# THE CURRENCY OF WATER IN WORDS

# THE CURRENCY OF WATER IN WORDS: AN ANALYSIS OF THE CONCEPTUAL METAPHORS OF WATER

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# LAY ABSTRACT

In this dissertation, I examine some of the water metaphors in Canadian legislation and literature. I argue that water and metaphor follow similar architectural processes and, from a perspective of the theoretical intersection of water and metaphor, I examine how individual water metaphors reveal the way metaphors frame our thoughts and shape our behaviour towards water. I show that the metaphors of water in the Canadian legislation, such as the Fisheries and Oceans Act and the Canada Water Act, are limited whereas literary metaphors of water in creative works represent a more comprehensive reflection of the material qualities of water and of the human and more-than-human relations with water. I conclude that the analytical lens of metaphor is useful to examine our relations with water and that the environmental humanities, which are excluded from solutions of water issues, can significantly contribute to the resolution of water issues in the Anthropocene.

### ABSTRACT

This dissertation is a study of water metaphors in the theoretical framework of feminist environmental humanities. It draws on feminist theory, metaphor theory, and Indigenous theories. It examines some of the water metaphors enshrined in Canadian legislation, specifically the Fisheries and Oceans Act and the Canada Water Act. It also examines some of the water metaphors in Canadian literature, focusing on creative works by Lisa Moore, Rita Wong, and Leanne Betasamosake Simpson. I argue that a dialogue between metaphor theory and feminist theory radically transforms the scope for understanding water in a way that not only consolidates the presence of materiality, but initiates a trajectory into the discursive and creative modes of metaphor that enable the interrogation of the politics of water. As a settler Canadian, I position this dialogue in relation to Richard W. Hill Sr. and Daniel Coleman's metaphor of the Two Row Wampum-Covenant Chain Treaty to frame the conversation between the Indigenous and settler Canadian texts that I examine in this dissertation. Following a reparative arc, I analyze the metaphors of water to reveal the discrepancy between some of the legislative and creative metaphors. I conclude that the analytical lens of metaphor contribute to a greater understanding of how the conceptual metaphors of water we employ reflect our embodied experience of water and how historically marginalized as well as new metaphors can shape our values and ideas about water in the Anthropocene. I also conclude that the theoretical intersection of water and metaphor constitutes a powerful foundation from which to reimagine metaphor's shared materiality and efficacy with water. This study

affirms the value of a cultural intervention in the praxis of the water issues of the Anthropocene.

Dedicated to my parents

Elsie Persaud

and

Pandit Oma Persaud (1943–2012)

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# TABLE OF CONTENTS

Introduction	
Mirror Flows: The Reciprocity of Water and Metaphor	1
Introduction	1
Content and Scope	3
Theoretical Frameworks	12
The Nexus of Metaphor and Water	28
Conclusion	50
Chapter One	
Invisible Metaphors: Water Power in the Fisheries and Oceans Act and The	
Canada Water Act	55
Introduction	55
The Metaphor of Water as H <sub>2</sub> O – "Modern Water	57
The Metaphor of Water as Resource	61
The Metaphor of Water as Geopolitical Space	74
Geopolitical Space as a Visual Metaphor	85
The Limitations of Maps as Visual Metaphors of Water	90
Conclusion	99

# Chapter Two

Extended Metaphors: Water and the Political Economy of Neoliberalism in	
Lisa Moore's <i>February</i>	105

Chapter Three	
Deliberate Metaphors: Creating a New Imaginary of Water Through Poetry:	
Rita Wong's Undercurrent	167
Introduction	167
Human Guilt: the Metaphor of the Albatross	171
Themes of Place	175
Themes of Time	182
Themes of Motion	188
Themes of Relation and Belonging	192
Conclusion	200

Chapter Four	
Watering Subjectivities: Astrida Neimanis's Feminist	
Figuration "Subjectivity is Water" and Leanne Betasamosake Simpson's "Big Water"	204
Conclusion	
Overflowing Relations	235
Works Cited	239

#### **INTRODUCTION**

#### Mirror Flows: The Reciprocity of Water and Metaphor

Introduction

Water is the precondition of all life on the planet. This material reality is profoundly articulated by Gaston Bachelard who writes: "water is ... an essential destiny that endlessly changes the substance of the being" (6). Water is an "essential destiny" because it is the constant constituent of all forms of life. All forms of life in the biosphere are manifestations of water in different embodied and disembodied forms. All transformations of forms of life are also transformations of water, making water an absolute destiny.

Building on feminist theory on water, this dissertation explores a range of contesting metaphors of water in order to interrogate how the powerful metaphors of water can intervene in the material crisis of water.<sup>1</sup> Janine MacLeod writes that water's "symbolic potency can be engaged both to confirm and to challenge current systems of exploitation, domination, and ecological devastation" (40). Extending MacLeod's provocation, this dissertation seeks to explore how dominant water metaphors serve the ideologies and practices of water's exploitation, domination. More important, it seeks to explore how the re-imagination of water through alternative

<sup>&</sup>lt;sup>1</sup> The global water crisis is "a series of interconnected practices, institutions, and attitudes that transform water bodies in cumulative and seemingly inexorable ways" (Chen, MacLeod, and Neimanis 4). Johnston et al. describe the crisis in material terms as a threat to human security and biodiversity; they identify it as "more than a matter of supply and demand; it is also a crisis in access, with the inequities in access to water further separating the rich from the poor"(Johnston, et. al xiii); Karen Bakker cites David Schindler, winner of the first Stockholm Water Prize, who warns of an impending freshwater crisis in Canada (3).

metaphors can challenge this system at a time when it is imperative to ensure the preservation and sustainability of water for all ecological life.

Human experiential knowledge of water forms the basis of significant conceptual metaphors in many domains of life. Cecilia Chen, Janine MacLeod, and Astrida Neimanis argue that water is "a primary constituent of our conceptual worlds" (10). Proposing a hydrological turn in *Thinking with Water*, they explore the meaning of politics in "more aqueous modes" (5). In other scholarly and artistic works on water, Veronica Strang explores meanings of water that permeate culture; Leanne Betasmosake Simpson depicts Anishinaabe relations with water; Lisa Moore illustrates the challenges of living with water; and Rita Wong explores relationships with water, place, and Indigenous peoples through poetry. These scholars and writers have explored questions about the reciprocal relationship between water and the language of water. Water shapes our conceptual world but how does our language of water, in turn, shape our engagement with water? More precisely, how are our hydrological attitudes and practices framed by different metaphoric conceptions of water? If the metaphors of water are developed on the basis of embodied experience, how can the ubiquitous function of water, which occurs beyond human cognizance and embodied experience, be accommodated by these metaphors, or be reimagined, to reflect water's actual vitality and essentiality? Building on the foundation of the scholarship and literature on language and water, this dissertation explores these questions within the framework of a larger research question: How does metaphor function as a theoretical and conceptual mode for new ways of knowing the materiality of water, and for forging imaginaries of water that support better human and more-than

human relations with water, and water's preservation in this critical time of the Anthropocene?<sup>2</sup>

Examining the imaginaries of water and the significance of these imaginaries to human relationship with water, this dissertation is a cultural intervention into the growing ontological threat resulting from the myriad of water issues in the Anthropocene. I begin by exploring the theoretical intersection of water and metaphor to establish the depth and scope of their reciprocal relation. This nexus of water and metaphor provides a context of the significance of the examination of water metaphors that follow in this dissertation. Following a reparative arc, the analysis of water metaphors develops progressively from the dominant, limited conceptions of water to the complex conceptions of relations with water that are on a trajectory towards reconciliation and healing. The latter metaphoric conceptions of water in literature reveal the value of a cultural intervention in the praxis of the water issues of the Anthropocene.

Context and Scope

Water's ubiquitous and elemental nature transgresses all barriers. This makes water challenging to contain as a subject of study. I delineate the scope of study in this

<sup>&</sup>lt;sup>2</sup> Dipesh Chakrabarty cites Paul J. Crutzen and Eugene F. Stoermer's proposal of the term "Anthropocene" for the current geological age: "Considering... [the] major and still growing impacts of human activities on earth and atmosphere, and at all, including global, scales, it seems to us more than appropriate to emphasize the central role of mankind in geology and ecology by proposing to use the term 'anthropocene' for the current geological epoch" (qtd. in Chakrabarty 209). The Oxford Dictionary defines the "Anthropocene" as "The epoch of geological time during which human activity is considered to be the dominant influence on the environment, climate, and ecology of the earth, a formal chrono-stratigraphic unit with a base which has been tentatively defined as the mid-twentieth century" ("Anthropocene," def. A). According to The Subcommission on Quaternary Stratigraphy (SQS), a constituent of The International Commission on Stratigraphy (ICS), "The Anthropocene is not currently a formally defined geological unit within the Geological Time Scale" although it is widely used and "has developed a range of meanings among vastly different scholarly communities ("Working Group" par. 2–5). The SQS Anthropocene ("Working Group (AWG) is actively investigating and developing a proposal to formalize the Anthropocene ("Working Group" par. 5).

dissertation by exploring the different metaphoric conceptions of water in the geographical and cultural landscape of Canada. I selected Canada for significant reasons. The complexity of Canada's water issues, in addition to its potential freshwater crisis, positions Canada as a microcosm of global water issues. Also, as I will explore in Chapter One, water was central to the formation of Canada as a nation-state. Hydropower facilitated the development of early industries in Canada. Canada's identity has always been inherently connected to its geography. Citing early Canadian writer Susanna Moodie and painters the Group of Seven, Andrew Biro notes that Canadian landscape is central to Canadian identity: "as Canadians, who we are is profoundly shaped by the where in which we find ourselves" (322). Contemporary images of Canada's landscape, of places such as the Bay of Fundy, Banff National Park, and Niagara Falls, celebrate a Canadian identity that is associated with water. Images of abundant fresh water in Canada are prevalent in Canadian advertising<sup>3</sup>. These images, however, are part of a myth of abundance of fresh water and they misrepresent the reality of municipal water shortages. Therefore, there are competing discourses on the abundance and scarcity of water in Canada (Biro 330–331). Canadian nationalism is symbolically based on the preservation of wilderness and nature rather than the hydrological reshaping of nature, which is associated with Canadian subservience to American imperial interests (Biro 325). At the same time. Canada is navigating an identity as a resource rich country in the context of neoliberal trends to export and privatize water. So the interrogation of the metaphors of

<sup>&</sup>lt;sup>3</sup> Writing in *The Hill Times* Lindsay Telfer notes: "Fresh water is central to Canada's identity. It is represented in the images of Canada we promote to the world, in our collective heritage, and even in our beer commercials" (par. 1).

water in the context of Canada is not only relevant but imperative. Another significant reason for the selection of Canada as the focus of this study is Indigenous relations with water. Prior to the formation of Canada as a nation-state, the Indigenous nations of this land had established relations with water that continue to the present, even as they are under severe threat from industry and colonialism. Finally, the study of water in the cultural and geographical landscape of Canada is significant because I am writing as a Canadian citizen, a settler Canadian with political agency who lives in Canada.

Water issues are inherently connected; at the same time, they are differentially marked by social, political, and environmental challenges on global, national, regional, and local levels across the world. Although they are complex and variable, a global deterioration of water is measurable. According to Canadian writer and activist Maude Barlow,

Ninety percent of wastewater produced in the Third World is discharged, untreated, into local rivers, streams and coastal waters... 20 percent of all surface water in Europe is 'seriously threatened'... In China, 80 percent of the major rivers are so degraded they no longer support aquatic life, and an astonishing 90 percent of all groundwater systems under the major cities are contaminated.... Seventy-five percent of India's rivers and lakes are so polluted, they should not be used for drinking or bathing [and]... Forty percent of U.S. rivers and streams are too dangerous for fishing, swimming or drinking, as are 46 percent of lakes due to massive toxic runoff from industrial farms, intensive livestock operations and the

more than one billion pounds of industrial weed killer used though the country every year". (*Blue Covenant* 6-8)

These conditions constitute part of a global water crisis. The conditions of the waters on the planet have significant influence on human habitation. Globally, according to the United Nations, "over 2.3 billion people live in countries experiencing high water stress" ("Water Scarcity")<sup>4</sup>. It is estimated that 700 million people worldwide could be displaced by intense water scarcity by 2030 ("Water Scarcity"). Ecologically, global hydrological challenges include the increasing deoxygenation of ocean and coastal waters as a result of rising global temperatures and the discharge of agricultural fertilizers and sewage. Denise Breitburg et al. write: "Analyses of direct measurements at sites around the world indicate that oxygen-minimum zones in the open ocean have expanded by several million square kilometers and that hundreds of coastal sites now have oxygen concentrations low enough to limit the distribution and abundance of animal populations and alter the cycling of important nutrients" (1). These zones are known as "dead zones".<sup>5</sup> The scientific terms for "dead zones" are "hypoxia", which refers to low levels of oxygen and "anoxia", which refers to unmeasurable levels of oxygen (Kirchman vii).<sup>6</sup> While the description "dead zone" is not favoured by scientists, it "does accurately convey the impact of low oxygen on biota. What life there is in a dead zone is far from the diverse flora and fauna of a well-oxygenated ecosystem" (Kirchman vii). The increase of "dead zones" indicates that

<sup>&</sup>lt;sup>4</sup> "When a territory withdraws 25% or more of its renewable freshwater resources it is said to be 'water-stressed'" ("Water Scarcity").

<sup>&</sup>lt;sup>5</sup> Kirchman notes that the description, "dead zone", was first used in the Houma Daily Courier on July 22, 1985 describing conditions in the Gulf of Mexico (vii).

<sup>&</sup>lt;sup>6</sup> While the measure of dissolved oxygen varies with the definition of hypoxia, "the most common cutoff is 2 milligrams of oxygen per liter"(Kirchman vii).

water pollution is destroying water itself. Water is no longer able to replenish or restore itself due to the pace and severity of the pollution and depletion. Saskia Sassen notes that this condition is recognizable across the planet:

Deeper and conceptually invisible dynamics are cutting across very diverse countries and places.... It [a global systematicity] is deeper than the diverse geopolitical formations and economies we have built on our planet. Globally, across these differences, segments of the biosphere are being expelled from their life space- they become dead land and dead water. (209–210)

In other words, as parts of the biosphere, land and water are also dying. In addition to the "dead zones", the five major gyres of the oceans contain garbage, resembling landfills (Sassen 190). Seven million tons of plastics enter the ocean every year. These plastics photodegrade into molecules of plastics and toxic chemicals, which leach into marine plants and animals (Sassen 190–191). Furthermore, in addition to the deterioration of the conditions of water, climate change will lead to rising sea levels, and sharp variations in precipitation, desertification, and floods (Sassen 189). The Secretary-General of the World Meteorological Organization, Petteri Taalas, notes that the effects of climate change will be manifested through water: "Most impacts of climate change are felt through water—drought, flood, disaster, coastal inundation" (qtd. in *UN-Water Annual Report* 2020 12). Finally, industry and corporate over-extractions are serious threats to water. According to Sassen, "mining companies are becoming some of the most intensive consumers of water in the developed world, both directly and indirectly through the poisoning of supplies" (191). In addition, "water grabs" by corporations such as Nestlé

are occurring in various locations in the world (Sassen 191). Central to Nestlé's logic of extraction is the concept that water is "the most important raw material we have in the world today...and like any other foodstuff it should have a market value" (Former Nestlé chairman, Peter Brabeck-Letmathe qtd. in *We Feed*). This view is contrary to the view of water as a human right and a common public good. These contentious categorizations indicate the significant stakes of life and death in the struggle over the meanings of water. The deterioration of waters globally and the contention over the designations of water are some of the material water issues of the Anthropocene into which this dissertation intervenes with its focus on Canada.

Geographically defined by the Pacific, Atlantic and Arctic oceans, Canada celebrates a national identity connected to abundant and pristine waters. At the same time, it has transformed its waters through mega-hydrological and industrial projects, such as the Moses-Saunders Power Dam and the Alberta Tar Sands. Canada's waters are also threatened by depletion and pollution. In Canada, "water yield—the net income of water received in precipitation over water lost by various methods" has decreased by 8.5% over the last three decades (Barlow, *Boiling Point* 4). The lakes in Canada are warming and their water levels are declining. The Peace-Athabasca Delta is "drying out" from the annual extraction of 170 million cubic metres of freshwater for the operations of the tar sands (Barlow, *Boiling Point* 6). At least 300 Canadian glaciers have been lost in the last three decades (Barlow, *Boiling Point* 7). In Canada "over 150 billion litres of untreated or undertreated sewage is dumped into our waterways every year" (Barlow, *Boiling Point* 9). Source water is also being polluted with toxins and carcinogens, industrial pollution,

microplastics, and fertilizers. In addition to the deterioration of the quality and quantity of water in the natural environment, there are widespread problems with potable water.

The Toronto Star's national investigation found widespread problems of lead tainted water in Canada: "Hundreds of thousands of Canadians are consuming tap water laced with high levels of lead leaching from aging and deteriorating infrastructure" (Cribb "How much LEAD" A.1). Water related problems have disproportionately affected Indigenous Peoples in Canada for a long time: "approximately 20% of all drinking water advisories in Canada are found in Indigenous communities, yet the Indigenous population represents less than 5% of the total population" (Simeone qtd. in Castleden et al. 72). The Neskantaga First Nation has been under a water advisory for 25 years ("Canada: Blind eye"). There are currently 34 long-term boil water advisories in Indigenous communities (Taylor). Although Canadian Prime Minister Justin Trudeau was elected in 2015 on the commitment to end long-term drinking water advisories by 2021, the Canadian government had failed to achieve this goal, and only hopes to end boil water advisories by the year 2025 (Taylor). In addition to lacking potable water, Indigenous communities suffer from "improperly functioning wastewater treatment and/or storm water systems and they are more at risk for water-related threats including, for example, drought, flooding and contamination" (Castleden et al. 73). In Northern Ontario, the Anishinaabe community of Grassy Narrows has suffered from mercury poisoning which resulted from the leaking of approximately 9000 kilograms of mercury into the English-Wabigoon river system between 1962 and 1970 from the toxic waste of the Dryden Chemicals pulp and paper mill (Ilvniak par. 2). The environment and the community continue to face

challenges with recovery. In November 2021, Grassy Narrows First Nations initiated legal proceedings with the Ontario Superior Court of Justice because the Government of Ontario issued nine permits for mineral exploration in their traditional territory without consultation (Turner par.1-2).

Canada's transformation of water has historically privileged European Settlers over Indigenous people, and continues to privilege economic progress over Indigenous rights and environmental sustainability. Canada's water governance has been based on "an overreliance on methods of Western science and management, ignoring the vast place-based wisdom of indigenous knowledge systems and relational practices regarding water found across the country" (Castleden et al. 69). This fractured governance and management of water is a result of divergent cultural and ontological understandings of water. Furthermore, Mascarenhas argues that under the guise of neutrality and common sense, neoliberal governing practices of water-"accountability laws, audits and best management practices"-constitute a continuation of the racism against Canada's Indigenous Peoples (16). Canada's water governance is connected to "the socio-political outcomes of colonial and racist policies, programs and practices that have existed since the creation of the Indian Act in 1876" (Castleden et al. 73). It is arguable that these polices are still evident in the failure to provide potable water to Indigenous communities. and in the commodification and extraction of water from the environment. Even as it unevenly affects human communities, the condition of water does not solely affect humans. It affects all organisms and all ecosystems, as the entire spectrum of life on the planet needs water to survive. The significance of water to the entire spectrum of life

informs Indigenous understanding of water and is in direct contrast to colonial conceptions of water as a resource for human use.

Metaphors of water are relevant beyond the context of any single nation or language, so this dissertation's focus on the cultural and geographical domain of Canada serves the larger argument that metaphor is central to our conceptions of water, and that a cultural lens can illuminate the role of metaphor in framing and navigating contentious water issues. Water permeates language and culture. Yet culture is excluded from consideration in the political and technological approaches to the resolution of water issues. One explicit measure of this exclusion is the UN-Water 2030 Strategy, which addresses water and sanitation challenges to realize the human rights to water (UN-Water 10). The Sustainable Development Goal (SGD 6) includes the framework of five accelerators: "financing, data and information, capacity development, innovation and governance" (UN-Water 11). The UN framework excludes any cultural consideration as a factor of water issues. Culture does not feature as part of the decade-long strategy to confront access to water. According to UN-Water: "Water is at the core of sustainable development and is critical for socio-economic development, healthy ecosystems and for human survival itself.... Water is also at the heart of adaptation to climate change, serving as the crucial link between the climate system, human society and the environment" ("Water Facts").

The framework of governance of water issues does not extend to culture. Furthermore, framing water issues only as water crises reduces the framework for solutions. Jamie Linton argues that the "rubric of the 'global water crisis' diverts attention

from the political and social circumstances that produce such problems and frames their solution in predominantly technical and hydrological terms" (7). Where water issues are considered beyond the technical and hydrological, they remain predominantly defined as political, social, and ecological. The stability of our abstract understanding of water is now being challenged by ecological, political and cultural aspects of water.

Contemporary understandings of the complexity of water extend beyond the water crisis. Linton argues that we cannot "ignore water's cultural dimensions, as in the myriad ways that water articulates with people to produce different meanings and different kinds of relationships" (7). The struggle over the very definition and nature of water is cultural. A cultural lens reveals the deficiency in the conceptions of water that are operationalized in the political and technological approaches to water. Adopting a cultural lens also has the benefit of revealing the complexity of water beyond these approaches. Within the framework of a cultural approach to water, the lens of metaphor is especially productive for the interrogation of human relations with water, as metaphor is the mechanism by which we think and talk about water. Therefore, this study interrogates the language that sustains water's material condition, the metaphors of water that forge its invisibility, and those that seek the full expression of its vitality and essentiality.

## Theoretical Frameworks

I employ several theoretical frameworks in this dissertation. My evaluation of water metaphors in the context of Canada requires a theoretical framework for respectful engagement of Indigenous and non-Indigenous knowledge. I rely on Richard W. Hill Sr. and Daniel Coleman's metaphor of the Two Row Wampum-Covenant Chain Treaty to

establish the parameters of this engagement. I also explore the Indigenous theory of place-thought as articulated by Haudenosaunee and Anishinaabe scholar, Vanassa Watts, and the framework of creative placemaking, derived from arts-focused urban planning discourse and translated into literary context by theorists such as David Cooper, as these frameworks intersect with the metaphors of water and inform the works by artists Leanne Betasamosake Simpson and Rita Wong that I examine in this dissertation. Finally, I articulate my own relations with water and my position as a settler Canadian.

As this dissertation's primary theoretical framework, I situate the concept of water, as it is understood within the framework of feminist environmental humanities, in conversation with the concept of metaphor, as it is understood within the framework of metaphor theory. The primary framework of this dissertation positions feminist theory in dialogue with metaphor theory although they emerge from incompatible and irreconcilable paradigms, because this dialogue is productive.<sup>7</sup> I argue that when the matter of water, as conceptualized in feminist environmental humanities, is viewed in conjunction with metaphor theories, the scope for understanding water can be radically transformed not only to consolidate the presence of materiality, but to initiate a trajectory into the discursive and creative modes of metaphor that enable the interrogation of the politics of water, and the generation of conceptual metaphors reflecting the condition and needs of the waters of the Anthropocene.

### Two Row Wampum-Covenant Chain Treaty

<sup>&</sup>lt;sup>7</sup> Among the chief differences between the two perspectives are the grounding of metaphor theory in a universalist understanding of meaning, grounded in essentialist conceptions of nature and the human, vs. an (eco)feminist understanding of meaning as always situated, always inflected with power.

I draw on multiple Indigenous scholars to articulate Indigenous relations with water in Canada. Furthermore, in my analysis of water metaphors I explore the work of Anishinaabe writer, scholar, and activist Leanne Betasamosake Simpson. Recognizing that the framework of metaphor is incommensurate with Anishinaabe cosmology and intelligence articulated by the Indigenous scholars and artists in this dissertation, I draw on Richard W. Hill Sr. and Daniel Coleman's articulation of the metaphor of the Two Row Wampum-Covenant Chain Treaty as a framework for the relationship between Indigenous and non-Indigenous positions on water and my own positioning as a settler scholar in this work. Beyond its foundation in law, to which we are all subject, this treaty is especially appropriate to this project for two reasons. First, the Two Row Wampum-Covenant Chain Treaty established a tradition between the Indigenous and European peoples that is grounded in metaphor. Second, water is central to the specific metaphor, which established the relationship of Two Row Wampum-Covenant Chain agreement. Describing the metaphor for the Two Row Wampum treaty between the Hodinöhsö:ni' and the Dutch in 1609, Rick Hill Sr. writes: "The Ongwehowe stated, 'The Creator gave us a canoe and you a boat (ship). We will take our vessels to the water and put them in the water, each in their distinctive way. Our people will follow the vessels in the water. We will place them a certain distance apart, but will line them up so they will always be parallel" (Hill Sr. and Coleman 351). The metaphoric condition is the embodiment of this relationship. In other words, the metaphoric condition, or the logic of metaphor, fundamentally governs the relationship established by the Two Row Wampum-Covenant Chain Treaty. The Two Row Wampum-Covenant Chain agreement acknowledges the

differences between Indigenous and non-Indigenous ways of knowing and being. It "outlines a dialogical Indigenous-European framework for how healthy relationships between peoples from different 'laws and beliefs' can be established" (Hill Sr. and Coleman 340). Coleman notes that it is a protocol that differentiates, but establishes equality through the "metaphor of sibling relations" (Hill Sr. and Coleman 349). The metaphor of the Two Row Wampum-Covenant Chain Treaty situates the ship and the canoe in parallel positions, suggesting that they do not meet. It frames a dialogical relationship that "emphasizes the sacredness of the living river between the two parties" (Hill Sr. and Coleman 345). The ship and the canoe share the same water. *Indigenous Place-Thought, and Creative Placemaking* 

The frameworks of Indigenous place-thought and diasporic settler creative placemaking intersect with metaphor in the creative works by Leanne Betasamosake Simpson and Rita Wong that I examine in this dissertation. "Place-Thought" is the Indigenous cosmological perception of what Vanessa Watts describes as "the nondistinctive space where place and thought were never separated because they never could or can be separated. Place-Thought is based upon the premise that the land is alive and thinking and that humans and non-humans derive agency through the extensions of these thoughts" (Watts 21). The framework of placemaking is relevant to the use of metaphors in Rita Wong's poetry. Placemaking is a "process of creating the material and social spaces of place" to develop civility, community, and socio-economic and environmental

quality (Courage 623).<sup>8</sup> It assumes a mutually constitutive role between place and people. While creative placemaking has been recently defined as a political initiative, David Cooper notes that the relationship between creativity and place has a long history, as many writers and artists have explored "the move-*through*-place" and "being-*in*-place" (616). Wong's poetry is a practice of placemaking that serves to configure the relationship of the settler Canadian poet with place, and to position Indigenous rights and water at the center of community.

There are obvious divergences between Indigenous place-thought, derived from Indigenous tradition and cosmology, and metaphor and feminist theories, derived from Western tradition and cosmology. Relevant to this study is a direct and irreconcilable contradiction between metaphoric meanings and literal meanings. In addition, there are contradictions between spiritual and non-spiritual cosmologies. Nevertheless, there are productive convergences. In his framework of Blue Ecology, Gitxsan First Nations artist and writer Michael D. Blackstock proposes that convergences between the sovereign epistemologies of Western thought and Indigenous ways of knowing can be interwoven in collaborative ways (43). Blackstock defines Blue Ecology as "an ecological philosophy, which emerged from interweaving First Nations and Western thought that acknowledges fresh and salt water's essential rhythmical life spirit and central functional role in

<sup>&</sup>lt;sup>8</sup> Courage notes that the original definition of creative placemaking, which comes from a White Paper for the United States' National Endowment for the Arts (NEA), does not capture the scope of placemaking activities (625). The original definition is: "In creative placemaking, partners from public, private, non-profit, and community sectors strategically shape the physical and social character of a neighbourhood, town, city or region around arts and cultural activities. Creative placemaking animates public and private spaces, rejuvenates structures and streetscapes, improves local businesses viability and public safety, and brings diverse people together to celebrate, inspire and be inspired (Markusen & Gadwa qtd. in Courage 624). Whether it is associated with the NEA definition or not, the use of arts for placemaking is also considered a democratization of creativity, and a tool for grassroots and community organizing (Courage 624).

generating, sustaining, receiving and ultimately unifying life on Mother Earth" (Blackstock, Oceaness 9). He defines interweaving as "a collaborative process where apparently contradictory epistemologies are brought together as coexisting threads of information and theory to produce a new entity called collaborative knowledge" ("Interweaving Water" 42). Following Blackstock, I examine the convergences for collaborative knowledge in this study. Like Neimanis and Wong, I endeavor to understand Indigenous conceptions of water and place in settler colonial Canada without appropriating Indigenous thinking. The Indigenous metaphors of the ship and the canoe, and of fresh water and salt water position the concepts of water and metaphor at the center of collaborative knowledge. Adopting the framework of these metaphors, I draw on Indigenous theories, feminist theory, and metaphor theory to frame my analysis of water metaphors. My analysis of these theoretical frameworks culminates with the nexus of water and metaphor. In addition to illustrating the significance of the extension of metaphor theory to the analysis and application of water metaphors in feminist theory, I will show how water and metaphor share reciprocal relations.

To position myself in relation to work of this dissertation, I will articulate my own, still emerging, relations with water. My journey with water begins with my life, made possible by the Berbice watershed. In this small watershed, in the northern shadows of the great Amazon basin, the Berbice River flows for 595 kilometers and empties into the Atlantic Ocean at New Amsterdam, right where I was born ("Berbice"). This watershed also gave life to my parents, giving me my greatest gifts. The Berbice Watershed, which is located in the eastern part of a country called Guyana, supported my

early life. Guyana means "Land of Waters" and the white strip on the arrow of the flag represents water. Growing up, my cousin joked that the white should be removed because we didn't actually have clean water. The Berbice watershed is home to the Carib and the Arawak, two of the eight Amerindian populations in Guyana (Menezes 7). As a writer, I am first positioned in relation to this unexplored colonial relationship.

From the Berbice watershed, I travelled straight to the largest watershed in Southern Ontario, the Grand River Watershed, which supported my youth and the beginning of my post-secondary education on the treaty lands and territory of the Mississaugas of the Credit. The Grand River territory is home to the Haudenosaunee, the Six Nations of Indigenous peoples—Mohawk, Cayuga, Onondaga, Oneida, Seneca and Tuscarora nations. Of course, my journey to this watershed, and my life in this watershed are privileges afforded to me by the settler-colonial state, Canada. I know that my presence in this watershed as a first-generation settler constitutes a reproduction of colonial dispossession. My education about this relation began when I lived briefly in the Rideau Watershed of Eastern Ontario, on the traditional, unceded territories of the Algonquin nation. During this period, I first explored Canada's relation with Indigenous peoples, and I continue to learn and understand the complexity of these relations. As a woman of East Indian ethnicity, and West Indian heritage, I have my own complicated relationship with the settler colonial state. It has afforded me benefits, for which I am always grateful, and barriers, which I will continue to navigate. I have experienced that, although we are all comprised of the same water, in colonial and settler colonial relations, we are marked by differences. The mediation of this differential experience is at the heart

of my motivation for this study of water. I complete this study in the Chedoke Creek watershed, on the traditional territories of the Mississauga and Haudenosaunee nations. I acknowledge that I speak from a privileged position, and employ a theoretical framework that is dominant in significant ways. As a scholar, I have attempted to balance this privilege with the voices of the Indigenous scholars within the parameters of my study. I recognize that Indigenous relations to water are grounded on a reverence and kinship that have existed long before colonial relations and the establishment of the settler-colonial state. It is my goal to convey respect for Indigenous relations with water and to honour the waters that sustain all of us.

## Feminist Theory of Water

In *Thinking With Water*, feminist cultural theorists Chen, MacLeod, and Neimanis conduct the vital work of reimagining water with the goal of positioning water at the center of human thought and activities. They argue that the "anthropocentric logics of efficiency, profit, and progress" have made waters "nearly invisible, relegated to a passive role as a 'resource,' and subjected to containment, commodification, and instrumentalization" (3). They note that even the recognition that water must be managed reductively designates water only as a "resource" (3). I will illustrate this argument on the deficiencies of the current conceptions of water in the context of Canada. Chen, MacLeod, and Neimanis advocate a new paradigm on the basis of water and a "practice [of] politics in more aqueous modes" (5). They consider water as a "political commons [which] includes not only those of us living here now, but also all life that is past and all life that is still to come", including the "non-human multitude" (6-7). This

significant expansion of the political domain redefines political relations with time to establish continuity and inclusion, the inclusion of the more-than-human-life of the planet. Chen, MacLeod, and Neimanis recognize that the political stakes of water are unevenly distributed: "When we take common waters into account, environmental actions against species extinction or ecological degradation become more difficult to separate from alter-globalization efforts, anticolonial struggles, or social justice activism more broadly" (6). Therefore, an explicit goal of the feminist environmental humanities perspective on water is a type of politics that addresses the uneven environmental, social, and political relations with water. In this study, I intervene to strengthen the understanding of how metaphor can facilitate the goal of establishing more caring and equitable relations with water. The approach to water within the framework of "thinking with water" challenges the abstract conceptualization of water. Instead, water is always "placed or embodied in specific materialities and spacetimes" (Chen. MacLeod and Neimanis 5). In addition, this approach proposes a "continuity of watery materiality ... with discursive practices and ways of knowing" (5). Chen, MacLeod and Neimanis articulate "water's capacity to challenge our ways of knowing, both by crossing conventional disciplinary boundaries and by revealing the ways in which 'nature and' and culture' are always co-constituted" (5). Studies of water in cultural anthropology support the theoretical position of "thinking with water". In her significant body of work on water, the cultural anthropologist Veronica Strang concurs with the co-constitution of water:

But what we think of as 'Nature' is seen, understood and experienced through a cultural lens. And 'Culture' is located in and affected by the material properties of the world we inhabit. Human consciousness resides in bio-cultural bodies, with their own physiological, chemical and genetic realities, which affect and are affected by cultural ideas and practices. How humans engage with water is therefore as cultural as it is natural. (*Water Nature and Culture* 8-9)

Following the project of feminism, the framework of "thinking with water" presents a fundamental theoretical shift in paradigm. Chandler and Neimanis write that, "the primary facilitative substance, and the condition of possibility for all life on our planet, water's proliferation of life-in-the-plural must be foregrounded in the project of recalibrating Western cosmology" (Thinking with Water 65). In other words, they identify that Western cosmology privileges the discrete, ontological subjectivity, only ascribing and recognizing agency of the subject. This cosmology excludes the reality of the facilitative force of water, which has agency over all life. In an extension of the imagination of water commensurate with its material function. Chandler and Neimanis conceptualize water's capacities according to the logics of "gestation ... communication, contamination, dissolution, and destruction" (Thinking with Water 65). Ultimately, Chen, MacLeod, and Neimanis advocate a paradigm shift that recognizes water's inherent precondition to life and orients human thought and activity towards water. I have outlined the details of this paradigm shift as part of the theoretical framework of this dissertation because the alternative metaphors of water in the creative works that I explore in this study also substantiate this framework of relations with water. My contribution is the

argument that the recognition of water engages both a cultural and political extension of the imagination on water, which is consolidated when situated in dialogue with metaphor theory.

Metaphor Theory on Metaphor

The theoretical and conceptual framework of metaphor adds significant weight to the exploration of the cultural imaginaries of water in the feminist environmental humanities because of metaphor's ubiquity in thought, language, and materiality. Furthermore, metaphor constitutes a method for the development of the imaginaries of water. In A Dictionary of Literary Terms and Literary Theory, John Anthony Cuddon defines metaphor as: "(Gk 'carrying from one place to another') A figure of speech in which one thing is described in terms of another. The basic figure in poetry. A comparison is usually implicit; whereas in simile  $(q,v_{.})$  it is explicit" (432).<sup>9</sup> George Lakoff and Mark Johnson expanded this traditional definition in the seminal work Metaphors We Live By, which initiated cognitive metaphor theory. Lakoff and Johnson theorize metaphor not as a discrete feature of language, but as a characterization of all language and thought: "metaphor is pervasive in everyday life, not just in language but in thought and action" (3). Substantive empirical work from a broad range of disciplines reveals the ubiquity of metaphor in language: "there is also significant research indicating the prominence of metaphor in many areas of abstract thought in people's emotional and aesthetic experiences. Metaphor is not simply an ornamental aspect of language, but a

<sup>&</sup>lt;sup>9</sup> The *Oxford English Dictionary* defines metaphor as: "[a] figure of speech in which a name or descriptive word or phrase is transferred to an object or action different from, but analogous to, that to which it is literally applicable; an instance of this, a metaphorical expression" ("Metaphor," def. 1).

fundamental scheme by which people conceptualize the world and their own activities" (Gibbs, "Metaphor and Thought" 3). Importantly, metaphors "have very real outcomes in the constitution of culture and in the political realm" (Larson 8). On this basis alone, it is critical to explore how metaphor functions as a fundamental scheme in the conceptualization of water. An additional basis is metaphor's connection to materiality. In *Philosophy in the Flesh*, Lakoff and Johnson further develop their theory of metaphor by connecting metaphor and thought to materiality: "the mind is not merely embodied, but embodied in such a way that our conceptual systems draw largely upon the commonalities of our bodies and of the environments we live in" (6). As a result, they conclude that our conceptual systems are not independent of embodied experiences and "truth' is mediated by embodied understanding and imagination" (Philosophy 17). This transformative property of metaphor, as the architecture of thought determined by materiality, compels the exploration of linguistic metaphors of water as they relate to the significant conceptual foundations that shape, and are shaped by, the material realities of water. Cognitive theories of metaphor focus on human language and thought. The recognition that conceptual systems are embodied accounts for the influence of materiality on metaphor, but only through the lens of cognition. Furthermore, the empirical framework of cognitive metaphor theories functions to sustain the bifurcation of nature and culture.<sup>10</sup> The bifurcation of nature and culture assumed in the empirical

<sup>&</sup>lt;sup>10</sup> Literary and cognitive metaphor theories are complementary, rather than contradictory, although they appear to emerge from divergent theoretical frameworks. Characterizing the cognitive turn in metaphor studies, Gerard Steen writes:

The novelty of the cognitive approach based on analogy does not rule out an important role for the traditional notions in metaphorology of 'resemblance', 'comparison', and 'interaction'. In this respect, the cognitive turn does not constitute a break, but an empiricization of the philosophical

approach of cognitive metaphor theory, however, is subverted by the extension of the metaphor beyond cognition to the material environment. In his extensive exploration of metaphor in Missing Link: The Evolution of Metaphor and the Metaphor of Evolution, Jeffery Donaldson argues that the "metaphoric initiative" is central to the evolutionary development of materiality and is constant feature of materiality itself. He selects the terms "metaphoric initiative" and "metaphoric behaviours" to articulate that metaphor functions as a process of relation and initiation. It is "the reality of how things relate" and of how they behave in both "the material and immaterial world" (Donaldson 10; 29).<sup>11</sup> This is a fundamental extension of the theorization of metaphor and the metaphoric process. The conceptualization of metaphor as "both form and process" reveals the transformative and creative energy at the heart of metaphor and in the metaphoric process itself which, Donaldson theorizes, is present in language and thought as an extension of its presence in materiality (9). In other words, the metaphoric behaviour present in the immaterial world of language can be viewed as an evolutionary outcome of the "metaphoric initiative" active in the material world. From this theoretical perspective, the

and analytic proposals of well-known writers on metaphor such as Richards (1936), Beardsley (1958), Black (1962), Mooij (1976) and Ricoeur (1979) (Steen, *Understanding Metaphor*, 11).

