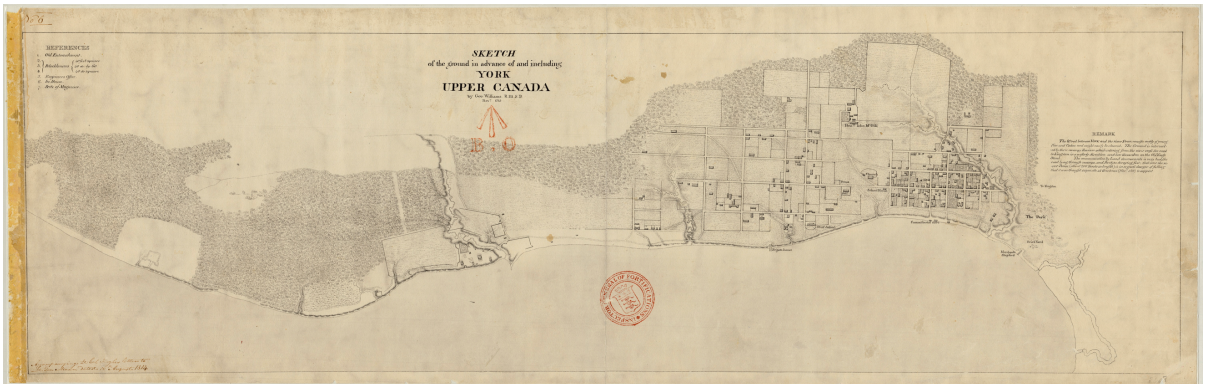

Figure 4 - Sketch of York 1813 (Courtesy of Library and Archives Canada)

Garrison Creek has been described as a "foundational landscape" of Toronto (Brown A. , 2015; Brown and Storey Architects, 1996). This description is based fundamentally on the relationship between the creek and Toronto's Fort York. Toronto's founding institution, the garrison (now Fort York) and the adjacent Town of York were founded by Upper Canada Lieutenant-Governor John Graves Simcoe in 1793. Simcoe was worried about an American attack on Upper Canada and saw the Toronto harbour as a strategic location by which to defend the Great Lakes and access to the St. Lawrence (Levine, 2014). Toronto, then the town of York, was chosen for the defensibility of its harbour due to the protection of the large sandbar that is now the Toronto Islands but was then a large peninsula (Levine, 2014). Early maps of the Town of York designate the Don River as the eastern extent of the settlement area and as the Garrison and Fort York as the western extent.

The surveyed street grid, which would eventually extend throughout the city, completely ignored the unique topography of Toronto and its many ravines and river valleys (Levine, 2014). From the very start, Toronto seemed oblivious to its own topography except for when it provided a military or economic use. Since those early days, Garrison Creek has seen wave upon wave of the city's development built up around, and eventually, upon it. In setting up Fort York, the creek was altered for human use. The mouth of the Garrison was widened and fortified. This process allowed for the

installations of batteries and for the mouth to accommodate a wharf (Robertson & Stewart, 2008). The Queen's wharf would be built in 1833 then, over time, further expanded in 1837, and the 1850s and 1880s (Robertson & Stewart, 2008), beginning Toronto's long tradition of shoreline alteration and the slow loss of the mouth of the creek as the shoreline moved further and further away. Today, Fort York stands well inland of Toronto's shoreline, and the mouth of the creek has long been filled in. So, while it was the topography that initially attracted Simcoe to this spot to found his new capital, the landscape was always something to be overcome in Toronto's mentality. There appears to have been no reverence for the landscape and this has resulted in a loss that is still being felt today.

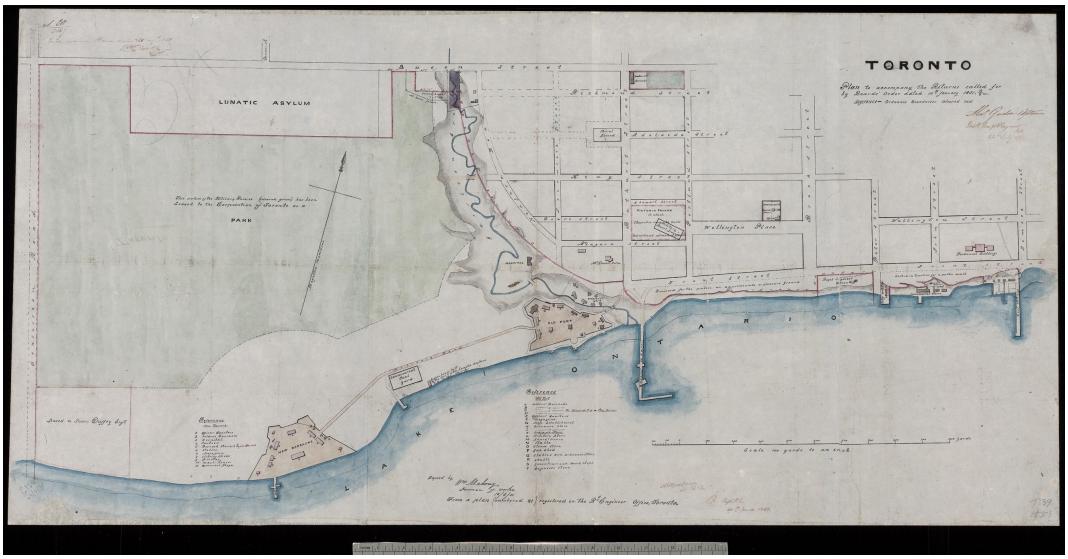

Figure 5 - Toronto Plan 1851 by Capt. Alexander Gordon (Courtesy of Library and Archives Canada)

2.1.2 The Ravines as Dumps

This lack of reverence for the landscape for most of Toronto's history continued to impact Garrison Creek as the city grew up around it. The Garrison, in addition to being the first altered ravine in the city, also has the dubious honour to be part of another long-standing Toronto tradition regarding its treatment of the ravine landscape, as a dumping ground (Anderson, 2008). This use began in earnest in the 1850s with the burning of coal as the primary fuel source is the city, generating more waste and "creeks and water bodies became a dumping ground, and dozens of them vanished"

(Anderson, 2008, p. 59). This dumping only worsened with time and just a few years later the Garrison was described "as an open sewer that was clogged with waste prior to the filling of the upstream portions of the ravine and the construction of the Garrison Sewer in the 1880s" (Robertson & Stewart, 2008, p. 128). This began the process of the channelization of the creek and the burial of the ravine which will be examined more closely in the next chapter. The use of ravines as dumping grounds would continue into the 20th century. When the Bloor subway line was being constructed, some of the last remaining sections of the ravine landscape around Dundas and Harbord streets would be filled with the tunneling waste and the ravine's destruction would be complete (Plummer, 2008).

Notably, while many parts of the ravine were being filled in with waste, the portion that is now known as Christie Pits Park was being carved out. In the late 1800s and early 1900s, the Christie Sand Pits were an important source of sand, clay and gravel for the city's construction industry. The pits were declared to be the 'Gold Mine of Toronto' due to these rich deposits (Zohar, 2017). In 1907, when the quarrying was completed, the pits saw the brief return of Garrison Creek to the landscape and it was a popular wading pool for locals (Zohar, 2017). However, with parallels to today that will become apparent in later chapters, the creek's presence on the landscape was deemed a risk and by 1909 the creek was filled in and Christie Pits was converted to park space (Zohar, 2017). A hundred years later, in 2009, Christie Pits and the Garrison Ravine landscape would once again be used as a dump site during the strike of the city's civic workers. Christie Pits was set up as a temporary dump site and would hold over 80 tonnes of garbage before the dump was closed (Vincent, 2009). This legacy of dumping and the unsavory uses of our public and natural spaces are important parts of our environmental history in Toronto and must continue to be remembered and challenged.

2.1.3 Contested Landscapes

This environmental history provides the backdrop by which we must understand the creek today. These landscapes have always been contested spaces (Robertson & Stewart, 2008) and we need

to understand them as such. Toronto's relationship with its waterways, even the ones too big to be buried, has traditionally been exploitative (Bonnell, 2014). This is not an unfamiliar story. As Evarard and Moggride (2012, p. 309) observe:

> "Historic patterns of development of urban centres have tended to degrade the very ecosystem resources responsible for their founding, development and distinctive character. Well-planned urban river restoration can recover some of the multiple ecosystem services that have been lost or deteriorated."

There is an opportunity to address the relationship between the city and the creek but currently the disconnection with this history needs to be overcome. Gaining a grasp of this environmental history must be the first step in understanding the creek today. Many informants noted the importance of understanding this environmental history in this work and noted that this rich history was an important influence for their involvement in work to bring back the creek through either physical changes or through narrative and storytelling. The unique opportunity posed by the existence of the creek to not only walk through a series of green spaces in the heart of the city but to also be exposed to areas of significant social and architectural importance was noted by many informants. Some of Toronto's ravines may possess a greater ecological richness, but the Garrison has the ability to link the ecological and social histories of this place. Our histories exist on all landscapes, not just those that have been designated as such (Taylor & Cadieux, 2013). The symbols that are retained on the landscape, and the ones we choose to create tell a story about a place and time through a particular lens. Garrison Creek is subject to a degree of romanticism and nostalgia for a time past in the city. But as shown, there is no record of waga reverence for the creek when it was in fact still an ecological entity. In examining this relationship in the following chapters, we must examine carefully both how the creek existing through the landscape and its discursive power as a symbol of Toronto's lost nature.

2.2 Establishing the Theoretical Groundwork

To undertake this research, an extensive literature review was done to understand different approaches to urban water and the ways that water has been theorized as an agent of change in urban settings. Garrison Creek challenges the ways we have come to value urban water and reveals what I believe to be a false divide between the water on the landscape and water as part of our infrastructure. We celebrate our waterfront, ravines and rivers while being indifferent or dismissive to the water that runs out of our tap. Garrison Creek demonstrates the ways that these systems are not separate but, in fact, highly intertwined and must be thought of as such. Three broad theoretical approaches were identified in the literature to gain a comprehensive understanding of urban water. Some approaches, such as those undertaken through UPE are more theoretical and discursive in nature. Other approaches, such as environmental planning take a more technical approach to their understanding of and relationship with urban water. The study of urban watersheds provides a scale for this analysis and looks at how the theoretical and the technical can be combined and embodied on the site. This review informs my approach to the creek and provides the tools for understanding the actions that have occurred in its name in the past 25 years.

2.2.1 Urban Political Ecology

Urban political ecology is an approach that seeks to understand the complex interconnections within socioecological systems. It recognizes the ways that our natural and social environments are co-constituted and have co-evolved. The urban branch is especially interested in how these processes function in the context of urbanisation. The basic understanding is that the "city is fundamentally a socio-natural entity" (Loftus, 2012, p. 110) and that cities "are dynamically produced, spatially and temporally, socially and materially" (Swyngedouw & Heynen, 2003, p. 912). The city and the landscape are coevolving entities, and these landscapes and socio-environmental change are neither socially nor ecologically neutral (Swyngedouw, Kaika, & Castro, 2002). UPE engages in both a temporal and scalar

analysis firmly based in its roots in Marxist traditions of analysis. UPE utilizes the theories and insights of historical materialism to do so (Swyngedouw & Heynen, 2003). Understanding "ever-changing urban configurations are necessary for the sake of considering the future evolution of urban environments" (Swyngedouw & Heynen, 2003, p. 914). UPE addresses central questions of power and the specific temporal and scalar operation of power (Loftus & Ekers, 2008). UPE does not confine this analysis of power to City Halls or its other traditional vestiges but demands a confrontation with the experiences of the everyday operations of power (Loftus, 2009). As a field, UPE "seeks to show how the environment shapes and is shaped by power relations" (Loftus, 2009, p. 328).

Scholars of UPE have used water as a fundamental tool of analysis. In the urban context, water is an 'uncooperative commodity' (Loftus, 2009, p. 958) and poses a challenge for analysis. It can link landscapes and communities together and as such produces complex webs of relations. Water, as a material and political subject, has been explored by Bakker (2012), Loftus (2009), Loftus & Ekers (2008), Swyngedouw (2004) and Swyngedouw, Kaika, & Castro (2002). These authors have shaped perspectives on how power dynamics operate and that, as such, we cannot treat water as an apolitical entity. Helpful for the study of Garrison sewer, Bakker (2012) especially urges us to seek to understand how water is both socio-technical and socio-natural. When we evoke the Garrison sewer, we also must address that:

> "the invocation of the concept of materiality […] is an acknowledgment that the 'things' (pumps, dams, canals), which make a difference for the way social relations unfold, are not merely pregiven substrates that enable and constrain social action; rather, they are themselves historically and geographically produced in a way that is simultaneously socio-natural and socio-technical" (Bakker, 2012, p. 621).

Bakker, as well as other UPE scholars, places the ontological priority of the process of production of becoming and water is central as the "integrator of individual beings, communities, and ecosystems" (Bakker, 2012, p. 620). In the case of the Garrison, it is imperative to understand the process of transformation from ravine to sewer as political and mediated by the technology at the time. As we

shall see, the Garrison sewer provides a snapshot of the evolving materiality of Toronto's sewers, with sections built in different geo-historical contexts. Our evolving relationship with how we manage stormwater in the city has been central to the social relationship between neighbourhoods and the creek. UPE takes a systems approach that seeks to understand the socio-natural assemblage over the individual parts. In examining the landscape, this approach provides a rich field of analysis. Loftus' challenge to the apolitical is that the possibility for change in the relationship between people and their environment is in politicising that relationship (2009). Drawing on Harvey's work on the crisis of over-accumulations and the privatisation of water that was a response to this crisis, I would add that the practice of burying rivers, a part of our commons, to aid in developing land, is also part of this practice of managing the crisis of over-accumilation. UPE then provides the rich theoretical backdrop through which we can being to politicize Garrison Creek/Sewer and begin to challenge the socio-natural relationship that has come to define it.