Though cognitive metaphor theory is distinct from literary theory by its focus on an empirical methodology, it is not incompatible with Donaldson's proposal of the metaphoricity of materiality. The fundamental premise in cognitive metaphor theory—that metaphor emerges from embodied experience—indicates the presence of the material environment in the generation, development, and cognitive, processing of metaphors. To this extent and according to the empirical framework of cognitive metaphor theory, materiality is featured in the constitution of metaphor. However, cognitive metaphor theory does not consider the metaphoricity of the material environment itself. The conceptualization of the actual material environment as metaphoric, and as following the logic of the metaphor, is beyond the framework of cognition in Cognitive Metaphor Theory.

<sup>&</sup>lt;sup>11</sup> Donaldson notes: "Natural environments are made up of conditions that ripple outwards in wider and wider interactive contexts. A certain animal can eat a certain kind of grass. This evolved condition of that animal, then, is very much a function of the grass that he eats. The grass is inside him, inwardly disseminated, and becomes an integral part of his proteins and blood cells. ... In short, there is a mutual, interactive, even interpenetrative relationship between the container and the contained" (207).

metaphoric process is not an isolated process of language related to metaphors as singular features of language. Instead, the metaphoric process is continuous between the discursive and the material, although they are differentially constituted.<sup>12</sup> Donaldson extends the conceptualization of metaphor from a function of thought and embodied experience to a mechanism of the evolution of the physical environment itself. The argument that the one condition-the discursive occurrence and nature of metaphors-is the evolutionary manifestation of the other-the logic of the metaphoric process in materiality—closes the gap between materiality and discursivity by establishing a continuity within the metaphoric process, which overcomes the bifurcation of nature and culture. This theoretical continuity is another reason why metaphor constitutes a critical mode by which to explore the co-constitution of water by nature and culture. The theoretical continuity of metaphor-language, thought, materiality-establishes that metaphoric relation is a significant basis for the exploration of the materiality of water. given that the environment of embodied experiences is geographically dominated and profoundly characterized by water, and given that, as a material element, water itself exhibits the tendencies of the metaphoric initiative.

<sup>&</sup>lt;sup>12</sup> The continuity of the "metaphoric initiative" challenges the Cartesian paradigm, and ultimately undermines the bifurcation of nature and culture, which is the foundation of the empirical methodology of cognitive metaphor theory. Nevertheless, it does not invalidate the methodology of cognitive metaphor theory, which functions on the local level of the occurrences and use of metaphors. Instead, it reconfigures the premise on which that methodology is based. The empirical methodology itself is revealing the metaphoric connection of the material and the discursive: "contemporary metaphor scholarship … has properly shown how the analysis of specific metaphoric language in context, for instance, reveals the simultaneous presence of neural, linguist, psychological, and cultural forces" (Gibbs, "Metaphor and Thought" 5). So, within the framework of metaphor, the theoretical paradigm of cognitive metaphor theory, applied in this study to illustrate the significance of the conceptual metaphors of water, and the theoretical paradigm presupposing a metaphoric initiative and process, employed to illustrate the theoretical continuity of the lens of metaphor to the materiality of water, are complementary rather than contradictory.

Metaphor theory complicates and consolidates the position on water in feminist theory by challenging the latter's reliance on a classical definition of metaphor.<sup>13</sup> Neimanis asserts that the forms of embodiment she is describing are "never merely metaphors" ("Feminist Subjectivity" 26). This conception of metaphor, as something distinct from (and less than) materiality is indicative of the limitations of the use of the traditional definition of metaphor for the proposed feminist subjectivity. Metaphor theory extends the "imaginative political space" described by Neimanis, challenging the distinction implied by her argument. When the concept of metaphor is re-conceptualized beyond the traditional definition used by Neimanis, that "imaginative political space" is expanded to include an inherent connection to materiality, allowing for the agentive capacity of materiality, and creating a trajectory that extends to the discursive and poetic modes of metaphor. The application of a broader concept of metaphor consolidates arguments in feminist theory on water metaphors, specifically by validating the profound importance of water metaphors.

Although there are differences in conceptualization, metaphor theory strengthens feminist theory's position on water in a few significant ways. Metaphor theory affirms the importance of the feminist conceptualization of water in terms of the embodiment of specific material space and time, because metaphors are configured by embodied

<sup>&</sup>lt;sup>13</sup> Conversely, a feminist perspective introduces a critical political dimension to the universalist conception of imagination and materiality in metaphor theory. The theorizing of a metaphoric process and initiative occurs in relation to metaphor as a mechanism, and is separate from how individual metaphors are generated and used in countering or maintaining hegemonic relations. At this level of theorizing the metaphoric process, there is explicit articulation of the political stakes, but there is not an explicit political project to determine how individual metaphors function to counter or facilitate hegemonic oppression. Thus, in articulating an imaginative political space, Chen, MacLeod, and Neimanis draw attention to the uneven outcomes of the critical political stakes individual metaphors with the specific goal of creating political change. In this way, a feminist perspective extends the scope and significance of the metaphoric initiatives and processes in praxis.
materialities. In this respect, situating metaphor theory in dialogue with feminist theory furthers the imagination of how water materially embodies space (and time), as it furthers the realization of how the language of water, specifically the metaphors of water, are in turn constituted by the embodiment of space. In addition, the conclusion that water especially undermines the bifurcation of nature and culture converges with the continuity of materiality and discursivity in the framework of the metaphoric process. Donaldson's argument of a presence of the metaphoric initiative and process in materiality describes a continuous mechanism that connects materiality and the immateriality of metaphor in language. This is distinct from the feminist conception of the co-constitution of nature and culture, which is grounded in a referential and relational epistemology and, according to the position of Chen, Neimanis, and McLeod, revealed by the materiality of water. There is a distinction between the idea of metaphor as an initiative and process, and an emphasis on knowledge—what we know of water—as a function of both nature and culture. The former refers to the process and the latter refers to the constitution, distinct from the mechanism of how that constitution comes into being. Furthermore, although Donaldson's position on the "metaphoric initiative" is derived from the tradition of Western thought, and relies on a method of reason and argumentation to establish a position on the "metaphoric initiative", neither the humanist tradition nor the method invalidates the challenge to dualism inherent in the argument of the "metaphoric initiative". Instead, relationality is established in both nature and culture through the mechanism of metaphor.

In summary, notwithstanding the divergent elements of the theoretical frameworks from which they emerge, a conversation between water as conceptualized in feminist theory and metaphor as conceptualized in metaphor theory is productive for significant reasons. First, the extension of metaphor theory—specifically, the application of a broader concept of metaphor to the conversations of water in feminist theory—will deepen the understanding of the relationship between metaphor and water. Metaphor theory enhances the understanding of metaphor in feminist theory by connecting metaphor both to thought and to the agency of materiality.

Second, despite the divergences of their respective theoretical frameworks, water and metaphor are situated in conversation because feminist theory can illuminate the ways that water metaphors are marked by uneven political and social power. Conversely, metaphor theory consolidates the presence of materiality in the formation of metaphor and constitutes a method by which political and social power can be interrogated and exercised. In other words, metaphor is a method of disentangling limited conceptions of water and reviving and creating new conceptions. The final and most significant reason that metaphor and water are situated in conversation is the position of this dissertation that the intersection of water and metaphor constitutes a theoretical basis in and of itself from which the exploration of water metaphors can intervene into the water issues of the Anthropocene.

## The Nexus of Metaphor and Water

Water is, and is not, metaphor. In this section, I explore the theoretical intersection of metaphor and water, revealing an analogous, reciprocal relationship. This theoretical

intersection is important, for metaphor is as fundamental to thought and communication, as water is fundamental to life. Because metaphor fundamentally shapes how we think and communicate, it is a critical lens through which to explore the waters of the planet.

The ways in which water is not metaphor are obvious. The ways in which water is metaphor are less obvious. Although some complexities of both metaphor and water might be simplified in a metaphoric relation, examining water through the lens of metaphor yields a comprehensive view of the scope of the influence of both water and metaphor in the constitution of meaning and of material life. Drawing on the conceptualization that materiality is governed by the logic of metaphor, and on feminist and anthropological conceptions of water, I propose that water follows a similar architectural process as metaphor. I argue that water not only functions according to the logic of metaphor, it shares the inherent global characteristics of metaphor—its spatiality and ubiquity, mobility and transference, creativity and equilibrium, relationality, and finally, its convergence in consciousness.

The most significant basis on which the reciprocal relation of metaphor and water is grounded is the conception of metaphor as an architectural process that mirrors the material function of water in the biosphere. Metaphor is conceived as a process in language, thought, and materiality. On the basis of the similarity between the processes of interactive metaphors and molecular behaviours, Donaldson illustrates that a "metaphoric initiative" or "behaviour" is present in all materiality.<sup>14</sup> The molecular behaviour of water

<sup>&</sup>lt;sup>14</sup> According to Black's definition, the substitution view of metaphor is: "Any view which holds that a metaphorical expression is used in place of some equivalent literal expression" (31). The interaction view holds that "when we use a metaphor we have two thoughts of different things active together and supported by a single word, or phrase, whose meaning is a resultant of their interaction" (Black 38).

is one particular example that illustrates the presence of the logic of metaphor in materiality: "Like the covalent bond in chemistry, an interactive metaphor like love-rose issues from a happy reciprocity, a sharing of unique qualities, such that one element or both is satisfied and transformed" (Donaldson 105). This function is illustrated by the H<sub>2</sub>O molecule, which has "two hydrogen atoms …with their orbits of electrons, including the electrons that they share in order to find their equilibrium" (Donaldson 105). The H<sub>2</sub>O molecule behaves metaphorically:

with the pair of electrons orbiting around both nuclei, each atom can now behave as though both electrons were its own, though they are not. The atoms have now surrendered their distinctness to become water. Each atom's owning of the shared electron is chemistry's version of an illusion, a subsisting 'as though.' The need of each one for a further electron is now unequivocally satisfied. But they both are and are not what they were. (Donaldson 106-107)

On the molecular level, water functions in the same way as an interactive metaphor. The physical sharing of the water molecule constitutes a metaphoric relation in which the molecule simultaneously exists as it is and is not. This behaviour illustrates how metaphor is present as an inherent feature and process of materiality. It significantly extends the conceptualization of metaphor, which has been traditionally limited to language, and more recently to cognition. The presence of the logic of metaphor in the individual water molecule particularly extends metaphor to the ubiquitous scope of this dominant element in the biosphere of the planet. On this basis, water and metaphor share a central characteristic in their relation to space.

First, water and metaphor share a similar architectural structure by virtue of their inherent connection to space. Space is theorized as the precondition of metaphor. The conception of space as the precondition of metaphor follows from the central premise of cognitive metaphor theory that "the mind is inherently embodied" (Lakoff and Johnson, Philosophy 3). According to cognitive metaphor theory "reason is not disembodied" and "is not purely literal, but largely metaphorical and imaginative" (4). It emerges from the brain, the body and the experiences of the body with the physical environment (Lakoff and Johnson, *Philosophy* 4). Human reasoning is therefore inherently connected to space because it is a product of the physical body and brain in the material world. Furthermore, because the brain is "the locus of reason, perception and movement", the human conceptual system is especially shaped by the human sensorimotor system (Lakoff and Johnson, *Philosophy* 20-22). Lakoff and Johnson argue that concepts are translated in the brain as neural structures in the process of reasoning: "What makes concepts concepts is their inferential capacity, their ability to be bound together in ways that yield inferences. An embodied concept is a neural structure that is actually part of, or makes use of, the sensorimotor system of our brains. Much conceptual inference is, therefore, sensorimotor inference" (Philosophy 20). In other words, conceptual reasoning occupies the same systems in the physical brain as sensorimotor functions (21). This is the result of the evolution of a physical human body functioning in the physical world (Lakoff and Johnson, *Philosophy* 44). In this way, space inherently shapes human understanding of the world. Human embodied experience of space mediates truth and allows for the collective generation of "common stable truth" (Lakoff and Johnson, *Philosophy* 6).

Lakoff and Johnson argue that, consequently, "there is no … fully autonomous faculty of reason separate from and independent of bodily capacities such as perception and movement" (*Philosophy* 17). According to this position of cognitive metaphor theory, space serves as the precondition of metaphor both because it is inseparable from human perception and experience in the physical world, and it is inseparable in the translation of that experience in the physical space of the brain. It cannot be separated or negated in the constitution of metaphor, as all human experience is embodied experience configured and mediated by and in space.

Cognitive metaphor theory accounts for the influence of space in the human understanding, reasoning and imagination. Its conceptualization of the relation of space to metaphor pertains to the processes of human cognition. However, beyond the particularity of human cognitive processing, Donaldson theorizes space is as inherent to metaphor both as a process and as a feature of materiality. First, space is theorized as a necessary aspect of the metaphoric process not only as context, but also a measure of metaphoricity. Donaldson describes space as a feature of the process of metaphor itself: "At its root, metaphor is a discerned relationship between two things. A and B are juxtaposed. Their arrangement in space, and their arrangement spatially in your mind, renders them metaphorically charged. The radical environment of juxtaposition is space, and so space is the radical environment of metaphor, its allowing condition" (Donaldson 34). The measure of space between A and B, both in the mind and in materiality, determines the metaphoricity of metaphors. In this sense, space is not a neutral background against which the juxtaposition happens. It is the measure of the strength of the connection

between A and B, the tension of the metaphoric relation or process. At the same time, it is also the "allowing condition" of metaphor (Donaldson 404). Donaldson writes that "Nature is an allowance, that is, both a space that makes room, and the fact of a provision that is granted to it (404). "[N]ature" refers to the environment that allows for the unfolding of the metaphoric process in space, but it also grants the condition of the mind that allows for metaphoric thinking as "the word allowance may be put for our acts of mind as much as for the space our minds inhabit" (Donaldson 405). The position that it is space that grants the "allowing condition" of the mind for the creation of metaphors is exponentially greater as that condition of the mind is not a singular or exceptional occurrence, but as an extension of the metaphoric allowance in materiality itself.<sup>15</sup> Space is therefore intimately connected to metaphor, first, as an inherent factor of human cognitive processing; second, as a context and determining factor of the measure of the metaphoricity; and third, as an extension of materiality itself, which is governed by the same logic of metaphor.

Water and metaphor share a connection to space because water dominates the material space of the planet. If space is the precondition of metaphor, then it is arguable that water is a precondition of metaphor on the basis that water permeates the micro and macro spaces of all life on the planet. John Finney explains that, water (H<sub>2</sub>O) as liquid,

<sup>&</sup>lt;sup>15</sup> In his central argument, Donaldson proposes:

<sup>[</sup>T]he metaphoric initiative in the universe appears, in us, to have evolved a form in which it stands forth as an expression of its own properties in conscious language. One doesn't need to be creating metaphors that characterize the nature of the universe for this to be true. As we think metaphorically, as it thinks metaphorically, the metaphoric initiative that stirs in the heart of nature goes to work in us. (423)

ice, and vapour is "the most abundant compound on our Earth's surface" (1). It is a dominant feature of space itself as 70 percent of the earth's surface is covered by ocean and 5 percent is covered by ice (Finney 5). Beyond the physically accessible surface of the earth, water is present even in the Earth's mantle (Finney 5). The dominance of water in the physical space of the planet suggests a dominant influence of water where space is connected to metaphor. At the molecular level, as Donaldson illustrates, the material element of water functions according to the logic of metaphor. So, water in space is itself metaphoric. However, beyond the metaphoric molecular behaviour of water in all its ubiquitous material forms, human experience is also characterized by the dominance of water in space. Strang writes: "apart from air, it [water] is the most omnipresent and the most essential part of the world that humans inhabit" ("Common Senses" 97). Humans experience water through all senses: sight, smell, taste, touch, and hearing. Throughout human history, water functioned as a "mirror' for many people, providing a singularly powerful opportunity to see a visual image of themselves"; the sounds of water in the environment can be "invigorating, relaxing, meditative or hypnotic"; the taste and smell of water measure its purity; and finally, human physical contact with water is a "compelling sensory experience" ("Common Senses" 100-102). Human sensorimotor experience of space, which constitutes the embodied conceptual system, is an experience intimately connected to the sensory perceptions of water and the hydrological conditions of life. "As well as having direct physical interactions with water, humans have the opportunity on a daily basis to observe the presence of water in their environments.... On a grand scale, the hydrological cycle and its various manifestations provide a potentially

universal mode of change and transformation" (Strang, "Common Senses" 101). Human experience of the weather is the experience of water with various temperatures and pressures of the planet (Strang, *Water Nature and Culture* 17). Our embodied experience of space is inherently connected to water in all its various scales and forms from the inception of life to death. Throughout life, the body requires water to survive:

The most obvious reality about water is that it is as essential to the human body as it is to all living organisms, large and small. In a very immediate sense, therefore, humans share an experience of water as the substance that is most vital to their continued existence. At an individual level they cannot survive for more than a few hours without ingesting and incorporating it. On a daily basis they are therefore confronted with inescapable evidence that it is integral to their own bodies, and constitutes the major part of their substance. (Strang, "Common Senses" 99)

Water permeates the actual cellular space of the body, which configures and mediates human interaction with the physical environment. So, metaphor and water share a similar architectural structure in their connections to space. Because space is dominated by water, it is arguable that water is a factor of metaphor in a similar way that space is a factor of metaphor in the configuration processes of both discursivity and materiality.

Second, water and metaphor share a similar architectural structure in their inherent characteristics of mobility and transference. The primary meaning of the prefix "meta" from the word metaphor is "change" (Donaldson 34). In addition, the prepositions "across" and "beyond" indicate "the transference of a body or meaning across two points"

(Donaldson 34). According to the definition, this fundamental feature of metaphor aligns with water's fundamental capacity for transformation. In language, metaphor is characterized by the movement or transference of meaning from source to target. Cognitive metaphor theory theorizes this transference as a movement from concrete to abstract, evident, for example, in the conceptual metaphors "AFFECTION IS WARMTH OR IMPORTANT IS HEAVY" (Shen and Porat 64). Cognitive metaphor theory contends that

our conceptual system recycles concrete concepts to help understanding the abstract. Representations of location, motion, size, color, brightness, weight, smell, temperature and other perceptually based dimensions of experience are used to understand the more abstract concepts as if, at least in part, the latter were examples of such concrete experiences. (Santiago et al. qtd. in Shen and Porat 63)

This conclusion is drawn from a clear unidirectional movement in the verbal metaphors of language.<sup>16</sup> Whether it is bi-directionality at the pre-conceptual level or unidirectionality at the verbal level, the process of metaphor is characterized by the movement or transference of meaning. In addition to the local process of the individual metaphor, at the level of language, in the context of the "interaction view," metaphors are characterized by the transference of meaning in the context of "a system of associated

<sup>&</sup>lt;sup>16</sup> Evidence from psychophysical studies show that "manipulating a concrete domain affects individual's judgments in the correlated abstract domain" confirming a clear transference of meaning in verbal metaphors from the concrete to abstract (Shen and Porat 64). These studies also reveal that the manipulation of abstract domains affects concrete domains. In other words, although verbal metaphors are characterized by a unidirectionality of movement from the concrete to abstract, the conceptual relation between the concrete and abstract domains are bidirectional. Shen and Porat propose that, at the pre-linguistic conceptual level, the association between the abstract and concrete is bidirectional. So, at the pre-linguist conceptual level, metaphoric transference or movement occurs in both directions. Beneath the processing of unidirectional verbal metaphors, there is a "non-directional linkage between metaphorically related domains" (Shen and Porat 70).

commonplaces" (Donaldson 43). The system of associated commonplaces for a particular object comprises all of the immediately accessible, common associations related to the objects of the metaphor. So, beyond the transference of meaning of a particular metaphor, movement of metaphoric meanings can be imagined as a network of connections of systems of associated commonplaces in language. A system of associated commonplaces does not exist as rigid delineation. It is flexible and based on common or general understandings. Black explains that "the system of commonplaces may include half-truths or downright mistakes (as when a whale is classified as a fish): but the important thing for the metaphor's effectiveness is not that the commonplaces shall be true, but that they should be readily and freely evoked" (Models and Metaphors 40). The system of associated commonplaces can be visually imagined as a mirror of the material presence of water, where the streams, branches of rivers, lakes, and oceans, all connect even when they appear discrete. Furthermore, the condition of metaphor, where it is always contingent on other metaphoric leaps, show that movement in metaphor does not just occur across the scope of the networked connections of associated commonplaces. It also occurs on the basis of depth. "The connections we make are thus governed by all the smaller associations that make up what we know about the object or idea that comprises it" (Donaldson 41). Characterizing metaphor as "counter-logical" rather than logical or illogical, Donaldson writes that "Every time we try to ground the logic, a detour opens up. We offer its associative leaps as reasons only to discover that each reason is already an associated leap" (Donaldson 45). Metaphor is characterized by movement at the level of the single metaphor; movement in the concept of "associated commonplaces"; and

movement of the contingent associated leaps. With the exception of dead metaphors, those commonly used metaphors that are no longer recognized as metaphoric, the movement of metaphor is constant and constitutes a network of meanings which are always in relative flux. Locally and globally, metaphor is characterized by movement on the levels of language, cognitive processing, and materiality.

While mobility and transference in metaphor are not easily perceptible, they are immediately perceptible in the characterization of water. Water is known most immediately for its movement, its constant flow. The physical transformations of water from solid to liquid to the gas define water. Water's mobility is evident in its continuous, ubiquitous and stable processes of freezing, melting, evaporating, condensing and sublimating. Furthermore, the properties of transformation occur from the smallest microscopic scales to the largest planetary scales. The processes of water are "reversible" and "in constant motion" (Strang *Water Nature and Culture* 16). Finney notes that the transformation of the three phases of water is critical to maintain climate and life: "We need an adequate amount and quality of water, and for this the hydrological cycle (evaporation and transpiration followed by precipitation) is critical as a water purification mechanism" (6). As a material substance, water is characterized not only by its inherent ability to undergo constant transformation, but also by its capacity as a carrier. It serves as a vehicle for transportation sustaining the cycles of organic life:

[Water] is able not only to bond with itself, but form complex molecules with a vast range of other substances... water can also 'dissociate', letting go of the substances with which it has bonded. It's ability to separate and recombine makes

it a 'universal solvent', able to carry other chemicals, for example oxygen and nutrients, through living organisms such as ourselves, and to leave them there. This characteristic also means, of course, that it can be readily contaminated, bringing in harmful rather than helpful substances. But another major advantage of this bonding capacity is that water can and does pick up wastes and toxins, carrying them out of organisms and their internal hydrological systems (Strang, *Water Nature and Culture* 14).

Water's capacity to carry nutrients and take away toxins is fundamental to all processes of life in the biosphere. Aside from cellular activity, water serves as a means of transportation for living organisms. For humans, it is a major carrier of goods and people. From colonization to contemporary migration, water has been and is a carrier of human beings. It was the means of transportation for colonization. In the current global economic system, it is the passage for trade and commercial goods, a foundation of human economic activity. The continuous process of transformation is much like the continuous process of metaphors, making it evident that water and metaphor follow a similar architectural process in this respect. Viewed as a continuity of language, thought and materiality, the logic of metaphor is arguably ubiquitous, and the transference of meaning, constant. With the exception of dead metaphors, the mobility and transference that characterize metaphor are constantly occurring both in discourse and materiality. In the same way that metaphoric transformations form the architecture of our conceptual system, so water transforms to form the biosphere of our planetary systems. As forms, water and metaphor share the same basic nature. Metaphor works in the complex

networked system of words, meaning and thought, while water works the complex networked system of life, and the experience of life.

Third, water and metaphor share a similar architectural process in their functions to create and sustain. The scope of metaphoric logic is not limited to water's molecular function. Beyond the characterization of the water molecule's immediate behaviour as metaphoric, water and metaphor share broader capacities to facilitate, if not create, and to sustain. Though their processes are in constant motion, both water and metaphor function as creative forces, and both sustain a multitude of equilibriums, all of which allow for the relative stability of life and meaning. First, metaphor is creative. Its creative manifestations are evident in its constitution as a natural process in the evolution of materiality (Donaldson 3). The phrase "metaphoric initiative", according to Donaldson, was chosen for its "suggestions of originary energies" (29): "The first definition of 'initiative' in the OED—'the act, or action of initiating or taking the first step'—goes to my belief that metaphoric behaviors inhabit the material and immaterial world as part of its originary oomph. A further definition-namely 'the power, right, or function of initiating or originating something' carries useful inferences" (Donaldson 29). One of the main premises of the position that the metaphoric logic constitutes the natural material process is metaphor's capacity to initiate. This capacity is illustrated as part of the original manifestation of material reality, the "metaphoric initiative" and "metaphoric behaviour" of creation itself. So, in the material reality, metaphor is a creative initiative.

In language, metaphor consolidates meaning in the context of the substitutive model and creates new meaning in the context of the interactive model.<sup>17</sup> Depending on the strength of the meanings of words in a metaphor, metaphor has the power to change and create new meanings. Where the elements have "equal semantic stability" metaphor can force the breakdown of both elements A and B. This forms the basis for metaphor's facilitative or creative initiative and its destructive initiative. "This is the revolutionary, counterlogical potential of all metaphors. They disturb the fixed relations between things. They break them down, set them in flux, open them to new possibilities" (Donaldson 49). Raymond W. Gibbs describes the creative potential of metaphor in human cognitive processes as "the 'paradox of metaphor,' in which metaphor is creative, novel, culturally sensitive and allows us to transcend the mundane while also being rooted in pervasive patterns of bodily experience common to all people" ("Metaphor and Thought" 5). He explains: "[A]dvocates of entrenched patterns of metaphoric thought readily acknowledge metaphor's ability in both verbal and non-verbal forms to create new modes of understanding often accompanied by special aesthetic pleasures. In many instances, however, creative, poetic metaphors are extensions of enduring schemes of metaphorical thought and not necessarily created de novo" (5).

<sup>&</sup>lt;sup>17</sup> In terms of metaphoric processes, Donaldson explains that, "The difference between a substitutive and interactive metaphor, again, comes down to how fixed and invariable its elements are at first taken to be. If both elements are thought to be sufficiently stable, they will not be vulnerable to an easy semantic shift, and so will interact. If element A is insufficiently stable...it is more likely to be carried elsewhere, very much in a manner of a highly reactive chemicals, to be joined with an alternative B and be stabilized there". (52)

Water and metaphor share the capacity to facilitate or create. Chandler and Neimanis write that water's facilitation of the "infinite plurality" of life warrants a new mode of being that challenges "sovereign ontology", one that they term "gestationality":

Gestationality defies the either/or structure of activity and passivity; it is neither active nor passive, and yet both active and passive. Gestation provides material evidence of the integration of what logic separates. Whereas sovereign subjects (ideally) recognize the agency of other already-existent sovereign subjects, a gestational orientation turns toward bringing into existence that which is 'not yet'. (*Thinking With Water* 62)

This characterization of water as "bringing into existence" affirms its central material function. Chandler and Neimanis describes water in "its gestational mode, and as the facilitative milieu for all life" (*Thinking with Water* 62). While they argue that water's "protoethical material phenomenon" should be a model of sociality, the identification with metaphor simply focuses on the creative or facilitative initiative that is water. The concept of "gestationality" particularly illustrates the "counter-logical" mode of metaphor as it transcends dichotomies, and occupies a space where it both "is" and "is not". "'Living water' therefore encapsulates an understanding that water literally animates material matter and enables life processes" (Strang, *Water Nature and Culture* 46).

In addition to facilitation and creation, both water and metaphor function to sustain. Dead metaphors might be considered examples by which metaphors sustain. Donaldson describes dead metaphors as fundamental to communication because they maintain stability in meaning (113). Brendon Larson notes that they "are performative.

Because they influence our conception of the world, they catalyze particular outcomes. They dramatically affect our worldview, which is not just our view of the world but also our way of living within it" (8). Dead metaphors allow for the stability of communication.

Like dead metaphors stabilizing and sustaining meaning in language, water also functions to stabilize and sustain. Donaldson writes that "Chemistry's dead metaphors are the relatively stable molecules that we find all about us, such as water, whose elements and bonds constitute the 'everyday world' that we inhabit' (113). Strang writes that, "In the cyclical movements of water through micro and macro systems, there is a delicate balance between creativity and entropy" (Strang, Water Nature and Culture 36). Water sustains. Finney explains that as a universal solvent, water is responsible for maintaining the "structure and operation of enzymes" among its vast biological processes. Water maintains the integrity of the protein structures of the body (94). The operation of the water molecule itself remains stable: "If we measure the structure of water in these biologically relevant systems, we find that it is essentially unchanged from that of the bulk liquid. The water molecules hydrogen-bond with the polar groups of other molecules in ways that are consistent with the way its molecules interact in its own liquid" (Finney 97). So there is a consistent stability of the process of the water molecule itself, even though the water molecules are not in static positions. "They are in constant movement, with a given molecule being continually replaced by another molecule... everythingthe biomacromolecule as well as the solvent molecules— is in constant motion (Finney 108). Water functions to stabilize the operations of biomolecules. It can "fill 'crevices' in larger molecules in an energy-efficient way. And as the structure of the macromolecule

is essential for its biological operation, the ability of water to 'mop up' interactions with polar groups both in crevices and on the exposed external surface...enables it to stabilize that structure and hence enable its biochemical activity" (Finney 98). The water molecule, which follows an internal metaphoric logic, functions to stabilize the structure of biomolecules, even as it is in constant movement. At the molecular level, water sustains life. Strang writes that "in a microcosmic echo of planetary circulations, water flows through even the smallest organisms in what we could call 'hyposeas' connecting each part of them. Thus in the human body, as in larger systems, water mediates interactions between all of the different materials and processes involved in maintaining life" (Water Nature and Culture 31). Chen, MacLeod, and Neimanis refer to the "tendency to approach water as an abstract idea, [when] waters are carefully placed or embodied in specific materialities and spacetimes" (5). Water sustains the biosphere and each and every living entity requires a specific "spacetime" of water to sustain life. Human life, in various stages, species of plants, animals, and marine life all require the intake and output of water at different levels to maintain an equilibrium to sustain life.

Finally, water and metaphor converge in consciousness. Together, in consciousness, water and metaphor achieves the status as a radical metaphor. Donaldson states that: "Radical metaphor... makes no concession to objective logic and descriptive language. It says simply: two things are one thing. It performs the kind of work that our bi-focal vision does... Radical metaphor, unlike the more timid observation of similarity, is fundamentally counter-logical, but like human vision no less real and no less useful" (42). The processes of water and metaphor converge in consciousness. It is arguable that

water and metaphor become the radical metaphor where they simultaneously are, and are not, the same. Lakoff notes that "Thought is physical. Ideas and the concepts that make them up are physically 'computed' by brain structures. Reasoning is the activation of certain neuronal groups in the brain given prior activation of other neuronal groups" (18). Individual neurons can have 1000 to 10, 000 neural connections (18). Neural activity involves a transference and movement similar to metaphor: "The flow of neural activity is a flow of ions that occurs across synapses—tiny gaps between neurons. Those synapses where there is a lot of activity are 'strengthened' both the transmitting and receiving side of active synapses become more efficient" (Lakoff, "The Neural Theory" 18). Describing the metaphoric action of the synapse Donaldson writes:

We have two elements juxtaposed in two nerve cells. A crosses over to B

 $(A \rightarrow B)$ . A property of the pre-synaptic cell is transferred over to the property of the post-synaptic cell. The two cells are both identifiable and different. They are identifiable not only because they are made of the same thing, but also because they represent the same 'action potential,' the same momentum of meaning, or stimulation... they are different, simply because they are two cells, but also because they lie at different points in the system. In between the two cells is the almost-but-not-quite-magical metaphoric gap. (227)

The material basis of consciousness is neuronal activity: "consciousness is the reality of metaphoric relation expressed in neurons" (Donaldson 4). It is one of the expressions of the metaphoric behaviour of materiality that is manifested in the human brain, and human cognition and language. The brain is comprised of "approximately 80% of water"

(MacAulay par. 1). Nine of out ten brain molecules are water molecules (Le Bihan 104). In the brain, water functions to maintain the structure of cells: "The network of water molecules present in the cell represents a considerable force of cohesion, maintaining the structures—proteins, enzymes, DNA, and other cytoskeletons—in place: these macromolecules are entirely shielded by one or two layers of water molecules, attracted by the electrical charges on their surface" (Le Bihan 114). In addition, water moves in the brain: "the movement of water through a membrane is above all due to its own channels: 'aquaporins'" (116). Le Bihan notes: "it is a matter of time before we discover a specific aquaporin of neurons" or "another mechanism to control the flow of water through their membrane" (117). Water and metaphor converge in the material and metaphoric basis of consciousness. Donaldson argues that "The metaphoric initiative finally presents itself in and as consciousness and its conscious workings" (4). It is evident in consciousness and it is consciousness. Strang also identifies water as the medium of consciousness: "as well as carrying blood and other vital chemicals to the brain, water supports the electrical potential of brain neurons, and is therefore quite literally, 'a stream of consciousness'" (Water: Nature and Culture 16). Water is literally the "thing" of consciousness. Without water there is no stream of consciousness. Consciousness cannot flow. Water embodies metaphor and it moves the mechanism of metaphor that is life and consciousness.

As they are fundamental to language and thought, metaphors shape the conceptualization of our natural environment and can impede or advance progress on sustainability. From a scientific perspective, for example, Larson argues that scientific metaphors can re-inscribe dominant cultural values that undermine sustainability.

Metaphors such as progress, competition, barcoding, and meltdown, particularly, "reinforce respective status quo values: progressive idealism, competitive capitalism, consumerism, and fear-based militarism" (Larson 25). Environmental sustainability requires the recognition of "how metaphors cross the boundary between science and society" (Larson 20). In other words, it is necessary to interrogate how the metaphors generated in science already encode some of the social and cultural values that might undermine the long-term goals of sustainability. From a perspective of critical discourse analysis, Andrew Goatly notes the significant ideological and social impact of metaphors. "Metaphors are cognitive filters, but different metaphors filter different particles of truth" (Goatly 25). It is critical to interrogate how metaphors function as "cognitive filters" to predispose or preclude some outcomes. For example, Goatly explains that "The notion of private property relies on one of the grounds of the container schema—the notion of a dividing line between inside and outside. This make possible the idea of exclusivity what is mine cannot be yours, and what is yours cannot be mine" (98). This is the conceptual schema that predisposes the privatization of the common resources of the earth, like land, air and water: "Water used to be a national asset which the government managed for the sake of the whole community, or which local communities managed for themselves. The ideology of privatization assumes that, if brought within private ownership and 'floated' on the stock-market, water resource management will automatically be more efficient" (Goatly 98). Although private ownership is contrary to the fundamental characterization of water itself—its fluidity and continuity—the container schema determines the conceptualization of water and affects its governance.

Containment is contrary to the physical reality of water, yet it is the dominant metaphorical lens through which water is perceived and rendered as an element to be divided, contained, and exclusively owned. This conceptual schema dominates contrary to empirical evidence.<sup>18</sup> The dominance of the container schema in the conceptualization of water demonstrates the function of metaphors as "cognitive filters" which predispose certain conditions and actions. Goatly explains metaphor's power to obscure ideological schemas, the relationship between metaphor and ideology:

The scale of metaphorical effect runs in the opposite direction from the scale of ideological effect, precisely because with the literal language and conventional metaphors the ideology is latent, and therefore all the more powerful. What is powerful qua metaphor (active and original), thereby becomes more noticeable and debatable and therefore relatively powerless ideologically. What is relatively powerless qua metaphor (inactive or dead)—the literal or the conventionally metaphorical—becomes more powerful ideologically through its hidden workings.

## (Washing the Brain 29)

Because they are conventional, "dead" or "inactive" metaphors require less cognitive activity to process. As a result, they can have "the power to subconsciously affect our thinking, without our being aware of it" (Goatly, *Washing the Brain* 22). Donaldson identities water as a significant dead metaphor as it functions as a chemical and material reality:

<sup>&</sup>lt;sup>18</sup> "Much of the evidence suggests however.... that public companies in the Netherlands, Japan and the US are more efficient than private water companies in France and England" (Goatly 98).

Chemistry's dead metaphors are the relatively stable molecules that we find all about us, such as water, whose elements and bonds constitute the 'everyday world' that we inhabit. Water is but one of our most important, and ubiquitous dead metaphors. We should remember that in language, dead metaphors are the workhorses of communication. Their bonds are solid and tend not to change, making their work in the world reliable and consistent. (113)

The characterization of water as a dead metaphor, both in materiality and discourse, indicates the presence of latent ideological power. In his study of the representation of nature on the BBC, Goatly notes that "[w]ater, if clean is represented mainly as an essential human resource: *supply, supplies, drinking, running, sanitation*. Issues of *pollution, purification* and *contamination* seem paramount, precisely because they threaten the supplies used by humans" (2002a gtd. in Goatly 100). This is a conventional metaphor of water, which has "achieved currency as an acceptable way of constructing, conceptualizing and interacting with reality" (Goatly 28). Yet it is also a dominant, latent conceptualization that does not account for the full significance of water's essentiality to all life. The dominance of the "dead" metaphor of water must be challenged for the emergence of additional metaphors commensurate with water's material essentiality to all life and ecosystems, although it is an "ideological or hegemonic struggle" for new metaphors to be accepted as conventional metaphors (Goatly 29). Despite this struggle to establish individual metaphors, metaphor is a valuable framework precisely because it also allows for the generation of new conceptual frameworks of water: "by applying language in new or unusual ways or structuring concepts differently metaphors have a

potential for challenging the commonsense categories of knowledge" (Goatly 28). From a philosophical and rhetorical perspective of metaphor, Ricoeur writes of metaphor's "power to 'redescribe' reality": "Metaphor presents itself as a strategy of discourse, that while preserving and developing the creative power of language, preserves and develops the *heuristic* power wielded by *fiction*" (6). It "is the rhetorical process by which discourse unleashes the power that certain fictions have to redescribe reality" (Ricoeur 7). Metaphor has the ability to redescribe the reality of water, on the basis of our knowledge of water's ubiquity, not just our embodied experience. The framework of metaphor is a critical lens because it constitutes a sound theoretical foundation, it allows for the revelation of latent ideologies of water, and it has the power to challenge the limitations of our current conceptions of water. Given the ubiquity, complexity and vastly divergent scales of water functions in the biosphere, the development of new imaginaries of water commensurate with the depth and scale of its function is a challenge that would be facilitated by the exploration of the metaphors of water. This exploration is imperative not only to understand the limitations of the current imaginaries of water, which facilitate its commodification and exploitation, but especially to engage disregarded Indigenous imaginaries, and to develop new imaginaries for the waters of the Anthropocene. Ultimately, this study of the metaphors of water intervenes in the politics of water not only to broaden the definition and imagination of water itself, but to demonstrate that creativity, ubiquitous—but often concealed—in metaphor, is critical to the twenty-first century material condition of water.

Conclusion

The chapters that follow rely on the understanding of metaphor as a process that I have established in this introductory chapter. This dissertation views metaphor as a process that sustains the meaning constituted in the manifestations of individual metaphors, which will be examined here in different contexts. I take the position that the understanding of metaphor as a process, and the revelation of the metaphoricity of particular water metaphors are significant factors in the struggle over the meaning of water. Attention to the metaphoricity of water metaphors has a material impact on the culture and politics of water, including the formation of water policies, and the identification of deficiencies in these policies. In the remaining chapters, I will conduct analyses of water metaphors to reveal the metaphoricity of these concepts of water that inform our thoughts and shape our actions towards water.

Chapter One is entitled, "Invisible Metaphors: Water Power in the Fisheries and Oceans Act and The Canada Water Act". This chapter begins the dissertation's analysis of the conceptual metaphors of water by analyzing water metaphors found in the Fisheries Act and the Canada Water Act evaluating the dominant, operative conceptions of water in some of Canada's legislation of its waters. This analysis will interrogate the instrumentalist and utilitarian water metaphors that govern non-Indigenous Canadian engagement with water. Specifically, I will focus on dominant metaphors of water as H<sub>2</sub>O, as resource, and as space. These metaphors frame the governance of water in Canada, sustaining an exploitive, colonial relationship with water. I will conclude that chapter with a brief discussion of an alternative, Indigenous legal framework for the

governance of water, and of the biopolitical and neoliberal implications of the dominant metaphoric conceptions of water.

In Chapter Two, I shift my analysis from legislative conceptions of water to the literary and creative conceptions of water. Chapter Two, "Extended Metaphors: Water and the Political Economy of Neoliberalism In Lisa Moore's *February*", will analyze the water metaphors in Moore's novel. This chapter focuses on extended metaphoric meanings in the literary text, demonstrating the scope of literature for the exploration of the relationship with water. Moore reveals literature as an infrastructure for the understanding of relations with water. The metaphors of water in this chapter expose the significant range of relations with water that are excluded from the legislative conceptions of water. They indicate the significant limitations of the legislative conceptions that objectify and commodity water.

Chapter Three, "Deliberate Metaphors: Creating a New Imaginary of Water Through Poetry: Rita Wong's *Undercurrent*", continues the focus on creative metaphors of water. In this chapter, I will analyze the emergence of deliberate metaphors defining Settler Canadian water relations. I will consider the metaphors of water in this chapter in the context of the process of settler placemaking. The articulation of place in Canada has occurred "through systems of white supremacy, settler colonialism, heteropatriarchy, and anthropocentrism" (Seawright 555). The process of "place-making" reimagines water in relation to the complexities of "one's own community, town, city, geography, watershed, bioregion, as well as the natural communities of other places" (Seawright 555). A racialized settler living on the unceded Coast Salish lands, Wong foregrounds Indigenous

rights and Indigenous relation to land and water as both a poet and activist. This chapter demonstrates how new, creative, and deliberately constructed metaphors of water can contest the dominant reductive metaphors of water enacted by the legislative conceptions of water identified in Chapter Two.

Chapter Four is entitled, "Watering Subjectivities: Astrida Neimanis's feminist figuration 'Subjectivity is Water' and Leanne Betasamosake Simpson's 'Big Water'". In this chapter, I will focus on the conceptions of water found in the Anishinaabe tradition and its convergences with a non-Indigenous, feminist conception of water proposed by Astrida Neimanis. I will draw on Hill and Coleman's framework of the metaphor of the Two Row Wampum-Covenant Chain Treaty, for the Indigenous and non-Indigenous relations. I will examine the characterization of water in Neimanis's feminist figuration, "subjectivity is water" and follow with a focus on Leanne Betasamosake Simpson's story "Big Water" from This Accident of Being Lost. Acknowledging significant differences and similarities among Indigenous communities' understandings of water, this chapter will emphasize Anishinaabe metaphors of water as conceptualized in what Vanessa Watts describes as "Place-Thought" (21). The Anishinaabe have a direct cultural and territorial relation with the body of water known as Lake Ontario, the subject of Simpson's story. This relationship reflects Anishinaabe cosmology and approach to water. This chapter departs from the previous chapters in its comparative analysis, which demonstrates the significant convergences of conceptions of water which can form a basis for collaboration in the project to situate water at the center of human life in the Anthropocene.

Finally, in the conclusion, "Overflowing Relations", I will revisit the intersection of water and metaphor. I will briefly discuss how water challenges metaphor theory, how metaphor can close the gaps in our relations with water, and how metaphors in literature and poetry can intervene in the resolution of water issues.

#### **CHAPTER ONE**

# Invisible Metaphors: Water Power in the Fisheries and Oceans Act and The Canada Water Act

But empires and governments do not make water. They only redistribute what already exists in the living world.

-Wong, "Untapping"

## Introduction

Contrary to traditional understandings of metaphor as serving a mostly decorative function in poetry and art, this thesis focuses on its fundamental role in language, where it provides the conceptual frameworks that govern practices and behaviours. The metaphoric abstractions of water in Canadian legislation on water provide an indication of how water is conceptualized according to the Government of Canada. These conceptions are the underlying assumptions on which government policies and practices are designed and implemented. Such metaphors are critical because they are then acted upon, manifesting concrete relations with water. To this extent, metaphors in legislation constitute the conceptual infrastructure that governs our lives. While an analysis of all Canadian legislation dealing with water is beyond the scope of this project, my analysis of the Fisheries Act and the Canada Water Act in the first section of this chapter provides an indication of some of the metaphorical abstractions of water in legislation that governs the Government of Canada's actions towards water. In the second section of this chapter, I explore Indigenous conceptions of water that precede and resist the metaphors of water enacted by the legislative acts of the settler-colonial state. The examination of the metaphoricity of water metaphors in this chapter reveals the limitations produced by the Government of Canada's legislation on water. Furthermore, it reveals the difference

between Indigenous and non-Indigenous conceptions of water, the latter of which are subsumed by the governance paradigms of water in Canada. Finally, the examination of the metaphoricity of these metaphors of water not only exposes deficiencies in the Canadian state's conceptions of water, but also reveals these conceptions as metaphoric abstractions for which alternatives are not only possible but necessary.

This chapter argues that the metaphoric conceptions of water in the Fisheries Act (R.S.C., 1985) and in the Canada Water Act (R.S.C., 1985) are grounded on the implicit conceptualization of water as the scientific abstraction, H<sub>2</sub>O, which is characterized as "modern water" (Linton 8). The Fisheries Act was enacted in 1868 and the Canada Water Act was proclaimed in 1970. The chemical abstraction H<sub>2</sub>O works implicitly alongside two other dominant conceptualizations: water as a resource, and water as geopolitical space. The conceptualization of water as geopolitical space makes the map a visual metaphor that maintains these three hegemonic conceptions of water. The metaphoric conceptions of water in the Fisheries Act and the Canada Water Act—as H<sub>2</sub>O, resource, and geopolitical space—serve the economic development of the settler colonial nationstate of Canada. These conceptions of water narrowly reflect water's emergent material functions in relation to the earth; they perpetuate the settler-colonial structures governing Indigenous peoples; and they facilitate the "primitive accumulation" of water under neoliberalism. On this basis, I argue that the metaphoric conceptions of water in these Acts are inadequate.

Specifically, I argue that the inadequacy of water metaphors is a measure of the extent to which these metaphors are commensurate with the emergent properties of water,

the capacity of these metaphors to frame water's co-constitution by nature and culture, and the function of these metaphors to enshrine a reciprocal relation with water, which also recognizes the more-than-human world. As an inherent filter, metaphor includes and excludes different features of water, and frames different relations with water. So while it is impossible to capture water's ubiquitous significance in any single metaphor, it is possible to adopt multiple metaphors commensurate with water's absolute and unconditional significance to life. Ultimately, the metaphoric conceptions of water in the Fisheries Act and the Canada Water Act reveal the necessity for more adequate metaphors: those that confront settler-colonialism and its manifestation as Western liberal universalism, those that are commensurate with water's co-constitution by nature and culture, and those that facilitate reciprocal relations with water.

Dominant Metaphoric Conceptions of Water

*The Metaphor of Water as*  $H_2O$  – "Modern Water"

The dominant formula for representing "water" is a metaphoric abstraction of water as  $H_2O$ . In his definitive text *What is Water? The History of a Modern Abstraction,* Jamie Linton labels the conceptualization of water as  $H_2O$ , "modern water" (8). "Modern water reduces all water to this essential substance [ $H_2O$ ], this homogeneous chemical compound, both spatially and temporally. Thus, all water was, is, and always will be  $H_2O$ " (18). The development of the concept of water as  $H_2O$  corresponds with the Scientific Revolution and the Enlightenment, and with the view that humans can dominate nature for emancipation (9). In addition, the "rise of public health movements in the nineteenth century separated 'water' from 'nature' and connected it to physiological

definitions of health. This emphasized a 'practical' and utilitarian vision of water as H<sub>2</sub>O (Verouden and Meijman 31). The shift to the current concept of water happened between the seventeenth and late nineteenth century. It has been described in many ways: "the paradigm change from waters to water,' 'the conquest of water,' the change by which 'the waters of forgetfulness' were transformed to 'H<sub>2</sub>O<sub>2</sub>' and the transition 'from tangible water to H<sub>2</sub>O'" (Linton 74). Water was always central to the human imagination (Seshan 151). For example, in the traveller's imagination of the ocean in the sixteenth and seventeenth centuries "water was not a barrier, or something to be feared. Men made their living from the seas, through trade, fishing and boat building, and saw themselves as 'men of the sea'" (Seshan 153). Following the visual representation of a water molecule by John Dalton, water was stabilized as H<sub>2</sub>O in the scientific discourse in the midnineteenth century (Linton 79). Later in the twentieth century, after the concepts of the hydrological cycle had been proven mathematically, Robert E. Horton named the hydrological cycle, and produced a visual representation of it, consolidating this concept of water as H<sub>2</sub>O on a larger scale (Linton 128). The concept of the hydrological cycle was projected forward, in the field of hydrological science, and backwards in time, making it appear timeless and obscuring its historicity as a conception of water.

The conception of water as H<sub>2</sub>O has been made to appear timeless by the assumptions of the scientific mode. The scientific mode removed water from the cultural context of human history and made the scientific conception of water appear as if it were essentially water, and as if this conception had always been the truth. Water's conceptualization as a "thing" arrests its processual nature: "The 'water process' is that

out of which every specific instance of water gets abstracted, including scientific representations such as  $H_2O$ . ... [T]hings such as  $H_2O$  do not constitute the fundamental reality of water but, rather, are fixations that occur at the nexus of the water process and the social process of producing and representing scientific knowledge" (Linton 8, 4).  $H_2O$ is a metaphoric conception of water which, Hamlin agrees, has been accepted for approximately two centuries (314). While this scientific conceptualization has become fixed, and the chemical composition of water ( $H_2O$ ) has been accepted as the essential constitution of water and as water in its entirety, the process of science is expanding scientific knowledge of the constitution and scope of water to reveal water's metaphoric fluidity. The scientific abstraction  $H_2O$  is now recognized as a reductive metaphoric conception of water within the framework of science itself. Hasok Chang writes that

very modern science no longer subscribes to the notion that water is simply H<sub>2</sub>O. Not only does water contain rarer isotopes such as deuterium, but its familiar chemical and physical properties depend essentially on the presence of various ions, and on the continual connections and re-connections between neighboring molecules, which belie the single-molecule formula of H<sub>2</sub>O. If we had a simple heap of H<sub>2</sub>O molecules, it would not be recognizable as water. Of course, the 'H<sub>2</sub>O' view still contains an important element of truth about the constitution of water, and continues to have heuristic utility. But it would be wrong to take it as an eternal and unqualified truth; rather, it was merely one important resting-point in the continuing progressive saga of science. (xvi)

As the "saga of science" continues to establish the metaphorical fluidity of water in the aftermath of identifying water as the abstracted form of  $H_2O$ , the application of the metaphoric conception of water as  $H_2O$  requires interrogation beyond its heuristic utility.

The conceptualization of water as a "thing" rather than a process negates the social and ecological context of waters. It undermines the relations of waters and focuses on water as an abstract entity. The modern conception of water is contrary to the premodern European understanding of waters which were "[a] richer and deeper range of conceptions of water and its effects on the body" and which perceived waters as "aspects of the histories of places" (Hamlin 315). Illich notes that the "twentieth century has transmogrified water into a fluid with which archetypal waters cannot be mixed" (7). The conceptualization of water as modern water is valued for several reasons, which explains its continuing utility:

one of the virtues of modern water is that it is not complicated by ecological, cultural or social factors. This has made it easy to manage. Another virtue of modern water is its universality—all waters, in whatever circumstances they may occur, are reducible to this abstraction. A third virtue is its naturalness—not only may all waters be reduced to  $H_2O$ , but all products of this reduction is understood to constitute water's essence, its basic nature. (Linton 8)

Modern water is the hegemonic construction of water. It is the basis of the social order of water in society and laws maintain this conception of water.

In Canada, there are no explicit definitions of water in the Fisheries Act and Canada Water Act. The definition of water is also absent from the Oceans Act. Arguably,

the lack of a definition of water in these Acts indicates a broad scope to define water in relation to place, particular ecosystems, and particular knowledge of the context of the bodies of water, which are governed by the Acts in practical application. This would suggest that its meaning is assumed to be self-evident and / or there are shifting definitions of water in the implementation of the Acts. It would also suggest that the conception of water eludes the legislative framework established by these Acts. Finally, the absence of a definitive concept of water in these Acts leaves a conceptual gap, which can be filled implicitly by the dominant conception of water. So, although it is not explicitly established, a primary metaphoric conception of water that characterizes Canada's relation to water is water as H<sub>2</sub>O. This conceptualization of water is metaphoric because it is an abstraction based on a fixed moment in water's process, distinct from other historical, cultural, and recent scientific understandings of water. In the absence of a definitive conception of water. The Fisheries Act and the Canada Water Act function in accordance with the dominant, reductive metaphoric conceptualization of water as H<sub>2</sub>O. The Metaphor of Water as Resource

The dominant metaphoric conception of water as a resource is explicitly present in the Canada Water Act. The explicit designation of water as "resource" is attributed to the geologist W.J. McGee in the United States, who wrote in 1909:

No more significant advance has been made in our history than that of the last year or two in which our waters have come to be considered as a resource—one definitely limited in quantity, yet susceptible of conservation and of increased beneficence through wise utilization. The conquest of nature, which began with progressive control of the soil and its products and passed to the minerals, is now extending to the waters on, above and beneath the surface. This conquest will not

be complete until these waters are brought under complete control. (39) The designation of water as a resource functioned to strengthen the dialectical process between modern water and the modern state (Linton 149). The conceptualization of water as a resource was critical to the consolidation of the concept of modern water—water as H<sub>2</sub>O—and to the development of the state. McGee's declaration of water as a resource may indicate "the moment when the scientific mode of knowing water became official, in the sense of its adoption by the state" (Linton 154). It proclaimed the need for the scientific management of water as a resource on a national scale and introduced a "quantitative view of water [that] renders it 'naturally scarce'" (Linton 151; 154). McGee identified water as a resource, an object that needed the "conquest" and "control" of the state.

[T]he deliberate naming of water as a resource needs to be seen in the broader context of scientific, economic and political developments that occasioned this movement during the first two decades of the twentieth century. It was in this context that water became known to the state in a way that made it an object of calculation and subject to a particular kind of accounting and manipulation, which for McGee and his contemporaries was signified by declaring it a resource.

(Linton 151)

A similar dialectical relationship between the development of water as a resource and the development of the nation-state can be inferred in Canada. While an examination of the
history of the concept of water as a resource in Canada is outside the scope of the current analysis, a brief account of the development of hydroelectricity in Canada provides an indication of the same dialectical relationship between the development of the conception of water as resource and the development of Canada as a settler colonial state. In 1923, the Staff of the Dominion Water Power Branch declared: "One of the most striking romantic stories of modern industrial achievement has been the story of Canadian water powers" (110). Canada positioned hydropower at the core of Canadian industrial development, implementing and developing the conception of water as a resource and modernizing the state by developing industries that relied on waterpower. The development of water as a resource for hydroelectricity was central to Canada from its beginning as a settler state. This is evident from early writings of the Government of Canada's Department of Interior:

Only a small beginning, 7 per cent of the estimated total [water power], has been made by way of utilizing this tremendous asset as yet, but small as is the beginning, it yet represents a most astonishing growth in a country of many striking commercial attainments. In 1885 the first high tension transmission of electricity in the British Empire was accomplished between a small power of 1,200 h. p. on the Batiscan River and Three Rivers, Quebec at 11, 000 volts. (Staff 111)

The Department of Interior was responsible for the development of natural resources. These early measurements of water as resource were expressed in the form of measures of hydroelectricity and measures of water as a latent resource for the continuing

development of hydroelectricity. The development of Canadian "water power" was celebrated across the geographical expanse of Canada.

The growth and extension of the water power industry in this country has been phenomenal not only from the standpoint of rapidity of development but also because of the diversity of the field, which it serves. Niagara is harnessed, so are the turbulent streams of northern Ontario, the glacier creeks and torrents of the Rocky Mountains with heads of hundreds and thousands of feet, the sturdy streams of the Yukon, the picturesque rivers of the Maritime Provinces, the mighty water ways of Quebec; and as yet their might and splendor has [*sic*] been almost untouched and their wastage of energy unchecked. (Staff 110)

The assertion that water "is harnessed" introduces an implicit metaphor of water as animal. It suggests that water needs to be tamed in the development of hydroelectricity. Yet the description of water as "turbulent" "sturdy" and "mighty" challenges that domestication. Furthermore, its characterizations as "picturesque" and splendid suggest poetic qualities that undermine the celebration of water as simply a resource of hydroelectricity. The waters are so vast that even the industry's "phenomenal growth" leaves them "almost untouched". Inherent in this description of water are the tensions between a Romantic conceptualization of water as nature, and an early industrialist conception of water as resource. So, even as it is being established as a resource, water defies containment as an "unchecked" resource in both its characterization and quantity. The poetic expressions of water indicate the existence of competing conceptions of water as a resource in the Western tradition. Nevertheless, the early conceptualization of water as a resource.

was central to the development of Canada's industries such as "the pulp and paper industry, the mining industry, the electro-chemical and electro-metallurgical industry, [and] the milling industry. In fact, the success of Canadian industry as a whole has been in great part due to cheaply available hydro power" (Staff 111). Waterpower was considered important also because it functioned to reduce the amount of coal, and coal imports used to produce power (Staff 113). The Staff of Dominion Water Power Branch noted that Canada was exporting a significant quantity of hydroelectric power to the United States (Staff 113).

In 1939, Canada explicitly "positioned hydro power at the country's metaphorical center" in a depiction of The Holgate-Cloutier mural at the New York World Fair: "In the foreground a man with a horse and plough stood for agrarian tradition and at the center lay a hydro-electric dam, in front of which hung a white horse, symbolizing power" and the need for harnessing (Evenden 845). In addition, in 1944, a travelling display of Canadian resources by the National Gallery of Canada promoted the image, "This is Our Strength—Electric Power". This image illustrated "a river as a captured resource with a masculine hand grasping its power" (Evenden 847). It aligned the development of water as a resource of hydroelectricity with Canada's military efforts in the war. Evenden notes that, contrary to the United States, Canada did not have a centralized state-led program for the development of hydro resources at the time of the Great Depression (Evenden 847). It was World War II that initiated Canada's broad hydroelectric program and positioned the state to mobilize water, specifically river waters as resources, in a centralized way. Early measurements occurred in terms of the usage of water and the

production of power: "The total installation for the Dominion averages 338 h. p. per thousand population, a figure which places Canada second only to Norway in the per capita utilization of water power among the countries of the world" (Staff 111). Beyond its conceptualization in relation to hydroelectricity, water also signified as a resource in relation to legislative acts, and it continues to be an object of economic development and calculation in the Fisheries Act and the Canada Water Act.

In the Canada Water Act, water is predominantly referred to as "water resources". This usage is first affirmed by the major objectives of the Act, which declare it to be: "An Act to provide for the management of the water resources of Canada, including research and the planning and the implementation of programs relative to the conservation, development and utilization of water resources" (Canada Water Act 1). This conceptualization affirms the view of water as something that exists to be controlled, and it frames a relationship in law that situates water under the control of a particular class of people. Linton's analysis is pertinent to Canadian legislative definitions of water:

Even the term 'water management' implies a particular kind of hydrosocial relation, one characterized by deference to a kind of abstract expertise and professionalism. It also implies a particular kind of water, stripped of its complex social relationships such that it might be managed by experts who are not necessarily directly involved in these relationships. (58)

Conceptualized as a resource, water is an object of management by a professional class of people and the object of utility in the interest of the growth of the nation state of Canada. The Canada Water Act never refers to water except in terms of "water resources",

suggesting that this piece of legislation does not recognize water that has no discernible utility. Furthermore, this conception of water does not recognize the fundamental importance of water as a precondition of life. It recognizes water only as a subordinated object that requires professional management.

The declarations of The Preamble of the Canada Water Act assume the metaphorical conception of water as resource for Canada. Canada is a settler-colonial state, so this conception of water as resource in this legislation constitutes a settler-colonial structure because it reflects and enacts the goals of the settler-colonial state, and it overrides Indigenous conceptions of water. The settler-colonial state's primary objective is the colonization of land through the displacement of Indigenous peoples and its cultural logic is "the logic of elimination [that] seeks to replace indigenous society with that imported by the colonizers" (Wolf 93). Scott Morgensen notes that:

Settler colonialism has conditioned not only Indigenous peoples and their lands and the settler societies that occupy them, but all political, economic and cultural processes that those societies touch. Settler colonialism directly informs past and present processes of European colonization, global capitalism liberal modernity and international governance. (53)

As part of current legislation, the Preamble of the Canada Water Act reflects the settler colonial state's objectives. The Preamble of the Canada Water Act indicates that "Parliament desires... research and planning with respect to those resources and for their conservation, development and utilization to ensure their optimum use for the benefit of all Canadians" (Canada Water Act). The Preamble's designation of water as a resource,

establishes the notion that, because it is a resource, the use of water must be maximized. Specifically, the concept of "optimum use" suggests that water must be exploited as a resource in the continuing development of the settler-colonial state. So, water is perceived primarily in terms of utility and it is enshrined in law in terms of utility. In addition to utility, water is reduced to a function of development and conservation. While the act refers to "conservation", the concept of conservation is present only in relation to water's conceptualization as "resource" for its maximum utility. According to Bakker, the government's maximization of the utility of water is biopolitical:

Water is ... biopolitical in the Foucauldian sense: modern governments seek to optimize both water resources and our individual water-use practices in order to secure the health and productivity of the population. This control is enacted through formal regulation, but also is self-policed through the cultural aesthetics of health and hygiene, ranging from entire bodies of water to individual human bodies. (619)

The Preamble's direct reference to "the benefit of all Canadians" suggests that the management of water would be for all peoples in the land of Canada. Notwithstanding that the primary purpose of optimization for human utility excludes the reality that water is required by all other organisms and ecosystems, human utility in the Preamble excludes Indigenous peoples. As Canada is a setter-colonial state, the category of "Canadians" refers to settler Canadians. The benefits of the optimization of water resources are a measure of settler-colonial objectives, which are contrary to the interests of Indigenous Peoples, whose land is being occupied with the establishment and development of the

settler-colonial state. To understand the mechanism by which water is used to forward the aims of the settler colonial state, it's helpful to understand its biopolitical function within what Morgensen calls the "genealogy of settler colonialism" (53). While Foucault argues that the power of the state over control of the biological emerges in the nineteenth century, Morgensen argues that "For more than five hundred years, Western law functioned as biopower" (Foucault 241; Morgensen 53). Morgensen extends the genealogy of biopower to reveal that "settler colonialism performs biopower in deeply historical and fully contemporary ways" (52). State control of the biological is the "power to 'make' live and 'let' die" enacted towards "man-as-species" rather than towards man as an individual body (Foucault 241:243). In a state centered on biopower technologies to "make' live", death was introduced through the mechanism of racism. Though racism existed prior to this moment, it "is indeed the emergence of this biopower that inscribes it [racism] in the mechanism of the State. It is at this moment that racism is inscribed as the basic mechanism of power, as it is exercised in modern States (Foucault 254). Foucault describes racism as "a way of introducing a break into the domain of life that is under power's control: the break between what must live and what must die" (254).

So, the reference in the Preamble of the Act to "all Canadians" does not reflect the reality that all Canadians are not equal in a settler-colonial state, which seeks to replace Indigenous peoples with settler-Canadians. This is evident in the ongoing issues of the provision of water to Indigenous communities in Canada. In the Canadian government's application of biopolitical technologies of water, a break in the "domain of life" is exposed in government's ongoing failure to provide clean water to some Indigenous

communities<sup>19</sup>. Finally, the state's biopolitical governance of water extends to its conception of water pollution. The Preamble of the Act indicates that "pollution of the water resources of Canada is a significant and rapidly increasing threat to the health, wellbeing, and prosperity of the people of Canada and to the quality of the Canadian environment at large and as a result it has become a matter of urgent national concern that measures be taken to provide for water quality management" (Canada Water Act 1). In practice, this urgent concern does not include Indigenous peoples. For example, Melina Laboucan Massimo of the Lubicon Cree First Nation notes that there are 2, 600 oil and gas wells in traditional Lubicon territory (Massimo 82). Extensive oil and gas extraction has polluted the air and water, and there are elevated incidences of cancer, but the community has no running water (Massimo 82). The residents of some Indigenous communities also suffer from the bioaccumulation of toxins in their bodies: "For those who live a traditional lifestyle of harvesting fish, animals, and water from the rivers, lakes and streams in Nishnaabeg territories, there is danger in mercury poisoning bacterial infections, and other harmful pollutants" (Mzinegiizhigo-kwe Bédard 89). While settler-Canadians are protected by safe drinking water regulations, Indigenous peoples are not: "If you are anywhere else in Canada and you turn on the tap, then you are protected by safe drinking water regulations ... If you live on reserve, no such regulations exist. There are no safe drinking water protections" (Klasing qtd. in Cecco, par. 8). So, while the

<sup>&</sup>lt;sup>19</sup> In a report to the Parliament of Canada in 2021, the Auditor General of Canada concluded that "Overall, Indigenous Services Canada did not provide the support necessary to ensure that First Nations communities have ongoing access to safe drinking water. Drinking water advisories remained a constant for many communities, with almost half of the existing advisories in place for more than a decade" (Office of the Auditor General 4). Canada is a rich nation with abundant waters, yet to date it has been unable to provide clean water to all Indigenous peoples. This situation suggests the continuing application of biopolitical power in the interest of the settler-colonial state.

pollution of water resources is acknowledged, and explicitly recognized as a threat to the "health, well-being and prosperity" of the Canadian people, through a biopolitical lens it is evident that Indigenous peoples are excluded from the urgency of protection from water pollution. Furthermore, the pollution of water is perceived in the Preamble as a management issue rather than a larger social or cultural issue that affects some communities disproportionately.

Conceptualized as resource, water is solely an object of management for the government of Canada as a settler-colonial state. Accordingly, the Canada Water Act has two central sections, both focusing on management: "Comprehensive Water Resource Management" and "Water Quality Management". The purpose of the Act, for the establishment of intergovernmental committees for Comprehensive Water Resource Management, indicates that water is unequivocally conceptualized as a resource: "For the purpose of facilitating the formulation of policies and programs with respect to the water resources of Canada and to ensure the optimum use of those resources for the benefit of all Canadians, having regard to the distinctive geography of Canada and the *character of water as a natural resource*" (Canada Water Act 3; my emphasis). Water is to be "managed" for "optimum use". The Canada Water Act conceptualizes water as object on the various levels of political power and jurisdiction. The Act specifically designates the "Federal-provincial water resource management programs" and "Federal water resource management programs" for the management of water Act 3-5).

The Canada Water Act is a bureaucratic document that establishes the power to act on water on the basis that water is a resource, which must be maximized. This is also

evident in the second management function of water: "Water Quality Management". According to the Canada Water Act, "The object of each water quality management agency shall be to plan, initiate and carry out programs to restore, preserve and enhance the water quality level in the water quality management areas for which the agency is incorporated or named" (10). In the Act, "Water Quality Management" does not establish standard jurisdictions and rules of agency to manage water. It establishes only a framework to establish such jurisdictions. It also does not establish a fundamental quality of water that is expected in Canadian ecosystems. Instead, the standard for various measures of pollution appears to vary. So, although the Act indicates that the purpose is "to preserve and enhance the water quality level" it does not actually provide an indication of the level standard of water quality. Instead, like the absence of a definition of water, actual standards of water quality or of acceptable deviation of water quality in Canadian ecosystems are left undefined. Furthermore, the initiative to "restore, preserve and enhance" is contingent on "water quality management areas". The Canada Water Act establishes the bureaucratic framework of management of water rather than enshrining the actual quality or condition of water in law.

Exceptions to pollution regulation appear to be areas to be determined by management: "Except in quantities and under conditions prescribed with respect to waste disposal in the water quality management area in question...no person shall deposit or permit the deposit of waste in any type in any waters composing a water quality management area" (Canada Water Act 7). For Federal-Provincial agreements, the Minister will "designate the waters to which the agreement relates as a water quality

management area" and "provide for water quality management programs in respect to those waters" (Canada Water Act 7). For Federal programs involving inter-jurisdictional waters:

The Governor in Council. ... may on the recommendation of the Minister, designate those waters as a water quality management area and authorize the Minister to name an existing corporation that is an agent of Her Majesty. ... that performs any function or duty on behalf of the Government of Canada, as a water quality management agency (Canada Water Act 9).

For federal waters, power over the establishment of water quality management areas lies with the Minister. Thus, the Canada Water Act is a legislative document that establishes power to manage water without actually setting rules on the quality of water or establishing the absolute protection of water.

In enshrining the power to manage water as a resource, rather than the protection of the quality of water, the Canadian state destabilizes the characterization of water as  $H_2O$  that it implicitly endorses. Canadian legislation protects management activities relating to water rather than a particular chemical identity of water. To this extent, the official conceptualization of water operative in Canadian legislation is unstable. It shifts on the basis of management objectives rather than on the basis of the chemical identity of water itself. The Canada Water Act establishes in law that water's fundamental character is a resource.

The understanding of water as a resource is a significant metaphoric conception with serious implications. It denies Indigenous Peoples' rights over water and asserts the

rights of a professional class working to establish the objectives of Canada as a settlercolonial state. It denies Indigenous Peoples' access to safe and clean water in their communities. This conception embeds water into a grossly unequal political and economic system. Finally, it denies the fundamental character of water as a constituent element of life. For these reasons, and given that climate change will exacerbate water issues, the metaphoricity of the metaphor—water is resource—must be interrogated. While the metaphoric conception of water as resource in the Canada Water Act undermines the conceptualization of water as H<sub>2</sub>O by its emphasis on management, it simultaneously positions water as an object of political power, of state measurement and management, and of geopolitical space.

## The Metaphor of Water as Geopolitical Space

The final major metaphoric conception of water in these legislative acts is: water is geographical space.<sup>20</sup> In addition to conceptualizing water as resource, the Canada Water Act conceptualizes water in terms of geopolitical or territorial space. The *Oxford English Dictionary* defines territory as: "the extent of the land belonging to or under the jurisdiction of a ruler, state or group of people" ("territory"). Four distinct categories of water as defined by the Act reveals that the Canada Water Act Water conceptualizes water in relation to political space. "Boundary waters" are defined as

the waters from main shore to main shore of the lakes and rivers and connecting waterways or the portions thereof, along which the international boundary

<sup>&</sup>lt;sup>20</sup> A basic definition of space suggests that it is a "physical extent or area; extent in two or three dimensions", but the definition of space and the characterization of water as space are complex ("Space, N.1."). The common categorizations of space into an "absolute space of geometry, cartography and physics" and a "relative space of individual cognitive mapping and landscape appreciation" create a false dichotomy, which ignores the social production of space (Ryan 4).

between the United States and Canada passes, including all bays, arms, and inlets thereof, but not including tributary waters which in their natural channels would flow into such lakes, rivers, and waterways, or waters flowing from such lakes, rivers, and waterways, or the waters of rivers flowing across the boundary.

(Canada Water Act 2)

This definition categorizes water on the basis of its location between the political boundary of Canada and the United States. The definition of "boundary waters" explicitly excludes the flow of waters connecting to the boundaries. So, waters "that would flow into", "waters flowing from", and water "flowing across" the "boundary water" are not defined as "boundary water". In other words, the Act recognizes the flow of water only to exclude water's flow from the political categorization of water, which is based strictly on the physical geography of the spatial boundary between Canada and the United States. The definition of "boundary waters" is one that negates the movement and the flow of water by conceptualizing the water between the boundary of the United States and Canada as fixed rather than in transmission or transpiration. The flow of water is included in the separate category of "inter-jurisdictional waters". The Act defines "interjurisdictional waters" as "any waters, whether international, boundary or otherwise, that, whether wholly situated in a province or not, significantly affect the quantity or quality of waters outside the province" (Canada Water Act 2). This definition recognizes the inherent movement or flow that connects waters. At the same time, the movement and flow of water constitute a separate category of water. Again, the connection of waters is delineated according to spatial, political boundaries, identifying water on the basis of

"whether it is situated in a province or not" (Canada Water Act 2). Like the category of "inter-jurisdictional waters" which recognizes the flow of water by its acknowledgement of water's connection to other waters in terms of quality, the category of "international water" recognizes the flow or movement of water in terms of direction. The category of "international waters" is defined as "waters of rivers that flow across the international boundary between the United States and Canada" (Canada Water Act 2). While "boundary waters" is the water that is situated "between" the spatial borders of Canada and the United States, "international waters" are waters that flow "across the boundary" of Canada and the United States. Finally, "federal waters" are defined as "other than in Yukon and the Northwest Territories—waters under the exclusive legislative jurisdiction of Parliament" (Canada Water Act 2). This categorization of water is defined first by the legislation of territorial exclusion and legislation of parliamentary jurisdiction. The definitions of the categories of water in the Canada Water Act segregate the characterizations of water. In essence, these are metaphorical conceptions of water that are imposed on water in a way that decontextualizes or extracts water even from its own characteristics in its material occurrence. The categories-boundary, inter-jurisdictional, international, and federal—are metaphorical because they extract and frame particular meanings of water on the basis of the geopolitical boundary between the United States and Canada. Water is characterized in terms of these geopolitical categories, contrary to water's actual material occurrence such as its inherent movement and flow. These four categories of water illustrate that one of the dominant metaphoric conceptions of water in the Canada Water Act operates in terms of geopolitical space. The conception of water in

terms of geopolitical space is not unexpected in a legislative document that relates to the sovereignty of the country. However, the abstraction of water in order to conform to the limitations of geopolitical jurisdiction does indicate the difficulty of addressing issues of water across national political boundaries. Water does not adhere to political boundaries. These boundaries are imposed only through the metaphorical abstraction of the concept of water.

A slightly different conception of water as space is also evident in the Fisheries Act. In the Fisheries Act water occupies the position of both the metaphorical source and target in relation to its metaphoric conception as space. Water is positioned as target in the metaphoric conception: water is space. It is positioned as source in the metaphoric conception: fish habitat is water (A = B). The Fisheries Act defines "fish habitat" as "water frequented by fish and any other areas on which fish depended directly or indirectly to carry out their life processes, including spawning grounds and nursery, rearing, food supply and migration areas" (Fisheries Act 2). In this conception, water is positioned as the source rather than the target of the metaphorical connection but remains related to space. So, the metaphors—water is H<sub>2</sub>O, water is resource, water is geopolitical space— all position water as target and conceptualize water in terms of the respective sources in these metaphorical relations. In this way, the conceptual meanings of water as target are confined to the attributes of the sources. In the metaphor "fish habitat is water", where water occupies the position of the source, it is fish habitat, which is defined as water, rather than water, which is defined as fish habitat. In the Fisheries Act, fish habitat

is defined in terms of water, but habitat is associated with space.<sup>21</sup> So, in this metaphorical connection, the space or locality of fish is characterized as water. It is evident that in the material context, as fish habitat, water is not simply or purely its chemical composition H<sub>2</sub>O. Instead, it is the water of ecosystems of fish, which is more than the implied chemical composition  $H_2O$ . Therefore, the conception of fish habitat as water in the Fisheries Act constitutes the implicit reduction of water as its dominant conception H<sub>2</sub>O, which is assumed in the absence of alternative definitions of water in the Fisheries Act. In this way, the Fisheries Act simplifies the conception of fish habitat. Nevertheless, this is a reverse conceptual relation of water and space. Positioned as a source, where the target is a space of fish habitat, water also functions as its classic conventional, metaphoric conception: water as container. The Fisheries Act conceptualizes the space of fish and the life processes of fish as water. This situates water in a different metaphorical position that is nonetheless connected to space. This conception, which subsumes water under the framework of fishery, is consistent with the purpose of the Fisheries Act: "to provide a framework for (a) the proper management and control of fisheries; and (b) the conservation and protection of fish and fish habitat, including by preventing pollution" (Fisheries Act 2). The conceptualization of the space of fish habitat as water is one aspect of the Fisheries Act's conceptualization of water as space.

<sup>&</sup>lt;sup>21</sup> The Oxford English Dictionary defines "habitat" as:

the locality in which a plant or animal naturally grows or lives; habitation. Sometimes applied to the *geographical area* over which it extends, or the special locality to which it is confined; sometimes restricted to the particular station or spot in which a specimen is found; but chiefly used to indicate the kind of locality, as the sea-shore, rocky cliffs, chalk hills or the like. (Habitat)

The Fisheries Act also conceptualizes water as political space. Similar to the Canada Water Act, this conception of water as space is necessary given the political purpose of the act, which is to establish Canada's political and territorial authority as a state. Nevertheless, it is a metaphorical conception of water that configures water according to political jurisdiction and authority in relation to space. The Fisheries Act defines "Canadian fisheries waters" as "all waters in the fishing zones of Canada, all waters in the territorial sea of Canada and all internal waters of Canada" (Fisheries Act 1). The Fisheries Act is another indication of the legislative scope of the conception of water. Notwithstanding the purpose of establishing Canada's territorial authority as a nation state, the Act reveals the very narrow scope of legislative conceptions of water, one that is removed from the scope of water's material characteristics and function. This limited conception of water minimizes the recognition of the fundamental defining features of water in the broader natural and cultural domains of life. Furthermore, the metaphoric conception of water in the Fisheries Act illustrates a legislative conception of water so particularized and compartmentalized that the legislation excludes the protection of water as it functions in a myriad of ways in the larger ecosystem.