2.2.2 Environmental Planning

The Garrison Ravine's landscape has been highly planned throughout its history. Other than its use as an illegal dumping ground, its other uses (sometimes even as a dumping ground) have been determined through formal planning processes. Therefore, an understanding of the ways planning has influenced the creek, and the dynamics between planners and grassroots community work forms a vital part of this analysis. I look especially to environmental planning scholarship to make sense of this in the context of this creek. There is a long history of urban environmental planning which we can trace back to the start of planning as a profession (Daniels, 2009). From the 19th century, Ebenezer Howard and Frederick Law Olmstead remain key early figures who looked to integrate cities into the landscape they inhabited. Their work, cutting edge at the time, attempted to create a greater balance between the urban form and the landscape (Daniels, 2009). Frederick Law Olmsted, Sr., designed Central Park, Boston's Emerald and Montreal's Mont Royal and was a leader in the City Beautiful

movement. Ebenezer Howard envision future Garden Cities which would balance development with nature by combining elements of country and city life (Daniels, 2009). However, these landscapes were still heavily manipulated and anthropocentric but they set the stage of thinking differently about how ecological means can be met within an urban context. In the 20th century it was Ian McHarg, a landscape architect, who would continue to lay the groundwork for basing design in ecology (McHarg & Steiner, 1998). Inspired by contemporaries such as Aldo Leopold, Rachel Carson and Lewis Mumford, McHarg's *Design with Nature* (1969) looked to transcend disciplinary boundaries and integrate planning and design with ecology, allowing nature to be the source of inspiration (McHarg & Steiner, 1998).

From their work, ecological planning principles continued to develop. Hough (2004) provided a way of thinking about the ways that we can link urbanism and ecology. This work began to change the way we come to value nature in cities beyond just the aesthetic qualities that were central to Howard and Olmstead and built upon the foundation of McHarg to think about the ecological value that exists. This "ecosystem approach", utilized by the Royal Commission on the Future of Toronto's Waterfront (1992), links "disparate elements to reveal possibilities that may not be otherwise apparent" (Hough, 2004, p. 15). Planning for linear systems has become a popular approach that is well suited to be applied to ravine systems (Garrett, 2015; Snep & Opdam, 2010). Greenways, defined as linear, multipurpose spaces that may include water (Snep & Opdam, 2010) provide a different way of thinking about and planning for the ravine system. An ecosystem-based approach recognizes that traditional approaches are not able to account for the complexity of these systems. Environmental planning has revealed the limitations of traditional planning methods to deal with complex ecological processes (Hough, 2004). In order to create a paradigm shift, Gurnell, Lee & Souch, flip the traditional planning narrative by calling for a process where "development proposals should be seen primarily from the river's perspective, enhancing rather than extracting value" (2007, p. 1132). Placing rivers at the centre

of the planning process is a radical refocusing of the priorities of development. This change in priorities requires an understanding not just the watercourse but also the riparian zones and the broader impacts on the watershed.

Recently, due to global climate change, a substantial body of scholarship has emerged focused on resilience and how to plan for resiliency. Considering that climate change is accelerating, the need for this is becoming more and more urgent. Braun (2005), Leitão & Ahern (2002), Pickett, Cadenasso & Grove (2004), and Goldstein et al. (2015) all speak to the need for planners to become more flexible and build resilience into the plans. Resilience planning is something that Toronto still struggles to do regarding stormwater management (SWM). I wonder if due to a chronic lack of investment that the city and the conservation authority is always catching up to the last storm and not necessarily prepared to respond to the next one. In the context of restoration of our urban waterways, addressing uncertainty in both the planning and the implementation stages can allow the system to evolve and the plan to respond to the environment, instead of forcing the environment to fit our plans (Evarard & Moggridge, 2012). This may prove to be the only way to create resilient systems that will be able to respond to the challenges ahead.

Finally, through all of this, these processes should work to engage with the public and stakeholders. Krasny & Tidball's (2015) civic ecology approach centres reshaping the urban environment around communities. Their approach, of envisioning stronger connections between people and nature, and recognize the interconnectedness of these systems, bears some resemblance to UPE but comes out of a history of human ecology and environmentalism. Gobster and Westphal (2004), emphasize the need to understand the human perspective of the aesthetics of a place within restoration work. Understanding that there is no going back to any pre-development state, Grêt-Regamey et. al, advocate for "ecologically-based design [that] should seek to reinvent or redesign urban landscapes to support ecosystem services" (2016, p. 144). In the case of urban rivers, there must be

accounting for the human ecology of place as well and community involvement in both planning and implementation.

2.2.3 Urban Watersheds

Through all this study, the scale is that of the urban watershed. Garrison Ravine's watershed was small compared to that of the Don or the Humber, but it was a fundamental element of that area until it saw its thorough destruction. Re-examining our relationship with urban waterways has been a major topic of research in the 21st century. Significant scholarship regarding the 'daylighting' or revitalization of urban rivers has come out of the United Kingdom (Eden & Tunstall, 2006; Evarard & Moggridge, 2012; Wild, Bernet, Westling, & Lerner, 2011). These authors look to understand the convergence of ecology, policy and social aims in the context of river restoration. The tension between meeting the ecological needs of the rivers and the social objectives of the community is one of the key challenges of this work. In line with a UPE approach, these authors emphasize that this method is both environmental and social in nature. Eden and Tunstall offer a critique of restoration that relies too heavily on a theocratic and managerial approach and does not "seek to rebuild society-nature relationships" (2006, p. 666). In thinking about restoration, there is a considerable need to understand how to integrate a plurality of actors into the process and avoid a top-down planning approach. Barlett's (2005) exploration of projects reconnecting with urban nature through projects ranging from urban agriculture to green schoolyards demonstrates the transformative power of these projects to radically alter how people come to know and be in these spaces.

We must consider urban watersheds through the lens of stormwater management systems that have been designed to regulate them. Engineering has mediated the way we come to experience urban watersheds. The disparity of experience between a fountain and a sewer is emblematic of this. As Hough (2004, p. 37) describes,

> "It is difficult to reconcile the image of sparkling fountains and children's paddling pools with debris-clogged and muddy streams or the blackened snow that piles up along streets in northern cities over the winter. This sense of isolation has also been aggravated by municipal design and practice. The storm sewer and catch basin ensure that people remain unaware of where the water comes from or where it goes"

These divergent identities are the ultimate challenge faced by the Garrison. It exists as both an idealized lost landscape and as a working storm sewer. Our urban watersheds need to be promoted and preserved as places in their own right (Hough, 2004). Jason Ramsey-Brown (2015), has contributed to this approach in Toronto by examining the histories of Toronto's riverine landscapes. In this exploration, however, it becomes apparent that there is a glaring gap in the map with not a single naturalized ravine between Cedarvale and the Humber, and yet there exists a strong desire to reconnect with Toronto's ravine landscapes (Ramsay-Brown, 2015). Water in the urban landscape can act as at once the most spiritual and symbolic element (Hough, 2004) as well as the most transformed (through sewage) (McKinney, 2010). This contradiction is how we must understand our urban watersheds if we have any chance of engaging meaningfully and comprehensively with the challenges they face.

2.2.4 Indigenous Perspectives

Considering the Truth and Reconciliation Commission's Calls to Action, there is an important role for Canada's First Nations to play in this process of reshaping our relationship with urban water. For a more formal perspective, Bakker and Cook (2011), provide a rich analysis of the political and institutional frameworks governing watersheds in the Canadian context. They argue that the current, decentralized approach to water management has been inadequate to address growing needs in communities and municipalities. Canada's water governance is highly fragmented, and many municipalities have increasing vulnerabilities due to poor management (Bakker & Cook, 2011). In the Canadian context, increasing First Nations' involvement in water management is a potential avenue for solutions to these issues of mismanagement (Bakker & Cook, 2011). In addition, understanding

Indigenous perspectives on water provides a richer context for an analysis of urban waterways. Writers such as Blackstock (2001), McGregor (2012), Wilson (2004), and Baird et al. (2013) have all contributed to the literature on water by contributing First Nations' perspectives to the conversation. They emphasize the need for Indigenous communities to be involved in research that impacts them and their rights, the sacred connections between water and women, the role of Indigenous peoples as caretakers of the water of their territories. An Indigenous approach contributes to a more holistic understanding of water by acknowledging not just its material and ecological role but also its cultural, spiritual, and emotional role on the landscape (Baird, et al., 2013). Indigenous perspectives emphasize connectivity and holistic understandings of health (Blackstock, 2001; McGregor, 2012). By bringing in a Traditional Ecological Knowledge (TEK) component, new questions arise. Creative problem solving, especially in the context of water, can be achieved through a meaningful and responsible engagement with Indigenous communities in their practice (Wilson, 2004).

These three strands – UPE, environmental planning, and urban watersheds and an acknowledgement of Indigenous perspectives – provide the basis of the theoretical framework by which I approach Garrison Creek. In the following chapters, I will seek to provide the context through which the two identities, of the creek and the sewer, have been created and examine the socio-natural relationships in which they have been defined and used.

Chapter Three: Buried Alive, The Garrison as Infrastructure

3.1 Extending Urbanization

In recent years, the City of Toronto has undergone a shift towards building density. However, most of its history is one of sprawling outward from the original settlement of York. This progressive transformation of the landscape from the wild to the domestic changed the relationship with the resources that have been exploited to sustain this model. As seen in the previous chapter, Garrison Creek bore the brunt of many of these changes and saw its utility shift from a source of fresh water to Fort York to a dumping ground and sewer. This chapter will focus on the role that the Garrison has come to play as part of the city's built infrastructure. This continues the theme of the creek's evolving landscape from the last chapter and provides a more comprehensive idea of the current state of the landscape. Here, we will also begin to explore the theme of relationality and come to understand the ways that the city has responded to its changing relationship to the creek. Finally, through an analysis of different approaches to stormwater management, the themes of politics and of public space will emerge to help understand how decisions are made regarding infrastructure and challenging the status quo.

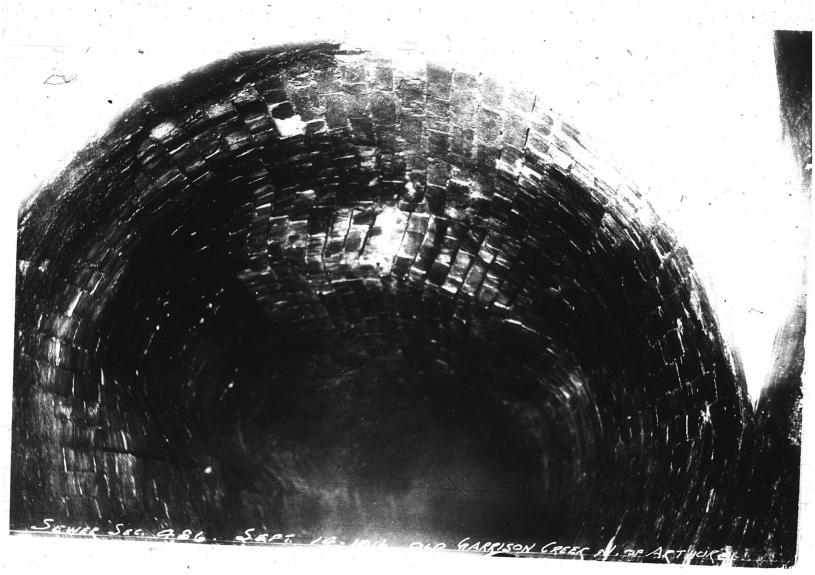

Figure 6 - Garrison Sewer (Courtesy of City of Toronto Archives)

3.1.1 Building Garrison Sewer

Garrison Creek was buried in stages from the 1880s up until the 1920s, and since then Garrison Sewer has undergone several upgrades and expansions (Cook, n.d.). Built as a combined sewer, as was the popular option at the time, the Garrison Sewer carried both stormwater and

sanitary sewage. The most comprehensive accounts of the sewer come from Michael Cook's Vanishing Point blog. Cook, part of a global movement of underground sewer explorers (Soukup, 2013), has thoroughly explored and mapped the Garrison Sewer. The oldest, Victorian sections of the sewer where the creek was first piped, are brick sewers. The newer or upgraded sections are made of arched concrete tunnels and form part of Toronto's inceptor system (Cook, n.d.). What Cook's exploration of these systems has revealed is that despite our best efforts to engineer our urban environments to meet our needs, that pre-urban landscape continues to exist beneath our feet. As he puts it, "the water is still there, locked into an institutional obscurity by our lack of interest and the opacity of public works" (Cook, 2008, p. 165).

This obscurity has been the focus of many of the projects that followed, and there has been an attempt to change the narrative. As Hough explains, "policies should capitalise on the visibility of the environmental consequences of human actions in the process of daily living" (2004, p. 23). A great deal of the contemporary work around Garrison Creek has been about making these connections clear. The challenges faced by the city's ravines that led to the burial, such as pollution and lack of appreciation, continue to be faced today. Taylor-Massey Creek, still flowing on the surface in some sections, is described as "possibly the most urbanized waterway in Toronto" (Ramsay-Brown, 2015, p. 43). I would argue that Toronto's buried creeks hold that distinction, but Taylor-Massey faces many similar issues to that of the Garrison. Extremely high E.Coli levels, combined sewer overflows (CSOs), and illegal residential sewage hookups are all issues faced by these two waterways. The key difference is that we can still see Taylor-Massey flow. The Garrison Sewer is the engineered identity of the creek. It is the way it now functions within the urban system.

3.1.2 A Kink in the Grid

The Garrison Ravine, in Toronto's early days of European settlement, was a desirable area for building and development. Large estates and institutions sited themselves along the ravine; Gore Vale

Manor, Trinity College, and churches were all sited along this stretch (Brown and Storey Architects, 1996). As the city grew, several bridges were constructed to span its width, the most impressive of which were the Crawford Street Bridge at Crawford and Dundas and the Harbord Street Bridge through Bickford Park. The Crawford bridge spanned the ravine just south of Dundas in what is now Trinity Bellwoods Park (Plummer, 2008). Built in 1915 this bridge connected Trinity College, then located on the edge of the ravine in Trinity Bellwoods Park, with the surrounding Victorian neighbourhood (Meehan, 2004). In the early 20th century, Trinity College was integrated into the University of Toronto and the college moved to the St. George Campus. The original building was left vacant as the city could not settle on a new use for the site and it fell into disrepair (Plummer, 2008). In 1956, the city demolished the original college building and now few traces are left of the impressive building in the park that still has its name (Plummer, 2008). More than anything else, Trinity Bellwoods park is a perfect example of the way that Toronto has treated its history for most of its existence. The park has been the site of a substantial ravine, an elegant bridge, an impressive neo-gothic institutional building and even an early park estate (Gore Vale – for which the street is named after) and yet not one of these

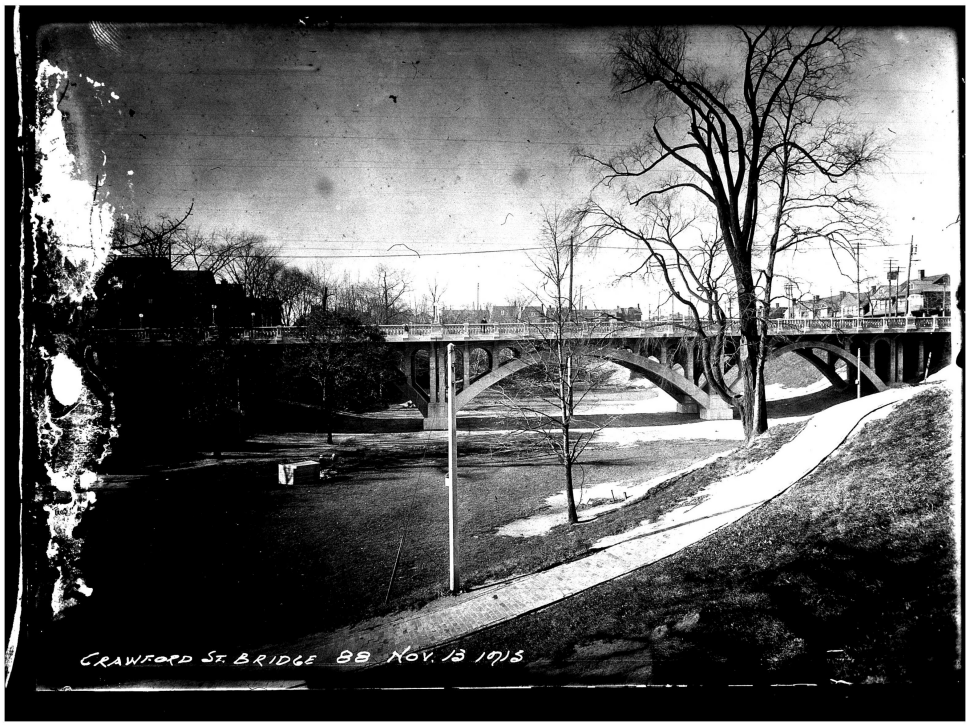

Figure 7 - Crawford St. Bridge (Courtesy of City of Toronto Archives)

elements remains on the site today. They have all been lost in the name of progress and this has been the central piece of the story along the entire length of the Garrison.

To the north, the Harbord Street Bridge extended Harbord Street over the ravine, cutting through what are now Bickford Park on the north side of Harbord and Art Eggleton Park to the south. Spanning Toronto's riverine landscape has been an issue of development since its earliest of days. Viewed as an inconvenience, Garrison, as with the rest of Toronto's waterways, posed a challenge to the city's grid (Bonnell, 2014). A prominent example is the Bloor Viaduct, spanning the Don Valley; it was a great feat of engineering and of surmounting nature that the city celebrated (Bonnell, 2014). The Don, large enough to host a freeway, was too large to succumb to the same fate as the Garrison. Toronto's ravines, however, posed a great challenge to a "city pretending to be flat" (Plummer, 2008). The city has never tried to integrate the urban and the ecological in any kind of gentle way, but it is these small kinks in the grid and curves in the street that give character to a place. Despite the city's lack of acknowledgement of the land it sits on, it cannot help but bend to it every once in a while.

In the 1880s, when the burial of the creek began, it was not out of a desire to expand urbanisation but a response, albite a late one, to "the already established use of the creeks as a sewer" (Cook, 2008, p. 162). Later waves of burial, especially the filling in of the Trinity Bellwoods portion of the ravine, would be in response to the growing city. By the 1960s, when the Bloor-Danforth subway was in the process of construction, there was a considerable amount of waste that needed to be disposed of. The Garrison had been fully piped into a combined sewer by the 1920s, but following the tradition of ravines as dump sites, dumped the fill from the subway construction was dumped into what is now the northern extent of Trinity Bellwoods Park. The stately Crawford Street bridge buried along with it, fully intact (Meehan, 2004). Today, all that remains of the ravine landscape is Trinity Bellwoods' bowl which functions as an off-leash dog park. To the north, fill was also used to bury the

Harbour St. bridge. "Its western edge is engulfed by earth and grass as though it has attempted to sink quietly away into the ground of the park to be lost and forgotten like the rest of the structure" (Meehan, 2004). Today, these kinks in the grid are the small reminders of the influence of the Garrison Ravine of Toronto's early form. The curve of Niagara Street and Crawford Street, the string of greenspace from Fort York to Christy Pits, the rises and falls of the streets along this stretch are the reminders of the landscape that we paved over. Some of my key informants spoke to the significance of these small reminders, and they are amongst the people thinking about how to bring them to prominence; how to make people stop and wonder a little more about the shape of this place (personal communication, 2017). These kinks are meaningful and provide a starting point for inquiry into what bubbles beneath our feet and how we can come to engage differently with the grid.

3.2 The Uncooperative Commodity

Water, with all the complex roles and symbolism, is a "highly uncooperative commodity" (Loftus, 2009). By that, it is meant that water, as a substance and a subject is not easily commodified. It seldom fits neatly into the box, or the pipe, that we try to put it into. It is at once a commodity that we buy and sell and as well as commons, a right that we each should be able to access. This complexity means that we have designed very complex systems the deal with it in an urban context. We use it for recreation, to drink and bathe, and to wash away our sewage while also expecting our watersheds to preform necessary ecological functions. It is no surprise that these systems are overwhelmed. This section will contrast two approached to managing water in the Garrison watershed and highlight the ways that the systems we build are based in the values we hold.

3.2.1 Welcoming Water on the Landscape

As seen, the Garrison today plays an unremarkable role as a combined sewer and yet, it was once the ecological core of the area. One project in the 1990s attempted to switch up this narrative and marry the ecological role of the creek with its present reality as a storm sewer. Commissioned by

Waterfront Regeneration Trust in 1994, *Rain Water Ponds in the Urban Landscape* was a demonstration project that laid out how a series of storm water retention ponds along the Garrison Creek corridor could vastly alleviate pressure on the sewer system and revitalize and reconnect these open spaces (Brown and Storey Architects, 1996). This idea of retaining water on the landscape, which has become widely accepted as a low-impact development SWM approach, was never implemented by the city. However, the project gained widespread attention. The designers were invited to present their plan at international conferences, there were countless stories written about the project, and it garnered a great deal of public interest (personal communication, 2017). This interest has continued to be sustained over the course of the past 25 years. Recent media articles written about flooding and storm water in Toronto mention the plan, and the architects behind it were featured in the Lost Rivers documentary (Soukup, 2013). In more recent pieces, the plan was described as one to 'daylight', or unbury, the creek (Kwan, 2013). However, this was not the purpose of the plan as its current use as a combined sewer makes this nearly impossible (personal communication, 2017). Instead, this plan would retain stormwater (i.e. rain) on the landscape and filter it slowly into the ground instead of having it rush into the sewer system during rainfall.

The demonstration project was about creating a new type of landscape (personal communication, 2017). It acknowledges that there is no going back to a time before the urbanisation of the creek but instead harnessing the value of the resources that still exist in this corridor. This kind of development has great value as it "recognize the interdependence of people and nature in the ecological, economic and social realities of the city" (Hough, 2004, p. 23). The *Rain Water Ponds in an Urban Landscape* author's goal was to "investigate and identify the opportunities for a demonstration project in the Garrison Creek watershed that would address the feasibility of retrofitting stormwater utilisation to a built-up urban setting" (Brown and Storey Architects, 1996). This project, due to its funding by the Waterfront Regeneration Trust, received a great deal of institutional backing in the

beginning. Meetings for the project included input from the City's Parks and Recreations (now Parks, Forestry & Recreation), Planning and Development (now City Planning), and Public Works and the Environment (now Engineering and Construction Services) departments among others. They also received input from the National Water Research Institute (Brown and Storey Architects, 1996). The project itself was quite technical in nature, designed to manage stormwater, but their goal was to "reverse the trend of the last one hundred years of disconnecting the city from its landscape and regenerate the open and hidden landscapes of Toronto" (Brown and Storey Architects, 1996). Those involved in the project spoke to the challenge of getting water engineers and technical staff on-board with this type of project (personal communication, 2017). Their approach from an engineering standpoint was quite far removed from those of the landscape architects involved in the work. However, it was only when they got the support from engineers who examined their models that they felt they could be taken seriously in some circles (personal communication, 2017).

Despite this support, the project never moved from paper to reality. The timing of this proposal was paramount in the slow atrophy the project. In 1998, the Ontario government under Premier Mike Harris amalgamated several municipalities across Ontario. In this process, the regional municipality of Metropolitan Toronto and its six constituent municipalities of Etobicoke, Scarborough, East York, North York, York and Toronto were combined into one "megacity" - the contemporary City of Toronto. Amalgamation fundamentally changed the political dynamics of Toronto City Hall and made gaining political capital for the project difficult (personal communication, 2017). Suddenly, projects like this one were competing for funding and support from councillor in all corners of the new metropolis with very different goals and vision for what the city would be. In this atmosphere, the demonstration project was not able to garner enough support to see it through despite the massive investment of time, money and energy that had already gone into it (personal communication, 2017).

However, despite its lack of implementation, interest in the project persists. This project was mentioned in articles as recently at 2013, nearly 20 years after the plan was first developed (Kwan, 2013). Toronto's buried streams remain an unresolved issue for this city that comes up in discussion quite regularly. Toronto is in a moment where 'city-building' has become a common word, even if people have different ideas about what that might look like (Micallef, 2017). Brown and Storey's proposal was ultimately a city-building exercise (personal communication, 2017). It was about rethinking the city's infrastructure to understand how it could work better for people and for the landscape on which we live. As they put it, it was a chance to "consider the opportunities for urban design that arise when the problems of disposing of the city's 'waste' water become opportunities for restoring hydrological and ecological balance, and enriching the experience and complexity of the city as a place" (Brown and Storey Architects, 1996, p. 37). The city still has this opportunity but has yet to take advantage of it.

3.2.2 Master Planning Rain

In the late 1990s, shortly after the publication of *Rain Water Ponds in the Urban Landscap*e, the City of Toronto was engaged in major master planning work for the stormwater infrastructure of the city. This work has evolved to become what is now known as the Wet Weather Flow Master Plan. Council adopted the Wet Weather Flow Master Plan (WWFMP) and its accompanying implementation plan in 2003. It is a 25-year plan that includes many strategies for better stormwater management in the city. Key elements of the plan include the Mandatory Downspout Disconnection Program, cross-connection removal, conveyance controls, habitat restoration and end-of-pipe facilities. The WWFMP has several implications for the Garrison Creek/Sewer system as each of these elements are ones that need to be addressed in the watershed. As part of the sewer system, the Garrison is covered under this plan but doesn't receive the focus that it did in the demonstration project. This is a high-level, city wide strategy for dealing with the ongoing issues faced by the city's

overtaxed storm water system. Despite the plan's stated goals of focusing on ecosystem and watercourse health, the thrust of the plan has focused on basement flooding and increasing end-of-pipe capacity. In the most recent update on the project, over $400 million is slated to be spent on these areas while only $52 million is dedicated to source and conveyance controls. The Demonstration Project is an excellent example of what these latter kinds of controls can look like, but the WWFMP focused most of the spending on the Downspout Disconnection Program (Toronto Water, 2017). Many houses in the city of Toronto had the downspouts from their roofs connected directly into the sewer system. In the event of heavy rainfall, these connections contributed to overwhelming the system and resulted in basement flooding (Toronto Water, 2017). This program forces residents to disconnect their downspouts from the system to let the water flow out onto yards, rain gardens or other permeable surfaces (Toronto Water, 2017). While expenditure in these areas is necessary, the numbers point to an unbalance in how we approach stormwater management in Toronto.

The greatest single investment made by the City of Toronto in terms of stormwater management since amalgamation has been in the Western Beaches Storage Tunnel. This project was a massive undertaking by the city to deal with combined sewer overflows into Lake Ontario. The project consists of a large 4km long tunnel that holds the overflow and then slowly releases it into the lake, allowing pollutants to settle to the bottom and using ultraviolet lights to disinfect the water (Canadian Consulting Engineer, 2002). The project cost $60 million dollars including a pumping station at Strachan Avenue in the Garrison sewershed which never functioned properly (Gray, 2009). In 2007, the city sued the private contractors of the project over "persistent issues" with the pumping station. This highly engineered solution has never done what it was intended to do (Gray, 2009). Even if the system had worked perfectly, issues of pollution in Toronto's harbour would have continued to persist as the fundamental issues facing Toronto's sewer system were yet to be addressed in this project. My key informant with the Brown and Storey project was unsurprised by the failures of the

Western Beaches Storage Tunnel. For them, these over-engineered solutions are never going to be able to keep up with growing needs and are simply an inadequate investment in infrastructure (personal communication, 2017). This type of project ignores the natural systems that we have at our disposal that do this kind of work much better than our engineered solutions ever had. These ideas come from a disconnection from the landscape and a disregard for the services that we already have at our disposal.