The changes made to the Fisheries Act in 2012 impose administrative constraints that further reduce the substantive meaning and purpose of the Act. The 2012 changes to the Fisheries Act emphasize that the concept of water is not grounded in the scope and function of water in material processes, but in the shifting economic objectives of the Government of Canada. The material processes of water refer to "the reality of  $H_2O$  in the kinds of behaviour that it presents under particular circumstances" (Linton 33). The

behaviour of water is usually considered the "property of" water. However, Linton notes that these properties are not "inherent in" water but emerge and are "realized" through water's relational processes. They are "emergent of" water (Linton 34). For example, "the liquid-solid phase transition of water is completely independent of people and constitutes reality that definitely constrains water's (and our) possibilities" (Linton 34). So, although there are socially constructed scales to measure water's "emergent" behaviour in its local and global processes, the concept of water in the Fisheries Act is not grounded in the properties "emergent of" water as H<sub>2</sub>O, but in the economic objectives of the Government of Canada. The Fisheries Act addresses "[t]he management of fisheries, the conservation and protection of fish, the protection of fish habitat and the prevention of aquatic pollution" (Simms 2). The protections to fish habitat and the prevention of pollution had been strengthened in 1977 (Simms 2). First, repealing the purposes of the Act, the controversial changes to the Fisheries Act in 2012 significantly narrowed the scope of the protection of fish and water as fish habitat. The 2012 changes to the Fisheries Act illustrate how administrative objectives can negate the already limited metaphoric conception of water in legislation. The changes to the Fisheries Act reduced the scope of the protection for fish, thereby reducing the protection for water as fish habitat. "[P]rior to the 2012 legislative changes, the Act contained prohibitions against 'killing fish by any means other than fishing' ... and against carrying on 'any work or undertaking that results in harmful alteration, disruption or destruction [HADD] of fish habitat" (Simms 3). The changes in 2012 replaced the protections for fish and fish habitat in the Fisheries Act with protections only for "the productivity of fish that are part of a commercial, recreational or

Aboriginal (CRA) fishery, or to fish that support such a fishery, rather than on all fish and fish habitat as was previously the case" (Simms 3). The protections for all fish and fish habitat were replaced with "a single new prohibition in section 35(1) against carrying on 'any work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery" (Simms 3; my emphasis). The Act defined "serious harm" as "the death of fish or any permanent alteration to, or destruction of, fish habitat" (Fisheries Act, 2013-2015). It defined "fish habitat" as "spawning grounds and any other areas, including nursery, rearing, food supply and migration areas, on which fish depend directly or indirectly in order to carry out their life processes" (Fisheries Act, 2013-2015). This definition does not recognize water as an essential aspect of fish habitat in the protection of fish. The protection of fish and water, understood implicitly as fish habitat, was made contingent on the designation of the fish as having an economic, recreational, or Aboriginal interest. Fish that were not categorized as having commercial, recreational or Aboriginal interests were not protected. Furthermore, the measure of "serious harm" was ineffective. The "definition of 'serious harm', as a replacement for the HADD provision, creates confusion in the implementation of the prohibition (Simms 5). In summary, not only was protection made contingent on particular categories of fish, but the measure of harm was also inadequately defined, rendering any protection ineffectual.

Second, the prohibitions against harm, already limited to the categorization of fish as commercial, recreational, or Aboriginal, were also subjected to exceptions, which reduced the scope of protections even further. In addition to the reduction of protections

of water as fish habitat by the narrowing of the categories of protected fish, the 2012 changes to the Fisheries Act also contained exceptions to the prohibitions of harm to commercial, recreational or Aboriginal fishery. "The prohibition is subject to five exceptions related to authorizations and regulations" (Simms 3). There were circumstances in which the harm to fish was permitted: "The Minister of Fisheries, Oceans, and the Canadian Coast Guard has [sic] the authority to issue authorizations that would allow the works, activities or undertakings to occur that cause serious harm to fish, under certain conditions" (Simms 4). In the authorization of harm to fish and fish habitat, the Minister was required to consider "the ongoing productivity of commercial, recreational or Aboriginal fisheries", "fisheries management objectives", "whether there are measures and standards to avoid, mitigate or offset serious harm to fish", and "public interest" (Simms 4). These considerations situated the protection of fish and fish habitat in the context of productivity and management objectives rather than in the larger context of ecological conservation or preservation. They suggest that the objective of the Fisheries Act, according to the changes in 2012, was primarily economic productivity. This interpretation is consolidated by the lack of substantive protection for the ecological environment. The 2012 amendments provided the Minister with the "ability to designate ecologically significant areas for fish" although "no regulations have been established defining ecologically significant areas" (Simms 3). In other words, while the language of protection was present in the changes to the Fisheries Act of 2012, the substance to determine protections was absent.

Finally, the 2012 changes to the Fisheries Act were situated within the framework of the National Energy Board, which undermined the protections within the Fisheries Act of fish and fish habitat. A "Memorandum of Understanding" [MOU] between The National Energy Board [NEB] and the Department of Fisheries and Oceans positioned the activities of the Fisheries Act in the context of Canada's energy objectives. Specifically, the "NEB and DFO have entered into a MOU regarding fish and fish habitat. Through this MOU, the NEB will now be responsible for assessing potential impacts to fisheries from proposed NEB regulated pipeline and power line applications" (Government of Canada, "Memorandum of Understanding" par. 1). In essence, under the Memorandum of Understanding, the National Energy Board determined the protection of fish and fish habitat:

Applications submitted to the NEB shall be reviewed under the Fisheries Protection Provisions of the Fisheries Act to determine if impacts shall occur, and if an authorization will be required under the *Fisheries Act*. The NEB shall also become responsible to determine if proposed projects will impact aquatic species at risk and require permitting under the *Species at Risk Act*. If the NEB determines that an authorization or permit will be required, DFO shall be notified and will be responsible for issuing the authorization or permit (Government of Canada,

"Memorandum of Understanding" par. 2).

Since it was the NEB, and not the DFO, which was responsible for assessing the impact of the proposed project, the protection of fish and fish habitat was likely contingent on the knowledge and interests of the National Energy Board.

In summary, the changes to the Fisheries Act in 2012 reveal that the limited metaphoric conception of water functions within administrative constraints that ultimately compromise the protection of water itself. Both the administrative constraints and the lack of clear measures in the Fisheries Act of 2012 negated the protection of water as fish habitat. The 2012 changes to the Fisheries Act were repealed in 2019, including the categories Aboriginal, commercial and recreational. The current Fisheries Act conceptualizes "fish habitat" as water. It has expanded the list of considerations that the Minister must take to include, "the application of a precautionary approach and an ecosystem approach", "social, economic, and cultural factors in the management of fisheries" and "Indigenous knowledge" and "scientific information" (Fisheries Act 2019). The scope of these considerations is well beyond the predominantly economic factors that the Minister was obligated to consider under the Fisheries Act of 2012. Nevertheless, and notwithstanding the historicity of science, and the incommensurability of the Act with Indigenous cosmologies, the dominant metaphoric conception of water, which positions water as object and resource to be managed, is a framework that ultimately undermines this expanded list of considerations. The changes to the Fisheries Act in 2012 reveal that the legislative framework of water in the case of the Fisheries Act implements a conception of water that is abstracted from water's material or emergent properties. Furthermore, it reveals that the Act frames actions towards water based on economic interests. To the extent that they facilitate only economic power and interests, the metaphors in the legislative act are inadequate. They do not reflect water's emergent

properties, they do not frame its co-consitution by nature and culture, and they do not facilitate a reciprocal relation with water, recognizing its full agentive capacities. *Geopolitical Space as a Visual Metaphor* 

As already noted, the Fisheries Act and the Canada Water Act's metaphors enact conceptions of water as space. The Canada Water Act refers to water in terms of "management areas", while the Fisheries Act defines water in terms of "fishing zones", the Orders for which are established under the Oceans Act. The conceptualization of water in terms of space is a social production of space that positions the map as a central visual metaphor of water. The field of critical cartography recognizes that "mapping practices for policy purposes involve assumptions and choices that influence the political reality they produce" (Knol 981). In other words, "mapping is not merely a means to reflect realities, but also produces reality" (Knol 981). Rose-Redwood and colleagues note that "mapping plays an important ontological role in the making, unmaking, and remaking of 'worlds' from the micro-scale of the home to the macro-scale of the globe as well as framing and enacting the very conception of scale itself" (152). Maps, therefore, are visual metaphors that produce reality. Visual metaphors function differently from verbal metaphors. "A visual metaphor ... occurs when the source and/or the target of a metaphor are rendered as images, or, in the other words, when something (the target) is presented visually as something else (the source)" (Indurkhya and Ojha 97). "A metaphor essentially makes a statement about the target, which is the focus"; however, visual metaphors "lack an explicit copula ('X is Y'), so the target of visual metaphors is unclear" (Indurkhva and Ojha 93-94). In this analysis of the metaphoric

conceptualizations of water in the Fisheries Act and the Canada Water Act, the target, water, is implicit.

First, water is an abstract concept, implicitly assumed to be the metaphoric conception H<sub>2</sub>O. Second, water is a further abstract concept when it is represented as lines corresponding to measurements and contours at scales of the bodies of water on the land. Third, in another layer of abstraction, further removed from the processes of water or the scales of bodies of water, water corresponds to lines that represent political and administrative power that govern water within a domain of space. This level of abstraction has little, if any, resemblance to the representation of the contours of rivers, or bodies of water in the second layer of abstraction, the latter of which is already dissociated from the emergent properties of water in significant ways. In other words, the hegemonic concept of water, already abstracted as modern water or H<sub>2</sub>O, is first visually abstracted on the representation of the map of water bodies and second, visually abstracted on the map of administrative and legislative power over water. These representations of space themselves do not correspond to the materiality or the emergent properties of the processes of water. In the absence of an explicit target, Indurkhya and Oiha explain that "context [is] important in the determination of the message of the metaphor (93–94). Kovecses notes:

Context, including the physical situation, can provide conceptualizers with visual images that can constitute the source domains of visual metaphors. The metaphors can be generated by a conceptualizer being able to find some very skeletal resemblance between the structure of the visual image and the structure of some

abstract (non-visual) idea. The abstract idea that shares the skeletal structure with that of the visual image will become the target domain. (20)

Visual metaphors work at a holistic level and are distinct from verbal metaphors because the source and target are more ambiguous (Indurkhya and Ojha 117, 118). In other words, in the visual metaphors of water, particular characteristics of the source are not transferred to the target, while others recede as in verbal metaphors. Instead, the visual form of the source is entirely transferred to the implicit target water to characterize it in its entirety, erasing the place-based scales and particularities of water. The target, water, is rendered as empty space, ready to be occupied. Like land represented as space on a map, water is an object for colonial occupation in the structure and performance of the settler-colonial state.

The recognition that there are layers of metaphoric abstractions in the visual metaphor of water is significant as it reveals the extent of the dissociation from the material, emergent properties of water. This is also important because it reveals the discrepancy between what is enshrined in law—in authoritative documents such as the Acts and official maps—and what is the broader range of functional, material, cultural and more-than-human relations with water in reality. In other words, interrogating the metaphoricity of water metaphors, including water as a visual metaphor, exposes the legitimation of power that these metaphors facilitate. It also exposes significant aspects of life with water that are excluded from consideration in legislation on water.

The representation of water as space on a map is a visual metaphor that facilitates the perception of water as empty space. Linton confirms this in an analogy between modern water and absolute space:

In the sense of its abstract, metric identity, modern water may be considered much like absolute space. A relational understanding of water complicates this identity by drawing attention to the various things and circumstances that, in effect, make water what it is. ...[W]ater is not a thing but, rather, is a process of engagement, made identifiable by water's emergent properties but always taking form in relation to the entities with which it engages. (30)

Water is not its hegemonic conceptualization "modern water", a fixed chemical element. Water is a complicated process and the stable properties of this process are always expressed in relation to the animate and inanimate objects that water engages in its processes. The visual representation of water as "absolute space" on a map does not allow for the relational understanding of water. In essence maps do not show water as it is conceptualized as an abstracted hydrological process, as a metaphoric conception in and of itself, as an element co-constituted by nature and culture, or as a spiritual entity in Indigenous cosmologies. Instead, the maps of spatial representation of water governed by the Fisheries Act and the Canada Water Act foreground measurements, illustrating the spatial accounting of water as "water resources" of Canada.

[T]he most important prerequisite for achieving scientific water management was to procure a quantitative account of the nations' water. Effecting the 'complete control' of water required the surveillance of the country's water resources, the

capacity to account for its stocks and flows, and ways of representing these accounts that facilitated rational management. (Linton 151)

The maps of management areas and fishing zones are visual metaphors, spatial frameworks of accounting and controlling the water object. For example, under the authority of the Oceans Act, Canada is divided into six fishing zones: The Fishing Zones of Canada (Fishing Zones 1, 2, and 3) Order, Fishing Zones of Canada (Fishing Zones 4 and 5) Order, and Fishing Zones of Canada (Zone 6). These orders outline the specific quantitative measurements of space by which water is governed. First, the zones are specifically measured, where "geographical coordinates of points mean the latitude and longitude of points" (Government of Canada, Fishing Zones, sch. 2). The measurements are precise, relying on the Canadian Hydrographic Service Chart, C.H.S. Chart, and the NAD83, the North American Datum 1983 geodetic system (Government of Canada, Fishing Zones 4 and 5). For example, Zone 1, titled the Gulf of St. Lawrence, is described as "Being those areas of the sea adjacent to the coast of Canada, bounded by straight lines joining the geographical coordinates of points set out below" (Government of Canada, Fishing Zones 1.2, 3, sch. 3). The points are specific coordinates of space describing individual areas of the zones. Under Zone 1, there are two areas, the Strait of Belle Isle and the Cabot Strait, each divided into three sections with specific coordinates of latitude and longitude.<sup>22</sup> Fishing Zone 4 demonstrates that the measurements of the coordinates

 $<sup>^{22}</sup>$  As an illustration of the numerous discrete spatial zones imposed on the management of water, Zone 2, the area of the Bay of Fundy, is divided into fourteen points of latitudinal and longitudinal coordinates. Zone 3 comprises of the areas of Queen Charlotte Sound, Hecate Strait and Dixon Entrance. The zone 3 areas are again divided into ten localities, all defined by specific latitudinal and longitudinal coordinates (Government of Canada, *Fishing Zones 1, 2, 3*).

are maintained in the water itself.<sup>23</sup> As it would be with specific "management areas", the fishing zones force water, as the implicit target in the visual metaphor, to be conceptualized in the framework of the specifically measured spatial domains over which the State of Canada exercises its political power, the source in the visual metaphor. In other words, water is characterized in terms of the precisely measured and managed space of political power. These precise measurements of space may have little resemblance to the visible contours of the bodies of water in the land itself.

## The Limitations of Maps as Visual Metaphors of Water

The maps of water as political and administrative space are visual metaphors that exclude the contingent relations of the emergent properties of water in the physical space of the earth. First, the visual representation of water as space excludes material relationalities of water, even as its abstracted, metaphorical form as the hydrological cycle. The hydrological cycle is defined as: "the course of natural circulation of water in, on and over the Earth's surface" (Horton qtd. in Linton 185). It is the movement of water through nature on the entire planet. "Horton's hydrologic cycle…held rhetorical powers that made it as irresistible to global hydrologist as it was to state planners", so it was adopted as the language of global hydrology during the International Hydrological Decade, which occurred from 1965-1976 (Linton 169). The metaphorical conception of

<sup>&</sup>lt;sup>23</sup> According to the Fishing Zone 4 and 5 Order: "Fishing Zone 4 comprises an area of the sea adjacent to the Atlantic coast of Canada bounded on its outer perimeter by (a) by geodesic lines joining the points determined by reference to the geographical coordinates listed in Schedule I, (b) by arcs of circles circumscribed about points determined by reference to the geographical coordinates listed in Schedule II, so that such arch has a radius of two hundred nautical miles and terminates at the points where it intersects with an immediately adjoining arc or with a geodesic lines...(c) and, in the case of Area 2, in Schedule I, by the arch defining the outer limit of the 200 nautical mile fishery conservation zone established by the United States of America..." (Government of Canada, *Fishing Zones* 4 & 5).

water as a global hydrological cycle excluded people, separating the social and cultural from the material world (Linton 185). It produced an objective representation of nature, and substituted science for the representation of nature (Linton 185). In other words, the adoption of the language and framework of the hydrological cycle reinforced a bifurcation of nature and culture that undermined the relationality of water and space. Notwithstanding this significant conceptual limitation, the visual metaphors of water as maps of fishing zones and management areas do not depict the water processes of the hydrological cycle, such as evaporation, percolation, hydration, or precipitation. Instead, they present water as a stable and fixed entity in two or three dimensions of space. The hydrological cycle, which visually presents a metaphoric conception of water as a strictly natural process, is itself excluded from the visual representation of water as space on the maps of fishing zones and management areas. The relationalities of water, even in its reductive representation as a purely natural entity, are excluded from its visual representation as space. There are a multitude of types of maps produced by *Natural* Resources Canada. These are the maps that govern the relationship with water, and that directly enshrine this relationship in law. The relationship that is explicitly framed in law is not one that recognizes the natural process of water, even if that process is an abstract metaphoric process. The emergent properties of water and water's material relationalities are not respected by the law and are not required to be.

The visual metaphor of water as space also excludes the contingencies of space. Harvey's concept of "relational space" suggests that space can be understood in relation to objects and time, as human practices create conceptualizations of space (14). The

dominant identity or conception of water is contingent on unrecognized social relations with space:

The water held in place behind dams in northern Canada is not merely the liquid H<sub>2</sub>O measured in cubic metres that falls through penstocks and turbines to generate hydroelectricity; this water is held in place by state-run power utilities, the human labour that is extracted to produce the dams, penstocks, and turbines; abstract hydrological calculations; water management protocols; discourses linking national identity with the generation of hydroelectricity; networks of transmission wires; consumer expectations; construction consortiums; and political discourse, which together have the effect of fixing it in a particular way. (Linton 30)

The visual metaphor of water as space on maps does not reveal the material contingencies of water as the hydrological cycle nor does it reveal the social and political power relations creating this dominant metaphoric conception of water. In addition, social relations with the more-than-human life that depends on water for sustenance are unrecognized. Kukkonen notes that "[i]n order to be tellable, the complexity of reality is reduced to a map in which only the relevant information is retained and retained in a way, which might not bear much direct resemblance to reality. On a map, the towns can be red spots and the roads black lines; the relevant information is their respective location" (61). While it is arguable that the metaphoric relations with water cannot be apprehended outside of the social and the political, the emergent relations of water do occur outside of human apprehension. In other words, water will react according to its emergent

properties, the contingencies of which are excluded from the visual representations of water on the map. Furthermore, those contingencies that are included are partly a reflection of social and political power. In the representation of water as a metaphor of space on maps, the coordinates of political, jurisdictional space are "a constructed and controlled representation of reality" that bears little resemblance to the actual presence of water in relation to the place (Kukkonen 60). Yet the image of the map has 'intentional force' which subjugates its recipients and relegates them to the state of subjects of a hegemonic ideological system" (Kukkonen 59). The map itself is a hegemonic metaphoric instrument. It constitutes an "imperial endeavor [that] encourages the construction of space as a universal, measurable and divisible entity" to legitimize the worldview of an objective natural state (Ryan 4). Therefore, the representation of water as precisely measured and calculated space on a map constitutes a visual metaphor that not only excludes the contingencies of water and space, but also obscures the social and political powers that produce this visual representation. The implications of such masking are that the content on these maps will reflect only what is relevant to the powerful interests of the settler-colonial state. Furthermore, the maps appear to be neutral representations when in fact they are not neutral. This allows for the imposition of authority over water based on science and professional jurisdiction under the guise of neutrality and universality. The marginalization of those people who have more direct experience with the water, and whose experiences are grounded in place, is completely obscured.

Finally, the maps of water as political and administrative space are visual metaphors that subvert the conception of water as a place-based, social, and cultural entity, excluding substantive Indigenous presence in relation to land and water. Indigenous presence on the maps is indicated only by the names of places. The reduction to names relegates Indigenous people to history, and excludes contemporary Indigenous inhabitation of land. The violation of Indigenous people's relation to land and water reflects the framework of colonial cartography. "As political technology, mapping has long played a key role in the world-making practices of colonialism through the appropriation, demarcation, naming, and partitioning of territory as part of the process of colonization and the assertion of imperial rule over peoples and places" (Rose-Redwood et al. 152). Colonial "world-making" practices continue with the legislative conceptions of water in the Fisheries Act and the Canada Water Act, and with the corresponding visual representation of water as empty space on maps. As a process that creates a political reality, the mapping of water excludes Indigenous histories, which pre-date the settler colonial nation-state of Canada, excludes Indigenous cosmologies, and ultimately denies Indigenous rights. The mapping of water, its metaphorical representation as space, is a continual performance of exclusion:

The practice of inscribing information into a map is part of a selection process that emphasizes certain categories at the expense of others. ... It can be argued that the process of inscribing information into a map is a continuous act of *territorializing*. This means that the map *performs* the territory instead of representing it, as inscriptions into the map will lead to proscriptions of behaviours. (Knol 982)

The hegemonic conceptions of water as resource, and as  $H_2O$  are consolidated by the conception of water in terms of space, specifically in terms of the political territory of the nation-state of Canada. At the same time, these conceptions maintain the marginalization of Indigenous peoples. Linton argues that "Bringing water under epistemological and material control in colonial settings was a major imperial undertaking and may be understood as a process that contributed heavily to the development and diffusion of modern water" (59). The suppression of Indigenous knowledge and ontologies of water was a significant factor in the consolidation of the conceptualization of water as modern water or as  $H_2O$ .

Efforts to "de-colonize" the map in the field of Cartography indicate and seek to remedy the measure of Indigenous exclusion and the deficiency of the metaphoric conception of water as empty, political space. "Decolonial mapping refers to the spatial practices and cartographic techniques that center on Indigenous relationships and responsibilities to land, including but not limited to spatial narratives, place ontologies, more-than-human relations, navigational guidance, and territorial demarcations" (Rose-Redwood et al. 153). This is a practice that "seeks to reclaim place-based, ancestral, Indigenous knowledge while also enacting the contemporary world-making practices of Indigenous and colonized peoples in the present" (Rose-Redwood et al. 152). It is also "a process of articulating Indigenous self-determination in relation to place" and of reclaiming "indigenous ontologies of place that long predate the colonial cartographic enframing of Indigenous lands" (Rose-Redwood et al. 153,154). This approach challenges the metaphoric conception of water as empty space. It challenges the

metaphoric conception of water as an object of political power and authority. Finally, it challenges the ontological framework imposed by the settler-colonial state of Canada from which these metaphoric conceptions emerge and by which they are enacted and maintained as reality.

In addition to decolonize mapping, Indigenous scholars illustrate an alternative legal framework for the governance of water, which reflects Indigenous cosmologies. Writing of fish-human relations in the Northwest Territories and Treaty Six Territory in Alberta, Métis scholar, Zoe Todd characterizes Canadian politics as occurring "without responsibility to the waterways and the fish we share time and space with" (60). Todd's examination of Indigenous legal orders indicates an alternative to the reductive legislative conceptions of water and fish in the Fisheries Act and the Canada Water Act. "Indigenous legal orders, in the words of Indigenous legal scholar Val Napoleon are: 'law that is embedded in social, political, economic, and spiritual institutions" (Todd 65). These orders recognize Watts's assertion that "more-than-human societies are political entities" (Todd 64). They are aligned with other conceptions that ascribe rights and agency to the more-than-human world. Indigenous legal orders are aligned with Dwayne Donald's concept of "ethical relationality—an active principle that encourages us to tend to not only our relationships to one another, but to our relationships to everything around us through time" (Todd 64). Furthermore, Indigenous legal orders are aligned with Gerald Vizenor's concept of survivance. Survivance is defined as "an active sense of presence over absence, deracination and oblivion; survivance is the continuance of stories, not a mere reaction, however pertinent. Survivance is greater than the right of a survivable

name" (1). The framework of survivance positions the Indigenous legal orders and Indigenous relations with land, water, and the more-than-human world in the present. The approach that "[s]urvivance is character by natural reason" and not "romance of nature", positions the logic of nature at the forefront of the legal orders protecting the more-thanhuman world and governing human relations with this world (Vizenor 11). Finally, Todd introduces the concept of refraction which is "an active process-conscious, creative labor is required to shift, distort the efforts of the State to subsume, control, erase Indigenous laws and stories" (68). She writes that "Fish stories are more than fanciful ways to spend time... They also bind us to the waters and lands we move through and inhabit-bring our lives into direct relationship to fish as political actors, more-thanhuman beings, and kin [to] whom we owe reciprocal responsibilities" (Todd 72). Contrary to the metaphoric conceptions of water in legislative acts such as the Fisheries Act. Indigenous approaches do not position water (and fish) as objects for use of Canadian citizens. Instead, they position them in a reciprocal relation to humans, where humans have obligations and responsibilities to them as subjects. Todd notes that "fish inhabit every Indigenous territory across the lands and waters that Canada claims as nation-state. However, ... human responsibilities to fish are frequently obscured in the legal-governance paradigms" (60). In other words, the governance paradigms of Canada do not conceptualize the more-than-human world as entities in reciprocal social or political relationships. The objectification of the more-than-human world as resource is a significant aspect of the State's subversion of Indigenous laws and stories. In an example of the relationship with fish. Todd explains that

the relationship between fish and fishermen is more than a physical or utilitarian one; working with fish and water is also deeply bound to social relations... in other words to engage with fish in Paulatuuq is also to engage with, refract, and disperse the complex layers of territorial and federal understandings of how to treat fish. These colonial understandings and imperatives are complicated by the Canadian nation-state's imposition of its own ideas of fish conservation, land-use, water governance and resource extraction. (64)

Maps of water as "fishing zones" and "management areas" are visual metaphors that produce an imagined reality of water, foregrounding political and administrative power over water, while relegating substantive historical, ecological, and social relationships with water to the background. Linton writes that:

In the encounter between European and non-European cultures in the colonial context, indigenous relations with water were often liquidated and replaced by Western hydrological discourses (including the water control structures by which they achieved material form). ... because colonial water discourse are 'still abroad in the world,' constituting and informing the ways water and its relations with people are conceptualized and managed, we inhabit the 'colonial present'. (60)

Without minimizing the significance and impact of current Indigenous efforts to assert Indigenous imaginaries of water, the dominant metaphoric conceptions of water—as  $H_2O$ , as resource and as space—continue to be maintained by the State, validating the conclusion that, in relation to water, the dominant relationship is based on a colonial imaginary.
In summary, the maps of fishing zones and the maps of management areas of water are visual metaphors that impose the rigid conceptions of water as political or territorial space, while consolidating the conceptualization of water as H<sub>2</sub>O (or "modern water") and as resource. They enact these hegemonic conceptions of water, translating them into reality under the guise of the neutrality of scientific measurements, which are assumed to be timeless and ahistorical. In essence, they negate the social dimension of water, and situate water in the political sphere of governance, but without the recognition of the contentious politics of water. In this way, the State governs water as a diminished entity of itself and precludes the politics of water connected to Indigenous autochthonous claims and to social justice.

The Government of Canada has a significant amount of data on water. This includes maps on watersheds, specific hydrological regions, distribution of fresh water in glaciers, icefields, and wetlands, drainage patterns, water quantity, stream flow, seasonal runoff, evapotranspiration, and extensive maps on the projection of precipitation in various time frames of climate change (Government of Canada, "Water"). While these data indicate recognition of selective complexities of the physical and emergent processes of water, it is the maps of "fishing zones" and "management areas" that are directly connected to the Fisheries Act and the Canada Water Act. As a result, these maps constitute a direct visual representation of the metaphoric conception of water maintained by the government through legislation.

## Conclusion

The metaphoric conceptions of water in The Fisheries Act and the Canada Water Act constrain other mediating aspects of the Acts because they form the overarching framework. The Fisheries Act indicates that one of the considerations for decision under the Act includes, "the application of... an ecosystem approach" (Fisheries Act 2). Knol notes that "[t]o introduce an ecosystem approach, the ecosystem must be made readable, measureable and manageable" (983).<sup>24</sup> In other words, measurable data, which also constitute metaphoric abstractions, are necessary to manage the relationship among the environment, economy, and society. While measurable data can subvert or reproduce dominant ways of conceiving water, measurable data also obscure the social production of space and water, by which the latter two are positioned as Cartesian objects under the observation and calculation of neutral observers, rather than observers working within a settler-colonial paradigm. Furthermore, lost in the data are the reductive metaphoric conceptions of water. The collection of extensive data by Natural Resources Canada is done within the specific framework of management and within the scope of the conception of water as a resource. While it is undeniable that the collection of data and various levels of management of water are necessary to gain knowledge of water processes and to provide Canadians with a safe and sustainable quality of water, the metaphoric conceptions of water enshrined in the Fisheries Act and the Canada Water Acts inevitably affect the application of the knowledge gathered from the data of the

<sup>&</sup>lt;sup>24</sup> The extensive collection of data on water is necessary to manage entire ecosystems. "Ecosystem-based management powerfully unites ecosystems and sustainability, which combines 'understanding the defining characteristics of complex adaptive systems with the objective of identifying and sustain healthy relationships within and between the interconnected spheres of ecosystem, economy and society" (Gaichas qtd. in Knol 983).

processes of water. In other words, the metaphoric conceptions of water ultimately constrain the practical applications towards water governed by the Acts.

It is undeniable that in the context of Canada, there is a social order in the relationship with water that discriminates against Indigenous Peoples in favour of settlercolonial Canadians. In denying Indigenous rights to water, the laws of Canada have maintained a social order of Canada as a setter-colonial state. In the legislative framework of the Fisheries Act and the Canada Water Act Water, Indigenous knowledge is subsumed beneath dominant conceptions of water. The Fisheries Act indicates that, among other considerations, the Minister "may consider... Indigenous knowledge of the Indigenous peoples of Canada that has been provided to the Minister" (Section 2.5). Yet Indigenous knowledge is ultimately amalgamated and undermined by the larger framework of colonial cartographic representation of water stemming from the Acts, and by dominant metaphoric conceptions of water—as H<sub>2</sub>O, resource and space—which are opposed to fundamental Indigenous conceptions. To this extent, Indigenous rights affirmed by the Act are also negated: "This Act is to be construed as upholding the rights of Indigenous peoples recognized and affirmed by section 35 of the Constitution Act, 1982, and not as abrogating or derogating from them" (Section 2.3). Essentially, these conceptions of water form the basis on which Canada governs the relationship of water with Canadians as a settler colonial nation-state.

It is imperative to make these dominant conceptions of water, enabled and supported by the scientific paradigm, visible as metaphoric conceptions that both advance and conceal political and social power structures. This is especially relevant given the

consolidation of these conceptions of water through a dialectical relation with the modern nation-state and the potential shifts in conceptions of water under the neoliberal state. With the expansion of the nation-state, water was conceptualized as a collective resource for settler colonial citizens of the state. Though reductive, the conceptualization of water as resource nevertheless positioned the state to provide water for its settler-colonial citizens. The Canadian government's failure to provide potable water to Indigenous peoples is an indication of Canada's ongoing colonial relationship with Indigenous peoples. It affirms "[s]ettler colonialism as an activity directly manifesting as the biopolitics of the present" (Morgensen 68). But the reductive metaphoric conception of water as a resource is a threat to both Indigenous nations and settler Canadians, as Morgensen notes that settler laws "enable settler states to performatively universalize the West" (67). Projected as "liberal governance", settler law may extend and establish itself anywhere (67). So, it is necessary not only to interrogate these hegemonic conceptions of water to reveal how they maintain Canada's ongoing colonial relationship with Indigenous peoples, but also to address emerging challenges to water rights and insecurity under the neoliberal state governance of water.

Indigenous peoples did not benefit from the provision of water with the development of Canada as a nation-state. While non-Indigenous Canadians suffer from occasional water insecurities, ongoing Indigenous water insecurity includes water "quality, quantity, access and wastewater and sewage management" (75). Hanrahan argues that "Indigenous exclusion, an outgrowth of the settler myths that are woven into Canadian identity, is the bedrock factor in maintaining Indigenous water insecurity" (71).

This exclusion has been necessary for the Canadian neo-liberal state to conduct "natural resource extraction and exploitation" (72).<sup>25</sup> Indigenous philosophies oppose neoliberal principals and Indigenous peoples have resisted the priority of market values above land and water in movements such as Idle No More (Hanrahan 72). Indigenous peoples' struggle against colonial dispossession continues under neoliberalism with the privatization of water.

Revealing the metaphoricity of the dominant metaphors of water as the chemical composition of H<sub>2</sub>O, resource and territorial space denaturalizes a significant mechanism by which the law facilitates values of settler colonialism and neoliberalism. Alternative metaphoric conceptions of water, in which water is not reduced to these conceptions, but to its essentialities, pluralities, relationalities, and ubiquity to all of life on the planet, are necessary. These alternative metaphoric conceptions must recognize water not within the paradigm of the Cartesian duality of nature and culture, but within a relational constitution of the social and the material, of nature and of culture. In Chapter Two, I

<sup>&</sup>lt;sup>25</sup> In the 1980s, neoliberalism became the "normative economic policy paradigm" in Canada, entrenching a neoliberal political-economic imaginary (Swarts 81, 102). The energy market was deregulated, the Free Trade Agreement was signed with the United States, the Goods and Services Tax (GST) was introduced, and Crown Corporations such as Air Canada and Petro-Canada were privatized (Swarts 103). Canada continued to embrace neoliberalism in the 1990s, advancing deregulation, privatization and liberalization (Klassen 4). Canadian governments aligned the national economy and the state with neoliberal imperatives domestically, prioritizing economic efficiency rather than social justice. Internationally, the government of Canada "played a key role in the international trade and financial institutions that oversee and regulate the world economy" (Klassen 4). Finally, Canada shifted from its foreign policy, abandoning peacekeeping after 2001, and expanding spending on defense and military assistance: "Across a number of planning documents, the Canadian state has articulated these interests [economic, diplomatic and military] as the worldwide expansion of capitalism, guaranteed access to the US market, national defence and continental security, and the global projection of military force against terrorist groups and 'rouge' states" (Klassen 4).

explore the human costs of neoliberalism in a world of water in Lisa Moore's novel *February*.

## **CHAPTER TWO**

## Extended Metaphors: Water and the Political Economy of Neoliberalism in Lisa Moore's *February*

Metaphor is central to the understanding of the scope of twenty-first century water issues, and in particular to the context of neoliberalism and climate change. The exploration of water metaphors in literary works is useful to the understanding of the scope of water relations. In addition to explicit and contracted metaphors of water, literature allows for the use of extended metaphors of water in the broader exploration of our relationship with water. Extended metaphors are "unitary metaphorical likenings that sprawl over multiple successive sentences" while contracted metaphors "run their course within the narrow confines of a single clause or phrase or word" (Hills, "Metaphor"). To this extent, literature foregrounds the use of metaphor in an explicit and comprehensive way. It reveals metaphor as a method to manage the complexity, fluidity, and relationality of water. The previous chapter revealed the hidden metaphoricity of the dominant metaphors of water that are enacted through legislation to manage water for particular outcomes. These metaphors facilitate the invisibility of water by obscuring its fundamental, material characteristics. They also facilitate the management of water according to economic initiatives removed from Indigenous rights, substantive environmental protection and human and more-than- human relations. This chapter will show that the water metaphors in literature can do a better job of addressing these concerns than those enshrined in the legislation. Furthermore, unlike the decontextualized metaphors of water in legislation, literature offers a framework for extended metaphors

that realize a context of relations with water, and reveal water's primary connection to life. While legislative documents obscure the metaphoricity of representation of water, literature highlights the process of representation, bringing into focus the complex relationship between the materiality, and the language and culture of water. Lisa Moore's novel *February* illustrates the scope in literature for the exploration of human life with water. The novel examines human relationship with water through the lens of grief within the broader context of a neoliberal political economy. It is a narrative of the impact of neoliberal values on the human experience of life with water.

The novel *February* is based on the disaster of the offshore oil rig, the Ocean Ranger, which capsized during a storm on February 15, 1982. The political context of Canada inflected the disaster of the *Ocean Ranger*. The years from 1970 to 1986 were "a period of aggressive provincialism, with a renewed focus on natural resources, including oil and the promise of fisheries resurgence; yet it was also marked by an increased dependence in the rural economy on unemployment insurance" ("*Royal Commission*" 28).<sup>26</sup> At the time of the Ocean Ranger disaster, the province of Newfoundland had sought autonomy in the Canadian federation leading to a reliance on external companies (Wyile 57). In addition, the provincial and federal governments had focused on jurisdiction over the economic benefits, rather than on the safety regulations for workers during offshore exploration of the 1980s (Wyile 57). In the novel *February*, Herb Wyile has observed that Moore locates "'the economics' of mourning within the larger political

<sup>&</sup>lt;sup>26</sup> The *Royal Commission on Renewing and Strengthening Our Place in Canada* is commission by the Government of Newfoundland and Labrador, announced on March 19, 2002, to assess the province and its place in Canada.

economy shaping both the response to loss and the loss itself... she resists eliding the economic and occupational circumstances of the disaster and indeed engages with the wider economic and political climate" (62). The novel depicts the personal costs of a system that privileges profits over lives. The protagonist Helen's social, psychological and economic experience of the loss of her husband Cal, one of the eighty-four men who died during the disaster, is situated in the context of corporate and government practices that disregard the value of life in the neoliberal pursuit of profit. This novel reveals the human consequences of a management of water that disregards relations with water.

In *February*, metaphors of water are abundant in representation as water is ubiquitous in life. Through the use of metaphors, the novel depicts a neoliberal, political economy that manages the elements of the earth, such as minerals and oil, according to a logic of extraction. It establishes an omnipresence of water, suggesting that water must be collectively navigated through an infrastructure of portals that we create for the common good. At the same time, the metaphoric relations between organic thought and inorganic electrical current, and organic water and the inorganic metal asserts that, water, like metal, is the currency of life that must be managed as intimate relation rather than resource.

The novel establishes the context of a neoliberal political economy through the depictions of company practices, particularly practices of risk assessment. The practice of risk assessment indicates the corporate responsibility for the loss of the lives of the eighty-four men on the *Ocean Ranger*.