These problems also continue to be aggravated by climate change that may be contributing to increases in flooding events in Toronto. The spring of 2017 has been an especially loud wake-up call that our current systems are inadequate to deal with the types of events that we are seeing. This spring, Lake Ontario's water levels reached the highest level seen since 1952 (Goffin, 2017). The Toronto Islands saw 50% of their area flooded, and the Toronto and Region Conservation Authority has barred public access from the Scarborough Bluffs due to at least 15 landslides caused by erosion (TRCA, 2017). There is no sign of these trend letting up anytime soon. These events come just four years after the 2013 storm that saw 126mm of rainfall in Toronto and resulted in the costliest event for insurers in Toronto's history with $943 million in insured damage (Mertz, 2016). The city also saw major flooding in a hundred-year storm event in August of 2005 that wiped away a large section of Finch Avenue West, a major thoroughfare in the city. The picture emerging is that these hundred-year storm events are no longer happening at a hundred year intervals. With three major flooding event in the past 12 years, there is a pressing need to rethink stormwater infrastructure in Toronto. Flood control cannot be addressed through engineering alone. The relationship between our built environments, our communities and these natural systems must also change.

3.3 Watershed-based Stormwater Management

3.3.1 The Potential of Blue-Green Infrastructure

One of the first steps in this changing relationship is a fundamental rethinking of what constitutes the infrastructure of our city. The demonstration project was a prime example of this alternate approach that looks beyond the built engineering systems and includes the landscapes and ecosystems of the city for solutions. Broadly, these approaches that look to utilize natural hydrological systems to our advantage are part of 'blue-green infrastructure'. I approach the concept of 'blue-green infrastructure' as a means of developing a systemic understanding of our infrastructure. It allows us to look beyond our built infrastructure and gain a comprehensive understanding of the resources, both built and ecological, that we have at our disposal. There is a great deal of low-hanging fruit in terms of blue-green infrastructure in the city. Toronto's laneways, for example, receive about 1.5 million cubic meters of rainfall every year and 90% runs right into the sewer system (Lost Rivers, 2017). Permeable laneways could relieve this pressure and provide green links throughout the city. Many such potential laneways exist in the Garrison watershed and could contribute to building a green network through this area (Garrett, 2015). Other examples of blue-green infrastructure can be found throughout the Garrison Corridor. In Roxton Road Park, a new building collects rainwater to be filtered through a rain garden and stored for the community garden in a project called WaterHarvest (Lost Rivers, 2017). This was touted as the first water harvest project in the Garrison Creek watershed to be completed. These are the types of small interventions that should be supported with big plans but that has not yet been the city-wide approach to dealing with the water that falls on its landscape with a blue-green infrastructure approach.

3.3.2 Challenges of Implementation

As mentioned, it came as no surprise to the team behind the Garrison Creek Demonstration project that the city faced challenges in the implementation and operation of the Western Beaches

Storage Tunnel (personal communication, 2017). This end-of-pipe solution was never going to be adequate to meet the water management needs of the growing municipality, and their starting point was to think about natural watersheds as a creative alternative to these engineered solutions (personal communication, 2017). These creative solutions face challenges as there is a political risk involved in more experimental urban design projects and adaptive approaches (Ahern, 2013). There can also be a lack of institutional knowledge within municipal government regarding how to design, implement, monitor, and improve these landscape design projects due to their highly interdisciplinary nature (Ahern, 2013). As Cook (2008, p. 166) puts it, from his experience travelling through this system:

> "After walking the insides of combined systems like the Garrison Sewer, there can be no doubt that more naturalised approaches to stormwater management, like the proposed network of surface ponds for the Garrison watershed in James Brown and Kim Storey's Garrison Creek Demonstration Project, are desperately needed. Our urban watersheds as they exist today are at once overbuilt yet still inadequate for dealing with extreme storm events."

Overcoming these challenges should be a top priority for municipal governments as these issues will continue to growth with urban growth and large storm events.

3.3.3 Holistic Approach to SWM in the Garrison Watershed

The process explored in the Demonstration Project was about rebuilding the capacity of the city's watersheds to deal with rain in a more naturalised and ecologically sound way, and many more scholars and activists have taken up the call to return to a more naturalised SWM system in recent years. This approach recognizes the interconnected growth of the landscape and the urban form and acknowledged that these are in fact coevolving systems that must account for one another (Loftus, 2012). Watershed-based stormwater management employed a holistic, ecosystem-based approach by which to manage these issues. This comprehensive approach has the added benefit of not simply improving the city's capacity to deal with heavy rain and flooding events but also "to exponentially increase the breadth of public benefit through the regeneration of our parks and the creating of

connected systems, by dealing with the other aspects at the same time" (Brown and Storey Architects, 1996). The benefits of this approach to restoring the capacity of natural systems go beyond just SWM by having the additional benefits of increasing biodiversity, improving public amenities and park spaces and regenerating depressed areas (Evarard & Moggridge, 2012).

As urban dwellers, our focus regarding attention and investment tends to go to our lakefront and those large, charismatic rivers such as the Don and the Humber. Our SMW systems are designed to be as invisible as possible, and it becomes easy to ignore them (Cook, 2008). However, the power of Garrison Sewer, with its history as a creek and ravine landscape, provides an entry point for people to care about the water that runs beneath not just our streets but through our parks and schoolyards. We are confronted with the ways that we have come to value our public spaces and what services we expect from them. The example of Garrison Creek shows that these are not always in line. The reality of our infrastructure system also brings to light the operation of politics on the landscape and the barriers to changing our relationship with our stormwater infrastructure. Despite the evidence that that innovative plans can improve both quality of life and the quality of our watersheds, there remains institutional barriers to rethinking the ways we manage water on the landscape.

Chapter Four: The Rediscovered Creek

Garrison Creek's identity was defined throughout most of the 20th century by its integration into the City of Toronto's combined sewage system. This role effectively erased the creek's previous identity as a riverine system and fundamentally altered its relationship to the surrounding neighbourhoods. As explored in the last chapter, the Garrison still plays a major role in the city's engineered water system, but this role is fully mediated by the SWM technology into which it has been channeled and confined. In this next section, we will explore the other role that the Garrison has played in the past 25 years; a new role as a symbolic creek. It remains underground and essentially a sewer, but it has returned to the public consciousness as a symbol of Toronto's underlying ecology. Though this chapter, we will explore the developments in the 1990s in Toronto's planning approach and citizen organizing that has brought the creek back to light - in a way. This chapter focuses on the theme of relationality by examining the various relationships that have been formed with the creek through planning and grassroots initiatives. This chapter also provides a deeper insight into the politics of space that overlay the creek and the various ways that the creek has been used to advance different ideas about place and the public realm.

4.1 Garrison's Return – A Landscape Legacy

The 2013 floods, as discussed in the last chapter, were a stark reminder to the citizens of Toronto of the presence of water that flows beneath our feet and our streets. The day following the floods, Todd Harrison wrote for Spacing magazine a piece entitled *Toronto Flood 2013: The Revenge of Garrison Cree*k. Through the title alone Harrison gives the Garrison character, a personality that is out for revenge. Moreover, as he wrote, in those floods, "the Garrison and its offshoots resurfaced with a vengeance. That this rarely happens is a tribute to the strength of Toronto's underground infrastructure and a powerful reminder of why it should never be neglected in the name of fiscal restraint" (Harrison, 2013). This piece highlighted the out-of-sight-out-of-mind mentality that

Torontonians hold for their stormwater and other municipal infrastructure while also imbuing the creek with a personality, addressing its wrongful imprisonment. Highlighted in my discussions with the key informants around the creek was a sense that every few years, it becomes popular to join the chorus to bring back Toronto's buried rivers and celebrate its ecology (personal communication, 2017). This has certainly been in case in the last few years, due to the support of municipal officials, including the Chief Planner Jennifer Keesmaat, to engage in discussions about better planning for Toronto's ravine system. The flooding of 2013, due to its rapidity and costliness, helped in jumpstarting the public discussion around this idea of bringing back more naturalized and ecosystem-based management of water. Major storm events like these both highlight the limits of our engineering solutions and wake people up to Toronto's ecology. In the Globe and Mail, a week after the flooding, this tension was highlighted:

> "Toronto's hidden creeks and rivers spend most of their lives underground, in the intricate network of pipes and concrete channels that were designed to control these natural waterways. However, as last week's severe storm showed, the city's ageing water infrastructure is struggling to manage the volume of rain surging through its veins" (Kwan, 2013).

This article also proposes a reexamination of Brown and Storey's work from 1994, nearly 20 years earlier, for a more naturalized SWM in the Garrison watershed. That this work has become even more relevant in the decades since its publication shows how little progress has been made and that there is a desire to see an integration of ecological design principles into these deteriorating systems. As they currently stand, they are simply inadequate to deal with these increased storm events. To create a real shift in the approach would mean a return to the landscape not to any romantic former state but to a reinvented landscape that can support ecosystem services and meet social needs (Grêt-Regamey, Weibel, Vollmer, Burlando, & Girot, 2016). This is what the Demonstration Project attempted to do, but other initiatives around the creek have been proposed as well.

More than simply filling a SWM role, the Garrison's legacy lay also in the cultural landscape that has remained even after the destruction of the riverine landscape. Due to the instability of building on fill, the large sections of the former ravine lands were not built on. Of course, human hubris did lead to construction on some parts of the former ravine lands and has resulted in, among other things, what are now known at the "crooked" houses of Shaw Street (Brown A. , 2015) Those areas that were not built on became the network of open spaces that includes parks such as Stanley Park, Trinity Bellwoods Park, Fred Hamilton Park, Bickford Park, and Christy Pits Park among them.

Figure 8 - Garrison Creek Park Network (Stapinsky, 2014)

These public spaces are some of the only open spaces in the parks-poor central areas of Toronto. In Victorian Toronto, the time when many of these neighbourhoods were being built up, the provision of park space was limited, and many viewed the use of public space with suspicion (personal communication, 2017). The legacy of the Garrison was in providing land too unstable for development and retaining some elements of its inherent quality as commons. As mentioned in the previous chapter, in its early settled days it was a popular area, and the legacy of the institutions along the ravines banks

remains to this day as seen with Fort York, several churches, Trinity College (now demolished), and manor houses along its banks. This linear network of public spaces can provide key connectivity between the lake and the communities that Garrison Creek passed through, though this connectivity is tenuous as we shall see. Through both this ecological and cultural past, Garrison Creek's legacy has allowed it to remain relevant in the public consciousness. As a result, institutional planning mechanisms and grassroots planning have continued to utilize it and bring it back into the fold.

4.2 Planning a Modern-Day Fort York

A key early instance of the acknowledgement of Garrison Creek outside of its role as infrastructure was during the Garrison Common and Fort York Neighbourhood master planning process that occurred though the 1990s into the early 2000s. As part of the Royal Commission on the Future of Toronto's Waterfront, this master planning process looked at how to transition the formerly industrial areas surrounding Fort York to the lakeshore into mixed-use residential area and reintegrate the Fort into the public realm (Royal Commission on the Future of Toronto's Waterfront, 1992). Garrison Common, a large open space adjacent to Fort York, was a key area of this plan that was being examined for revitalization and a starting point for thinking about the integration of lost rivers into plans in Toronto (personal communication, 2017). There were many elements that contributed to this master planning process and a few key pieces that are especially relevant to our understanding of Garrison Creek. These elements to be explored all stem from the Royal Commission on the Future of Toronto's Waterfront which was colloquially known as the Crombie Commission in reference to David Crombie, the former mayor of Toronto and Commissioner. We shall examine the commission's report as well as the Fort York: Setting it Right plan and the Fort York Neighbourhood Public realm plan to see how the creek became branded through this process.

4.2.1 The Crombie Commission

In the early 1990s, there was a shift in the planning profession with the integration of an ecosystem lens and a new way of thinking about natural systems in urban areas. This approach was taken up by those who were working on developing the plans as part of the Crombie Commission's work (personal communication, 2017). One of the key conclusions of the second interim report of the Commission, *Watershed*, was "that the Greater Toronto waterfront is inextricably linked to its watersheds, and that environmental, social and economic conditions in this region are highly stressed" (Royal Commission on the Future of Toronto's Waterfront, 1992, p. 19). It is a testament to the work of this commission and other environmental planners that this statement would go without saying today. This was a moment of a new approach to planning focused on sustainability and a more holistic understanding of the urban environment (Daniels, 2009). Planners began applying "environmental layers as opportunities and constraints, to understand the urban setting as a living ecosystem with a sense of place rather than simply a collection of buildings" (Daniels, 2009, p. 188). This plan can help to identify a shift in priorities in the planning profession in Toronto during this time in response to growing environmental concerns (Ryan, 2011). The new approach to planning in the waterfront and surrounding neighbourhoods looked to celebrate the landscape with new design elements and new ways of thinking about how to use water on the landscape in the design. As part of their work, the Commission examined key challenges and opportunities for environmental planning along the central waterfront and how to better integrate ecosystem elements into plans (Royal Commission on the Future of Toronto's Waterfront, 1992).

As part of this work, the Commission examined the land-use and potential of Garrison Common and the surrounding neighbourhood. There was, first and foremost, an acknowledgement of the "strong collective memories" that exist on this site and the traditional activities that continue to operate that connect back to this past (Royal Commission on the Future of Toronto's Waterfront,

1992). Specifically, there remains a military and industrial heritage in this area that is still active. Some of Toronto's reserve regiments remain based out of the Fort York Armories, there are active facilities at HMCS York (Royal Canadian Navy), and the Royal Agricultural Fair still occurs yearly on the exhibition grounds (Royal Commission on the Future of Toronto's Waterfront, 1992). However, despite the strength of this cultural heritage, its environmental heritage had been long overlooked. This is somewhat due to the highly-disturbed nature of the area due to the continuous alteration of the Lake Ontario Shoreline and the burial of the creek. As a result, the public sphere had suffered. To address this reality, the Commission took a large-scale approach that looked to build a cooperative process for redeveloping the formally industrial areas. In terms of Garrison Common, the Commission had a few key ideas that they believed could reinvigorate this public space.

> "It is proposed that a Garrison Common trail be built, north from Coronation Park to Trinity Bellwoods Park, to establish a strong north-south connection with the lake. The trail would follow a series of existing and proposed parks and open spaces: it would create a symbolic reference to Garrison Creek, in the area where the creek once existed, through a series of stormwater management ponds, regrading, and revegetating with native woodland and meadow species" (Royal Commission on the Future of Toronto's Waterfront, 1992, p. 357)

This short paragraph lays out a clear and comprehensive plan to bring back some element of the creek into the public realm. It also references the work commissioned for Brown and Storey Architects for looking at new ways that the creek can provide its SWM function in a more ecologically sound way as discussed in the previous chapter. The bulk of these ideas have yet to be realized on anything besides architectural renderings but continued to be developed through the Fort York planning process. Fundamentally, this process was about how the state could create housing in a formally industrial area. The role of "regeneration" was about producing spaces that can be made available for consumption and housing (Quastel, 2009). This process of re-naturalising these industrial lands was an important factor in being able to sell the "livability" of this area after a history of industrial use (Quastel, 2009).

The planning approach in this area has use the creek for its potential to sell spaces and provided a sense of identity and not necessary to celebrate the creek for its own sake.

4.2.2 Fort York: Setting It Right

Planning for this area continued through the 1990s and gained momentum in the early 2000s when the construction for the new mixed-use buildings was beginning. Because of the massive actual and proposed changes around it, Fort York engaged in its own planning process to ensure that it was well positioned to respond to and benefit from these changes. As part of this, the fort developed its own parks and open space plan that kicked off the discussion about what the public realm could be like in this area. This plan was comprehensive and included long and short-term planning horizons, built form guidelines, and a clear understanding of how to integrate the fort lands into the surrounding community (du Toit Allsopp Hillier, 2001). In this plan, Garrison Creek is shown as a site of historical significance linking up to Trinity Bellwoods Park and is an important symbol of reintegrating Fort York into its surrounding landscape. In this vein, the plan includes a proposal for landform recovery and identifies three areas on the northern and eastern edges of the fort where the former banks of Garrison Creek can be restored and interpreted.

Figure 9 - Eastern Boundary of Fort York

It also proposed a reinterpretation of the former shoreline and Garrison Creek on the site. As per the plan, this could be either in the form of natural forms of expression including open water and bank restoration or more symbolic interpretations (du Toit Allsopp Hillier, 2001). This

was an opportunity to communicate the value of this landscape to the broader public. The designs used to communicate this value are of the utmost importance as they greatly influence how people come to see the space (Nassauer, 1995). This restoration has the potential to improve ecological function but how people perceive these types of interventions "may be the difference between a nature preserve and a dumping ground, or the difference between a wetland and a slough" (Nassauer, 1995, p. 162).

4.2.3 Fort York Neighbourhood – Public Realm Plan

Over a decade after the Crombie Commission's final report *Regeneration* was published, the new Fort York Neighbourhood, as it came to be branded, was starting to take shape. In collaboration with city staff and other stakeholders, the major land owners of the area were developing a new public realm plan that would define the architectural aesthetic and public amenities to be offered through the new neighbourhood. Immediately in the first paragraph of this plan, there is the assertion that new development will "be informed by, and respond to" its relationship to the historical assets of the area, including Garrison Creek (du Toit Allsopp Hillier, 2004). This plan makes mention of Garrison Creek in several different contexts that implicate it in different ways. These are:

1 – Mouth of the Creek Park
2 – The Fort York – Stanley Park Cycling Pedestrian Bridge
3 – An extended Stanley Park as part of the revived Garrison Creek Park system.
4 – As a historical feature to be represented in new public landscapes.

It is important to note that while this desire to rediscover the creek is positive, none of these proposals are original. Each of these ideas were developed from the work of a grassroots planning organizing in the name of the creek carried out throughout the 1990s and early 2000s. This work will be thoroughly examined in the following section but here it is important to note that multiple plans have now referenced these proposals. Of the first three noted above, nearly two decades later only one – the bridge - is under construction and the two others remain real only on paper.

The other element of this plan that was striking was a section where the sightlines and views to and from of the Fort are mapped. In the description of sightlines from the Fort, the plan describes the site as offering views to Garrison Creek. This assertion is quite shocking as the public has not seen Garrison Creek is over 100 years. Yet the memory of the creek on the landscape is so strong that this plan is equalising a view of those few remaining banks with the creek itself. However, just a few pages further, in discussing the street and block layout, the plan addresses the setbacks necessary from the Garrison Creek Trunk Sewer and mentions how the sewer's location "establishes the alignment of the North Mews" as it remains a building constraint (du Toit Allsopp Hillier, 2004). In this plan, we are confronted with the Garrison's two identities. On the one hand, it is a significant historical asset that must be celebrated and even restored in sections. On the other hand, it is a piece of infrastructure that must be accommodated in the plans. Interestingly, the plan acknowledges, albeit briefly, that the sewer is indeed a reminder of the history of the place and proposes recognize the creek through some public art features (du Toit Allsopp Hillier, 2004). However, it must be noted that this neighbourhood was built entirely south of the Gardiner Expressway and thus was built on lakefill. Garrison Creek would never have flowed here, and its presence as a sewer is a reminder not of a historical landscape as implied, but of the scale of the impact and alternation this waterway has seen in each wave of the city's development. These plans formalized work and ideas of community groups and citizens that lay along the Garrison Creek's former path. This contribution is what will be examined in the next section.

4.3 A Community Approach to Garrison Creek

As shown, momentum was building in Toronto for a different approach to planning. There was a new desire to have plans reflect the ecological elements of the environment, not simply the street grid or built form. Through this time there was also a democratisation of the planning process (Ryan, 2011). The older ideas that experts or simply powerful individuals could single-handily produce a plan for an area was no longer justifiable. Neighbourhood groups and other stakeholders had been

playing a larger and more important role in the planning process (Ryan, 2011). This influence was headed by politicians who needed resident support to remain in power and often could push key items forward, but success was varied. It is hard to sustain the level of energy and organisation necessary for a grassroots organisation to see through a complex, long-term project (Barlett, 2005). As seen in the Fort York examples above, large-scale planning processes can often take decades. Despite these barriers, Garrison Creek's legacy was able to garner an exceptional level of interest and passion that allowed it to become so embedded in the planning conversations of the area that it remains prominent today. This interest is due in large part to the work of the Garrison Creek Linkages Committee whose work demonstrates both the potential and the pitfalls of engaging communities with their landscapes and breaking through institutional barriers.

4.3.1 Community-based Planning

The Garrison Creek Linkages Committee group was the first community-based organization to get heavily involved in activism around Garrison Creek. They were a group of people that evolved from a neighbourhood group established in 1994 to lobby for greater investment in the parks along the Garrison Creek route and for public acknowledgement of this traditional waterway (personal communication, 2017). They were a well-organized group with regularly scheduled meetings and support from the community for the work that was being carried out. Their lobbying efforts from 1994 through the 1990s eventually resulted in the adoption of the Garrison Creek Linkages Plan by City Council on August 31, 1998. The timing of this adoption is important as this plan was adopted by the newly amalgamated City of Toronto Council and came into force at a time of great upheaval in Toronto. As such, it faced similar challenges to those of the Rain Water Ponds Demonstration Project which was proposed in the same era.

While the informal, grassroots work had begun in 1994, the formal work to put together this plan began in 1996 with the adoption of the Garrison Creek Linkages Project by Toronto City Council.

This project established a working committee made up of community members, city staff and other stakeholders who would work to prepare the comprehensive plan. Adopted in 1998, it examined how to improve investment in the public realm through this corridor and how to create stronger linkages through the public spaces along this length. In addition to the working committee, the plan called for the creation of the Citizens' Garrison Creek Linkages Project Advisory Committee which was established to oversee the implementation of the project. Despite its branding, the focus of the Garrison Creek Linkages Plan was not on the creek itself but on "civic improvements to be implemented over time, at specific locations, to connect isolated public parks and open spaces" (Commissioner of Urban Development Services, 2002). The hope was these investments would increase the connectivity between neighbourhoods and to the waterfront. In effect, this plan formalized many of the actions and projects that the group had been working towards since 1994.

4.3.2 Projects and Potential of the Garrison Corridor

The basic structure of the Garrison Creek Linkages Plan identified what it referred to as Projects and Routes for intervention and investment along the corridor of the former Garrison Creek. The routes focused on cycling and pedestrian realm connections between the various areas and green spaces along the corridor. The projects, on the other hand, looked at various construction projects, design elements and new spaces could be created to expand and enhance the park spaces along this corridor (City of Toronto Council, 1998). There were 23 projects identified in the 1998 plan in nine different areas. These projects ranged from streetscaping and public art to more substantive infrastructure improvements in these public spaces. Of these, however, very few have taken form in the past 20 years. One of the few larger projects to be completed is the redevelopment of the dockwall at Queen's Quay. However, that project would have been included as part of the larger waterfront and Queen's Quay redevelopment work undertaken by Waterfront Toronto. While this appears to be the only major infrastructure project in the plan to be completed, three of the other proposed projects are

currently under construction or partially complete. These are the Fort York Bridge and its associated landings, a stormwater feature that references the historic shoreline at Fort York and the Link Park (now June Callwood Park).

The Fort York Pedestrian and Cycle Bridge was identified in the plan as a key project for increased connectivity between the Niagara/King neighbourhood and Fort York; the bridge has been one of the elements of the plan that has retained the necessary institutional and public support to carry it to completion. It is currently under construction and set to open in the fall of 2017. This project combines two elements proposed in the plan. The bridge was proposed as one part of the project as the key infrastructure connectivity piece that would provide much needed connectivity between Garrison Common and the Niagara neighbouhood. The mid-point landing on the former Cold Storage Lands, now known as Garrison Point, was suggested as a space with cultural interpretation of the area including the creek. Garrison Point, as the former industrial land has now been branded, is currently slated for redevelopment and there are proposals to use the area around the landing as a park, but there is no information currently available about what kind of interpretation there might be on the site or even a guarantee that this will occur.

Figure 10 - June Callwood Park as seen from across Lakeshore Blvd

The other two projects that have seen some partial completion or are under construction are the Link Park and shoreline stormwater features. The Link Park, now known as June Callwood Park, was part of the

larger mixed-use redevelopment of the Fort York District to the south of the fort. The space was meant to provide a key link between Garrison Common and Coronation Park. However, while the park has been constructed, the link remains broken as there is no way to cross Lakeshore Boulevard and the streetcar lanes at this time. This lack of continuity undermines the success of the site planning process to get this park built and makes it an ineffective space. In the Fort York district, the plan also recommended that some stormwater features that evoke the Lake Ontario shoreline be built. In 2015, the Undergardiner Project was announced. This came after council's decision to repair the Gardiner Expressway instead of burying it or tearing it down and a $25 million philanthropic donation for the project. The proposal was to construct a new type of public space under a 1.75km length of the Gardiner from Strachan Avenue to Bathurst Street with connections up to Spadina Avenue. As part of the landscape design in front of the Fort York site, a 'liquid landscape' of native grasses and stormwater features have been proposed in evocation of the shoreline (described on tour). This project is currently under construction, and the first phase is set to open in mid-to-late 2017. Few detailed design features have been released to the public so it is difficult to know what kind of role Garrison Creek will play in the design of the space or how stormwater management will be integrated into the design.

Some of the other projects identified through the Garrison Creek Linkages Plan have also been formally proposed but are not yet under construction. Two major park spaces, the Stanley Park Extension and the Mouth of the Creek Park, have both been proposed and appear to be moving forward in the design and consultation process. The Stanley Park extension remains in the early stages and no design work has begun on the space. Alternatively, the Mouth of the Creek Park is now in the early design stages and will be examined in more detail in the next chapter. There was another potential space identified in the plan that could be relinked to the Garrison system. A "landscaped walk" that could be constructed along the city-owned property at (28) Bathurst which was retained for a Front

Street Extension was proposed as part of the original linkages plan. The extension of Front Street has now been ruled out by council and the area's councillor, Mike Layton, has pushed for space to be developed as parkland. This means that a more extensive public space in being planned now for this area than what was proposed in 1998.

So, as demonstrated, most of the projects that have continued to receive attention are within this Fort York district or directly to the North of the railway in the Niagara neighbourhood. However, the Garrison Creek Linkages plan had projects going all the way up to Davenport road. The area that has seen investment includes many former industrial lands and some of the fastest appreciating real estate in the city. These projects are also being pursued within the context of a rapidly developing area and in conjunction with private development. However, there remains a great deal of low-hanging fruit identified in the plan that has yet to be taken up by the city. For example, 20 years later, three parking lots, identified for redevelopment, continue to be used as parking. This includes The Gore, a significant space right by Fort York that operates as a surface parking lot despite being managed by Parks, Forestry, and Recreation. A second lot, at Richmond St. and Walnut Street in the Niagara neighbourhood just north of Stanley Park is also municipally owned and would be a prime candidate for redevelopment. The third lot is much farther north in the study area. The parking lot at what is now the Metro grocery store on College Street was also identified as part of the Garrison network and is adjacent to some ravine features. The proposal, in this case, was not to completely get rid of the parking lot but to make it into a more flexible space with a public square where people could gather and integrate SWM features to the lot.

The other projects identified in the Garrison Creek Linkages Plan mostly involve the construction of water-based infrastructure, either for recreation or stormwater management or pedestrian pathways or other connective elements. Some of these ideas reflect the work that was done in the Brown and Storey Rain Pond Demonstration Project but none of the elements proposed in the

adopted plan go quite as far as the landscape architects' vision. It appears that many of these elements have mostly been left by the wayside.