The oil companies were all about acceptable levels of risk and they always had been. They spoke of possible faults in the system and how to avoid them. Here, here. They advised strongly against intuition when assessing risk. If you were scared shitless, they said, that is only intuition, and you should ignore it. They asked the public to consider the over-all good to be achieved when we do take risks. They spoke in that back-assed way and what they meant was: If you don't do the job, we'll give it to someone who will. They meant: There is money to be made. They meant: We will develop the economy. They meant there isn't any risk, so shut the fuck up about it. Except they didn't say *fuck*, they said: consider the over-all public good. (Moore 118)

Intuition is dismissed because the risk to the lives of the workers was deemed "acceptable" for the company. The government's failure to provide economic opportunities and to implement protections for workers during the negotiations of oil exploration leaves these workers vulnerable, as the company is always able to find more workers who need employment. At the time of the Ocean Ranger disaster in 1982, the unemployment rate for males—"the number of unemployed persons in that group expressed as a per cent of the labour force for that group"—was 17.3 per cent (Government of Newfoundland and Labrador, Table. C-2). Furthermore, the narrative that the company is interested in "public good" and that they would "develop the economy" obscures the reality that the company displaces the risks for their profits on economically vulnerable people who pay the cost with their lives. Helen notes that after the rig sank there was "a lot of talk about risk assessment. The oil companies held a symposium"

(Moore 118). This passage suggests that the company engaged in public relations rhetoric that purposely obscured the reality of its negligence. The novel illuminates the inadequacy of the approach of risk assessment to managing the relationship with water. Furthermore, the suggestion of a false narrative of public good raises the prospect of substantive public good in the management of society's relationship with water.

The novel reveals the company's negligence in operations that were significant to the functioning of the rig. Contemplating the ballast operators who were responsible for the stability of the rig, Helen notes that

The company liked you to learn on the job because that way you learned the way the company wanted you to learn. They wanted you to learn a certain way, and that way can loosely be called, or referred to, or otherwise spoken of as *their way*. You learned their way. The company's way. Which was: Don't answer back. Which was: Do you want a job or not? Which was: All you have to do is read the manual. (Moore 150)

Minimal training and a disregard for intuition and critical questions on safety were part of the culture that the company enforced. Furthermore, obvious indicators of lax safety practices were regularly ignored, and workers' safety was regularly disregarded: "The men broke bones or lost a finger. That was common. They were expected to keep on working if it was just a bad sprain or a minor break. A severed pinkie didn't get a lot of sympathy. That was an occurrence they saw every month" (Moore 97). Moore depicts corporate practices and culture that facilitate the tragedy of the *Ocean Ranger*. This representation is consistent with findings that "point to a regime of lax regulatory

oversight and inadequate safety provisions (a combination that arguably has been increasingly encouraged by neoliberal proponents of the idea that self-regulation by industry is much more effective and cost-efficient that government oversight)" (Wyile 63).

Another indication of a neoliberal political economy is Helen's son, John's interview with Shoreline Group in 2005. The interview reveals that the same practices that existed during the time of his father's employment on the *Ocean Ranger* continue: "You crawled in there with equipment, Mr. McPherson said. I did that job, yes. Checking for fissures. Fissures and cracks, John said. Anything that's going to—Cost, Mr. McPherson said. Leak, John said" (Moore 128). The practices in the oil industry extend across the country, as Moore indicates that "this was a job he'd [John] learned in Fort Mac", referring to the Athabasca Oil Sands, near the town of Fort McMurray in Alberta (128). McPherson's response shows that the primary concern for the companies after the accident of the *Ocean Ranger* is not safety or environment protection from leaks, but profit. McPherson explicitly confirms this incentive:

Shoreline Group was a company that went on the rigs and checked out routines, and there was a culture of safety, Mr. McPherson told John, that was detrimental to efficiency. That's what we want to trim. Trim, John repeated. Absolutely, Mr. McPherson said. ... Shoreline Group... worked to eliminate redundant safety procedures. They offered a cost-benefit analysis of the safety procedures in place and drafted modification plans, Mr. McPherson said, that impacted directly on waste and redundancy, and the general good for communities at large, and profit

margins, and there were stakeholders to consider. There were safety procedures that did nothing but tie the hands of people looking to make things run smoothly out there. (Moore 139)

It is clear from the interview that safety procedures are modified on the basis of costbenefit analysis. In other words, safety procedures are not considered independently of costs. McPherson's awareness that John's father died on the *Ocean Ranger* suggests that the lives of the workers are calculated in monetary terms, but not valued in the risk assessment taken by the oil companies. In fact, Moore positions McPherson's offer of salary to John just before the confirmation that John's father died on the *Ocean Ranger*, and after the discussion of efficiency. Through this juxtaposition, McPherson confirms the company's cost-benefit analysis of John's life in the offer of his salary. John's interview with McPherson suggests that nothing has changed in corporate operations from the time of the loss of the men on the *Ocean Ranger*, when John was a child, to the time of John's career as an adult expecting his own child. Moore's depiction of John's salary negotiations suggests that corporate pursuit of profits is not the only issue with the management of the relationship with water. The more serious issue is a neoliberal system of values that undermines the value of life by reducing it to a monetary calculation.

John's girlfriend, Jane's encounter with the homeless man in Toronto highlights the effects and threats from the larger context of global neoliberal political economy that began prior to the tragedy of the *Ocean Ranger*. The homeless man describes the "beauty of marine life, the sway and flow of the ocean, and the creatures that break the surface,

flying up out of the water and splashing down" (Moore 99). His encounter illustrates a kinship with dolphins in the ocean:

Surfing off the coast of Mexico with a pod of dolphins, the man says, hundreds of those babies, they were just playing with me, man, leaping out of the waves, they were dancing, those fellas, they really know how to have fun... More dolphins than I've ever seen in one place, the man says. His eyes are glistening with tears, or perhaps because he has spent the day in the wind, or maybe his eyes are infected. His cheeks are wet and his eyes rheumy and bloodshot, lids puffy. I'm a marine biologist, he says. Or I was. It was the most beautiful sight I ever saw, them dolphins. (Moore 101; Moore 103)

The beauty of this natural experience points to the possibilities of a profound human connection to marine mammals. The violence of corporate extraction of oil, which affected these dolphins reveals the human failure to nurture and protect the more-than-human marine world. The homeless man's repetition of the location of his experience with the dolphins, off "the coast of Mexico", alludes to the activities of oil exploration along the coast of Mexico. Specifically, it alludes to the destruction of the habitat where he encountered the dolphins just three years prior to the accident of the *Ocean Ranger*. "On June 3, 1979, the 2 mile deep exploratory well, IXTOC I, blew out in the Bahia de Campeche, 600 miles south of Texas in the Gulf of Mexico" ("Incident News"). This disaster, which also involved a semi-submersible platform, spilled oil at a "rate of 10,000 - 30,000 barrels per day until it was finally capped on March 23, 1980" ("Incident News"). More than 3.4 million barrels of crude oil spilled over nine months into a

previously pristine, diversity rich marine ecosystem (Soto et al. 1). When the homeless man speaks to Jane, he speaks "as if his life depends on convincing her of something obvious and urgent" (Moore 101). The urgency of his speech and his intense concentration on the dolphins indicate the desperation felt for the lives of the dolphins during the toxic pollution of their marine ecosystem. Furthermore, his revelation that he is a biologist, and his subsequent correction that he was a biologist raise the possibility that he also suffered psychological and economic impact from this incident (Moore 103). His homelessness indicates a psychological, social, and economic dispossession from society. The Ixtoc-I spill occurred before the capsizing of the *Ocean Ranger*, situating Cal's death within a larger context of global neoliberal economic system that privileges profit. Like the homeless man and the dolphins, Cal is expendable in a global political economy that continues to measure lives according to monetary values.

Years after the incidents of the Ixtoc-I spill and the *Ocean Ranger* disaster, Jane's encounter with the homeless man points to the larger political economy, which positions profit above life and natural ecosystems, and which displaces risks onto workers, their families and even the more-than-human lives of larger ecosystems. In her encounter with the homeless man, Jane, who had worked with homeless people, notes that "The world fell away from them or it blew through them. Scraps of dreams blew through" (Moore 102). Moore prefaces the description of the company's practice of risk assessment with Cal's dreams illustrating the "scraps of dreams" that are left in the path of the neoliberal political economy: Cal "had wanted a view of the ocean, and he'd wanted the long grass and the root cellar" (Moore 118). Helen and Cal were aware of the risks, but had very few

economic options: "They were certainly putting money away. But they didn't speak of those plans. Because if they talked about Cal giving up the rig, they were admitting the risk. And it was something they had agreed never to admit" (Moore 99). John suggests that the risk assessment offered as a science to his parents was misleading: "His parents had believed what people said about risk back then. They had believed that there was a new science devoted to the assessment of it. Risk could be calculated and quantified. The risk, they had believed, was worth it" (Moore 108). It is obvious that the dreams and lives of ordinary people cannot be calculated and quantified. Yet the novel suggests that governments and corporations conduct risk assessments, imposing quantification on the immeasurable dreams and the priceless lives of ordinary citizens in a political economy where these citizens are simply disposable. The scientific calculation of risks does not preclude corporate disposal of ordinary citizens. This depiction points to the limitations of the neoliberal, legislative management of water based on scientific measurements and professional assessments. The neoliberal political economy that shapes the oil exploration is the same that causes Cal's death, the same that defines Helen's struggles, the same that plagues the homeless man, and the same that continues with John's career in the oil industry. The novel shows the psychological and emotional struggles that are manifested from the implementation of neoliberal values. The temporal continuity from the Ixtoc-I spill and the disaster of the Ocean Ranger, to the negotiation of John's salary establishes the neoliberal political economy as a larger framework that continues to be operative. Lisa Moore challenges the values of this framework by exposing its impact on the life experiences of humans, and by illustrating the necessity of establishing and managing

infrastructure as substantive public good. Similar to the way in which water is legally enshrined as a resource to be maximized, oil is a resource to be extracted. Moore depicts the devastating environmental, social, and personal impact of a neoliberal economy that is based on the goal of extraction rather than relation. The novel's extended metaphor suggests that water must be managed as a relation rather than a resource.

In the context of the political economy of neoliberalism, where cost-benefit analyses are conducted with reckless disregard for life, *February* explores human survival with the omnipresence of water. We are intimately connected with water physically and psychologically. We depend on water for transportation, for our livelihood, and for our food and nourishment. We are embodied by water, as it is a central component of our bodies, and we are also vulnerable to water, as it is manifested in our climate, and our daily encounters with weather. We are made of water and live in a matrix of water.

*February* demonstrates the importance of establishing the infrastructure of water as a public good by showing that corporate values and management of infrastructure are inadequate responses to the precarity of living with the omnipotence of water. Furthermore, it demonstrates that the representation of water through metaphors in literature creates a cultural infrastructure that is essential to explore human relationship with water, especially in the urgent context of climate change. Moore explores humans' relation with water as a reciprocal but uneven relation, which occurs in liminal spaces. She illustrates this relation through seemingly unrelated metaphors of coins, keys, portals and the mirror. The coin is metal that symbolizes the monetary measures of the neoliberal political economy. Like oil, metal is also symbolic of extractive resources. At the same

time, metal forms the tenuous material infrastructure, constructed to navigate human relationship with water, and metal is essential to life. The metaphoric connection between water and metal reveals that they are fundamental to the delicacy and transience of human life. Ultimately, water is the absolute constant. Though ubiquitous, water embodies liminality in space and time. In other words, water is predominantly in a transitional or indeterminate state as it moves through the biosphere.

The recurring imagery of coins in the novel symbolizes the reduction of life to monetary values through the calculations of risk assessment. At the same time, the presence of a material infrastructure of metal, which facilitates human survival with water, presents a positive alternative to the values symbolized by the metal coins. The presence of metal coins shows that events of ordinary life are governed by the values of a neoliberal political economy. Yet there is the inability to reconcile the emotional loss and suffering with the cold calculated cost-benefit analysis of this political economy. When Helen takes a job at the bar to survive financially after the loss of her husband, she is literally unable to count the change in coins: "After a while she got a job bartending. Meg babysat and Helen worked when the bar called her in, and she found she couldn't count change. She'd look at the change in the cash register drawer and the change in her open palm and the five-dollar bill in her other hand and she had no idea what it all meant" (Moore 15). The inability to count the coins might suggest a failure to accept neoliberal values. The calculation of cost is fundamental to the practice of cost-benefit analysis, and would align with the calculation of a monetary value for Cal's life. Helen's inability to calculate change shows that she cannot follow this reasoning. Furthermore, the suggestion that Helen "had no idea what it all meant" goes beyond the ability to calculate change and questions the value of this kind of reasoning. Helen is unable to find meaning in a system of values that would simply measure the life of her husband in monetary terms. Consistent with her inability to count coins, Helen's inability to see after her husband's death is measured in the image of a coin:

Helen lost her peripheral vision. She could see a spot about the size of a dime in the field of black. She tried to focus on the surface of the kitchen table. It was a varnished pine table they'd bought at a yard sale, and in that little circle she could see the grain of the wood and a glare of overhead light. She had willed the spot to open wider so she could take in the bowl with the apples and the side of the fridge and the linoleum, and then the window and the garden. (Moore 50)

Helen is literally trying to will the space of vision to expand beyond the limits of the coin. Helen's experience at this moment is symbolic of the need to see beyond the reductive calculations of life imposed by a neoliberal economic system. Her explicit rejection of the calculation of life in monetary measures is reflected in her contemplation of people's curiosity about the settlement:

People who want to know about the settlement seem to think a life has a figure attached to it. A leg is worth what? An arm? A Torso? What if you lose the whole husband? What kind of money do you get for that? They think a husband amounts to a sum. A dead husband does not add up to an amount, Helen is tempted to tell these people. People who want to know about the money don't know what it's like

on the outside. They are still inside. Or they have never been in love in the first place. (Moore 20)

People's curiosity about the settlement indicates a social acceptance of the reductive measure of life. The cold, corporate calculation of a sum of money for the life of loved one is validated by the questions of monetary settlement. Helen defines the outside and inside in terms of the understanding of whether life can be reduced to a monetary cost.

Helen's experience at the bar after the death of her husband reveals another feature of the impact of a neoliberal political economy on the ordinary citizen. This political economy displaces the economic costs onto the individual. In addition to its failure to recognize that life is priceless, it simultaneously ascribes little value to people in their daily lives. The personal burden of economic hardship is evident when Helen's phone is disconnected: "The phone company believes you exist; they cut off the phone. ... They cut off the phone and Helen was there with four kids; it was a safety hazard" (Moore 67). In a system that is responsible for the death of her husband, the burden of the resulting safety hazard, the burden of affording a phone to ensure the safety of her children, falls on Helen alone. The long-term economic and emotional costs of the loss of her husband are displaced onto Helen. The contrast of values is evident in the difference between the cold disconnection of the telephone and Helen's memory of Cal's voice: "to remember his voice she has to think of him speaking to her on the phone. She could feel if the phone was going to ring. She'd have a feeling, and the phone would ring and it would be him... Helen thinks of Cal on the phone and she can hear his voice perfectly" (Moore 69). Moore shows the discrepancy between a political economic system, in which

the goal is financial profits, and ordinary people who value experiences with the ones they love. The traces of a global neoliberal political economy are inescapable, evident even in the detail of the Valentine's day card sent by Cal: "Inside there was a greetingcard poem that didn't rhyme about love... and on the back, in extremely small print, it said the card was a product of China" (Moore 64).

The same illustration of social values is expressed in Jane's father's response to her pregnancy. When Jane informs her father of her pregnancy, he is aware that she has no other support. Yet her father writes to Jane that

she could not expect others to assume the cost of her carelessness. It was the kind of thinking that had the whole world in the mess they were finding themselves in right now. Had she thought of the state of his portfolio, he wondered. Had she realized every penny he had made over the years had been saved and invested, and he was watching those investments shrivel on a daily basis.... (Moore 89)

Jane's father abandons his daughter and future grandchild because of their potential liability to this portfolio. Ironically, he is admonishing Jane for the kind of thinking that neglects consideration of costs when, as the novel illustrates, it is exactly the sole occupation with cost and profits, which leads to Cal's death and to John's preoccupation with the calculation of risks in this relationship with Jane. John's initial consideration of his relationship with Jane is done in corporate terms and values. Wyile argues that John "assesses the situation, indeed, in the language of neoliberal economic globalization ease of movement, minimizing complications, contractual over moral obligations" (60). If John had not internalized these neoliberal values, which he has applied to his relationship

with Jane, Jane would not be in the vulnerable position of needing her father's assistance. It is Helen who guides John away from this framework of values. The recurring imagery of the coin in the novel symbolizes the constant presence of a global neoliberal political economy. However, in the context of this neoliberal political economy, the novel illustrates that metal is present in other more useful forms, such as the infrastructure of water. More important, metal is fundamental to life in a way that is contrary to its material value as currency in a neoliberal political economy.

The key and the portal are metaphoric symbols of liminal spaces of water, created by an infrastructure of metal and necessary for human navigation of the vastness of water. Moore assets that "There was a smashed portal, and that is key" (Moore 148). Furthermore, the novel illustrates a deeper connection to metal. The metaphorical relation between organic thought and inorganic electrical current, and organic water and the inorganic metal reveal that water and metal are fundamental to life. In addition, the culminating metaphor of the ocean as both a man and a machine illustrates that human use of metal to navigate water not only subverts the dichotomy between the organic and inorganic, but also positions humans in a reciprocal relation with water, which is fundamentally liminal and precarious.

The portal is central to the incident of the *Ocean Ranger*. First, the portal is the key to the tragedy as it is the space from which water breaches the security and stability of the oil rig. The portal of the *Ocean Ranger* is the literal space from which the balance of the metal platform is managed, controlling the survival of humans on the platform. The platform of the *Ocean Ranger* itself is a liminal space, a small dry space, also containing

a multitude of pipes, and suspended in the vast Atlantic Ocean. However, it is not an entirely dry space, because it is punctuated by the wet spaces of connecting pipes and tanks. The *Ocean Ranger* was a semi-submersible rig, which

consisted of two pontoons with braces and trusses that supported eight vertical columns as well as an upper hull with two decks. Each pontoon contained 16 tanks, which served as storage for ballast water, fuel oil, and drill water... In each of the four corner columns, chain lockers for the storage of anchor chain occupied watertight flats between the 35-ft and 70-ft elevations. (Heising and Grenzebach 55)

Second, the portal of the platform is a space between spaces. The Oxford English Dictionary defines a portal as a "door, gate, doorway, or gateway, of stately or elaborate construction; the entrance to a large or magnificent building, esp. when emphasized in architectural treatment; any door or gate" ("Portal"). According to this definition, the portal is a liminal space that symbolizes human life shared with the ubiquitous water on the planet. Parallel to the portal, a liminal space of water on water, the house is a liminal space of water on land. Helen's house is part of the infrastructure through which the characters engage with water, which is on the one hand, necessary for their survival and, on the other, an impersonal and potentially lethal natural force that must be accommodated. The *Ocean Ranger* platform and the house are both liminal spaces designed and created by humans to navigate water for survival.

Moore equates the portal and the key, positioning the metal key, which grants access to the house, in the same position as the portal, which provides access to the *Ocean* 

*Ranger.* The key occupies a liminal position in the sense that it is an object that restricts or provides access to spaces. The key is critical because it provides access through prior association. In other words, because it is made to fit with a particular lock, it requires prior association to allow entry. This is unlike the portal, which does not require prior association to pass unless it is locked. The key unlocks while the portal allows passage. Keys are usually made of metal, suggesting that the practical use of metal grants or restricts human access to personal spaces such as the house. The house itself is a dry space surrounded by an environment of water, the hydrological system of the earth manifested in weather, in the form of snow, hail, ice, rain, and floods. Pipes into the modern house provide controlled entrance of water into the home. They also allow the exit of water from the home. Yet the house is a liminal space as Helen experiences: "You wake in the middle of the night because you hear water and there is a leak in the kitchen roof. The plaster has cracked open and water is tapping on the tiles, faster and faster" (Moore 65). Like keys, many pipes are made of metal, so while the key grants access to humans into the secure space of the home, the pipe grants access to water into the space of the home. In essence, like the portal of the Ocean Ranger, the house is a liminal space of water, built by humans and necessary for human comfort and survival. Although one is on land and the other is in the water, both the oil rig and the house are spaces designed in relation to other sub-sections of spaces containing and providing passage to water in order to navigate its ubiquity. As the object that grants literal access to that space, the key functions as a metaphorical symbol of the liminal human relation to water in the home.

The key and the portal are metaphoric symbols of the human creation and occupation of these liminal spaces in the omnipresence of water. Liminality is emblematic of the process of the metaphoric initiative. The conception of the portal as "the key" alludes to a metaphorical, liminal space emblematic of the relationship between humans and water. The narrator's assertion that "We should think about the portal", points to a metaphorical significance of the human-machine reaction of the ocean water as it breaches the portal (Moore 149). Reflected in Helen's contemplation of the fate of the *Ocean Ranger*, the key and the portal symbolize the timeless, liminal condition of human relation with water. More important, they allude to water's reciprocal reaction to human action: "But everybody knows this already; there is always a key, there is always a portal" (Moore 148).

The metaphorical relation between metal and water reveals that they are fundamental to life. As conductors of electricity, metal and water constitute the biological currency that fundamentally opposes the currency of money, as symbolized by the coin and imposed by a neoliberal political economy. Furthermore, metal and water are elements that exist both inside the body and outside the body in the natural environment. In a neoliberal political economy, the fluidity or currency of money ideologically and materially dominates all relations, yet it is a reductive currency that relates only to the accumulation of the object, money. The text establishes that an intimate relation between metal and water is necessary for humans to navigate life with water in a range of mundane to significant moments. The metal coin symbolizes a global political economy driven by profits and based on extraction, while the metal infrastructure symbolizes the

human necessity of managing life with water. The recurring imagery of water and metal establishes a symbolic relation where one is always implicated in the other. The novel begins with the imagery of metal in an innocuous moment, foregrounding its use to navigate the ubiquity of water in one of its most familiar form of ice: "Helen watches as the man touches the skate blade to the sharpener. There is a stainless steel cone to catch the spray of orange sparks that fly up" (Moore 3). This vivid imagery of the stainless steel blade occurs against the backdrop of water in the environment. Water intervenes in Helen's memory of the beach and from man's description that the "ponds will be good soon" (Moore 7). As she waits for the skates to be sharpened, Helen is looking for a guarter in her "beaded coin purse... the grinding wheel revs and squeals when the blade touches it, and Helen pulls out a handful of change and lets Timmy take a quarter" (Moore 3). Helen's metal coins indicate that, like water, metal has a ubiquitous presence even in the most mundane activity. The imagery of the use of metal to navigate water is repeated in the description of Helen's experience in her home: "Her lowest point ever was when the pipes froze. Down in the basement with its earthen floor, low ceiling, and damp stone wall, going at the pipes with a blowtorch. The hawking sputter as the flame shot out, strange blue, and the hiss. It frightened the life out of her. She couldn't afford a plumber" (Moore 21). Symbolically, it is when the water stops flowing that Helen's reaches her "lowest point". This is a moment that shows both the necessity and the vulnerability of containing water in metal pipes. The metal pipes are the human restraints that govern the entrance of water into the home. They require constant maintenance to contain and control water. However, in its inherent behaviour, water is constantly evading

this control. When water ceases to flow, whether it is transformed into ice on the ground or ice in the pipes, the skillful use of metal is necessary to navigate its forms in order to live with water. Helen could not afford a plumber. Helen's personal experiences bespeak a larger tension between the desire to reduce expenditure in neoliberal political economies and the necessity to maintain strong material infrastructures for safety. It alludes to the failures of a system of management based on resources rather than relations.

These mundane moments with metal contrast with the monumental moment of the sinking of the *Ocean Ranger*, which is initiated by the failure to coordinate the relationship between metal and water. Disaster begins when "A wave of ice hit the window and it smashed. The metal lid had not been drawn shut over the glass, as it should have been, and the window smashed and water got over the electrical panel and short-circuit it" (Moore 148-149). Metal formed the barrier of protection from the icy water. It is the absence of the metal lid that leads to damage of the control panel. The ultimate consequence of the spill of the icy water, the loss of numerous lives, reveals the human vulnerability at the heart of the tension between the goal of reducing financial expenditure, and of building a material infrastructure to ensure safety in the relationship with water. Helen's imagination of the water's interaction with the electrical current is reminiscent of the sight and sounds of the blowtorch and the blade sharpener:

Maybe a few blue *sparks like fireflies* hover over the board for a second before they are extinguished. Helen doesn't imagine smoke, but she hears the crackle inside the teensy-tiny lights, like crunching tinfoil against a filing, a sound more like touch than a sound. She hears this tiny sound, or feels it, deep inside her head.

The *current was nervous energy that panicked* and busted all the delicate

filaments in its wake, and indicator lights went off on the control panel. (Moore

295; my emphasis)

The characterization of the electrical "blue sparks" as "fireflies" equates organic and nonorganic life. In addition, Helen reverses the positions of human sensory experience and the physical reaction of metal. Previously describing the sound of the electrical torch as a "hiss', Helen describes the electrical sound as "touch" that she "feels... deep inside her head" (Moore 295). The current itself, which also suggests the current of water, is characterized as a "nervous energy", reflecting human sensory experience. Furthermore, the current is attributed with thought: "There is the funny thing. The sea water hit the panel and it forced a 115-volt current to run in another direction. The current was supposed to run one way but it dug its heels in; it changed its mind?' (Moore 295; my emphasis). Reflecting the metaphorical analogy in language, the movement of the current equates to the movement of humans. The current "run[s]" in the same way as that humans run. Attributing thought to the current consolidates this metaphorical analogy between the organic human thought and the inorganic electrical current. This analogy is more pronounced given the presence of bioelectricity in the human body: "The production of electricity inside a living organism is important for life. Various cells inside living things produce electricity...Human bodies are made up mostly of water, and water is a good conductor of electricity. Furthermore, the water in the body is full of dissolved salts, which also help conduct electricity" (Mohn par. 2). The constitution of salt water and electricity in the body mirrors the condition of the seawater, which flooded the panel. So,

the metaphoric analogy between organic human thought and inorganic electricity is strengthened given the presence of electricity in the body itself. Electrical impulses are present in the heart, the brain and other cells of the body. They are medically measurable impulses responsible for thought and movement (Mohn par. 2). Water inside the human body and outside the body in the form of seawater is a conductor of electricity, the force of life in the body and in the biosphere. This relation between organic thought and inorganic electricity is repeated in another imagery of blue and orange lights. Helen explicitly questions the difference between human thought and current: "How different is that current from a human thought or emotion, Helen wonders. A flurry of feeling. A burst of giddy indecision? A filament in one of those bulbs was shot through with an orange line of light that turned blue and then turned to ash. The filament held its shape for an instant and then lost its shape" (Moore 295). The analogy between the electric current of bulbs and the thought and emotion of the human body alludes to the transience or evanescence of human life. The filament's quick transformation to ash alludes to the quick extinction of the life of a human body. It is alluded to when John briefly believed his mother had died in the hospital:

A strong white lamp with a chrome shade was knocked askew and the light hit John in the eyes. The white of the white light: he closed his eyes against it. He'd seen, just for few seconds on his closed eyelids, the shape of this mother sitting up in bed, a floating bright orange shape with a violet aura. Then he'd blinked and a buzzing darkness had rushed in from the periphery and dissolved, and the nurse had switched off the big lamps with a loud *snap*. It took only a few seconds, and

then the fiery insubstantial outline of his mother became solid. His mother had been restored to John. (Moore 43)

The extinction of life in the blink of an eye is the reality for his father Cal and the other men on the Ocean Ranger. For Helen, the realization of this reality is described as, "[a] terror that has invested itself in the microfilaments of her being, in every strand and particle of thought" (Moore 300). The use of the words "filament" and "microfilaments" align human conscious thought with electrical energy. A "filament" is "the infusible conductor...placed in the glass bulb of an incandescent electric lamp and raised to incandescence by the passage of the current" ("Filament"). A "microfilament" is: "a very fine filament, a type of actin filament, 4-7 nanometres in diameter, found as a cytoskeletal element in eukaryotic cells and forming a major part of the contractile apparatus of the cell" ("Microfilament"). Both concepts draw attention to movement and form in a way that complicates the distinction between organic and inorganic matter. Metal and water are both conductors of electricity, existing inside and outside of the human body, and requiring constant attention as they sustain life. The metaphoric revelation that water and metal are the currency of life raises the stakes for establishing the management of water as a substantial public good.

The lines between the organic and inorganic of water and metal blur with the imagery that suggests that one is always implicated in the other. On the day of the sinking of the *Ocean Ranger*, Helen describes the "sun like an old nickel in the sky" (Moore 270). She equates the brightest light and the source of all life on the planet to a dull metal coin. In other words, Moore aligns the absolute source of life with metal by attributing it with a

characteristic of metal. This is significant as it alludes to the balance of life held between the need to generate profits in the global neoliberal political economy, and the need to provide a safe material infrastructure for ordinary people. Helen and Cal gambled their love with Cal's job on the Ocean Ranger, where a corporation held power over the infrastructure. Helen imagines Cal on the oil rig prior to the accident with the imagery of the same metal coins: "They would have been anxious, but they had faith in the rig... As far as she knows, Cal never played a game of poker in his life, and if he bet it was with quarters. She gives him a pocket of change. She lets him win a little. She can see his hand cupping a little mountain of coin and dragging it towards him" (Moore 151). The silver coin is significant in multiple ways. First, it represents the presence of the neoliberal political economy that privileges profits. Second, it represents the minor compensation for work, and the cost benefit analysis conducted on life itself. Finally, the coins allude to the failure of the corporate infrastructure, specifically the failure of neoliberal practices to provide safety and protection for ordinary workers. The failure to provide safety and protection connects to the government's failure to provide adequate regulation, as in the Acts analyzed in Chapter Two. As the rig is destroyed by the water and as the men face their impending death, the metal coins also fall: "The rig tips and all the water falls away from its decks and the men hold the rail. They hang on. It tips and tips and the card table slides sideways and all the silver coins bounce across the floor, dimes and quarters and nickels and now, at last she is with him" (Moore 300). Helen's imagination of this moment establishes a parallel relationship between water and metal. The conductors of electricity, metal and water become interchangeable as insides and outsides meet and

lives are destroyed. Reminiscent of the parallels between the extinguishing of human thought and electrical current, metal and water are both implicated in the lives and deaths of the men on the *Ocean Ranger*. The falling coins, the literal extractions from the earth, and the metaphorical representation of profit and financial value are washed away by the water. This imagery points to the failure of an extractive logic that governs the global economy, and that is epitomized by oil.

Cal's death in the presence of metal coins signifies the presence of metal infrastructure for water and the corporate failure to provide safe infrastructure. Ultimately it exposes that humans are vulnerable without public control and regulation of the material infrastructure that navigates the power of water. For humans, living with water is an inevitable gamble, which can be mediated by a safe and secure public rather than corporate infrastructure. This safety requires the recognition of human relation with metal and water. Humans are intimately related to water and metal because both are present in human bodies. At the same time, like oil, we have an extractive relation with metal that may be destructive. Metal functions in various ways as infrastructure to help us navigate life with the ubiquity of water. Understanding the full scope of human relation with metal and water would reveal connections and vulnerabilities, which would suggest that public control of the provisions of safety are desirable and necessary.

Human inability to operate the metal controls, in part, leads to the disaster. However, this inability is directly connected to deliberate corporate strategies and corporate culture, which did not provide training or value the safety and protection of workers. As shown by the Ixtoc-I oil spill, the problem extends to the entire industry and

affects entire ecosystems. Icy water reached the panel because the metal lid "should have been" drawn over the glass window. In addition, knowledge and expertise were required in the operation of metal rods:

The men had to operate the ballast doors manually and they didn't know how ... Those brass rods. Nobody knew how to use the brass rods. If they'd known, the rig wouldn't have sunk. She has learned. Helen has read the reports; she has studied the diagrams; she knows where the rods go and why and how. Because those men didn't know and they didn't know, they didn't know, and it could happen to any one of us. (Moore148; Moore152)

Human knowledge is necessary to navigate life with water, particularly knowledge and skill of the metal infrastructures. Whether it is the simple acts of sharpening the blades of skates, mending a frozen pipe, or operating the brass rods of the *Ocean Ranger*, humans are in a position where they must learn to manage and care for the relations with water. While this risk can be minimized, the death of the men on the *Ocean Ranger* reveals that the risk is a direct result of the negligence of the oil corporation and the government. The workers and their families bear the burden of the risk for corporate profits.

The falling coins also allude to the risk of love between Helen and Cal, given the precarity of navigating water without a safe infrastructure. The same imagery of metal and water occurs when Helen finds an undeveloped roll of film: "Helen picked up the envelope of photos from the drugstore and sat in the car and she took her time opening it. She just sat there and watched a ... big drops of rain hitting the windshield. The spats of water big as loonies" (Moore 210). Death is a risk that is always present, as shown by

Helen's memories of walking with Cal on the beach: "The clear, cold ocean roiling up and dragging, back, encircling Cal's bare ankles like chains. And he bent and dipped his hand and put his fingers in this mouth" (Moore 120). Cal's reaction to the vast ocean was intimate and gentle. He was vulnerable while the ocean was strong and deadly. Water and metal fuse together in this imagery of chains around his ankles. The contrast between the imagery between Cal's gentleness towards the ocean and the ocean's cold threat exposes human vulnerability to the ocean. This vulnerability remains present at the end of the novel.

The repetition of the imagery of metal and water is present in the description of Helen's honeymoon with her new husband Barry: "Go for a dip, Helen said. I'll watch. The ocean was green except near the shore, where the stirred sand made it the colour of milky tea. Farther out, *the water was like nickel* and full of glitter" (Moore 306; my emphasis). While the sun was attributed with the dullness of an old nickel, water takes on the glitter of silver:

Earlier in the afternoon Barry had walked out into the water until he was floating. He bobbed up and down and a wave crashed over his shoulders. Here and there people were floating near him, and they all looked like silhouettes. The ocean was a deep navy now, and blasted all over with light. Each wave *capped in sliver*. It was like *hammered metal, sparkled-pocked*. Helen suddenly felt a shadow fall over her, and with it a chill. (Moore 306; my emphasis)

Water is metaphorically capped by metal in the imagery of the ocean. In other words, they are implicated in each other undermining a perceived distinction between the organic

and inorganic. Helen's encouragement of Barry to go into the ocean is an indication that she has accepted some of the risks attendant on being with water. Nevertheless, the chill that she feels suggests that Helen is aware that the danger of water is always present. The reciprocal imagery of metal and water implies that while humans have created an infrastructure of metal to navigate water, the precarity of living with water is always present.

The intensity of the risk in a reciprocal relation with water is most poignant in the imagery of the ocean as human and machine. "The ocean forms itself into a fist and flies across the ballast room through that portal. The ocean burst through the window sometime between 7:45 and 8:00 p.m." (Moore 150). This metaphor positions the ocean as active entity, constituted as both human and machine, and demonstrating its own agency. The ocean actively mirrors the violent action of a human being as it turns itself into a fist to enter the portal. The violent imagery of a human strike is attributed to the water of the ocean: "the fist of the ocean had punched through" (Moore 294). The ocean water assumes human form to commit the violence of this catastrophic moment. At the same time, the ocean also assumes the form of machinery of violence: "The portal and the *fist of water*, a piston driving itself through that portal, a *fist of ice* with stone knuckles; the ocean has become *part monster*, *part machine*, driving its paw-piston through that place of unbreakable glass or whatever-ever the hell and smashing it to smithereens" (Moore 151; my emphasis). This imagery reverses the positions of the metal oil platform and the ocean. Reminiscent of the round shape and silver colour of coins, the "piston driving itself through that portal" is the imagery of water replicating the power of the

machinery of the oilrig, which penetrates the earth. However, water's infinite power is evident as the ocean is described as "smashing" the "unbreakable glass" to "smithereens" (Moore 151). In other words, the human measure of "unbreakable" is negated as the power of the ocean effortlessly discards the metal platform. Helen notes that "[t]hey had faith in that monstrous-large hulking mass of metal" (Moore 151). Yet the metal is also no match for the ocean, which violently destroys the platform in hours. The metaphor of the ocean as a machine and as human fist combines the human-mechanical violence done to the earth. This metaphor is significant as it points to the neoliberal political economy of unrestrained extraction from the earth. John is cognizant of this violence as it is reflected in the language of the drilling process in the ocean: "John had sold a shitload of drill bits, and the line his company gave was all about penetration. The terminology was sexual and violent: the bits were hard and the sea floor was wet and it resisted and finally gave, and there was nothing a good bit couldn't penetrate" (Moore 139). The ocean mirrors the violent action of both humans and metal machinery against the ocean floor when it breaches the portal as fists of water and ice. This moment, which mirrors human violence, triggers the tragedy of the Ocean Ranger. Though the ocean is indifferent, the imagery suggests that the ocean reciprocates, in the same action, the combination of the violence of human and metal machinery that was inflicted onto the ocean floor in the process of oil drilling. This imagery alludes to a reciprocal human relation with water. This is a relation where the water will respond to human actions with its own agentive capacity and emergent properties. Regardless of whether we objectify it as a resource,
water is in a relation with humans. The imagery of reciprocation suggests that humans need to be mindful of our relations with water in our actions towards water.

While land is imagined as dry, water permeates life on land everywhere. In industrial society, humans have used metal to build the infrastructure necessary to constantly navigate water both on land and in the vast bodies of water on the planet. As a result, metal, along with water, has a dominant presence in human life. Moore illustrates the reality of the relation between metal and water by establishing a metaphorical relation between human thought and electrical current and between water and metal coins. This is a reciprocal relation, where metal and water are always implicated in each other. They function as currency of life and larger environment outside of the body, and they constitute risk to human life when infrastructure is neglected. The metaphorical relation between human thought and electrical energy, and between metal and water subverts the distinction between organic and inorganic life. This subversion is significant because it suggests that humans are in a relation with the elements of nature that we objectify and extract. The subversion of this distinction culminates with the metaphor of the ocean as man and machine, breaching the portal of the Ocean Ranger. This breach serves to demonstrate that human actions with water incur the reaction of water. Though water is ambivalent, it is not fully autonomous as it responds to human action according to its own principles in reciprocal relation.

An object that is material and also reflects materiality, the mirror is a central metaphoric symbol that alludes to the reflection of parallel experiences of water in the home and on the *Ocean Ranger*. Yet because humans are constituted by water and

because their experiences are bounded to water, water serves as an authentic mirror and a true reflection of its reciprocal relation with human. The mirror is a metaphoric symbol that establishes water's ubiquity, its relationality with humans, and its evasion of containment. Resonating with the key and the portal, Helen and Cal cross a threshold on their wedding night when "Cal put the key in the hotel room door and opened it" (Moore 76). The key allows them physical entry into the space of the hotel room, and symbolic entry into the world of maturity, of life with water. As adults, Helen and Cal will be embedded in a neoliberal political economy in order to provide for their family. As they enter the hotel room, the visible signs of the vast waters of the land and ocean are inescapable: "they looked out the window and they could see the whole city. It was snowing. Snowing over the harbor and the ships tied up with their rusting flanks and sharply curving bows and orange buoys piled up on the deck, covered with snow; and snowing over the white oil tanks on the South Side Hills and the cars on Water Street" (Moore 77). Although they are physically separated from the environment by the door, when Helen and Cal cross the threshold together, they visually enter the mature world of water. The presence of water is all around them in the form of snow, while the signs of the economic life from the ocean are waiting. The oil tanks and the cars on the street indicate the practical use of oil and the need for the drilling of the ocean floor. The repetition of the name of the street, "Water Street", suggests that there is no other path but the path of water. The window gives Helen and Cal a full view of the world of water. While they are protected from the world of water by the portal, water metaphorically

enters through the imagery of the mirror. The shattering of the mirror is described in terms of water:

And Cal had glanced at the hotel mirror. ...all of that was in the mirror in the Newfoundland Hotel on their wedding night, and—POW—Cal glanced at it, and the mirror spread with cracks that ran all the way to the elaborate curling mahogany frame, and it all fell to the carpet, fifty or so jagged pieces. Or the mirror buckled, or it bucked, or it *curled like a wave and splashed* into the carpet and froze there into hard, jagged pieces. (Moore 77-78; my emphasis)

The shattering of the mirror, the destruction of this object of reflection, symbolically renders water as the authentic mirror of human experience. The description of the mirror as a wave metaphorically invites water into the room with Helen and Cal. They have passed the threshold into maturity: they "smashed the mirror or walked through the mirror to the other side, and then they were mature overnight. They had changed overnight, or in an instant. They were married" (Moore 78). Furthermore, they would have new relations with water. Helen would be become pregnant many times, experiencing a feminine connection to water in gestation. Helen and Cal would have to protect themselves and their children from water. Water would be central to the peace and playfulness of their lives near the ocean. Finally, as Helen contemplates the death of her husband, she would find water at the core of their existence. Most significantly, like a mirror, water would reflect their adult actions back onto them. The shattering of the mirror is the destruction of an immature reflection of Helen and Cal, which leaves them with the real reflection of water. Helen notes that "They didn't even think about the mirror then because they were

making love...and steamed up the bathroom, soaping each other in a shower so hot they turned pink" (Moore 78). In that moment, they are aware only of the pleasures of water. "They were just kids putting on a kind of maturity. Trying it on for size. No idea what they were getting into. Acting big" (Moore 78). Symbolically, the broken mirror, which could not contain the bad luck of Cal's glance, leaves only the reflection of water. When Cal dies, the water of the ocean not only reflects back onto humans the violence of their machinery; it also reflects parallel experiences in the home and on the *Ocean Ranger*.

The most significant moment of the novel, the sinking of the Ocean Ranger on February 14, 1982, is depicted as if it is reflected in a mirror. The condition of water on land reflects the condition of water on the Ocean Ranger. First, Helen's body releases water as she contemplates the loss of Cal to the Ocean: "Her scalp was tingling and a drip of sweat ran from her hairline down her temple. Her face was damp with sweat as if she had been running..." (Moore 51). In this moment when she realizes that Cal is dead, Helen herself is unable to contain the water in her body: "she was being flooded with the truth" (Moore 51). This metaphor positions water as the truth. The characterization of water as truth consolidates water's absolute ontological position in the constitution of all life, and its primacy in human psychological, social and material life. As water is also established as the absolute constant, the characterization of water as truth is significant as it suggests that water is the center around which life must be configured. As she contemplates his death, the water inside of Helen's body is unleashed in the same way the water of the ocean around Cal's body is unleashed: "Helen could think only of how frightened Cal must have been. He couldn't swim" (Moore 51). Water breaches the

bodies of Helen and Cal in reciprocal ways. On land, Helen is being "flooded" metaphorically, while in water Cal is "flooded" literally. This is a material and metaphorical flooding that undermines the dichotomous relations represented in the novel.

In the immediate context of receiving the news, the containment of water in the home is unleashed, just as it is from Helen's body. When Dave informs Helen that he had identified Cal's body, "Helen lost her peripheral vision. She could see a spot about the size of a dime in a field of black" (Moore 50). But Helen "didn't faint because she had the children in the house and the bath was running" (Moore 50). In a situation that mirrors the relationship of water and metal in the ocean, Helen is in on the phone, in the kitchen, standing near the dripping tap: "The tap was dripping, sharp pings in the stainless steel sink. She pushed the faucet so that the drip would hit a dishcloth. She watched the faucet shine with wetness and watched as the wetness gathered into a drop and hung at the rim of the threaded washer and jigged and fell and hit the cloth with absolute silence" (Moore 52). Water is contained by the pipes, controlled by the tap, and collected and contained in the sink. The tap is present to regulate water, but the dripping is an indication that it is not functioning as water continues to escape slowly. Furthermore, Helen's account that father-in-law "had [previously] come by to fix the faucet over the kitchen sink" shows that continual effort is necessary to contain the escape of water (Moore 52). Even when Helen silences the "sharp pings" water continues to drip in "absolute silence". This suggests that water is always evading containment, even when its escape is temporarily undetected. This parallel is significant because it establishes that the relationship with

water requires the constant management of its infrastructure. It also requires constant attention, regardless of the scope, size, or location. Whether it is in the home or the ocean itself, the relationship with water requires vigilance. Water occupies a reverse position with metal in the home and in the ocean. First, the size and shine of the metal faucet dominates the drop of water. The single drop of water forms and falls slowly. This imagery is reversed at the end of the novel. When Helen sees Barry in the ocean, it is water that dominates as each wave is "capped in silver" (Moore 306). In size, speed and constancy, the ocean water dominates with a resemblance to "hammered metal, sparkledpocked" (Moore 306). Second, the condition of tap dripping in the sink is a reversal of the platform of the *Ocean Ranger* in the ocean. The dripping tap and the sink show water's containment by steel, both the metal pipes and the stainless steel sink in the house. On the contrary, the *Ocean Ranger* is a steel platform that is suspended in the ocean. The metal platform of the Ocean Ranger is contained in the vast ocean water, similar to how water might be contained in a metal sink or tub in the home. Furthermore, reversing the position of water in the pipes, pipes are located in the water as they are necessary for process of drilling for oil. Finally, pipes are also located beneath the ocean floor and they are located beneath the ground of the house. In the ocean, it is the water rather than metal, which serves as container. Although the ocean as the container can have an absolute and destructive power over human life, the novel alludes to the necessity to mediate this power through a relationship with water that is based on respect. Humans live in water, but we are also share an intimate kinship with water, as we are comprised of water. The juxtaposition of the conditions of water on the corporate oil platform and the home

indicates that the relationship with water should be nurtured. Given that the tragedy of the *Ocean Ranger* is caused by the negligence of corporations driven by profits, it is clear that only the realization of water as a public good will lead to a mutually sustaining relationship with water.

Moore depicts parallel physical reactions to water and parallel infrastructures of water representing water's ubiquity. At the same time, Helen's brief inattention to the running water in the bath causes a flood in the house. The attention to water that is necessary in the home suggests that the relationship with water also needs care. There is a reciprocal and mutually sustaining relationship between humans and water in every aspect of life:

You don't want to remember him that way, Dave said. She heard a loud spank of water, a great gushing *slap*, and looked out into the hall. She had let the bath run over and the water had come through the ceiling. There was water everywhere. The children came out of the living room where they had been watching TV and stood at end of the hall looking at her on the phone. Mommy, they screamed. The water poured down in fat ropes and thin sheets that tapered to a point and got fat again. Sheets of water that slapped the linoleum, and Helen shouted, Get out of the way. ... she ran up the stairs two at a time. When she came back downstairs the receiver was on the counter, buzzing hard. (Moore 57)

In this moment, the situation in the home reflects the situation on the *Ocean Ranger*. The "slap" of the water alludes to the literal and physical slap of the death of Cal. The description that "water poured down in fat ropes" resonates with the experience of the

men on the Ocean Ranger: "All of the men were calling out. We had to cut the ropes where they were iced over" (Moore 292). The description of "water everywhere" alludes to the great expanse of the Atlantic Ocean, which contained the Ocean Ranger platform. It also alludes, with significant resonances, to Samuel Taylor Coleridge's poem "The Rime of the Ancient Mariner" (1798). The Mariner's story of the fierce sea storm of cold and ice, the expression of the power of nature, the transgression of nature by the killing of the albatross, and the guilt of the Mariner, all align with the story of the Ocean Ranger in the context of human moral obligation to nature. The Mariner metaphorically symbolizes the human being in an exploitative relationship with nature.<sup>27</sup> Finally, the buzzing receiver of the phone suggests the sounding of an emergency alarm on the Ocean Ranger during its evacuation. It echoes Helen's dream when she receives the phone call from John: "The bed flying over the edge of a cliff and a siren ringing out across the water and her body seemed to fall at a slower rate than the bed and she felt the bed hit with a *plosh* and then she hit the bed and began to sink, but it was just the phone, not a siren. The phone. Answer the phone" (Moore 23). The escape of water in the house aligns the experience of water in the house to the experience of water on the platform. However, it is clear that the type of management these situations require is one where water is not simply a utilitarian object to be maximized, as it is conceptualized as H<sub>2</sub>O and resource in the legislative documents. It is a type of management that requires reciprocity, respect, and balance along with recognition of water's autonomy. It is management based on the recognition of a profound relation with water.

<sup>&</sup>lt;sup>27</sup> A comprehensive and detailed examination of the "Rime of the Ancient Mariner" in relation to Lisa Moore's *February* is outside the scope of this paper.

On their honeymoon, Helen and Cal cross a threshold into maturity. This maturity is the responsibility of living with water everywhere. It is also the recognition of the human relation with water, and the necessity of caring for water as a relation. Symbolized in the mirror, the experience in Helen's house during the revelation of Cal's death is a reflection of the experience of water on the Ocean Ranger. It indicates the ubiquity of water on land and in the ocean, and the inversion of the infrastructure of metal in these spaces. The inversion aligns with concepts of inside and outside spaces that Helen's contemplates as a result of Cal's death. The inversion also points to the presence of metal and electricity inside and outside of the human body. While metal contains water on land, water contains metal in the ocean. Yet it is the ocean that has the absolute power over human life. Ultimately it is the power and ubiquity of the ocean water that claim the life of Cal and the other men on the Ocean Ranger. The shattering of the mirror on Helen and Cal's honeymoon symbolically renders water the only reflection. Furthermore, the reflection of water reveals an inevitable and inescapable death: "This wave is death. When we say death we mean something we cannot say. The wave—because it is just water after all, just water, just naked power, just force—the wave is a mirror image of *death*, not death itself; but is advantageous not to glance that way. Avoid the mirror if you can. Cultivate an air of preoccupation. Get. Get out" (Moore 299: my emphasis). Helen believes that the shattering of the mirror on the honeymoon happened because Cal looked directly at it: "all the bad luck to come was in Cal's glance, and when he looked at the mirror the bad luck busted out" (Moore 78). Symbolized in the mirror, the reflection of the infrastructure and experience of water in the home and on the Ocean Ranger illustrate

that humans occupy liminal spaces of water on land and in water. Water is ubiquitous and the spaces created by humans for their survival are spaces that are still permeated by water. They are liminal spaces that require constant vigilance against the risks of living with water.

While the key and the portal symbolize the liminal spaces created by a metal infrastructure, the mirror symbolizes water's continuity, reflecting experiences of land and the ocean, and water's reciprocal relation with humans. Human survival in the precarity of the liminal spaces of water evokes paradoxical emotions. Ultimately, these divergent human emotions converge in the constancy of water. The novel demonstrates that, in space and time, water is a ubiquitous constant. John's survival training establishes the source of terror in human relationship with water, a relationship that evokes paradoxical feelings of laughter and fear, beauty and panic. It indicates the importance of the keys and portals in the construction of an infrastructure of water that protects humans from water. The survival training illustrates the human emotion of being submerged in water when the portal with water is closed. However, it also faintly alludes to the terror of water even in the absence of a portal. The survival training requires that

they would sink the capsule and water would flood through all the seams, rising in the plastic bubble to cover his feet and legs and groin and chest and neck, and then they would tip it over so John would be upside down, and his face and neck and the rest of him would go all the way under. It was that covering of the face with how any cubic tons of terror that got him. (Moore 182)

The survival training captures the epitome of the human fear of water: "it would only be a number of seconds before it sucked away your life" (Moore 182). John had "lost consciousness" and would have to complete the training several times (Moore 182). Water is feared in spaces where an exit portal is absent because it has the power to immediately extinguish life. Yet there is a suggestion that experiences in the water can be similar on land, as water is both inside and outside of the human body. During his training John remembers Jimmy Fagan, who had died next to the water fountain: "Suddenly the boy had held the side of his head and staggered to the staircase and clung to the banister as if they were in a *rough sea*. John remembered the little spigot, the water that bubbled up when you twisted the handle, and the boy, Jimmy Fagan, with his mouth buried in that wet silver arc" (Moore 183, my emphasis). The absolute terror of water from outside of the body is modified by the awareness that the same sensation can also occur on dry land. Jimmy is described as experiencing "rough sea". The spigot is present to control the water, yet the imagery of Jimmy Fagan's death implicates water. In John's explanation, it is clear why water inspires fear: "the water rushed in faster than anything had ever rushed anywhere. It was a property of water— it could move faster than you'd think. It moved all at once" (Moore 185). It is this property of water that underlies similar reactions by Louise and Cal.

While John's experience establishes that the possibility of instant death inspires the fear of water, Cal's experience of a practical joke and Louise's experience on holiday illustrate that the relationship with water may evoke both laughter and fear. Mirrored on land and in the water, the door is the practical portal in the experience of water. In both

situations, Cal and Louise are separated from safety by a locked door, while the entrance of water threatens their safety. In the absence of a key, Cal and Louise experience feelings of fear while those on the other side of the door experience laughter. In other words, water is harmless and playful on one side of the portal. One this side, it is even necessary for safety and security. At the same time, on the other side of the portal water is dangerous and deadly. It inspires dread:

Cal woke to somebody hammering on this door. Men shouting the rig was going down...Water rushing under the door and more water through the door frame and the door was jammed. Something was holding the door shut and he banged on it with his fists and must have hit the lamp because the light was rocking on the bedside table, and he shouted, Let me out, there's a man in here let me out.

(Moore 95)

In this moment, Cal panics at being locked in the room where water can enter but he cannot leave. Cal is threatened by the simple entrance of water into the space from where he is unable to escape. Panic arises from the inability to pass through the door, the portal with water. For those who are not facing the threat of water, the situation is funny. Cal explains to Helen that "the door gave and there were the boys, killing themselves laughing. They were doubled over. They had poured a bucket of water through the crack and held the door shut, listening to him bawling. There's a man in here, there's a man in here. Killing themselves. ... Laughing on the other side of the door" (Moore 95). The expression of the unconscious fear through practical jokes allows them to laugh at their precarious relation with water. On the *Ocean Ranger*, their environment is especially

dangerous because they are also surrounded by water: "They all knew they weren't safe. Those men knew. And they had decided not to tell anyone. But it *leaked out* of them in larks and pranks and smutty puns, and *it leaked* out some-times in a loneliness that made phone calls from shore hard to handle" (Moore 97; my emphasis). The threat to the lives of the men on the *Ocean Ranger* is real, as the *Ocean Ranger* was just a small dry space suspended in the vast ocean: "The rig was the size of two football fields, and try to imagine how small in relation to the ocean around it" (Moore 97). The narrator notes this "morbid humour that didn't translate on land"(Moore 97). Nevertheless, it reveals a playfulness that is also characteristic of human relationship with water on land.

A similar situation is humorous when it happens to Helen's sister, Louise because she is on land and not surrounded by water. The incident happens against the backdrop of the idyllic landscape of England: "It was lush and green and there was a field of sheep" (Moore 256). Although she was on land, in a moving bus, Louise is in a similar situation as Cal: "Louise had gone to the bathroom and she was in there a long time, and then there was shouting at the back of the bus" (Moore 256). She is in a small space, with a locked door. Her reaction is similar to Cal's: "Louise was shrieking and kicking the bathroom door, and Helen leapt up, and the driver was pulling over, and everybody turned in their seat, looking towards the back. ... The door flew open and it was raining hard inside the small cubicle and Louise was shrieking" (Moore 256). In other words, she was panicking because she could not escape through the door as the water was pouring down in the locked space of the bathroom. When the door opens, Louise's appearance is comical:

Here pale blouse was plastered to her chest and the lacey texture of her bra was visible, and when she pulled the blouse away it sucked itself back onto her skin, and there were little pockets of trapped air inside her blouse, and her hair was plastered down and her mascara ran down her cheeks...Louise was soaking wet. (Moore 257)

It is as if the water has transformed her into a comical object. The water continues to run in the dry space of the bus, causing only a minor inconvenience to the travellers: "And the rain kept pouring down the cubicle and it ran out of the bathroom in widening rivulets and people in the back began lifting their luggage off the floor and mincing their shoes to the side. ... There will be no smoking in the bathroom" (Moore 257). Because they are on land, water is avoidable and does not cause the travellers to panic. They are not in the precarious position the men on the *Ocean Ranger* are in. In this incident with Louise, water is part of the security feature of the bus. Smoking has triggered the smoke alarm and the response of water is meant to provide security against fire. Yet it causes fear in Louise because she's unable to escape through the locked door. This is contrary to her courage, when Louise saves the children that had been carried out into the water by the undertow on the beach:

So next thing there's Louise striding across the beach and into the water and she's giving it to her, batting the jellyfish out of her way... Look at the old lady go... Head down in the water and turning to the side for breath and the arms straight and the fingers straight, and each wave passing over Louise. (Moore 143-144)

Louise had a "bad heart" but was unafraid of death in the open waters. She did not panic. Instead, she risked her life to save the children of strangers. However, in a closed space on land, the release of water causes her to panic because the portal necessary for exit and for the creation and feeling of a safe relationship with water was closed.

The situations of both Cal and Louise suggest that humans require the presence of a portal in the relationship with water. The closed portals strike immediate fear and panic both on land and on the water. Recalling Helen's assertion about the key and the portal, these situations illustrate that the portal allows for the creation of pathways to navigate the power and ubiquity of water. The locked portals cause immediate psychological and physical harm. Symbolically, the corporate control of the portals in the management of water, control that is inevitably subject to private profits and private interests, would be devastating, as all human beings need fully open and fully accessible portals in our relations with water.

Ultimately, Helen's experience and her conclusion that beauty and panic are the same, undermine the dichotomy of human emotions with water, and establish water as the true constant. On the day of the sinking of the *Ocean Ranger*, February 14 1982, Helen becomes acutely aware of the beauty of the world, a beauty that is intimately connected to water:

The snow was lifting off the drifts in transparent glittering sheets that twisted and flapped and folded together at the corners and folded again, and ... [t]he trees were encased in ice and the sun shot sparks down the length of the branches. The

sun like an old nickel in the sky, tarnished, dull, behind all that flying snow.

(Moore 270)

The beauty that captures Helen is the material manifestation of water in its various forms and through various processes in the natural environment. Water is so powerful that it is able to temporarily tarnish the sun. Helen's emotional reaction is described in terms of water: "The whole world *floods you*, burst you open; the world is bigger than expected and brighter. It was not that she was closed off to the beauty, because she wasn't. The beauty flooded her pupils and nose and ears and all of her cells" (Moore 270; my emphasis).

Water "floods" Helen's senses both literally and metaphorically. Literally, it is the presence of water in her body, which makes her pupils, her nose, ears and all of her cells functional. In this sense, Helen's body itself can be considered a beautiful manifestation of water, similar to other material manifestations of water around her. Metaphorically, she is overwhelmed, "flooded" by her senses of the beauty of water in nature around her. Her description that it is "the whole world" alludes to the ubiquity of water. It is the action of water—embodied in and manifested around Helen, water acting on and within Helen—that generates this overwhelming experience of beauty: "As long as she lives Helen will never forget how beautiful the snow was, and the sky, and how *it flooded her* and she couldn't tell the beauty apart from the panic. She decided then, and still believes, that beauty and panic are one and the same" (Moore 271; my emphasis). Helen's decision is a significant emotional realization that undermines the dichotomies of her experience with water. Her material experience with water brings her to the conclusion that the

dichotomous feelings of living with water are transient. Beauty and panic are human sensory experiences. Helen describes them in terms of physical relations: "Panic and beauty are inside each other, all the time, copulating in an effort to create more beauty and panic, and everybody gets down on his or her knees in the face of it. It is a demonic, angelic coupling" (Moore 272). Helen's experience of being "flooded" by beauty is the simultaneous expression of Cal's experience of being "flooded" literally with water. The water processes in the environment, which generate the beauty that "floods" Helen, are the same processes that "flood" and kill Cal. Helen and Cal are the human expression of the copulating of panic and beauty. They are lovers, one experiencing the sensory beauty of water and the other the absolute panic and awe of water. The difference between their experiences is the factor of risk that is introduced into their lives by the neoliberal political economy that disregarded the value of Cal's life. In its generation of laughter and fear, and beauty and panic, human relationship with water forces humans to occupy a liminal psychological space where water is the only constant.

*February* demonstrates that, in addition to water being the underlying constant of human emotion, in space and time, water is the absolute constant. In the omnipresence of water, humans have created liminal spaces from which they constantly navigate water's presence. Water permeates space most obviously in its forms as snow, ice and rain. This is first illustrated early in the novel when Helen goes to the memorial. Helen remembers the day of the memorial service: "She remembers getting around the snowbanks. The snow had been shaved by the plows. High white walls scraped smooth, *soaking up the street light*. There was nowhere to walk" (Moore 7). Water is present in the form of snow,

which the community must navigate in order to attend the memorial service for the men lost in the Ocean Ranger. It is literally "soaking up the street light". The expanse of water forces the creation of a path around this snow. It left "nowhere to walk". Furthermore, as if water signals an indifference to human emotion. Helen notes that the "Statue of the Virgin with snow in the eye sockets and over one cheek and the mouth like a robber's kerchief...already something was rising inside her: the injustice of being robbed" (Moore 7). Although they are on land, they must navigate the constant presence of water in space. "The men were trying to think of how to get through the hymn and the mass...so they wouldn't have to walk in the weather—I'll come back to get you, no need for you to get wet, you just wait on the steps there" (Moore 12). After Cal's death, Helen's remembers that her father-in-law would do the same: "He'd [Dave] show up in the rain and wait outside and give the horn one toot, or later he'd call to say he was picking up the children from school, or he'd drive Helen to the super market...Her in-laws had walked in the rain when they were raising a family and they said there was just no need for it" (Moore 53). Water's permeation of space is forcefully obvious during the rainstorm in 1980. The storm is one indication of the saturation of land by water: "All the land was steaming now" (Moore 185). During the storm

The rain fell in straight sheets, without a breath of wind. There were hundreds of thousands of separate sheets, one behind the other, and together they made a translucent wall. The trees at the corner of the lawn warped and wobbled behind the wall of water as if they were gelatin. They shed was wonky. The rain danced

off the flagstones. It struck the stores so hard it might have caused sparks. (Moore 187)

The description connecting the rain to sparks alludes to the connection of water and electricity in biological life. Water in the environment establishes the house as a liminal space surrounded by the omnipresence of water.

Like the liminal spaces of the house and the *Ocean Ranger*, the first and last incidents of the novel occur in liminal spaces, suggesting that humans occupy only liminal spaces of water. Helen is at the beach with John in the first encounter with water and at the beach with Barry in the last encounter with water. At the beginning of the novel, the threat of water is present on the horizon as Helen occupies the physical space where water meets the land. Helen is at ease enough to have been lost in the novel:

She thought of him: a day at the beach when he was seven years old, his tanned chest, his shins caked with sand. Some bigger boys had been whipping him with strips of seaweed, forcing him farther out into the waves. She'd looked up from her book. Helen had been lost in a novel one minute, and the next she was knee deep in the water, striding, screaming her lungs out. (Moore 6)

The threat of the water only materializes when John is forced out into the waves. The novel begins by alluding to the threat of water in the form of the waves. Death is intimately connected with the waves. This threat is fully realized with the death of Cal. The wall of water is described as death itself: "This wave is death" (Moore 299). After Cal's death, Helen is able to recognize that the wave is present perpetually: "This wave has been working towards the chewing and swallowing of the world since the beginning

of time. Chomp. Chomp. What is the world after all? What are sunlight and love and the birth of a child and all the small passions that break out and flare and matter so very much?" (Moore 299). Reminiscent of the idea that life would seem like a "dalliance" in the face of the cliff of water, Helen notes that the wave makes life insignificant. Sunlight, the source of all life, birth, and passions are made insignificant, as momentarily occurrences when described as a "break out" and "flare". Life itself is made inconstant while water is made the absolute constant.

At the end of the novel, Helen is able to occupy the liminal space of water on the beach after having the insight that the wave is death. Helen and Barry witness an eclipse on their honeymoon in February 2009. The eclipse, which covers the moon briefly, is symbolic as it is the gravity of the moon and the earth, which causes the tides:

Then, finally, the moon is gone. Blotted out. Everybody claps. They clap spontaneously. A short, self-conscious burst.

Totally gone, someone says.

But it's coming back, Barry says. He is standing behind Helen and she leans back and he draws her into him.

It's coming back. (Moore 306)

The eclipse is an indication that the waves of the ocean continue to be present. Just as the water had continued to drip after Helen had silenced its drops in the sink, the eclipse is a momentary obscuring of a cosmic relationship with water that is timeless. This is the definitive condition of water that humans navigate with tenuous metal infrastructure. This definitive condition must be accommodated in life:

And Helen looked out over the ocean and she could not see Barry.

She could not see him.

She looked at the spot where he had been and he was not there.

Then the wave withdrew with a roar, and there he was. He stood and he was dark against the sun except for a gleam down his arm and in his hair, and he flicked he head and the drops flue out like a handful of silver, and he dipped under the water again and waded against its pull towards the shore and came back up the beach to her. (Moore 307)

It is the wave that withdraws and lets Barry out of the ocean. It withdraws with a "roar" as if it should be feared. Its withdrawal is reminiscent of Helen's thought that, "Death would like to be introduced. It is willing to be polite. There will be no rush" (Moore 299). In the personification of the water as death, death wants to engage in a human relationship. The articulation of death's desire introduces a reciprocal obligation in human and water relations. The repeated observation that Helen could not see Barry is a reminder of the threat of water. Helen had protected John from the wave. She could not protect Cal and she cannot protect Barry. Her presence on the beach and the risk she takes to love again indicate that she is living with the panic and beauty of the omnipotence of water. While the *Ocean Ranger* and the house are liminal spaces created by human-constructed infrastructure of metal, the beach is a natural liminal space of water. The novel suggests that human survival requires the establishment and use of these liminal spaces of water because of water's ubiquitous presence in the space of the earth. These liminal spaces should always have accessible portals to all.

In addition to being ubiquitous, water is a process that permeates the space of the earth. When water is conceptualized as a process, and not as an abstracted entity, it is evident that water also occupies a liminal temporality. Living with water requires the navigation of water's complex temporality. Water simultaneously embodies different temporalities. First, it is manifested in the planetary hydrological cycle permeating space. Second, it embodies the multitude of temporalities of all life in the biosphere. Finally, because of its constancy, water is timeless. The experiences of Helen, John and Cal illustrate that water metaphorically and literally transcends human experience of time. These experiences occur within the context of a narrative of shifting temporalities. The narrative moves freely between the past and the present, beginning in November 2008 and ending in February 2009. However, it does not follow a direct linear temporality. Instead, as if its temporality forms ripples of water, the narrative moves in circles between 1982 and 2008, only occasionally touching on various temporal periods. Water is a continuous presence in various manifestations and temporalities reflecting human measures. At the same time, water itself is a timeless cosmic constant indifferent to human temporalities. In this sense, water is the embodiment of a liminality that transcends time.

John's contemplation of time in his encounter with the psychic, and Helen's experience of and insight into Cal's death metaphorically position water in relation to time. While it dissolves the present into the past for John, water brings the past into present for Helen. First, in his encounter with the psychic, John explicitly contemplates

the nature of time. In John's characterization of time, water metaphorically dissolves the present into the past:

Maybe, John thinks, he doesn't want to know what's in the future. He has given a lot of thought to the nature of time and how a life can be over much too quickly, if you're not careful. The present is always dissolving into the past, he realized long ago. The present dissolves. It gets used up. The past is virulent and ravenous and everything can be devoured in a matter of seconds. That's the enigma of the present. The past has already infiltrated it; the past has set up camp, deployed soldiers with toothbrushes to scrub away all of the *now*, and the more you think about it, the faster everything dissolves. There is no present. There was no present.

Or, another way to think about it: your life could go on without you. (Moore 239)

The central concept in John's contemplation of the present time is dissolution. The idea of time dissolving positions time in direct relation to water. Water is the "universal solvent" because of its superior capacity over all other liquids to dissolve substances ("Water"). It is water that dissolves things, taking chemicals, minerals and nutrients wherever it goes. John's realization that "the present is always dissolving into the past" alludes to the dissolution of time by water, the "universal solvent" (Moore 239). The dissolution of time is illustrated literally when John's relationship with Sophie ends in 2005:

It had got dark outside Sophie's apartment while they'd been painting. The heavens had opened up. The rain was lashing the sidewalks and bouncing back up under the street lights. It ran in little streams near the curb, piling against a pop can and hurtling on, dragging brown leaves. It glassed over the street in

overlapping sheets that flared with the reflection of passing headlights. John's socks were soaked inside his shoes. What he didn't feel was regret or sadness. He felt exhilarated... The walk across the lane from her apartment that night drenched him to the skin. He waited for the car to warm up. It smelled of the wet tweed coat he was wearing. It was as if Sophie had been washed away. (Moore 191-193)

Because, as John asserts, there is no present, there can only be the constant dissolution of time. If the past has infiltrated the present, then the past is in the present and the separation of past and present is nullified. The characterization of the past and present as a process of "dissolution" metaphorically positions water at the centre of the processes of time. Water literally and metaphorically dissolves John's present with Sophie. It also literally dissolves Cal's present when he dies in the ocean.

Second, in a similar instance, water metaphorically unifies time when Helen learns of Cal's death. The narrator describes Helen's emotions as panic divided by the time of the past and the future:

She felt such a panic... Helen was in a panic as if something very bad *was going to happen*, but it had *already happened*. It was hard to take in that it had *already happened*. Why was she in a panic? It was as if she were split in half. Something bad was *going to happen* to her; and then there was the other her, the one who know it *had already happened*. It was a mounting and useless panic and she did not want to faint. But she was *being flooded with the truth*. (Moore 51; my emphasis)

In the moment of learning of Cal's death, Helen's internal, emotional reaction is dissociated into two halves, occupying different temporal frames. These separate temporal frames of the past and the future are brought together metaphorically by water, as Helen is "flooded with the truth". It is water that brings the past and the future together in truth.

Finally, Helen's ultimate understanding of Cal's experience of death characterizes water in relation to time, establishing that water is simultaneously the multitude of temporalities constituting life and a timeless constant. After much contemplation, Helen finally identifies the "true story" of the moment of Cal's death. In this moment, the character of water is revealed to Helen: "A crevasse forms in the cliff of water and it turns, as things sometimes turn, into concrete. Is it concrete or is it glass? It's mute and full of noise, angry and tranquil" (Moore 298). The description of the cliff of water as having a "crevasse" conveys the imagery of water as ice, a solid natural feature of the earth. The question of whether the cliff is glass or concrete establishes a tension between the liquid and solid forms of water. In addition, water embodies paradoxical features in sound and emotion. The momentary condition of water in the characterization of the cliff embodies the logic of metaphor, as the water is simultaneously fluid and solid, noisy and silent, and tumultuous and peaceful. At the same time, even as water embodies these dualities, Helen delineates a condition of water, where water is not subject to time:

How like itself and unlike anything else. How unlike a Ferris wheel or a dog whimpering in its sleep or popcorn in the microwave oven or watching your lover have an orgasm, the clench of a foot curled around a calf or a square of sunlight

on the hardwood floor. Growing old. It is like none of these things. Not remotely like. Or trying to hang on to an iced railing during the tipping upwards of the monstrous hunk of metal. How unlike. (Moore 298)

Water is like itself in terms of its embodiment of the dualities, but unlike the temporalities of life. Human experiences of life are marked by temporalities. Helen's description of random things illustrates that they are unlike water because these things are momentary. They occur only for brief moments in time. The emphasis on water being "unlike anything else" indicates its timelessness. Although water is manifested in a multitude of temporalities, water supersedes temporalities in that it is the absolute constant in life. For humans to live with water, they must navigate its vast multitude of temporalities with vigilance. However, in its manifestation on the earth, water's temporality embodies a metaphorical logic. Water embodies the multitudes of temporalities of the entire biosphere, and simultaneously it constitutes an absolute constancy: "Water has a single imperative. Every drop is hurling itself towards itself always. All water wants is to eat out its own stomach. It flushes through itself and becomes heavier and faster and it plows on, even while remaining still" (Moore 184). On Helen and Louise's holiday: the ocean performs a timeless, cosmic process: the "ocean was dark except for a line of white foam that ran almost the length of the shore and moved in and out, erased itself and returned, erased itself and returned" (Moore 254). Embodying metaphoric logic, water simultaneously moves and is still. "The ocean is full of its own collapse, its destiny is to annihilate itself thoroughly, but for a brief moment it stands up straight" (Moore 299).

That moment of Cal's death reveals the timelessness of water: "This wall of water has always been. It did not design itself or come from anywhere else or form itself. There was never a forming of. It just is. It is still and self-combusting. Hungry and glutted with love... It is the centre of the outside" (Moore 298). At the beginning of the novel Helen felt that, "She was outside. The best way to describe what she felt: She was banished. Banished from everyone and from herself" (Moore 13). Helen revealed a new consciousness of the outside of life: "Because of the children Helen felt a great pressure to pretend there was no outside. Or if there was an outside, to pretend she had escaped it. Helen wanted the children to think she was on the inside with them. The outside was an ugly truth she planned to keep to herself" (Moore 13-14). In the moment of Cal's death, Helen realizes that water is the "center of the outside". In other words, outside of the preoccupation with life, and outside of a transient human existence, there is water. Helen notes that: "When the wall closes over Cal, he will be like a fly in amber, a riddle of time, a museum piece. He will lose the desire for escape. The obsession with living will seem like a dalliance to him then. Stillness will be the new thing" (Moore 299). In other words, in the cliff of water the ocean will have revealed itself to Cal. In the realization of this absolute power—"this glittering thing, big and disco ball beautiful, full of dazzle"—Cal will have no desire for escape. John's contemplation, Helen's realization, and the moment of Cal's death illustrate the omnipotence of water. An entity to be revered: "Full of mystery, full of void. Full of God. Get down on your knees before this creature" (Moore 298).

*February* illustrates the fundamental truth that water's omnipresence on the earth relegates human survival to liminal spaces, even as human life itself is constituted by water. Through the use of metaphor, Moore reveals an inherent connection between water and metal in the form of bioelectricity in living organisms. The presence of bioelectricity in living organisms positions both water and metal at the foundation of life. It establishes a moral imperative to protect life itself in our actions towards water. It also establishes that we are in an intimate relation with water. Outside of the transience of human life, which is obscured by the business of living, water is the timeless truth. So, the inference that the infrastructure of water must be established as a public good is connected to the realization of our kinship with water and the preservation of life itself. The novel depicts a global neoliberal political economy that measures values according to cost-benefit analysis and risk assessment and does not exhibit the capacity to fulfill a moral obligation to protect life. It follows that, in the practical ways of navigating water, the corporate management of material infrastructures of water is wholly inadequate. Society requires infrastructure to navigate the ubiquity of water to be established as a public and common good. This will ensure the constant vigilance in daily material relationship with water.

In addition to the argument for a material infrastructure of water for public good, Moore's *February* presents an alternative approach to frame the relationship with water. The novel positions Helen, Jane, and Helen's mother-in-law Meg as a feminine alternative to masculine neoliberal political economy. These characters demonstrate a central theme of the novel: caring for relations. As a widowed mother, Helen is primarily concerned with caring and nurturing her children. Helen's physical experience of

gestation establishes a feminine connection to water. This connection is evident in the imagery surrounding the birth of Gabrielle:

Helen's water had broken on the sidewalk outside Bishop Field School. ... There was a sky piled with gold cloud over the South Side Hills. It had rained all day and then cleared just before she had to go get the children. Every puddle reflected cloud and a white burning sun the size of a quarter. As Helen walked past the streaks of water on the asphalt the white quarters slide along the length of the puddles until traffic sent a shiver through a broke the reflection apart in concentric rings so that the water become, for an instant, transparent and she could see the mud and cigarette butts and brown leaves beneath. (Moore 36)

The presence of rain refreshes and purifies the environment, and reflection of white metal coins that appears along Helen's path is bright and hopeful. This imagery of the generation of life from her body is distinct from the imagery of the death of Cal. A second pregnant woman, Jane consolidates the feminine connection to water. Pregnant with John's child, Jane is also nurturing and caring. Both women choose to create life although they struggle for resilience in a political economic system that leaves them vulnerable. They represent the struggle against the neoliberal political economy that measures life in reductive monetary terms. Finally, Meg demonstrates a spiritual relation with water as shown when Helen discovers that Meg is baptizing the baby:

She could hear water running. Water bashing hard against a deep sink and a washer was going. ... Meg was holding the baby over the big sink and she had the baby dressed up in along white dress that hung down over Meg's arm and a little

beaded cap, and she had her eyes closed and she was praying with the tap running.

Meg prayed and took a handful of the water and dropped it over Gabrielle's

forehead. (Moore 71)

Although Helen and Cal are not religious, she explains that when they married "they did it because deep in some not-often-used part of their brains, ritual" (Moore 75). The novel reveals a traditional, spiritual connection formed through the water ritual of baptism. This connection also symbolizes the role of water as part of the cultural infrastructure of life. It recognizes the alternative ways of living with water. Contrary to a cycle of death, created by the global political economy, Helen, Jane, and Meg represent birth and spiritual awakening in the approach to water.

In conclusion, Lisa Moore's novel *February* demonstrates the vital value of literature in providing a space for the exploration of human relationship with water. Moore exposes a corporate rhetoric that has reduced the value of life in the paradigm of the neoliberal political economy: "Shoreline Group specialized in risk assessment, organizational restructuring. They specialized in all the touchy-feely stuff from the 1980s ... a bold new self-generating speak that boiled over and reduced to a single, perfect word: *efficiency*" (Moore 130). The use of metaphor in Moore's *February* reveals that the neoliberal jargon of efficiency, redundancy, and stakeholders constitutes a rhetorical mask for the unrestrained pursuit of profit at the cost of lives of economically vulnerable people. More important, through the use of metaphor, *February* asserts the primacy of water as a currency of life, not the coin or capital as the currency of a neoliberal political economy. To this end, it confronts the dominant conceptions of water mobilized by the

capitalist system. Janine McLeod argues that that "Watery language naturalizes the movements of capital. To the degree that it is carried by aqueous imagery, capital is figured as a necessity, no less a biospheric feature than an ocean or a raincloud (42). As an example, the "flows of capital" metaphor is "exceptional in that it not only borrows water's meanings, but appropriates them directly" (McLeod 42). February illustrates that the use of metaphor can offer an alternative language of human relationship with water. Metaphor constitutes an infrastructure of words that is necessary for the exploration of water. Parallel to the material pipes that carry water, metaphors of water form the conceptual and symbolic infrastructure of water. Literature itself constitutes an infrastructure for human conception and action towards water. Like the open portals that allow for the psychological and physical survival with water, literature constitutes a portal to a more profound understanding of human relationship with water. The use of extended metaphors in literature is imperative because it allows for the exploration of our moral obligation in our bounded, reciprocal relation with water. The metaphoric relations illuminated by *February* exceed the scope of the conception of water in the legislative frameworks that govern relationships with water. The novel highlights the deficiency of the dominant legislative frameworks of water, and reveals the gap that needs to be filled in order to have a comprehensive and effective approach to water. Legislative conceptions of water enshrine the power to manage water as an object of political power for settler Canadians and for the pursuit of profits. The use of precise measurements, the metaphoricities of which are obscured, precludes human relation with water. It precludes the human care for water in a shared kinship. The novel establishes that the human

vulnerability of living with water is inseparable from water, as water itself is our connectedness. As humans, we are comprised of water. Water permeates our bodies, and the entire biosphere on which our life depends. We are indebted to water for life. At the same time, water is much more than how it constitutes human life. It is an absolute truth and constant in the life of the entire biosphere of the earth. Therefore, as humans have an obligation to water as we are in a reciprocal relation with water, in which water holds the balance of power.