4.3.3 Building Linear Networks

It is well-known in the city that the downtown core is 'parks poor'. This has led to proposals such as the massive Rail Deck park that would create greenspace over the rail lands in the downtown. The Garrison network offers a different possibility of creating a long, linear park that could connect from St. Clair Avenue all the way to the Lake Ontario waterfront. The Garrison Creek Linkages Plan saw the potential in creating this linear network and fully utilizing the resources that are already at our disposal. In more recent years, Toronto has seen a growing interest in creating this kind of linear network through projects such as the Western Toronto Railpath or the Green Line. New York's hugely successful High Line Park also offers inspiration on how to revitalize neglected spaces and engage in placemaking (Ascher & Uffer, 2015). This twenty-year-old plan offers many of the same principles of connectivity but, as we shall see, has only ever been implemented in a patchwork fashion.

The ultimate hope was of the project was that it would "[re-establish] the severed relationship between the natural system and our current system of open spaces" (Commissioner of Urban Development Services, 2002). However, as noted, the focus of the plan was on 'civic' improvements and not necessarily on re-naturalizing many of the spaces. In fact, very little of the plan adopted strong stormwater management measures that would have had an impact on improving the broader ecological system. The fundamentally ecological idea that was integrated was that of connectivity. This part of the plan has remained relevant and has even been shown as an example of innovative planning. In Park People's 2015 report focused on connectivity, they take up several of the ideas originally proposed in the Garrison Creek Plan. This included green corridors along Shaw Street and Wellington Street, improvements to parks, laneways, and signage to increase connectivity (Garrett, 2015). This report highlighted the sound ideas that had been proposed 20 years earlier to increase greenery and

bring back that "unique identity" of the area that exists because of the creek (Garrett, 2015). Tellingly, while *Making Connections* (Garrett, 2015) was able to point to many of the strong ideas in the previous plan, there were few actualized examples that could be held up as few have been implemented.

4.3.4 Investing in the Public Realm

Figure 11 - Garrison Creek sidewalk marker

That is not to say that the project was unable to make changes to the public realm. In fact, it did see a few years of coordinated investment that has had lasting impacts. Unsurprisingly, the more successful projects were the streetscaping and more minor works. The committee was successful in having Garrison Creek's historic route recognized by the city. Today, along its former course there are several bronze markers inlaid in sidewalks or pathways.

At Trinity Bellwoods Park and Stanley Park, there are also two large bronze maps inlaid in the ground that show the former Garrison Creek superimposed on the city's grid. The inscription on the map in Stanley Park reads:

> "Rediscovering Garrison Creek; Garrison Creek once flowed south through ravine land from the ancient Lake Iroquois shoreline, now at Davenport Road, to Lake Ontario. Along the way, it provided a fresh water source for Fort York.; With the westward expansion of the City of Toronto in the late 1880s, the creek was enclosed in a 2.5m diameter along the course of the former creek.; Surrounded by "water" in 24 languages, this map shows the route of the original waterway superimposed over neighbourhood streets. Rediscovering Garrison Creek makes it possible to connect the ancient Lake Iroquois shoreline with the present-day Lake Ontario shoreline."

These markers do help to keep Garrison Creek in the public imagination. In fact, it is they that got me interested in learning more about the creek when I first arrived in Toronto. However, are we rediscovering anything? Alternatively, has this been just a successful branding exercise to help in the

reinvestment and redevelopment of some of Toronto's older neighbourhoods? This is a somewhat cynical view by it is important to examine what was successfully implemented and what was left out with a critical eye. These markers are hardly transformational but they have succeeded in keeping Garrison Creek top of mind.

4.3.5 Falling Out of Favour

Since the early 2000s, this investment has not been sustained and many elements that the committee worked so hard to bring forward have deteriorated. In some sections, the metal plaques were stolen for their metal value and never replaced, leaving gaping holes in the sidewalk. The Garrison Creek Discovery Walk, which was also developed during this period, has had its signs vandalized or broken or have simply disappeared, making it very difficult to follow the route without a strong understanding of where you are going, somewhat defeating the purpose. But even during the height of the work of the Linkages committee there were issues being faced that made implementation difficult.

Figure 12 - Garrison Creek marker with stolen piece

One of the fundamental issues, as described by a key informant who worked on the project, was the conflicts of the use of public space by various groups. The Linkages team was hoping to create more naturalized areas in these parks and provide opportunities to reconnect with the riverine landscape. Other groups in the area saw parks as mainly a place with turf and sports facilities (personal communication, 2017). This was a fundamental rift between active and passive public spaces and is a difficult balance to achieve. The Rain Water demonstration project faced similar backlash in terms of returning water to the landscape. Some of the loudest objectors were school

officials and parents who were worried about children downing in the stormwater ponds (personal communication, 2017). These conflicts delayed the processes of implementation, created barriers and indicated the need that exists to challenge the way that people interact with their environment on an everyday basis (Loftus, 2012). This demonstrated that, for some, there was a deep divide between themselves and their environment that they were interested in preserving.

This plan was meant to be long-term and proposed determining a 5, 10 and 15-year strategy. However, in reviewing City of Toronto documents, it appears that the project fizzled out in about 2002. After this point in time, there are no more formal discussions regarding the plan in official municipal documents and council or committee minutes. This atrophy was confirmed through an interview with a key stakeholder involved in the group. They stated that the work they were doing was quite high profile at the time and there seemed to be momentum moving forward regarding the implementation of the plan, but then there was a falling out with one of the councillors of the area (personal communication, 2017). This falling out proved to be the undoing of the project in many ways. Without the support on council to continue to bolster the group regarding meetings, connecting with city staff and getting funding for the project approved, the project seemed to just slowly fade away. The Advisory Group stopped meeting, and new councillors were also elected with different priorities or just without that same history with the group. The plan remains officially adopted by council but without the political capital to move it forward, other projects took priority and staff were engaged in other work (personal communication, 2017).

The key issue that created the rift between the Advisory Group and City Hall was that of the un-burial of the Crawford Street bridge in Trinity Bellwoods Park (Yuen, 2006). The key informant involved in the project indicated that the issue of the bridge was not able to be resolved and council just walked away from project (personal communication, 2017). While relatively low cost and straight forward, the project required the coordination of several city departments. Without the support from

City Hall, the advisory committee had no standing and no real ability to continue with the project. Maintaining grassroots support for these types of long-term initiatives is also very difficult. The Black Creek Conservation Project, for example, which had been operating since 1982 in the north of Toronto was recently "disbanded for lack of volunteers and funds" (Vincent, The ugle side of Toronto's ravines, 2016). Planning often happens over long horizons and plans are the key tools that are used to see these through but, as demonstrated here, they aren't enough without either a widespread public engagement or strong institutional support. Of course, this is a common story in Toronto. Michael Cook puts it best:

> "All of this in spite of a civic politics and culture in Toronto that, swayed by the glitter of development dollars, has focused its 'water' efforts entirely on the city's central shoreline with Lake Ontario. In our city's obsession with remaking the waterfront, we have again forgotten about the upstream watersheds that create that lakefront and that dictate the health and quality of the water and ecosystems on its foreshore. More than that, our local creeks and rivers – and by extension the modern sewers that feed or have replaced them – are much more closely connected to the quality of life in our neighbourhoods than a lake that in some corners of the city is almost twenty kilometers away" (Cook, 2010)

These projects were about improving the quality of life in some of Toronto's central neighborhoods by reconnecting with the water and the landscape that had defined them. This can be done and successful restoration has been focused on getting people to reimagine the value of previously neglected spaces (Evarard & Moggridge, 2012), bringing ecological principles to the forefront of design in urban areas (Grêt-Regamey, Weibel, Vollmer, Burlando, & Girot, 2016) and recognizing the diversity of issues faced by our urbanized watersheds (Gurnell, Lee, & Souch, 2007). Since the decline of the linkages project, other projects have latched onto the idea of Garrison Creek. The linkages project was highly successful in promoting the idea of the creek and integrating it into the public consciousness, if nothing else. As such, there has been an uptake of the idea of the creek by several different groups to promote different ideas about the city and our relationships to our environments.

Fort York's planning process and the Garrison Creek Linkages Project demonstrate changing relationships between people and the landscape, between citizens and the planning process, and

between planners and their subjects. These changes all had implications in terms of how the Garrison was used as a symbol for neighbourhood revitalization and imagination. These plans also highlight the ways that public spaces were coming to be valued in the 1990s and the tension between open space for recreation or for natural spaces. The reality of Garrison Creek as a sewer wasn't challenged by these plans and they made no attempt to try to daylight the creek. Instead, the legacy of the Garrison provided a rallying point around which to define these spaces and connect them. It changed the ways we come to know the creek in this corridor, with small metal markers periodically reminding us that we stand of the path of a waterway. These discursive changes are important but should continue to be pushed towards physical and systemic change if they are to continue to challenge our relationship with the watersheds we inhabit.

Chapter Five: A New Urban "Creek"

Through its rediscovery, Garrison Creek has remerged into the public consciousness as a vital piece of infrastructure, a connective legacy of the area and a new symbol around which movements have been able to gain traction. If the heart of the neighbourhood was ripped out when the creek was buried, then this chapter is about the ways that people have attempted to transplant in a new, albeit artificial one. Here we explore some of the successful grassroots organizing that has brought out the creek and reintegrated it into neighbourhood, and we look ahead to see what kind of role Garrison Creek might be able to play in the years to come. This chapter continues to build on the theme of relationality that was established in the last chapter but with a focus on the ways that grassroots approaches have related to the creek and to each other and Indigenous relationships to water. This chapter also delves more deeply into our values in terms of public space and the ways we come to value our urban watersheds.

5.1 Walking Along Buried Rivers

5.1.1 Lost River Walks

The Lost River walks have become a Toronto institution in the 20 years that they have been running and bringing people together to rediscover Toronto's water. Established on the simple premise of conducting walks over the paths where water once flowed, Lost Rivers is fundamentally about celebrating these lost landscapes and teaching the history of Toronto's urban form through this lens. Established shortly after Brown and Storey's Rain Water Demonstration Project was published, Lost Rivers was inspired by this work and others that continue to fight for the recognition of the landscape in the city (personal communication, 2017). A part of the Toronto Green Community programs and in conjunction with the Toronto Field Naturalists, they have been conducting walks along the route of now buried rivers for over 20 years. In that time, thousands of people have participated in these walks and learned about this hidden side of Toronto. The Lost Rivers' philosophy

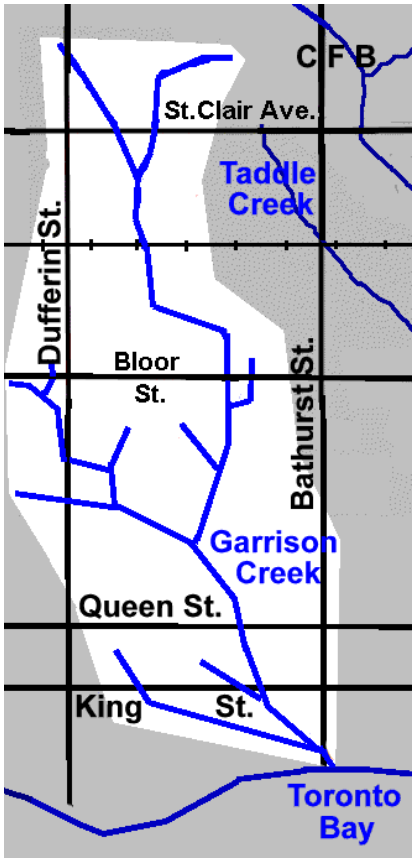

Figure 13 - Lost Rivers Garrison Creek Map

is based on the concept of watershed thinking or, as they put it "recognizing the relationship between humans and their natural environment – even in the city – and is a new way of appreciating the importance of healthy natural systems to healthy human communities" (Lost Rivers, 2017). Since their inception, they have produced walk information available online for ten different buried creeks and streams in the city. The information available includes maps of where the creeks once flowed, superimposed on the street grid, extensive background information for each of these reaches, local ecologies and historical points of interest along the river banks. They have done this while also leading multiple walks a year. The walks along the Garrison Creek path have proven to be some of the most popular and have seen an incredible level of sustained interest (personal communication, 2017). There is a power to walking these routes and in an interview with a representative of Lost Rivers they articulated this power in two key ways. One was the increased awareness that comes from experiencing a place on foot:

> "Walking is fundamental to human beings. The act of walking something that has happened forever. I think that when you walk you experience. You're aware. Things enter your consciousness and then in the city we often have these little glitches in consciousness because our surface, the framework of our awareness is usually the grid, the office, the transportation, the house the mall. But as you are going along you are going up, down on straight roads and wiggly roads. Those things penetrate on a subliminal level" (personal communication, 2017).

The other is doing it as a collective exercise in learning and in the value of an interpreter of these landscapes:

> "I think when you walk and have an interpreter with you, you can begin to sense the landscape in a different way. And this piece is really hard to articulate - it tells you something of the enormity of what we have done but also the fabric of it and it raises

> the question. Ok now what? Are we going to continue in this way? It is a natural lead in to the unintended consequences of what we have done. And to thoughts about creating future cities where we do less harm and we have taken less from nature" (personal communication, 2017).

However, Lost Rivers is a small organization and simply does not have the people to support leading as many walks as there is interest for. Considering this, with support from TD Bank and the David Suzuki Foundation, Lost Rivers has put together what they refer to as "Thirsty City Walks". This is a guide for people to follow as they trace the path of the creek themselves, on their own time. The audio guides, published on Soundcloud in 2015, is one of the ways that that Lost Rivers has been updating its programming in recent years. The focus of the Garrison Creek audio guide is on blue-green infrastructure – permeable paving, laneways, parks, open space, and the like – within the ravine corridor, some of which we have explored in earlier chapters. Again, the Brown and Storey project remains top of the mind for Garrison Creek and is mentioned in the first stop of the audio tour.