## **CHAPTER THREE**

## Deliberate Metaphors: Creating a New Imaginary of Water Through Poetry: Rita Wong's *Undercurrent*

## Introduction

Though the lens of metaphor, literature can illuminate human relations with water, facilitating different imaginaries of water, and building new relations with water. Literature enables interpretations of broad metaphoric meanings of life with water. This is illustrated by my analysis of Lisa Moore's novel *February* in the previous chapter. Through various levels of metaphoric meanings, the novel explores human vulnerability in a life surrounded by water. It reveals the profound ways in which water is connected to the banal and significant moments in birth, life, and death. Moreover, it alludes to the necessity of continuously managing water as a relation and a public good and not solely as a resource. The novel *February* serves as an example of the capacity of literature to explore the depth and complexity of human relations with water as water is manifested in a multitude of ways in the biosphere. It shows that literature constitutes an infrastructure of our relations with water, and is a portal through which we can understand our relations with water.

This chapter shifts focus from the novel to poetry. More explicitly and intensely, poetry facilitates the development of metaphoric concepts of water. Poetry embodies metaphor's ability to generate new meanings. It illustrates the power of metaphor through density and creativity. The creative capacity of metaphor makes poetry central to the development of new imaginaries of water. Alternative water metaphors can lead to the

creation of new imaginaries that position water at the center of communities, as the sacred bond that is shared by all. On the basis of these imaginaries, water metaphors can function as a foundation for reconciliation and for environmental and social justice.

The value of metaphor in generating new imaginaries of water and in reorienting our relationship with water is epitomized in Rita Wong's collection of poetry *undercurrent*. Wong is an Asian Canadian poet, activist, and scholar. She was born on the traditional territories of the Niitsitapi (Blackfoot), Tsuut'ina, and Stoney Nakoda First Nations, in Treaty 7 territory (Mockler par. 8). Wong's poetry is devoted to the element water. A dialogue with her mentors, her poetry is also a response to an Indigenous call to protect the sacredness of water: "Wong took up the invitation to think about water and to reciprocate what water gives us, which is life" (Mockler par. 7).

The poems of *undercurrent* illustrates a range and depth of metaphors of water that is commensurate with water's interconnectedness with humans and human activity, and water's function in fostering and sustaining the life of the entire planet. Wong extends the metaphors of water in an act of creative placemaking to reveal fundamental material configurations of human subjectivity and relations with water that have remained imperceptible in the dominant human imaginary of water. In doing so, she positions water as the central basis of belonging and community. Roberto Bedoya defines "creative placemaking" as "those cultural activities that shape the physical and social characteristics of a place" (par. 1). Creative placemaking addresses the inequities that shape place (par. 5). In the poems of *undercurrent*, Wong counters the legacy of displacement, removal, and containment with an approach to creative placemaking that positions Indigenous peoples and laws at the centre of community. In the act of creative placemaking, Wong's inclusion of Indigenous and settler-Canadian relations to water recognizes that universal, material human relations to water are always marked by historical inequities, environmental injustices, and unevenly distributed political powers. In creating an inclusive sense of belonging to water, Wong builds towards an equitable and just society by affirming Indigenous rights and laws:

I cannot change this violent past, but what I can change is how I respond to this historical inheritance. One of colonization's common tactics is to divide and conquer different groups in the takeover and privatization of land, water, and resources; those of us who want to walk a peaceful path have a responsibility to build relationships and alliances that recognize interdependency and love for the watershed commons on which we live. (Wong, "Untapping" 235)

This individual assertion reveals the aim to facilitate the generation of new imaginaries that position water, as well as, restorative and social and environmental justice at the core of communities. Wong's commitment to the Indigenous struggle for social and environmental justice is evident in her activism. On 16 August, 2019, Wong was sentenced to jail for twenty-eight days by Justice Kenneth Affleck of B.C. Supreme Court for protesting against the Trans Mountain pipeline (Campbell, par. 2). In her sentencing statement, she spoke directly of place: "I sincerely ask the court to take our reciprocal relationship with the land and water into consideration because we are on Coast Salish lands, where everyone is a Coast Salish citizen" (Wong, "Rita Wong's Sentencing"). Citizenship is defined in relation to place. Wong stated:

I did this because we're in a climate emergency ... I acted with respect for the rule of law which includes the rule of natural law and the rule of Indigenous law and the rule of international law. Under the rule of law ... I have the responsibility to give back to the great Pacific Ocean, the Coast Salish Sea, Stalew (the Fraser River), and the many water bodies on which human life—and other lives—depend ("Rita Wong's Sentencing").

Reflecting the reality of lived experiences, Wong illustrates a relationship with water that is grounded in place and time, and in solidarity with the expression of Indigenous laws.

*undercurrent* demonstrates that poetry can constitute the practice of creative placemaking, and reveals its valuable role in the cultural consolidation of the relationship of belonging to water. Through the use of water metaphors, Wong enacts an aesthetics of belonging to water. In *undercurrent*, the metaphors of water explore various ways of thinking and being with water, processual and relational ways of belonging to a community of the hydrosphere that extends to more-than-human-worlds. Following the inclusive practices of creative placemaking, the poems of *undercurrent* re-inscribe Indigenous presence, and in the context of the affirmation of Indigenous rights and laws, they establish settler-colonial presence in community as part of the aesthetics of belonging to water. For the settler Canadian poet Wong, place as exemplified in these poems is a mindful presence in a community oriented towards water and towards the recognition of the full rights of Indigenous peoples. The recognition of Indigenous land rights inevitably orients communities towards water, as water's agency and consciousness are essential constituents of Indigenous societies.
In *undercurrent*, Rita Wong engages in the practice of creative placemaking by renewing conventional metaphors of water and creating new metaphors of water. I selected four poems to explore Wong's use of metaphors: "Borrowed Waters: The Sea Around Us, The Sea Within Us", "Mongo Mondo", "Dispatches From Water's Journey", and "Pacific Flow". I selected these poems because they present alternative ways of thinking with water, ways that reorient water to the center of all life. The poems establish human guilt (unevenly distributed) for the condition of waters in the Anthropocene. At the same time, these poems situate water at the core of place, relation and belonging. The themes of water as space and time, water as motion, and water as relation of kinship and belonging foreground conceptions of water that are more commensurate with water's functions in the biosphere and its needs in the Anthropocene. undercurrent engages the metaphors of water as teacher, woman, traveller, sacred bond and living connector, creator, ancestor, and home. These metaphoric conceptions extend the settler imaginary of water, making the invisible visible and positioning water at the core of belonging and place. They illustrate a human indebtedness and obligation to water that compels humility. Ultimately, the metaphors of water in *undercurrent* reveal that water is inherently metaphorical, validating the lens of metaphor as a critical mechanism for its exploration.

Analysis of the Poetic Metaphors of Water

## Human Guilt: the Metaphor of the Albatross

The metaphors of water, under the themes of place, time, motion, and relation, foreground conceptions of water that are different from the dominant conceptions of

water as H<sub>2</sub>O and resource explored in Chapter One. These metaphors function to contextualize the magnitude and gravity of the relations with the waters of the Anthropocene. These metaphors also constitute Indigenous and alternative conceptions of water. In the poem "Borrowed Waters," Wong writes: "a dead albatross mirrors us back to ourselves" (line 4). The central metaphor of the poem—the Great Pacific Garbage Patch is a "dead albatross" that mirrors humans—is complex. It alludes to human dependence on the ocean for food, the guilt and burden of the garbage patch, and the potential death of humans and others. This metaphor recalls Moore's descriptions of the mirror that "curled like a wave and splashed onto the carpet," and of the storm of cold and ice with "water everywhere" (Moore 77; 292). Wong's reference to an albatross is both metaphorical and literal. Found mainly in the southern oceans, the albatross feeds on organisms in the ocean ("Albatross"). The ocean is its source of life. The image of a dead albatross converges with that of starving squids to depict that in the Great Pacific Garbage Patch, the ocean struggles to sustain life. It offers only the discarded "floating plastic[s]" as food for the organisms that depend on it for life. As a mirror of humans, the dead albatross alludes to the physical death of humans as a result of plastic pollution in the ocean. It is known that "[m]icroplastic pollution has affected the entire planet, from Artic snow and Alpine soils to the deepest oceans. The particles can harbor toxic chemicals and harmful microbes and are known to harm some marine creatures" (Carrington, "Microplastic" par. 2). Scientists have now found microplastic and nanoplastic particles in human organs (Carrington, "Microplastic" par. 2). The dead albatross suggests that,

like other marine organisms, humans will experience death as a result of the plastic pollution of the ocean.

The death of humans from plastic pollution of the ocean is depicted in "Mongo Mondo". This poem ends with an image of humans as "feathered corpses" that recalls the image of the dead albatross. The lines—"trapped in massive ghost nets, angry flails are human, yet won't / get us out"—position humans as the birds. The reference to the "ghost nets" alludes to the trapping of marine organisms in the nets as well as to humans who are now trapped by the massive consumption and disposal of plastics into the natural environment. A ghost net is "a fishing net that's been lost or abandoned in the ocean" (Hancock par. 1). The metaphor of ghost in the name ghost net alludes to a haunting and unseen presence. Ghost nets constitute forty-six percent of the Great Pacific Garbage Patch (Hancock par. 4). Ghost nets are not seen by most humans, but they are haunting marine organisms and humans. They are a serious threat to life in the ocean. Hancock writes that: "Ghost nets don't only catch fish; they also entangle sea turtles, dolphins and porpoises, birds, sharks, seals and more. These animals swim into nets, often unable to detect them by sight or sonar. The nets keep animals from moving freely, cause injuries, and keep mammals and birds from rising to the surface for air" (par. 3). After connecting humans to the image of flailing birds, the final line of the poem states, "concerted cutting, strategic to the source, might avert our own disposal". The final imagery of cutting recalls the injury to the "feathered corpses" as it suggests that humans must discontinue the use of convenient plastics to prevent our own disposal.

The magnitude of this problem of plastic pollution is indicated in the name of the poem. According to the Urban Dictionary, "Mondo" refers to "extreme in degree", while "Mongo" refers to "humungous". Therefore, the title of the poem refers to the magnitude of plastic pollution in the ocean, which is deeply connected to the global economy. Echoing "Borrowed waters: the Sea Around Us, The Sea Within Us", "Mongo Mondo" illuminates the impact of human consumption and economic growth on marine animals. Just as the "carrier" work of water remains unseen, the agony caused by that pollution remains unseen.

"Borrowed Waters:" also concludes by indicating the magnitude of the problem of water pollution: "it is formidable & humble, / far way & intimate, outside & inside, all at once" (lines 17–18). The garbage patch is humble relative to the size and depth of the ocean. It is humble because it is a "dead albatross" metaphorically expressing humans' unquestionable guilt and burden. Its humility also connotes consciousness and agency, alluding to its capacity to affect life and the environment. Yet it is formidable because it is intertwined with persistent human economic and social behaviour. It is formidable also because fundamental structures of society must be changed to stop the pollution of the ocean. Even if the economic production and social use of plastics stop immediately, plastics will remain in the ocean.

The great magnitude of the ocean's pollution and the extensive networks associated with its pollution is directly connected to humans (some humans more than others!) The most significant cultural meaning of the "dead albatross" is the meaning derived from "The Rime of the Ancient Mariner" (1798), invoked even more explicitly in

Wong's poetry than it was in Moore's novel, discussed in Chapter Two. The albatross is "a source of frustration, obstruction, or guilt, from which it is difficult to rid oneself; a burden, an encumbrance; a hindrance" ("Albatross"). The images of the dead albatross and the "feathered corpses" indicate human guilt in the creation of the Great Pacific Garbage Patch. They also indicate human burden, the burden of the current economic system, which has created the Pacific Garbage Patch, and the burden of the polluted Pacific Ocean that can never rid itself of plastics. Finally, the reference to Coleridge's poem, in which the Mariner compulsively stops the wedding guests to relate his tale, might speak to the necessity and the value of storytelling and poetry to rethinking our relation with water and its inhabitants (our relations).

## Themes of Place

Wong positions water at the center of place in numerous ways. Place is established in the ocean in "Borrowed Waters: The Sea Around Us, The Sea Within Us" by the Great Pacific Garbage Patch. Wong writes:

the great pacific garbage patch is not just a mass of floating plastic junk the size of Ontario, jostling about with jellyfish and starving squids in the ocean, but a dead albatross mirrors us back to ourselves. (lines 1–5)

The speaker establishes the size of the site of marine debris in the Pacific Ocean by identifying it with the province of Ontario. This identification positions the problem of pollution in relation to the physical space of Ontario, rather than an ambiguous space in

the water, disconnected from human activities on land. The Great Pacific Garbage Patch is located "roughly midway between Hawaii and California, in an atmospheric area known as the North Pacific Subtropical High" (NOAA, "Where" par. 2). Separated by a wide landmass, it is located far from the physical space of Ontario. Yet by describing it in terms of the size of Ontario, the poet begins to establish the remote garbage patch as an extension of the imaginary of place. This establishes the complicity of people far away from the garbage patch, including people in Ontario, in its creation. Reflecting the reality that micro-plastics are consumed for food, the poem immediately invokes the image of starving ocean inhabitants struggling among the floating plastics by the alliterations: "plastic junk", "jostling", "jellyfish", and "starving squids" (lines 1-5). This image of starving marine organisms is superseded by the image of the garbage patch as a "dead albatross" and a reflection of "ourselves" (line 4). The first section of the poem establishes the metaphor of the Great Pacific Garbage Patch as a dead albatross, a place and burden created by human activities.

The metaphor of the ocean as "a great big salty home" conceptualizes the ocean as a place that is home. This metaphor is one of the ways by which Wong positions the ocean at the center of community and place, engaging creative placemaking. Water is still conceptualized as a container, as a home contains a family, but the conception of containment is complicated. The qualities associated with the domain of home are attributed to the domain of the ocean. An idealized home is a clean, personal space associated with qualities such as love, belonging, comfort, safety, and security. For many, it is our origins and our destinations. The metaphor of the ocean as home first positions

the vast Pacific Ocean as a sacred, personal place. Contrary to the images of the ocean as vast, dangerous or desolate, the metaphor of the ocean as a home identifies it as a place of intimacy, security, and safety. At the same time, because the ocean is connected to place, the poem indicates that humans are transgressing the sacred space of home by literally bringing garbage into it: "The deepest point on Earth is heavily polluted with plastic...researchers plumbed the depths of the Mariana Trench in the western Pacific Ocean, near Challenger Deep, the lowest place on the face of the planet. They found the highest levels of microplastics yet found in the open ocean" (Carrington, "Plastic" par. 1). The presence of garbage in the sacred place of the home is connected to an entire network of destruction. While the second section of the poem attributes the ocean with agency of creation, it turns on the question of human agency: "What do we return to the ocean *that let us loose* on land?" (lines 15–16; my emphasis). The answer to this question connects back to the first section of the poem where the Great Pacific Garbage Patch now stands as an example of the making of dead zones:

We are animals moving extracted

& excreted minerals into the ocean without plan or precaution, making dead zones though we are capable of life. (lines 17–19)

The use of the words "dead zones" in relation to the Great Pacific Garbage Patch points to the existence of actual "dead zones" in the ocean. Journalist Alanna Mitchell writes:

[In] the Gulf of Mexico, lies the blob. The blob is thick and dense, a shapeshifting layer of water which is short on oxygen stuck under the surface of the Gulf. Parts of it have no oxygen at all, an astounding phenomenon for such an energetic part of the global ocean...The issue with the blob is that without oxygen there are no fish or shellfish. When fishermen trawl...they get nothing. That's why they call the blob 'the dead zone'. (42)

The dead zone in the Gulf of Mexico is only one of approximately 407 dead zones in the world (Mitchell 42). The connection of the Great Pacific Garbage Patch to dead zones suggests that humans are slowly killing the ocean. The creation of life by the ocean over billions of years is juxtaposed to the creation of dead zones in the ocean. The speaker is clear that it is a human choice to destroy the ocean "though we are capable of life". The invisible plastic pollution of the ocean; the invisible connections from community to the Great Pacific Garbage Patch; and the invisible extensions of social and economic networks that constitute community are all made visible, allowing water to be visibly conceptualized as place. "Borrowed Waters: The Sea Around Us, The Sea Within Us" establishes the ocean as home and the Great Pacific Garbage Patch as a dead zone, positioning water as place in networks of creation and destruction. The poem situates place in the great ocean of water.

Contrary to "Borrowed Waters: The Sea Around Us, The Sea Within Us", the poem "Dispatches From Water's Journey" situates water in place with its focus on the journey of the Fraser River in British Columbia. "Dispatches From Water's Journey" is an act of creative placemaking that recognizes the colonial legacy of Canada and repositions the Dene people in relation to water and place. In water's journey, place is connected to the past. The characterization of Canada as a "haunted house" in the

speaker's assertion of her presence alludes to Canada's colonial legacy: "I live at the west entrance of a haunted house called canada" (line 1). The absence of the capitalization of the name "canada" suggests a subversion of Canada as a colonial state, as the speaker strengthens the Dene connection to place. Enjambment with the line, "whose hungry ghosts, windborn spirits, call us to conscience", reveals that the Canada's past has not been reconciled. Its ghosts are still "hungry" and call for a measure of justice. The poem introduces Canada as a place inhabited by restless spirits, like haunted houses. In doing so, it asserts the history of Indigenous peoples, bringing the injustice of that history into the present with the presence of ghosts. Canada is haunted by the death of innocent Indigenous children in the care of state-run residential schools.<sup>28</sup> The use of the word haunting suggests that the problems of the colonial past are enduring. There are ongoing injustices against living Indigenous peoples in Canada. Enjambment of the lines also allows for the reading of the call to conscience in relation to the "truth and reconciliation commission". The line—"thanks to the concurrent exhibition, *net-eth: going out of the* darkness "-refers to an exhibition of "contemporary and traditional First Nations artists" ("NET-ETH"). The poem alludes to a connection between the exhibition and the Truth and Reconciliation Commission, suggesting that the former influenced the arrival of the latter. The exhibition was titled "NET-ETH: Going out of the Darkness" and it included "Indian Residential School survivors and their descendants" ("NET-ETH"). "NET-ETH" refers to "a Musqueam metaphor for the first light after darkness, a time when you pray

<sup>&</sup>lt;sup>28</sup> This haunting is especially poignant given the discovery of more than a thousand unmarked graves of Indigenous children at multiple sites of residential schools in Canada (Weisberger par. 3). Specifically, the remains of two hundred and fifteen Indigenous children were found in Tk'emlúps te Secwépeme First Nation in Kamloops (Dickson & Watson, par. 1). The Penelakut Tribe in B.C. also reported findings of one hundred and sixty unmarked graves at the site of the Kupler Island Residential School (*CBC News*, par. 1).

and cleanse your tools to make them strong. Here, the artwork reflects the process of opening up to light, so that we can all heal together from the intergenerational trauma that is the sad legacy of Canada's Indian Residential School system" (NET-ETH). So, even as it gestures towards Canada's history of Residential Schools, the poem invokes hope for healing in the journey of waters. The historical struggles of the Dene people are merged with the struggle of water. Their struggles are conceptualized as a part of the journey of water or to their way of life, but to their existence as embodiments of water in place.

The poet situates water in place, illustrating the danger to water, while also conceptualizing water as teacher and creator. Water is located specifically in place, the Fraser River. The river is described as "translucent jade" and "liquid magic" (lines 30–31). The river is a creator of the landscape: "in its ceaseless flow for roughly twelve million year has created the landscape on which I live, otherwise known as Vancouver" (lines 36–37). The poet again situates herself in relation to the space and time of the river, as the river is established as the creator of the physical landscape of Vancouver. Wong writes:

Rain, falling steadily over millions of years, created what the Musqueam call Stal'ew, What English speakers call the Fraser River. ... Stal'ew is a twelvemillion year old elder, an immense force that drains a third of Aboriginal Columbia as it moves ceaselessly from its headwaters in the Rockies down down, down to the ocean. It is a rare creature for its size: an undammed river, though

some of its tributaries have been dammed, with great devastation to Indigenous peoples' homelands ("Untapping the Watershed Mind" 235).

Water is "a twelve million year old elder" and it assumes the position of teacher in the poem, as it is the river that teaches the speaker of the dangers from petroleum. Spatial dimensions of the pipeline are juxtaposed with the temporal dimensions of river. Specifically, the twelve million years of the slow creation of the Vancouver landscape from water's journey are juxtaposed with a diameter of a pipeline only a few years old. Although the speaker specifically identifies the pipeline at the Fraser Crossing, the rivers teach about the danger of petroleum that extends to the entire global water systems, directly and indirectly, as an effect of climate change. In addition to the threat of petroleum, there is a threat of commodification: "Former World Bank Vice President Ismail Serageldin famously / said that future wars will be fought over water, in the way / they're being fought over oil today" (lines 68–70). As part of its embodied and disembodied journey, water encounters these dangers in place even as it occupies the position of teacher, creator, and elder.

The metaphor of water as a woman reintroduces the Dene belief system in the context of place. The journey of water is embodied in the "Keepers of the Athabasca" and their responsibilities towards water. The speaker establishes herself as a supporter and witness of the Northlands Dene First Nation. She establishes the Dene people as survivors struggling against the various threats to water: "elders spoke of surviving hydro dam destruction, tar sands, uranium mines, global warming" (line 50–61). The threats to water are positioned in the context of the struggles of Indigenous peoples, whose relations with

water are vastly different from the settler-Canada's relations with water. As established previously, Indigenous Peoples in Canada suffer disproportionate exposure to water pollution although Indigenous knowledge recognizes the sacredness of water. The Dene not only identify water with women, but also consider it sacred. The Dene's spiritual relationship with water and their advocacy for water re-inscribe the place of the Fraser River with its Indigenous values.

Finally, the speaker represents another embodiment of water in place and on its journey. The poem establishes the speaker's relation to water and place by her presence as witness and occupant: "i live at the west entrance" (line 1); "i heard the story" (line 5); "when i walk the path …" (line 10); and "i feel the quick press" (line 12). The speaker's presence as member of the community connects her to water and place. Water in the ocean and water in the river are conceptualized as place, allowing the poet to reorient water to the center of community with recognition of Indigenous values and rights. *Themes of Time* 

The poems play with themes of time to make water's complex temporalities and relations in its embodied and disembodied forms more visible. In addition, the themes of time establish the speed of water pollution and the urgent need to reconfigure relations with water. In "Borrowed Waters: The Sea Around Us, The Sea Within Us", the absence of a temporal frame of reference creates the impression of a single moment of time. As a result, the network of human destruction associated with the Great Pacific Garbage Patch is depicted as if it is occurring instantaneously, relative to the evolution of life from the

ocean for over "half a billion years". This momentary temporality illustrates the enormity in scope and speed of human pollution of the Pacific Ocean.

The connection of life to the ocean occurs in the context of time. Contrary to the first section of the poem, which implies a momentary temporality, the evolution of life from the ocean takes "roughly half a billion years". The slow temporality of the creation of life is juxtaposed with the quick temporality of the destruction through the pollution of the ocean. The movement of human predecessors is compared to plants "spreading like succulents & stinging nettles, our salty-wet bodies refilled / their fluids through an eating that is also always drinking" (Wong, lines 7–10). And contrary to the conception of plant life as stationary, the long temporality of a "half a billion years" makes the movement of plants visible, equating plant life with human subjectivity and movement. The characterization of eating as drinking affirms that all life, including edible life forms are comprised of water. Eating is the practice of some forms of fluid consuming other forms of fluid: "constant hydration comes from food, in particular fruit and many vegetables which, at about 90 per cent, have the highest water content of any food substances" (Strang, Water Nature and Culture 33). The different temporal frames contrast the fast pace of human destruction of the ocean with the slow pace of the ocean's creation of life.

While "Borrowed Waters: The Sea Around Us, The Sea Within Us" contrasts the times of destruction and creation in general, "Dispatches From Water's Journey" explores the temporality of water in multiple, particular manifestations. Multiple temporal frames in the first section of "Dispatches From Water's Journey" connect with water, as if to establish water's various manifestations as they and it move through time. There is the

time of the past, the time of the "hungry ghosts" (line 1). Connected to the events of the past, there is the time of personal healing: "i heard the story of a local artist, a survivor of the residential schools, / who earlier in his life used bullets as lead to draw his art" (lines 5–7). The act of healing is evident in the use of bullets for the creation of healing art rather than for their intended purpose to kill. The time of personal healing is distinct from administrative time: "another artist pointed out that her family's healing time is / Different from the TRC's schedule" (lines 8–9). The time it takes to heal is not equivalent to the administrative time of the Truth and Reconciliation Schedule. Furthermore, the embodied experiences of these times are vastly different. The time experienced by the speaker is distinguished from Indigenous experiences of time. As another embodiment of water's journey in time, the speaker is a witness to the stories and the healing of the artists. She is also a witness to water's presence in place:

when i walk the path of the rainway in my neighbourhood, as i

did today

i feel the quick press of clock time, monkey mind

the slow depth of stream time, gut strong

the push pull of moon earth, street sky. (lines 10–14)

The speaker is experiencing time as embodied water following the flow of disembodied water, "the path of the rainway", with which she walks in the present. At the same time, she is experiencing the imposition of "clock time". "[Q]uick press" refers to the pace of clock time. The reference to "monkey mind" suggests that speaker struggles to be in the presence of "stream time" as she walks the path of water in her neighbourhood. Derived

from Buddhism, the concept of "monkey mind" refers to the unsettled mind. Psychologist Diana Raab writes that, translated into psychology, "the monkey mind insists on being heard, and sometimes it take a lot of self-control to shut it down. It is also the part of your brain that becomes easily distracted" (par. 2). The speaker's sensory and cognitive experiences in relation to water establish her presence in place and her relation to the Dene people, also consolidating their presence as Indigenous inhabitants of place in the present time.

Finally, there is the hydrological time of water, the disembodied material element that continues to flow as a feature of place. The poem's statement of the "push pull of moon earth" alludes to the gravitational pull between the moon and the earth, another relationship connecting time and water. It is reminiscent of the novel *February* when the eclipse momentarily obscures the timeless, cosmic relationship with water. According to the National Ocean Service:

[A] lunar day is the time it takes for a specific site on the earth to rotate from an exact point under the moon to the same point under the moon. ... The lunar day is 50 minutes longer than a solar day because the moon revolves around the Earth in the same direction that the Earth rotates around its axis. ... Because the earth rotates through two tidal 'bulges' every lunar day, costal areas experience two high and two low tides every 24 hours and 50 minutes. High tides occur 12 hours and 25 minutes apart. It take six hours and 12.5 minutes for the water at the shore to go from high to low, or from low to high. (NOAA)

This relationship indicates that time and water are intimately connected. There are temporal patterns that govern the journey of the waters of the planet. These temporal patterns are experienced by water in all of its manifestations. The enjambment of the lines, "push pull of moon earth, street sky / an imperfect dance can still bring together" suggests the imperfect dance of the play between time and water, and the multitudes of manifestations of water as life. In this context, the speaker introduces the concept of collective healing. The imperfect dance brings together "the broken, the dead, the scared & the scabbed, the makers / & remakers / the children, the elders, the families, the storytellers, the witnesses" (lines 16–19). These lines describe a human community of the Fraser River trying to heal across time. This section of the poem concludes with the lines: "knowing that reconciliation needs land restoration to ground / itself & grow" (lines 22-23). The speaker advocates for the restoration of the land to Indigenous peoples as part of water's healing. The process of fighting for restoration is connected to the progressive healing: "sometimes faltering yet steadily recovering, we lean into this necessity". Restoration is necessary.

Like "Borrowed Waters: The Sea Around Us, The Sea Within Us", the poem "Pacific Flow" suggests that the long temporal pace of the evolution obscures the kinship of all life. However, it also depicts an urgent need for humans to learn the language of water to confront the destruction of the ocean. The poem turns in the fifth stanza with the lines:

saltiness grows over eonsplankton provide half our oxygenwhat we cannot seematters as kin. (lines 9–10)

The speaker shifts from singular to plural pronouns to indicate the absolute and collective human dependence on the ocean. The enjambed lines suggest that human dependence on plankton and human kinship with the ocean remain invisible across time. The words, "matters as kin," affirm the substantive and relational reality of human life and materiality.

In the second half of the poem, the poet chronicles the human destruction of the ocean and connects it to time. In particular, the line, "fever speeds us up" links the rise in temperature when the human body fights toxins to the rise of the sea temperature associated with global warming. The "soluble toxins" of the body are juxtaposed with the "insoluble plastics", the toxins of the ocean (line 6). The tone of the poem shifts to urgency and severity:

choppy waves warn	hazardous passages	
abound from	city sewage	

mess amasses dissonant grammar. (lines 13–15)

The intensity of ocean water pollution is connected directly to human waste. Following the words "dissonant grammar", the line "wail overfished bluefins tune" alludes to the sorrow of the disharmony of the ocean (16). With the homonym "wail" the poem invokes the decline of whale population. At the same time, the sound "wail" is aligned with "tune", an elision of the bluefin tuna, which is being commercially overfished at unsustainable levels. The final lines indicate that at the lowest ecological region of the ocean is a revelation awaiting human recognition:

benthic beholdswatches & weightslearning curvesgurgles to the surface (lines 17–18).

The depth, from that lowest region to the surface of gurgles, points to a steep learning curve that humans must overcome. The poet's use of the word "watches" signals the expectation of danger, while the word "weight" signals a burden. The words "curves" and "gurgles" invoke the gentle weightlessness of water. At the same time, this buoyancy and lightness are paired with that heavy burden, the weight of the knowledge that beneath the ocean, where it is invisible to human eyes, there is a watch on our existence. The theme of time brings into focus the slow motion of creation by waters, revealing obscured relations. In addition, it highlights the rapid pace of destruction of waters, pointing to the urgent need to respond.

# Themes of Motion

The themes of the motion emphasize water's movement as it functions to contain and carry. Wong's emphasis on the metaphor of water as a carrier brings the pollution of waters into focus. At the same time, in a more hopeful conception the poet reverses the metaphor of water as carrier by positioning water as a traveller. The metaphor of water as a carrier is dominant in the imaginary of water, as our knowledge and experience of water as a carrier is fundamental to our daily lives. Water carries germs every time we wash our hands; it carries nutrients when we eat and drink. Water not only circulates pollution through the gyres of the earth, it permeates all life carrying toxic chemicals directly into bodies. It carries diseases among our bodies. It is the medium of transportation from intracellular levels to planetary levels. As a carrier and medium of transportation, water is central to human civilizations, to colonization and to contemporary economic globalization. Water is a neutral carrier. In "Mongo Mondo", the presence of water is expressed only as an implicit conceptual metaphor. The poem conceptualizes water as an invisible carrier. This conceptualization complicates the metaphor of the container by introducing relationality and motion. As the poem vacillates between the seen and unseen, the presence of water remains implicit and unseen as a silent container and carrier of pollution. The implicit positioning of water as carrier of plastics and plastic pollution reflects the unmediated but ubiquitous conception of water as carrier. As container, covering seven-tenths of the earth's surface and vast depths, the ocean holds all the marine animals and microorganisms such as phytoplankton, which produces oxygen. As container, the ocean also holds the human pollution of plastics and of climate change, as it absorbs both carbon dioxide and heat from the atmosphere (Mitchell 8).

As container, water is the medium in which the plastic pollution is occurring, unseen in broad daylight: "Midday at midway, sun glares plastic trashed, beached, busted / Bottle caps, broken lighters, brittle shreds in feathered corpses" (lines 1–2). In these lines, the words "trashed", "beached" and "busted" invoke the movement of waves of water through its effects on plastics in the water. The alliteration of "beached", "busted bottle", "broken lighters" and "brittle shreds" create a rhythm that ends with the words "in feathered corpses" (lines 1–2). This rhythm emphasizes the consumption of the "brittle shreds" of plastics as the cause of the demise of "feathered" organisms. The word "shred" suggests the literal cutting of the birds from within their bodies. In this context of water as a container, the movement of water shapes the plastic objects of pollution into even more harmful objects to marine organisms.

Water's capacity to move by circulation is mirrored in the movement of the plastics. The poem marks the inception of plastic pollution through movement: "heralded by the hula-hoop & the frisbee, this funky plastic age / spins out unplanned aftermath, ongoing agony" (lines 3–4). The movement of the hula-hoop and the frisbee are extended as the "spins" of the "plastic age". Contrary to the image of the playful spinning of the hula-hoop and frisbee, the spins of the plastic age are an "unplanned aftermath" and an "ongoing agony" (lines 3–4). This movement of the hula-hoop and frisbee are added to the movement of the aftermath of plastics, where they become "brittle shred" causing agony to marine organisms. The "agony" remains unseen although it is occurring in broad daylight. The poet uses spinning, the motion that describes both the hula-hoop and the frisbee, to characterize the "unplanned aftermath" of plastics. The word "ongoing" suggest that even as humans now face the aftermath of plastics, the use of plastics continues and its effects will continue to grow. The motion of spinning also establishes a circular relation between consumer use and waste production. These lines of the poem illustrate the impact of plastic pollution on the survival of other organisms in the ecosystem.

The metaphor of water as a silent carrier reflects the material reality that polluted waters will carry pollution directly to the bodies of other life forms. Strang notes that "[w]ater ... has more subtle, creeping forms of travel: its molecular structure enables capillary action, so that it soaks permeates and moves through other things. Raising groundwaters keep the earth's soils moist and productive, enabling plants to draw nutrients into their internal systems of fluid transport" (*Water Nature and Culture* 16).

Connecting to the theme of time, the poem declares that the human need for convenience is not worth cancer that is carried slowly to the body: "convenience not worth cancer's / long soft leak into lungs, brains, bellies / distended, grotesque imitations of feeding" (lines 10–12). It alludes to the slow seepage of chemicals into bodies, both human and non-human by the specific identification of parts of the body. The description of "grotesque imitations of feeding" therefore applies to both the human use of plastics in the consumption of fast food, and the painful experience of marine animals that ingest the plastics that saturate the water. It is not actual feeding, but an imitation of feeding. The poem reveals that the casual consumption and disposal of plastics generates patterns of motion of plastic pollution in which human life, like marine-animal life, is positioned as disposable.

While water moves things in its conception as a container and carrier in "Mongo Mondo", it is water that moves in "Dispatches From Water's Journey". In this poem, Wong invokes the conceptions of water as teacher, woman, and living connector, but primarily engages the metaphor of water as traveller in time and space by illustrating the journey of the waters of the Fraser River. Rivers are prominent in the human imaginary of journeys. "Rivers provide a perfect metaphor for the movement of life over time and space: 'springing forth' from unspoiled mountain slopes, they take form in churning energy, waterfalls and rapids that act vigorously on the landscape" writes Strang (*Water Nature and Culture* 56). In "Dispatches From Water's Journey", the dominant metaphor of water as a carrier is absent. Instead, the poem positions water as the traveller. Water is conceptualized as being on its own journey as a single entity. So, it is water, in its

embodied and disembodied forms, that is on the journey towards its own healing. In its ongoing journey, water is encountering significant threats. However, in its ongoing journey, it also has the accompaniment of members of Indigenous and local settler communities. "Dispatches From Water's Journey" extends the conventional metaphoric characterization of water as carrier, and in conjunction with the explicit voice of the speaker, the poem positions the Dene people and the settler speaker in relation to water and place. It establishes that the Dene people, the settler speaker, and water are all central to place as part of a greater journey of water. The conceptualization of water itself on a journey is an inversion of the conventional conceptualizing of water as carrier. Instead of being the medium of movement, it is water that is moving, not only as it flows naturally in a river, but as it intersects with, and is embodied in humans on its journey.

### Themes of Relation and Belonging

In different ways, the poems position water at the center of relation and belonging. The poem "Pacific Flow" equates human life with more-than-human life in value, establishing relations between them. Wong reassigns the human subject from a position of dominance over the ocean to one where it is simply another life form dependent on a vast and timeless ocean. In the line "salmon streams double as human & bear lifelines", the image of a fishing line used by humans to catch fish is reversed, as salmon streams become the lifeline of the human (line 4). The speaker's alignment of human and bear creates an equivalence of dependency that refuses to privilege human life. This refusal elevates the personified life and voice of the ocean water. The poem establishes belonging to water by positioning the Pacific Ocean as the absolute subject from whom the speaker must learn. The words of poet Fred Wah consolidate the poem's reconfiguration of the scales of life: "*Pacific Ocean's the real boss*". The poem positions the Pacific Ocean, not the human being, as the absolute subject. It operates on a visual and a textual level to raise the question of the language and voice of the material element of water. Like a child learning the language of its parents to whom it belongs, the speaker must learn the language of the ocean:

water has a syntax i am still learning

a middle voice pivots where it is porous. (lines 1-2)

The enjambed lines of the passage quoted above allow the "middle voice" to be attributed to the element water, and to the speaker, fusing together the subject-speaker with the object-water. Significantly, the subject is expressed by the lower case letter "i" and is positioned as a singular element in the flow of water—the waves pictured by the caesuras of this concrete poem. This occurs in contrast to the only upper case letters in the entire poem, the title: "Pacific Flow".

The personification of the Pacific Ocean transforms the element of water into a person with language, mobility and sight. It has "a syntax" and "voice", a "rhythm" that "sings", "warns", and "wail"; it "pivots", "punctuates", "speeds up" "churns" and "gurgles"; it "beholds" and "watches" "what we humans cannot see" (Wong 9). The poem imagines the ocean as the life that is seamless with all other lives, the one on which all others depend. This dependence establishes belonging and the need for humans to reconfigure relations with water with respect and kinship.

The poem imagines the Pacific Ocean as life itself; it imagines the Pacific Ocean's extension to human kinship and language; finally, it articulates the urgent necessity that humans must learn the language of the Pacific Ocean, a language commensurate with the profound value of water. "Pacific Flow" situates the experience of the waters of the Anthropocene, illustrated in all of the poems, in the context of the dire need for humans to acquire a language of water for the preservation of life. In framing the experience of the waters of the maters of the Inframing the experience of the waters of the acquire a language of water for the preservation of life. In framing the experience of the waters of the anthropocene, Wong epitomizes a critical issue of the twenty-first century: the need for humans to learn the language of water and imagine the language of a planet amidst serious ecological crisis.