> "They wanted to bring the Garrison back as a natural system to handle stormwater. Practical, economic, social, and political barriers intervened, but the creek, now firmly entrenched in local sentiment and mythology, lives on in green links, the parks along its path, in curving streets, in the sound of water rushing under streets and in creative community projects" (Lost Rivers, 2015).

Overall, the tour provides an overarching understanding of where the creek once flowed and where it is going now, that is to the Western Beaches Holding Tanks and the Ashbridges Bay Water Treatment Plant. As hoped, the tour does raise the question of what has been done to this landscape and what the future of our city could look like. As seen with the Linkages Project, even with sustained political capital these projects can be hard to bring to fruition. Energy needs to be focused. Lost Rivers has focused its energy not in the political battles but in the long-game of changing our culture around water (personal communication, 2017). They have looked to engage in more art-based and interactive actions with people, as well as producing Poetry Walks which engage with our landscape in more creative ways than the lecture-style walk.

5.1.2 A Human River

Lost Rivers was also a key partner in the Human River project in Toronto that occurred between 2004 and 2012. Originally started by the Toronto Public Space Committee, this project was described as an interactive storytelling event that celebrated Garrison Creek (Bruun-Meyer, 2009). The event saw groups of people dressed in blue make their way from Christie Pits to Fort York, literally embodying the river as they made their way through its path. Arguing that this is more than a nostalgic exercise, Michael Cook (2010) writes that:

> "Human River has always been about more than simply remembering the creek. If that was the only intention, then the metal lettering the city has installed on various curbs and sidewalks to memorialize the creek's former course would surely suffice. Instead, Human River – and all the other activism, theater, art and educational efforts that have taken place around the Garrison and other creeks in Toronto – all these interventions have sought to actively reconnect with a watershed that isn't dead, that isn't simply history. Our urban watersheds are alive, flowing beneath our feet, and they are intimately connected with our daily lives even though we usually ignore them."

The hope here is that a renewed intimacy with the landscape can lead to a deeper change in that relationship. Of course, this is easier said than done and requires more than just the dissemination of information, but this is the niche that Lost Rivers has tried to fill in this complex relationship between the city and its water. They are simply trying to get as much knowledge into the broad public domain so that other people can take it up and engage with it in interesting ways. The focus is on a renewed relationship with public space, particularly as it relates to water and challenging the ways that those spaces have been constructed. In is in this light that Lost Rivers supported the Homegrown National Park project.

5.2 Growing a 'National' Urban Park

In 2013, the Human River event evolved into the David Suzuki Foundation-led Homegrown National Park Crawl. The crawl was a much larger endeavour than what had been previously been done in the Human River project. In their first event in 2013 they featured not only a walk, the

takeaway from the Human River, but also sixteen food vendors, musical entertainment and numerous activities at each park along the route. The impact of institutional support from a national organization with high name recognition stands in sharp contrast to the other events that have been held along the creek that never had quite the same reach. In fact, the crawl was only the keystone event of the much larger Homegrown National Park project that the foundation was supporting. This project to "playfully re-imagine the City of Toronto as a National Park" (David Suzuki Foundation, n.d.).

Each spring, the foundation would recruit and train "Park Rangers" who would be responsible for creating and implementing projects in the area that would connect the community. Garrison Creek acted as the geographic boundary and ecological heart of this project (David Suzuki Foundation, n.d.). It defined the area and provided a connection between the multiple projects on the go at any given time. The approach of theses volunteers, as described by one of the Park Rangers, was to imagine what sorts of interventions they would want to see in their own backyards and public spaces and then to work closely with people that could help make it happen. From there, the goal was to connect with the larger community and share their imaginative ideas. It was about bolstering a reverence for the nature that exists in our backyards and supporting its growth (personal communication, 2017).

However, the creek itself, or even water for that matter, was no longer the focus of the interventions the way it had been with the Human River project. It acted as a template onto which Rangers were asked to imagine the park they wanted to create. They would walk the path of the former creek and talk about what they wanted to see (personal communication, 2017). There was some talk about the prospect of daylighting the creek but this was highly aspirational and not within the scope of the project. The part that did resonate and that was latched onto was the idea of bringing back the corridor element of the ravine landscape. This is how the idea of creating a pollinator corridor got started (personal communication, 2017). The outreach materials for the project harkened back to the Lost Rivers map and showed the creek superimposed on the street grid and the interventions carried

out by the rangers were plotted onto theses maps. The ranger I spoke with said that, especially at the beginning, relating the projects back to the creek was consistent (personal communication, 2017). For them, this relationship was fundamental and the project was about reimagining this buried creek system. This manifested itself in working to bring back the lost biodiversity that the banks of the creek would have once held and bringing back a reverence for the water.

So, there is an important link to the creek, as the template and the ecological justification for the project, but it did not remain the focus. Instead, the Suzuki Foundation's focus shifted to the creation of butterfly-friendly spaces. They distributed wildflower seeds, created butterfly gardens in school yards and encouraged homeowners to plant native species in their own garden. Of all the projects the one that evoked the creek most explicitly was the Community Canoe Project. Lead by "Ranger Aiden" the project installed a dozen canoes along the length of the Garrison Creek Network and filled them with soil and planted wildflowers. These canoes remain doted on the landscape and do evoke water with their presence but it was a decidedly nostalgic exercise. When interviewed, my informant at Brown and Storey spoke to the frustration they felt seeing these types of interventions on the landscape when they poured so much energy into imagining something more (personal communication, 2017). I feel these exercises do not create structural or material changes. While it is a good exercise in placemaking, it does not challenge the fundamental relationship between the city and the landscape. Interestingly, despite the clear parallels, the Rangers did not know about the Garrison Creek Linkages Plan that had been attempting to do much of the same thing a bit over

Figure 14 - Community Canoe at Stanley Park

a decade earlier (personal communication, 2017). In fact, when I asked the Ranger about it, they seemed quite surprised to hear that so much had been done in promoting the Garrison Creek corridor. There was no institutional memory to inform them of this work and while they certainly had seen the bronze wording and maps engrained along the route there was no understanding that this was part of a larger plan, still officially adopted by the City, that has yet to be fully realized.

After three years, in 2016, the Homegrown National Parks Crawl was absorbed into what became known as the Christy Crawlfest. This massive event combined four previous independent events into a major neighbourhood festival. This included the Homegrown Park Crawl, the Laneway Crawl, the Christy Pits Arts Crawl and the Bells of Bloor bike parade. By 2016, the event had become disengaged from the Garrison Creek watershed. While the hub of the festivities remained on Christy Pits at the heart of the watershed, this event was a far cry from the goals of the Human River on which it had been modeled in 2005. In this ten-year period, there had been a major shift. What had started as a local grassroots event that was organized with the aim of reconnecting with the watershed and reminding people that this is not a dead river had become fundamentally transformed into a high-profile event supported by a national organization that did not have those same roots. This is true not only for the Crawl event but for the entire Homegrown National Park Project. This project has now evolved into The Butterflyway Project which has chapters in Ontario (Toronto and Markham), Quebec (Montreal) and British-Colombia (Richmond and Victoria). The David Suzuki Foundation is a national organization with the means and mandate to provide this kind of mega-project that can support interventions in multiple communities. But somewhere along the line, the Garrison got lost. In my interview with one of the Park Rangers they spoke of how the connection to water was always a key part of their relationship with the project but with the transition to the Butterflyway project the heart and soul of it was lost.

5.3 Innovating Downtown Green Space

5.3.1 TOCore

Garrison Creek's symbolism and importance continue to be reflected in major planning and policy documents for the City of Toronto going forward reflecting the impact of the sustained work of grassroots organizers. Most notably, the Garrison Creek system plays a central role in the upcoming TOCore plan, the proposed secondary plan for Toronto's downtown core. Through this downtown master planning process, the creek is being re-examined and provides the western boundary of the study area. Existing geological features provide the other three boundaries. The northern border is the Lake Iroquois escarpment adjacent to Davenport Road, the Lake Ontario Waterfront defines the southern extent, and the western boundary is the Don Valley. In this plan, once again the Garrison corridor is identified as a key corridor for greenspace development and expansion and an area with the ability to connect the neighbourhoods. On the one hand, this demonstrates the continued importance of the Garrison Watershed for the downtown community's identity. On the other, it reinforces the feeling that the ecological heart of this area remains missing, that in our acts of city-building we lost sight of what defines a place.

5.3.2 Reimagining the Mouth of the Creek

In many ways, the trust of the Homegrown National Park Project was about re-wilding the urban centre. As the Ranger involved pointed out, there are many barriers to rewilding and bringing nature back into the city (personal communication, 2017). Creating parks and naturalized spaces in areas that have been so heavily impacted offers great opportunities but also great challenges. This is certainly the case in the proposed "Mouth of the Creek Park". Located in one of the few remaining undeveloped lots in the Fort York neighbourhood, the park would be adjacent to the new Fort York Public library, the linear park along the rail-line, the Bathurst Street Bridge and Fort York. The location is where the creek would have originally let out into Lake Ontario at the time of Fort York's founding.

Today, this remaining undeveloped site is a large gravel-filled pit that appears to have been mostly used as a dumping site for construction waste. The potential for a park here started with the Fort York master planning process described in the previous chapters. This park would be the first new major public space addition to the Garrison Watershed. The efforts that have been previously described focused on the revitalization or expansion of existing public spaces but this park offers a unique opportunity to build a new park, explicitly focused on the heritage of Garrison Creek from scratch.

I had the opportunity to speak at length to one of the landscape architects involved in the design of the new park and the ways their firm was approaching the design of this space. One of the fundamental characteristics of this site is its inherent contradictions. An obvious one is that the creek is absent from the Mouth of the Creek park. There is no access to the creek anymore. The designers ran into the same issues faced by Brown and Storey Architects twenty years ago with the conclusion that there is no way to unbury the creek, or even a section of it due to the intricate ways it has been integrated into the stormwater and sewage system. So instead of focusing on the creek or the water, the designers of the site have focused their energy on producing landforms that reflect the ravine topography (personal communication, 2017). They are looking closely at the geomorphological

Figure 15 - Mouth of the Creek Park Rendering (Courtesy of E.R.A. Architects)

context of the site and are interested in bringing key landforms back. The major landform that is looking to be recreated on the site is the promontory, the high point which would have jutted out into the lake from the mouth of the creek. For the landscape architect involved in this project, despite its current form as a gravel pit, this site does retain some of that creek topography and a sense that this is an important place. Water still settles here during a rainstorm and the views from the site connect the city's past at Fort York, and its future at City Place (personal communication, 2017). They also noted that the site has been chipped away at by infrastructure and construction and these impacts are just as notable on the landscape as the impact of the creek on the ravine topography (personal communication, 2017). Unlike the established parks and especially unlike Toronto's functioning ravines, this type of space offers new, unique opportunities to play with people's relationship to place. By having the ability to design based on heritage elements, but not be confined by them, there is a chance to design in a way that brings people into the space. As the designer put it, the goal is not to mimic what was there before but to redefine the places in which we live to give them a deeper meaning (personal communication, 2017). These are potentially the greatest opportunities that exist for changing the way that Torontonians come to relate to their water and their landscapes. We do not necessarily value the wild, unkempt spaces of our ravine landscapes without clear symbols of human care and intention (Nassauer, 1995). These types of designed spaces may allow us to develop new symbols and understandings of these landscapes so that we may learn to value them in new ways.

5.4 Toronto Ravine Strategy 2.0

Toronto's relationships with its ravines has always been tumultuous. As seen, in some cases, this relationship led to the literal burial of the issue, but in other cases the ravines have stayed above ground - but neglected. The sustained and impressive work of the Taskforce to Bring Back the Don, described in detail by Bonnell (2014), played a key role in reminding the city of the value of these places. They undertook large and small interventions that have helped to bring people back into the

ravine. Institutions such as the Evergreen Brickworks and Riverdale Farm, nestled in the river valley, provide a draw that bring people into theses landscapes that they might only otherwise glimpse at while driving on the Don Valley Parkway or while crossing the Bloor Street Viaduct. The Don also continues to flood, the July 2013 storm saw it overflow to the point that it stranded a GO train on the tracks and hundreds of people needed to be rescued. The lower extent of the Don River is channelized and empties out into Lake Ontario through the Keating Channel. As seen from experience, controlling the river is inadequate to deal with large and fast storm events. Because of these factors, the push for naturalization, the need to control flooding, as well as the increased land values and push for redevelopment in the Port Lands, a major naturalization and flood control project is currently underway by the TRCA and the City of Toronto. In addition, Evergreen, the organization that manages the Brickworks site, has been working with the City for the creation of the Don Valley Super Park. The park is more of a branding exercise than anything else by the City, officially naming the valley the Don Valley Park. The substantial work consists of mostly infrastructure improvements for connectivity and access to the valley itself as well as the installation of public art pieces.

This interest and investment in the Don is important and recognizes the value of Toronto's ravine system. It demonstrates shift in the way we value our ravines from a hundred years ago. In keeping with contemporary perspectives, the city is currently creating the Toronto Ravine Strategy. This new policy document is set to guide their use, management and protection (City of Toronto, 2017). The 'strategy' is meant to provide policy direction for the ravine network and create a cohesive approach to their management and use. A source involved in the formulation of the strategy spoke to how the plan was being developed as an outreach tool to help the public understand the value of these spaces and get involved in their care (personal communication, 2017). They also emphasized that this strategy needs to be considered in conjunction with the Wet Weather Flow Master Plan, indicating that flooding control and infrastructure remain a central part of this plan. The balance between

infrastructure protection and naturalization will be a difficult one. This strategy will hopefully provide a direction that addresses the inequalities in the ravine system. Not all the city's ravines have the pull of the Don. Some, like the southern extent of Black Creek, "remains channelized, polluted, and highly engineered" (Vincent, The ugle side of Toronto's ravines, 2016) and there is no discussion around changing that presently. In all of Toronto's waterways, stormwater remains one of the greatest challenges to water quality and the system is easily overwhelmed. In the case of Black Creek, the desired way forward now "is to keep it on the landscape as long as possible and have it filter naturally into the ground, [storm ponds] are being designed to retain water, which greatly reduces flushing of contaminants into streams" (Vincent, 2016). This sounds awfully familiar to what was proposed in the Garrison Creek watershed but, despite large investments of time and energy, came to no avail. Perhaps Black Creek's saving grace will be that while it was engineered to the brink, it remains above ground and thus is part of the Ravine Strategy.

Garrison Creek on the other hand, will not be included in the strategy beyond potentially a brief mention of Toronto's history of neglect of the ravine system and an acknowledgement that many have already been lost. Any yet, that water still exists and our buried rivers remain connected to those that continue to flow above ground. When we think about Toronto's ravine and water system, would it make sense to include our lost rivers in this thinking? I posed this question to all my informants and they each had a different take, though there were some common themes. Some warned of the possibility that this is simply 'feel good' policy that doesn't have a big impact on the system. As a rule, apart from the Brickworks, there is still a long way to go in terms of valuing ravines for their own sake and until they begin implementation it will be difficult to know if the city can fundamentally change people's perspectives. Others said that it just didn't make sense to include Garrison Creek and the other buried rivers in the Ravine Strategy because it would layer on policies that simply no longer apply to them. The landscape of Garrison Creek, dominated now by paving, houses, and city parks

just doesn't contain the 'wildness' that people associate with the ravine system and which will surely be a factor in the strategy. Their burial urbanized them to the extent that they can no longer be associated with the city's remaining ravine landscapes.

Many said while it is important to recognize the connectivity of the ravine system to the underground waterways it might not be within the scope of this first strategy but might make sense to expand if there is a Ravine Strategy 2.0. As this is the beginning of the process of looking at the ravines comprehensively, it makes sense to focus on the large naturalized ones as they themselves have yet to be properly examined. It was also noted that there are very different challenges that come with the management of "ecologically active corridors versus something that is more subterranean infrastructural heritage" (personal communication, 2017). Through the processes of burial and urbanization has fundamentally changed the character of each.

It comes down to a question of capacity and what people are willing to spend money on. One informant noted that powerful partners play a big role in establishing priorities and currently those partners are focused on the Don and on the Waterfront. That is where investment and donors are going. However, it could make sense down the road, to look at the larger picture once the approach has been established for these ravines. There is a huge potential for linkages between the lost rivers and the existing ones and building on work already done such as the Demonstration Project to bring those linkages to reality. It was also noted that there is value in comparing the treatment of our lost rivers to our remaining ones and understanding the heritage of these landscapes. As one informant noted, it took us "200 years to screw it up and now we need a 200-year retrofit" (personal communication, 2017). There exists "large city-scale opportunities that are afforded by having long continuous form but that have variety throughout" (personal communication, 2017). But this variety and the difference in the ways that these form manifest were noted to complicate the application of policies to these spaces.

As the city advances its ravine strategy and the movement towards the better integration of these spaces continues to grow, Garrison Creek offers a lesson in where we have gone wrong; initially, with its pollution and burial, and more recently, by missing the chance to integrate some elements of its landscape back into the city. Instead, it has been memorialized and built up into a nostalgic entity. Even our existing, unburied ravines are subject to this nostalgia. As Shawn Micallef writes, "the ravines give people living in urban landscapes, whether downtown or suburban, a connection to Canada's founding myth of wilderness and rural landscapes" (2017, p. 98). They remind us of a time when this place was a little wilder. But, as heard in many of my conversations around the Garrison, this nostalgia is dangerous and an impediment to action. It creates complacency and can stop us from investing in the big ideas that could have a lasting impact into the future. If the Ravine Strategy is going to have an impact on this city's most iconic landscapes, it must not simply try to 'bring back' the ravines but look closely at how the urban fabric has been integrated into them and how this relationship can be made better. As the Homegrown National Park Ranger I spoke to said, a relationship to the watershed is necessary for a deep connection to nature and their understanding of the watershed and powered their ability to think about nature holistically (personal communication, 2017).

5.5 Reconciling Through Water

If there is any group in Canada that has any right to be nostalgic for a pre-urban time it is our First Nations people. And yet, they have often proven to be the ones looking most clearly into the future and proposing bold new ideas (or a return to old ones) in terms of how we relate to the land and our landscapes. It is imperative to understand that the entire saga of the creek has occurred within a colonial context. Canada's Indigenous peoples remain a vital part of this story and offer real solutions in terms of reconciling our communities and reconciling with the land we live on. First Nation groups and their allies have been especially vocal about the centrality of water in this process. High profile events, such as the organizing of the Water Protectors at Standing Rock, Canada's boil-water advisory

crisis, and our melting arctic have demonstrated a fundamental rift between the colonial state and First Nations in their approach to water in recent years.

5.5.1 Claiming Rights to the Water

Planning professionals have a key role to play in reconciling these relationships, especially when it comes to issues surrounding land and water. Planning education does not typically include indigenous consultation principles or even the basics of the Crown's Duty to Consult. This leaves planners inadequately prepared to deal with the issues brought forward by Indigenous people in many cases. Yet, as outlined in the Provincial Policy Statement (2014), planners are expected to work with and consult with indigenous communities (Fraser & Migwans, 2016). Planners are at the forefront of working towards reconciliation as modern land-claims and settlements provide a new framework by which the landscape can be understood.

Toronto, which many Indigenous groups have called home at different times, is the recognized traditional territory of the Mississaugas of the New Credit. This nation, now located on a reserve near Brantford, Ontario have a different way of relating to this landscape. The Mississaugas of the New Credit signed nine different treaties or purchase agreements between 1781 and 1820 with the Crown and gave up most their land through these processes, often through deceitful methods of the Crown (Mississaugas of the New Credit, n.d.). In the 1980s, the MNCFN began the long settlement claim process to receive the compensation that they have never received for their land from the Crown. In 2010, the government finally settled the Brant Tract claim and the Toronto Purchase claim for $145 million dollars (Indian and Northern Affairs Canada, 2010). Since then, the MNCFN has filed two additional claims that are of importance to our discussion around Garrison Creek. One, asserts that they maintain "unextinguished aboriginal title to the Rouge River Valley Tract" (Fullerton, 2015, p. 3). In the other:

> "The Mississaugas of the New Credit First Nation asserts that we have unextinguished Aboriginal title to all water, beds of water, and floodplains contained in our 3.9 million acres of treaty lands and territory. There is no mention of water in any of the treaties between the Mississaugas of the New Credit First Nation and the crown but for surrender #23 which we allege is invalid" (Mississaugas of the New Credit, n.d.).

This second one poses some interesting possibilities for Toronto's buried water. Indigenous developed relationships to water tends to differ from that of settler-Canadians. They tend to emphasize a spiritual connection with water which is not a key part of the settler narrative around water (McGregor, 2012). Settler Canada tend to hold a more utilitarian view of water. Additionally, they view themselves as the stewards of the waters of their territories (Mississaugas of the New Credit, n.d.). As such, this push for the recognition of their rights is not just a legal question but a recognition that water is central to life in a different way in indigenous communities.

The claim is focused on the larger rivers that supported settlement such as the Rouge, the Humber and the Credit but also speaks to the centrality of fishing rights which could have been exercised in the Garrison. The implication of this claim is that Toronto, as a product of the colonial state, never had the right to bury the creek as it was never relinquished by the Mississaugas of the New Credit through any of the land treaties. While financial compensation is the most likely outcome should the claim be accepted by the courts (which is still pending), it is interesting to imagine the possibilities for radical change that may occur should the MNCFN succeed. This water, now so intimately tied to our infrastructure system, could perhaps be renewed on the landscape. This might just be the kind of radical push needed for the city to adopt something like the Rain Ponds Demonstration Project.

5.5.2 Indigenizing the Landscape

Beyond these major high level efforts to have the state recognize the indigenous history of Toronto and provide a renewed connection with water, there are actions taking place here that are returning Indigenous histories to the landscape. The team behind the Lost Rivers

programming has been developing a new program entitled Rising Rivers. The goal of this endeavor, as described by one of its founders, it to connect not just to Toronto's lost rivers but also to its lost histories (personal communication, 2017). Specifically, the goal is to connect to Indigenous and newcomer communities and stories and connect these groups to the watersheds that they inhabit (personal communication, 2017). The Ranger with the Homegrown National Park spoke to the deep disconnection they observed between people and the watershed they inhabited and identified a colonial mindset as being part of cause of this disconnection. Despite working with an organization that had national support and resources, they spoke to how leadership needs to come from Indigenous peoples when it comes to reconnecting to our environments. We (settler-Canadians) just need to get out of their way and allow them the opportunity to provide leadership in maintaining and reconnecting with our watersheds (personal communication, 2017). At the Mississaugas of the New Credit First Nations Annual Historic and Cultural Gathering in February 2017, there was a key theme of reconciliation through the landscape, in defence of the land. The key assertion made by presenters was that there we could learn history from the land and need to take the time to reconnect with our lost and forgotten landscapes. The central premise of this paper was to ask what can be learned from the forgotten landscape of Garrison Creek. In a landscape so altered, where do we find its value to our urban communities? What we must ask, in the context of Garrison Creek, is if the curve of Niagara Street can teach us as much as the curve of a riverbank. Though the process of exploring the Garrison watershed in this study, I hope to have made clear that it can. The value of the Garrison Ravine landscape, though masked, has not been wholly lost from the landscape. A renewed understanding of Garrison Creek should also include an understanding of the relationship between First Nations and the watershed. Garrison Creek's original name, if it had one, has been lost through the process of colonization. Even if the Garrison doesn't see any changes because of the water claim, these types of

action can reshape the conversations and keep a sustained interest in these buried features that can so easily be forgotten.

Conclusion

Garrison Creek's story is not a unique one, it's not even unique in Toronto. Toronto buried dozens of streams and rivers, a pattern that has been replicated in metropolises around the world. What is unique about the Garrison is the way that despite its transformation into a combined sewer, it has continued to be valued as a creek in the minds and hearts of many Torontonians. It has continued to be evoked as a historically significant feature, a defining element, a connective core of downtown Toronto. In the past twenty-five years, multiple groups, individuals, and institutions have recognize the power of reconnecting with Garrison Creek and have offered various solutions by which to do so. Some of these attempts have been more successful than others, but each has illuminated different ways people have come to know this watershed and deepen their relationship to the land.

This exploration of the transformation of Garrison Creek has been anchored in four themes that have woven themselves through this research and have meant different things at different times in the creek's history. These discussions have been based on the land and the evolving landscape of the creek, physically and discursively. This theme reminds us that the Garrison Creek was more than the water, it was the deep bank ravine, the watershed that fed the creek, and the biology that it supported. The creek has both shaped and been shaped by the landscape of Toronto. This theme has also highlighted the human impacts on the landscape and reminds us that the shape of our cities is not neutral but based ideas about what our cities should be. Garrison Creek evolved around these ideas and has seen both their benefits and detriments. The theme of relationality touches on this evolving relationship between people and the creek and the different ways people have come to relate to the creek at different times. This illuminates the changing ways Toronto has come to value urban water and ravine lands, from dumping grounds to revered green space. The creek has also played host to relationships between people and institutions and has acted as the defining element of those relationships. These relationships were not necessarily equal and centrality of the river not neutral, by

recognizing the politics of space, the third theme reminds us to be critical of the power and values we apply to space. Political capital held by both individuals and institutions have has been fundamental in the success of various projects associated with the creek. This theme also reminds us that plans and policies are not neutral documents. They come with their own assumptions and values and must be approached critically. Finally, the evolution of the plans, projects, and places along the Garrison Creek corridor provide an important example the evolution of how we value public space in Toronto and the role we believe public space should play in the urban context.

Garrison Creek demonstrates the complex interplay between urban water as infrastructure and as an ecological entity. In this case, the creek's ecological identity is also taken on for its symbolic and discursive power. This interplay supports Urban Political Ecology position that water has both a material and a political role to play in our urban environments. It has been used to advance different plans and ideas about nature and as a tool to bring together the communities that have been defined by its absence. It has also demonstrated the failings of our engineered systems and human hubris to control urban water. Central to acts of both creation and failure, Garrison Creek is a touchstone for our conflicting ideas about water. As a sewer, it is something that must be hidden away and made to do its job quietly. As a river and watershed, it is an entity to be celebrated and whose ecological integrity we work to restore. Exploring this watershed has not resolved these conflicting narratives but has provided insight into the different ways they are manifested, discussed and funded. This deeper understanding can help us to approach the creek with a critical eye and challenge our communities to do better.

Moving forward, research should continue to focus on our urban watersheds and critically examine the ways that these ecological systems have been integrated into our urban ones. Garrison creek's storied history is a call to do better and to return to our urban landscapes when thinking our place and the relationship to our environments. This paper has focused on the work of community

organisers and planners and their fine-grain plans to understand some of the complexity of this watershed. Additional research that engages with a wider public and more intimately with public and municipal officials could shed additional light of the ways that the Garrison watershed is perceived. Additionally, more work needs to be done to engage with Indigenous communities. This piece attempted to integrate some of the Mississauga of the New Credit's relationship to urban water, but additional communities should also be included, especially urban Indigenous communities who inhabit the Garrison Watershed. Finally, this research would benefit from comparative analysis with other buried waterways both in a Canadian context and globally to understand how these narrative compares to other watersheds and jurisdictions and learn how different communities have engaged in relationships with their urban water. The potential of this type of research lays in its ability to break down the divides between the urban and ecological, to re-centre the landscape in planning discussions and ideas, and to engage more holistically with our urban communities. Garrison Creek will never be what it once was, nor should it be, but it has the potential to be far more that it currently is.

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