Water is situated in networks of relations in "Borrowed Waters: The Sea Around Us, The Sea Within Us". These are networks of destruction connected to the pollution of the ocean, and networks of creation connected to the evolution of life. However the most powerful and hopeful theme of relation is that of belonging. The theme of belonging is central to the relationship with water. The second section of the poem "Borrowed Waters: The Sea Around Us, The Sea Within Us" establishes the metaphor of the ocean as the absolute ancestor and reveals its long evolutionary connection to humans. The title of the first section of the poem "Borrowed Waters:" immediately offers a metaphor that establishes water as an object that is temporarily and conditionally afforded to humans. As a "borrowed" entity, water does not belong to humans. The poem introduces the concept of ownership only to contest human ownership of water. At the same time, it introduces other metaphors of belonging to establish a relationship with humans. Though its status as a "borrowed" entity appears contradictory, it is clear that water does not

belong to humans. Humans belong to water. This relationship of belonging intensifies the betrayal signified by the defilement of the waters of the Pacific Ocean.

The second part of "The Sea Around Us, The Sea Within Us" builds on the conceptualization of the ocean as home and establishes a clear relation of belonging by illustrating that water is the common ancestry of all life. The title explicitly refers to Rachel Carson's The Sea Around Us, which was first published in 1951 and proposes that the sea is the mother and ancestor of all life (Carson 14). This section of the poem explains water's relation to humans. In addition, it develops the ways in which water is "formidable & humble, far away & intimate, outside & inside, all at once" and illustrates that a natural network of creation transgresses containment. Even as the poem establishes its central metaphor, that the ocean is ancestor, water exceeds human subjectivity. The poem begins with alliteration: "both the ferned & the furry, the herbaceous & / the human, can call the ocean our ancestor" (lines 1-2). The enjambment of lines one and two ensures that humans are not situated in an exclusive relation with the ocean ancestor. Instead, humans are equated with other forms of life implicitly through alliteration, and explicitly through common ancestry as indicated by the possessive adjective "our". So, the poem begins by relegating human subjectivity to equal status with the full range of plant and animal life, whose kinship with us is rarely acknowledged. This recalls the description of the ocean as "borrowed waters", waters that do not belong to humans. At the same time, the end-stopped line makes the ancestral connection to the human more explicit: "our / blood plasma sings the composition of seawater" (lines 2–3). It explicitly connects human ancestry to the ocean by citing a literal connection by blood, the

chemical resonance of blood plasma to the constitution of ocean water. Ninety percent of blood plasma is water, containing dissolved salts and mineral ions among other components (Benson). This connection reveals the presence of the ocean flowing within the human body as ancestral inheritance. The ocean is established as the absolute ancestor, a personification of water that establishes belonging although water is a more-than-human entity. The ocean is conceptualized in terms of subjectivity. This metaphor of the ocean as ancestor also transforms the ocean into a single entity, as if it is separated from the waters that comprise other life forms in the biosphere. It functions to personalize the ocean as family, an ancestor directly connected by blood. In addition, the poem makes the ocean active in the creation of flora and fauna, positioning the ocean as creator:

roughly half a billion years ago, ocean reshaped some of its currents into fungi, flora & fauna that left their marine homes & learned to exchange bodily fluids on land. (lines 4–7)

Flora and fauna are transformation of ocean currents, made by the ocean itself. In addition, to the active ocean, "fungi, flora & fauna" are also active as they leave, learn, and exchange. The poem attributes agency to water in the form of "fungi, flora and fauna".

The dominant metaphor of the poem is the ocean as the absolute ancestor of life, life from which and of which, evolved progressively into human life and all other life forms. This is explicitly confirmed at the halfway point in the line: "hypersea is a story of

how we rearrange our oceanic selves on land" (line 10). The concept of "hypersea" views life on land as an extension of life in the ocean. Strang writes:

One of the reasons that it is easy to envision a connective 'hypersea' of water linking all living things is that water behaves in similar ways at every scale. In a microcosmic echo of planetary circulations, water flows through even the smallest organisms in what we could call 'hyposeas', connecting each part of them. Thus in the human body, as in larger systems, water mediates interactions between all of the different materials and processes involved in maintaining life. (*Water Nature and Culture* 31)

The metaphor of the ocean as absolute ancestor extends water towards subjectivity by personifying the ocean, while the metaphor of humans as "liquid matrix" extends human subjectivity towards water. The poem illustrates a matrix of natural relation by water:

we are liquid matrix,

streaming & recombining through ingesting one

another, as a child swallows a juicy plum, as a beaver

chews on tree, as a hare inhales a patch of moist,

dewy clover. (lines 11–15)

It suggests that all of life, including human life, is a matrix of water. The material condition of the human being itself can be considered a matrix, as Strang notes: "About two-thirds of the water in human bodies is 'intracellular'—inside our cells. The other third is comprised of 'extra-cellular' fluids such as blood plasma, and 'intracellular' fluids, which surround the cells, carry nutrition and oxygen to them and remove

metabolic wastes" (*Water Nature and Culture* 31). This metaphor of humans as a liquid matrix works to position human life in the converse position of the personification of the ocean by de-personifying the singular, detached conception of human subjectivity. It positions human life as a network of water, and in a network of contingencies with other lives, all comprised of water. Mitchell describes water's interconnections:

The ocean is impossibly complicated, interconnected, turbulent and nonlinear, and it touches every part of life. Humans can only understand it by trying to grasp far simpler proxies. Such as: every tear you cry ends up back in the ocean system. Every third molecule of carbon dioxide you exhale is absorbed into the ocean.

Every second breath you take comes from the oxygen produced by plankton (23). The poem "Borrowed Waters: The Sea Around Us, The Sea Within Us" juxtaposes the "manmade network" with "liquid matrix", undermining the conventional metaphor of water as container. These networks of relations extend the metaphor of the ocean, positioning it as the core of relations, a place that is home and the ancestor to which we all belong. The correspondence of the metaphor of the ocean as ancestor and the ocean as home breaks down distinctions by imaging being and belonging as inseparable.

If the sea is around us and within us, the concept of in and out become relative. Embodying a condition that can only be expressed through metaphor, humans are both separate entities and entities deeply embedded in the matrix of water such that within and around become categories that are barely distinguished. In this way, the material condition of water relations exceeds the conventional metaphors, and even the novel creative metaphors of water generated to position water in relation to place and life in the

Anthropocene. Water's ontological reality as the precondition and embodiment of life exceed humans in language and materiality. Water defies containment materially and discursively. The poem recalls Lee Maracle's epigraph for the collection: "We do not own the water. The water owns itself."

In "Dispatches From Water's Journey", Wong re-establishes the sense of belonging to place with land, water and the Dene people. The poem engages Canada's legacy of colonialism, and its history of disrupting Indigenous connections to land, water, and place. Although the settler is part of the legacy of the disruption of this relationship, the poem establishes the presence of the settler speaker in place under the terms of the recognition of Dene's traditional rights and laws. The settler is present as witness and as citizen of Indigenous land. At the same time, the poet introduces a more profound sense of belonging through the metaphor of the waters of the Fraser River as a single traveller and as "one troubled water" on a journey of healing.

The final lines of this first section of the poem are: "rising from the watersheds we become together when we drink / from them" (lines 26–27). As all lives are sustained by watersheds, this line connects all of the lives in the ecosystem of the watershed. The act of drinking from the watersheds is the basis of togetherness. Ultimately, the poem can be read as the embodied and disembodied journey of water: "Underneath all the words, we are one troubled water, learning / to heal ourself" (lines 28–29). While this statement reveals a discontinuity between the words of language and water, it also asserts unity. It refers back to the necessity of climate fluency while asserting the unity of all life. "We" refers to the lives reliant on the watershed. Water is common to all of these lives as

individual embodied entities. Yet each of water's material manifestations is only part of water as a singular troubled entity. It is this single, unitary "one troubled water" that is on the journey. The phrase "one troubled water" brings together everyone under the umbrella of water, alluding both to the water that comprises us, and the water that sustains us. The poem establishes water as a singular entity that is journeying though all of us. It also suggests that this singular entity is troubled and "learning to heal". Water is simultaneously singular and multiple as it journeys through various temporalities embodying the metaphoric condition.

The poem's metaphor, "one troubled water", on a journey of recovery is an expression of hope. It is also a declaration that the finite material journey of the river does indeed continue. It continues because water is one single entity—in embodied and disembodied forms, facing numerous threats, from residential schools to global warming—on its journey towards healing. It is also inherent in characterization of water as a single entity, as the journey of water continues infinitely in different forms. Recalling the metaphor of water as a "sacred bond", this poem asserts the metaphor of water as: "our living connector, a gentle yet powerful way to be in relation to one another" (line 86). Ultimately, it is a sacred, living connector because, in a more profound sense of material belonging, it is a single shared identity.

# Conclusion

The poems in *undercurrent* indicate that metaphor is a critical mechanism through which settler Canadians can develop our imaginative relationship with water. Collectively, the metaphors of water illustrate the relational ontology among humans,

water, and the networks of water in entire ecosystems. They illustrate that water is absolutely metaphoric in its ubiquity and relationality. In addition, the poet's individual journey reveals a shared material reality, which makes the recognition of alternative imaginaries of water—those reflecting water's metaphoric condition—necessary. The poet describes the metaphoric condition of water in "Untapping the Watershed Mind":

The water that is inside me is part of the hydrological cycle around me, as water shapeshifts through me. The distinction between inside and outside, me and the surrounding watershed, becomes phased and rhythmic if we track the subtle dance of water molecules, floating through lively green wetlands and dark linear pipes on their way from you to me (249).

"Borrowed Waters: The Sea Around Us, The Sea Within Us" illustrates how water is inside and outside of us at the same time, establishing water as a subject ancestor and home, while simultaneously exceeding subjectivity by networks of pollution and creation. "Dispatches From Water's Journey" illustrates the "subtle dance of water molecules" by positioning water a singular, troubled, traveller on a journey in a multiplicity of embodied and disembodied forms. This metaphor conceptualizes water simultaneously as one and as a multitude. In addition, water is a traveller even as it is simultaneously the medium of travelling. The metaphors in the poems of *undercurrent* make this ubiquitous function of water visible, even as these metaphors are conceptually exceeded by water.

Wong's collection of poems shows that the density of poetic language allows for the complex expression of water's multitudes. While the poetic metaphors of water occur outside of the range of metaphors enacted in legislative acts, they are nevertheless more

commensurate with water's material function in the biosphere and in the human imaginary. As a result, they reveal the significant discrepancy between the metaphors of water in governance tools, such as the Canada Water Act and the Fisheries Act, and the metaphors of water commensurate with water's material functions and cultural imaginaries. The choice of metaphors affects the understanding of water and leads to concrete actions such as the building of dams. The metaphors in the legislation examined in Chapter One desensitize and restrict the real function of water through abstraction. Poetry counters this desensitization and restriction. Because of its constitution as life and its ubiquitous presence in the biosphere, water will perpetually overflow and exceed cultural imaginaries. Yet water's ubiquity and perpetual excess do not preclude the inclusion of a wider range of metaphors of water in the legislative tools that govern material actions with water as water functions in life and in the biosphere. Might it be possible to translate poetic metaphors of water into legislative concepts of water for the genuine protection of water? Might it be possible to translate the poetic metaphors of water into legislative concepts of water for restorative and social justice in relations with water? The existence of multitudes of imaginaries of water in various languages and cultures do not preclude the expansion of the current, limited imaginary of water governing the relationship with water in Canada.

In *undercurrent*, Rita Wong introduces a range of metaphoric conceptions of water that are commensurate with water's actual material function in the biosphere. These metaphors illuminate the imperceptible and invisible functions of water in our world. They extend the imaginary of water beyond the dominant metaphors of water, those

metaphors that constitute reductive conceptualizations of water, facilitating its pollution, extraction, and dispossession. At the same time, water defies conceptual containment by these metaphors. In other words, water always conceptually exceeds the parameters of metaphors, as it exceeds the parameters of all of its singular manifestations. Because the ubiquitous, processual, and transitory, material functions of water exceed conceptual metaphorical containment by any and all individual metaphors, water is ultimately and absolutely metaphorical. Water always occupies the same definitive position that characterizes metaphor, where it simultaneously *is* and *is not*. Yet the embodiment of this metaphoric condition is hopeful, as hope is present in the gestationality and futurity of both water and metaphor.

### **CHAPTER FOUR**

#### Watering Subjectivities:

# Astrida Neimanis's Feminist Figuration "Subjectivity is Water" and Leanne Betasamosake Simpson's "Big Water"

The inherent measure of metaphor is the measure of likeness and similarity. In foregrounding similarity and likeness, powerful metaphors can also erase differences. Chapter One illustrated the dominant, but limited metaphors of water that frame policies and actions towards water in Canada. Chapters Two and Three showed that the water metaphors in literature have the potential to exceed and complicate those in legislation and reflect water's emergent properties and human and more-than-human relations with water. Although there are theoretical as well as substantial material divergences between Indigenous and non-Indigenous conceptions of water, I hope that this chapter opens a dialogue for settlers to better understand the principles asserted by Indigenous thinkers and to explore the possible convergences that might constitute a common foundation from which to reconfigure relations with water at this time of the Anthropocene.

Following the framework of Hill and Coleman in the Introduction, this chapter engages a dialogical relationship between Indigenous and non-Indigenous conceptual frameworks, acknowledging that, like the metaphor of the ship and the canoe, these are parallel positions that do not meet. Coleman writes that

the Two Row Wampum-Covenant Chain treaty provides a unique model for creating this principled ideological space. It is an Indigenous framework based in Hodinöhsö:ni' political, ecological, and social philosophy that is explicitly aimed

at formulating reciprocal and productive relationships with non-Indigenous neighbors without collapsing either part's distinctiveness or autonomy. (Hill & Coleman 344)

The Two Row Wampum-Covenant Chain agreement framework for the engagement of Indigenous and non-Indigenous scholarship is precisely suited for this chapter because of the conversation between distinct and autonomous positions. In the first section of this chapter, I examine Astrida Neimanis's proposal of a "feminist figuration" based on water. I examine how the metaphor—subjectivity is water—moves beyond the embodied and personified experience of water to reconfigure human subjectivity as a temporary, contingent, and material form. In the second section, from my position as an immigrant to Canada and settler Canadian, I examine the radically different conceptualization of this metaphor emerging from my reading of an Indigenous cosmological and epistemological tradition. Specifically, I examine how Leanne Betasmosake Simpson's Anishinaabe Creation Story, "Big Water", personifies water as a subject in the context of the Indigenous conception of Place-Thought.

The theoretical positions of Neimanis and Simpson are different. This chapter's analysis of Simpson's short story "Big Water" through the lens of metaphor is not commensurate with a framework of Anishinaabe knowledge, which asserts a relation that is literal rather than metaphoric. Yet this chapter situates Simpson's "Big Water" in the context of metaphor, and in conversation with Neimanis's conception of the subjectivity to illustrate that alternative metaphoric conceptualizations of water can share similar attributes although they occupy and emerge from divergent theoretical positions.

Though the theoretical positions of Simpson and Neimanis can be symbolized as the distinct and parallel ship and canoe, there is the shared water of the metaphor, and the shared reliance on the embodiment of metaphor to establish an incommensurable historical relationship, both of which affirm this chapter's dialogical conversation on water through the lens of metaphor. Although the theoretical frameworks of feminist materialism and Anishinaabe intelligence differ, the lens of metaphor is useful because it reveals the congruencies that constitute alternatives to the current, reductive, dominant conceptions of water that serve the colonial and neoliberal projects in the Anthropocene.

Vanessa Watts asserts that the Anishinaabe and Haudenosaunee frameworks of Place-Thought constitute the "rich and intelligent theories" of Indigenous epistemology: our cosmological frameworks are not an abstraction but rather a literal and animate extension of Sky Woman's and First Woman's thoughts; it is impossible to separate theory from praxis if we believe in the original historical events of Sky Woman and First Woman. So it is not that Indigenous peoples do not theorize, but that these complex theories are not distinct from place. ("Indigenous placethought" 22)

Simpson's "Big Water" can be read as an articulation of the theory of Place-Thought. It depicts a "literal and animate extension" rather than a metaphoric extension. Yet within the framework of metaphor, Simpson's "Big Water" can also be read in conversation with Neimanis's theory for a new feminist figuration in the exploration of the metaphors of water. Although the terms of the metaphors—subjectivity and water—are the same, Neimanis and Simpson conceptualize water from different directions. Neimanis positions
subjectivity as the target domain and water as the source domain. Conversely, by virtue of its use of what Western literary theory calls personification, Simpson's story positions water as the target domain and subjectivity as the source domain. The former conceptualizes the human body as water, while the latter conceptualizes water as an agential subject. While it is well known that the human body is comprised of water, humans do not conceptualize themselves as temporarily constituted "bodies of water" as they assume their daily lives. To this extent, the foundation of a feminist subjectivity on the material basis of the body of water is a new conceptual metaphor, one that goes beyond the dead metaphor of water as a "body". This more familiar figuration imposes a conceptual containment of the material ubiquity of water, one that foregrounds the influence of human embodied experience in space and time. The metaphor-water is subjectivity—grounds subjectivity to a material form only to reveal the transgression of that material form. In other words, while the material body is used to establish subjectivity on the basis of water, it is the permeability of that very material body that positions water above the discrete ontological subject. Ultimately, although they emerge from incommensurable epistemologies, both Neimanis and Simpson theorize compatible qualities in the conceptual metaphors of water and subjectivity.

The central features of water in the metaphor "subjectivity is water" are: "gestation, dissolution, communication, differentiation, archive, and unknowability" (Neimanis, "Feminist Subjectivity" 30). The feminist figuration is organized by these "hydro-logics" of water. The first characteristic draws attention to water's essentiality in the gestation of all life. Neimanis writes that "The scale of water's gestational capacity ...

expands beyond the individual body, once we consider that each species-made up of watery bodies—is itself an aqueous gestational milieu for the proliferation of the next species, and the next" ("Feminist Subjectivity" 30). As watered subjectivity, the body is a site of gestation for various forms of microscopic life as it is simultaneously implicated in other forms of life. This characteristic challenges the conception of human subjectivity as a discrete ontological entity by drawing attention to the inherent continuity and interdependence of the processes of gestation of all life. Water's capacity to dissolve presents the same challenge: "[W]ater's capacity to dissolve is not only a question of chemistry. Translated into meteorology, we can also understand this power to transform, and wash away, in terms of flood, monsoon, hurricane or tsunami, whereby organized life is dissolved back into the womb of planetarity" (Neimanis, "Feminist Subjectivity" 30). Similar to the continuity of gestation, water's capacity to dissolve is a continuous process. Water's "transformational" and "cyclical" movements make it "complicit in death" ("Feminist Subjectivity" 30). Water's process of dissolution reveals that the state of the body is only a temporary constitution of a form of water, undermining a discrete ontological subjectivity. The processes of gestation and dissolution-in other words, creation and destruction—draw attention to the temporary, contingent, and material ontological constitution of subjectivity. The metaphor, subjectivity is water, reconfigures subjectivity according to the materiality of the human body. It makes the material contingencies of subjectivity visible, subjugating the immaterial processes of the mind or consciousness that are the foundation of the discrete ontological subject.

Differentiation is a feature of Neimanis's schematization of watered subjectivity that allows for human distinction, while also making subjectivity contingent. Differentiation allows for the recognition that human subjectivity is simply a different material configuration of water, among other configurations, all of which are part of the greater, underlying process of the collective planetary waters. Neimanis writes that

water moves neither at a uniform speed nor as a coherent mass. It is differentiated in material instantiation, space and time, at every turn. For in one sense, water is a 'closed' system: our planet neither gains nor relinquishes the water it harbours, but only witnesses it continual reorganization and redistribution. ... Yet, just as bodies are located in this closed system of water, these same bodies are constantly emerging as difference, shaped by different rates, speeds and pathways of flow, but also by different mixtures of particular matter, chemical compounds or entire colonies of other bodies. ("Feminist Subjectivity" 31)

This characteristic of water in the metaphor, subjectivity is water, allows for the simultaneous expression of water as difference and sameness in life. It challenges the discrete ontological subjectivity of water by revealing that it is incomplete without the recognition of its permanent presence with and among other configurations of water. Whereas "gestation" and "dissolution" decenter a discrete subjectivity by situating it in processes of continuity, "differentiation" destabilizes the concept of a discrete subjectivity by revealing that subjectivity is simultaneously a function of changing waters and of the constant permanent system of planetary waters. In other words, subjectivity is the dual articulation of a temporary constitution of water in time and space (the human

body) and a simultaneous permanence of those waters of the body as part of planetary waters. In addition to this dual articulation, the processes of gestation and dissolution are other ways by which the body is always simultaneously constituted by other forms of water. This singular feature of a watered-subjectivity, differentiation itself can be characterized as metaphoric, as subjectivity is simultaneously different and the same. The feature of differentiation foregrounds that all bodies of water are simultaneously implicated in one another even as they are distinct. They are all forms of individual configurations of water at the same time as they are the permanent planetary waters. As a feature of a watered subjectivity, differentiation radically reconfigures the discrete ontological condition by rendering it incomplete.

The metaphor, subjectivity is water, emphasizes materiality and subverts anthropocentricism. This is evident in "communication", another feature of the schematization of the "hydro-logics" of water, and one that inevitably follows from the feature of differentiation. As a feature of a watered-subjectivity, communication displaces the dominant focus on human, social communication. Instead, it magnifies the broader definition of communication as a "process of interaction through messages or signals ... [which] can apply to humans, animals, plants, and machines, and can refer to processes of connection and exchange *between* and *within* them" (Chandler and Munday). Communication is the materiality of the physical body itself, with all its material connections to other parts of the "planetary hydrocommons". Neimanis writes that "Human bodies are thus very literally implicated in other animal, vegetable and planetary bodies that in a *material* sense course through us, replenish us, and draw upon our own

bodies as their wells" ("Feminist Subjectivity 31; my emphasis). The water of human bodies in turn communicates to other bodies in our ecosystems: "Bacteria, but also hormone treatments, antibiotics and anti-depressants, drift from our human waterways into the lakes and rivers that in turn serve as receptacles for much of our refuse" (Neimanis "Feminist Subjectivity 31). In addition to the material communication of waters of the human body, water is literally a mode of communication. It is "the systems that physically transport people, goods, and messages in material form from place to place" (Chandler & Munday, "Communication"). On a global scale "[p]atterning of currents brings not only salt and heat, but also shipping vessels, marine mammals, commerce, disease and 'discover' from one corner of the globe to another" (Neimanis "Feminist Subjectivity 31). As a feature of a watered-subjectivity, communication challenges human isolation from its material and ecological environment. It displaces the primacy of human discursive communication in favour of the broader concept of material communication between humans and other forms of life on the planet, all of which are dynamic parts of a system of planetary waters, abstracted and represented as the hydrological system. As a "hydro-logic" of water, communication brings into focus the material condition of human bodies that has receded from conscious awareness, especially for those who have access to water infrastructures that allow immediate access to clean water and immediate disposal of wastewater, always rendering the processes of water invisible.

Similar to the positioning of communication in the processes of materiality, the "hydro-logic" of "archive" reconfigures memory as a process of the materiality of water.

Neimanis argues that "water remembers" because it has the ability to become "repositories of memory or archives" ("Feminist Subjectivity" 31). The Great Pacific Garbage Patch is one example of water's memory, of its ability to carry and keep traces of the past. The Pacific garbage patch contains visible remnants of the past. However, water retains a memory even when the remnants of the past are not always visible to the naked eye. For example, water tainted by lead and other carcinogens is an invisible archive or memory of the past that is nevertheless devastating. As the feature of a watered-subjectivity, "archive" re-conceptualizes subjectivity by its definition of memory as a material process of water rather than a cognitive process of the mind. Like other processes, this feature emphasizes the contingency of the material condition rather than a discrete cognitive condition that dominates subjectivity. The features of gestation, dissolution and differentiation foreground a material ontological subjectivity, which is inherently connected to the hydrological system. They schematize new parameters of the ontological subjectivity. The features of communication and archive indicate that, because waters will "remember" or retain traces of the activities of the past, they will communicate these traces to humans and other watered configurations of the biosphere. Beyond the reconfiguration of the discrete ontological subjectivity, these features communication and archive—of the schematization of water are especially relevant to the danger of the waters of the Anthropocene.

Finally, the most elusive feature of the metaphor, subjectivity is water, is the feature of "unknowability". In the proposal of this new feminist configuration on the basis of the hydro-logics of water, Neimanis acknowledges that the imposition of a

"human-rendered taxonomy" on water's logic is "an epistemological containment of water" ("Feminist Subjectivity" 30). In other words, water exceeds human epistemological and ontological parameters: "Each body responds to water's mixtures, weight, depth and pressure according to its own perimeters of survival, and thus water as habitat serves as a limit for all living bodies. We cannot master that which we cannot bear. In this way, the grammar of water necessarily rejects total knowledge or full control by any body" (Neimanis, "Feminist Subjectivity" 32). Even as we are constituted by water, the experiences of other bodies of water remain experientially inaccessible to us. "[U]nknowability is not an abstract concept, but part of our watery, fleshy matter" ("Feminist Subjectivity" 32). What we can experience of water is limited to our own embodied experiences. It is impossible to fully know the waters that intersect with our embodied experience of life. "The water that we are, and that we take up and endlessly pass on, with an end that eludes calculation" (Neimanis, "Feminist Subjectivity" 32). According to this feature of the "hydro-logics" of water, a watered-subjectivity can never fully know itself. It is not capable of knowing the path of the water that constitutes itself before, during, and after, its own life.

In metaphoric terms, Neimanis's feminist figuration, subjectivity is water, positions subjectivity as the target domain, taking on the material qualities of water as a source domain. The target domain, subjectivity, is abstract, while the source domain, water, is concrete. This follows the metaphoric patterns of drawing from the concrete to inform and constitute the abstract. However, the material quality and ubiquity of the source domain ultimately makes subjectivity more abstract, undermining its cohesion.

These qualities of water challenge the notion of human subjectivity as a discrete ontological entity by revealing the human subject's material contingency with other forms of life through water, and by redefining cognitive process of the subject as material processes of water. Lakoff and Johnson write: "We are physical beings, bounded and set off from the rest of the world by the surface of our skins, and we experience the rest of the world as outside us. Each of us is a container, with a bounding surface and an in-out orientation" (Metaphors 29). This feminist figuration, a subjectivity of water, undermines the parameters of the "bounding surface" and of the "in-out" orientation by showing that processes of water constantly transgress these boundaries. The notion of in and out is challenged, as the water within the human body is aligned with the water outside of the human body. Furthermore, the various rates and levels of permeability of water reveal that the designation of "in and out" is always temporary. Finally, the contingencies and affinities with other physical forms of water challenge the notion of singular, distinct ontological subjectivity. Neimanis's feminist figuration, subjectivity is water, is a metaphor which positions materiality as the basis of subjectivity, retaining memory and communication as material processes and reconfiguring gestation and dissolution as continuous, rather than discontinuous processes. The metaphor humbles the anthropocentric human subject who is unable to know and measure the entirety of its material effects. Finally, it situates the human subject within, rather than above, the larger hydrological system and cycle of the planet. By positioning the planetary hydrological system above all human activities and human life, it gestures to the profound responsibility to sustain and protect the waters of the planet. In redefining subjectivity,

the metaphor—subjectivity is water—is a critical epistemological and ontological reconfiguration of the waters of the Anthropocene.

Neimanis's conception of subjectivity as water can be read in conversation with Leanne Betasmosake Simpson's story "Big Water" through the lens of metaphor to reveal some of the resonances in the conceptions of water and subjectivity. The terms of the metaphor—subjectivity is water—are reversed in Leanne Betasmosake Simpson's story "Big Water". In this story, water assumes the position of the target domain and subjectivity assumes the position of the source domain. So, contrary to the position where subjectivity takes on the qualities of water, water takes on the qualities of subjectivity by manifestation as a conscious, agential speaking being. Within this framework, the story's major implicit metaphor, on which the personification of water is based, is the metaphor that the land or the earth is a female body.

In the story "Big Water" Simpson re-creates the Anishinaabe cosmology in the contemporary context of climate change, representing the life and spirituality that inhere in water. Watts theorizes Anishinaabe cosmology as "Place-Thought": "the non-distinctive space where place and thought were never separated because they never could or can be separated. Place-Thought is based upon the premise that land is alive and thinking and that humans and non-humans derive agency though the extensions of these thoughts" (21). The metaphors of water in this story recall the Anishinaabe historical event of creation and they re-create the land as female, extending its animate spirit and voice to water and women. The primary, explicit metaphor of the story is the personification of water, specifically of the body of water that is known as Lake Ontario:

"We call the lake Chi'Niibish, which means big water, and we share this brilliant peacemaker with the Mohawks. I call her Niibish for short and I'm the one that got her the iphone and taught her how to text" (Simpson 66). Simpson conceptualizes the physical body of water as an intelligent, sentient, female subject, who is capable of creation, destruction, communication, and remembrance. Yet because water precedes humans and has agency beyond the limits of the human body, it exceeds the human ontological condition. The subject water is also a "brilliant peacemaker".

First, through implicit metaphors Simpson establishes that the physical body of water is connected to the physical body of the woman. The story begins with the narrator lying in bed with a character called "Kwe", the Anishinaabe word for "woman". However, Simpson explains that Kwe is not a reference to the concept of woman according to the "colonial gender binary" (*As We Have* 29). Instead, the word Kwe "gestures to the gender variance within Nishnaabewin" (*As We Have* 29). Simpson writes: "I understand the word kwe to mean woman within the spectrum of genders in Nishnaabemowin, or Nishnaabe language. Kwe is not a commodity. Kwe is not capital. It is different than the word *woman* because it recognizes a spectrum of gender expressions and it exists embedded in grounded normativity" (*As We Have* 29). The extension of the concept of kwe to "grounded normativity" centers "Nishnaabeg intelligence" in the story "Big Water".<sup>29</sup> The reference to the physical body of Kwe includes the meaning of Kwe,

<sup>&</sup>lt;sup>29</sup> Glen Coulthard's concept of "grounded normativity" refers to the "ethical frameworks generated by ... placed-based practices and associated knowledges" (Simpson, *As We Have* 22). In the Nishnaabeg context, Simpson writes that, "the term Nishnaabewin—all of the associated practices, knowledge, and ethics that make us Nishnaabeg and construct the Nishnaabeg world—is the closest thing to Coulthard's grounded normativity" (*As We Have* 23).

not as woman in an essentialist and binary understanding, but as a variance of gender expression in accordance with Nishnaabeg practices and knowledges.

The narrator's entanglement with Kwe's sleeping body invokes love and security, but the narrator admits: "I'm too nervous when nice happens; I get more anxious than normal" (65). Anxiety is reflected in the narrator's breathing: "I'm shallow breathing at her atlas and I'm worrying that my breath is too moist on the back of her neck and that it feels gross for her, maybe so gross that it will wake her up" (65). In these first lines of the story, the narrator makes a connection between the physical female body and water. First, the words shallow and moisture both allude to the presence of water in breath. The narrator's shallow, rather than normal breathing reflects the fear and unease of too much water on the intimate scale of the individual human breath. Second, the narrator's reference to the "atlas" of Kwe's body connects to water by extension of its relation to land. The atlas of the physical body is "the topmost vertebra of the backbone, articulating with the occipital bone of the skull" ("Atlas"). The more widely known meaning of the word "atlas" is a "book of maps" ("Atlas"). So, the literal meanings of the word "atlas"

Although the narrator identifies places by their specific geographical locations on the map, the land is not an abstract entity. In bed with Kwe, the narrator describes the living space in terms of water as "this damp on Oakwood Avenue" (Simpson 65). The narrator reveals her location to be Toronto, in Ontario, Canada: "I get dressed, take the bus and then the subway to headquarters. Headquarters is high up, like Nishnaabeg Mount Olympus, so we can see Lake Ontario out of the window. Only I call it

headquarters—really it is just a condo at Yonge and Dundas" (66). She is located in a condominium at the busiest intersection in the city, yet the narrator is oriented towards the visible body of water. The body of water overcomes the obstruction of the architecture of the building and the busy city intersection, both of which would normally preclude the recognition of the presence of place. It asserts the Anishinaabe's traditional connection to the land and water as described by Renée Elizabeth Mzinegiizhigo-kwe Bédard: "Nishnaabeg people have always lived along the water of the Great Lakes. The Ziibiii'ganan (rivers), zaagiganan (lakes), bog'tingoon (rapids), wiikwedoon (bays), dkibiin (natural springs), biitooshk-biisenyin (swamps) and ziigiinsan (streams) have sustained the Nishnaabeg people on these traditional lands territorial lands for thousands of years" (89). This connection to place is still present even when it is obscured by the modern architecture of a city developed by colonial settlement. It is a connection that characterizes the inherent relation between Indigenous peoples and land and water.

The narrator's identification of the physical place represents a literal rather than metaphorical continuity between the land and the female body, according to Anishinaabe cosmology. Watts explains that, "In the Haudenosaunee origin story, Sky Woman becomes curious and falls through a hole in the sky and she is safely brought down to earth by different birds who land her on the back of a turtle" (25). When she has safely landed on the back of the turtle "she is not only able to create land but becomes territory itself" (Watts 23). Watts writes that the Haudenosaunee and Anishinaabe cosmological frameworks "are not an abstraction but rather a literal and animate extension of Sky Woman's and First Woman's thoughts" (22). In the context of Anishinaabe and

Haudenosaunee knowledge, Simpson's metaphors are not metaphors as they illustrate the literal, physical, connection between the land and women. Simpson writes that "Indigenous bodies don't relate to the land by possessing or owning it or having control over it. We relate to land through connection-generative, affirmative, complex, overlapping, and nonlinear relationship. The reverse process of dispossession within Indigenous thought then is Nishnaabeg intelligence, Nishnaabewin" (As We Have 43). Niibish's warning is another way by which the body of water is constituted as an extension of a physical, female subject, as Niibish expresses this warning in terms of female reproductive experience. After the lake floods Toronto, she contemplates, "Should this be a Braxton Hicks warning or creation?" (Simpson 67). A "Braxton Hicks warning" refers to the painless, false labour contractions during pregnancy ("Braxton Hicks"). Niibish considers this preparation of the female body, which itself functions as a body of water for creation, as a potential physical reaction of the lake. The lake can respond with the symptoms of pregnancy or with physical creation. Speaking of women's responsibility to help the earth "clean herself", Anishinaabe scholar Shirley Williams asserts, "The woman is the Mother Earth and through the Mother Earth she has the rivers and the lakes, that's her bloodline" (Mzinegiizhigo-kwe Bédard 97). Niibish's contemplation alludes to the Anishinaabe creation story at the same time as it reflects the affinity that water shares with women in Anishinaabe cosmology: "During their moontime, women's menstrual cycles are connected to the movements of Mother the Earth, but also to the moon and all Creation. Women have biological reminders of that connection with water every month when the moon-time arrives" (Mzinegiizhigo-kwe Bédard 98).

Nishnaabe-kwewag Elder Josephine Mandamin expresses the alignment of women and the earth in terms of the moon's physical control of the waters of women's bodies during menstrual cycles, and of the waters of the Earth during the cycles of weather:

It's the same way when our Mother the Earth feels that full moon on Mother the Earth. If you look at the difference of the water during different times of the full moon and how that water reacts to the pull of the moon. It could be violent it could be very gentle, it could be very peaceful, it could be all things if you watch very carefully how the water moves with the full moon. It's the same way with us

women when we are in our moon-time. (qtd. in Mzinegiizhigo-kwe Bédard 99) In addition to the physical connection, Mandamin asserts a psychological or emotional synchrony between Anishinaabe women and the earth through the connection to water. It is in this context of Anishinaabe women's intimate and sacred relation to water that Simpson illustrates the understanding that Lake Ontario is an extension of the feminine earth and is a crucible of creation that precedes the pregnant body of a woman. Anishinaabe scholar, Deborah McGregor writes:

Women ... have a special relationship with water, since like Mother Earth, they have life-giving powers. Women have a special place in the order of existence.
They provide us, as unborn children, with our very first environment—in water.
When we are born water precedes us. With this special place in the order of things come responsibilities. ... In some ceremonies, women speak for the water.
("Anishinaabe-Kwe" 28)

In addition to the analogous physical bodies of water and women, the personification of water as Niibish allows for an expression of the voice of water. By personifying Lake Ontario, Simpson revives the voice of water and invokes the responsibility of the surrogate voices of water. This personification also follows the Anishinaabe's "literal and animate" characterization of water (Watts 21). In Anishinaabe cosmology, "[t]o be animate goes beyond being alive or acting, it is to be full of thought, desire, contemplation and will. It is the literal embodiment of the feminine, of First Woman ... an extension of her circumstance, desire, and communication with the water and animalsher agency" (Watts 23). The personification of the body of water as Niibish illustrates that water is alive, thinking and voicing the feminine agency of place (Watts 23).

Niibish is able to communicate, but experiences difficulty and frustration. The narrator says, "She just made me switch from imessage to threema to Signal because Edward Snowden tweeted that Signal is the safest texting app, mostly because the code is open source and has been verified" (Simpson 65). Niibish communicates electronically, and is technologically astute enough to make the narrator switch messaging platforms at least twice. The narrator's contemplation—"I wonder if she knows what code and open source mean"—is ironic given that water itself can be considered the greatest "open source" and that its communication is expressed in codes, both in metaphor and materiality. Although she is texting to communicate, Niibish does not completely endorse the modern method of communication. The speaker explains: "Niibish is mad at me for asking her to text me instead of doing things the old way and she's right and I promised it's just a tool and that we'll still do things the right way once this crisis is over" (65).

The "crisis" can be read as the exceptional, urgent circumstance of climate change, which warrants the suspension of the old and right way of communication. Niibish's desire for "the right way" of communication and her concern for security suggest that texting is not the natural or safe mode of communication for the body of water. The narrator writes: "Niibish wants to know where I am, why I'm not up yet, why I'm not texting back, and she'd like my opinion on the stories in the Toronto Star and Vice this morning about the flood" (65). Niibish is anxious for the narrator's response to the story on the flooding of Toronto by the waters of Lake Ontario. She is also concerned about people's opinions, as she questions: "ARE THEY GETTING IT?" (Simpson 65). She struggles for a response to her communications, both as a body of water flooding the city and texting the narrator. The narrator confesses to her constant attention to texting. She claims, "I have to look at my iphone every four minutes so I don't miss anything ... We all do it and we all lie about it" (65). Although the narrator is consumed by messaging, Niibish is still anxious for communication. This suggests that communication by texting is inadequate for the body of water. Furthermore, it is inconsequential relative to Niibish's act of communicating by physically flooding the city. The narrator's suggestion that everyone is occupied by mobile phones points to a greater failure to recognize the physical, material communication of the lake. This is a human failure, as there are indications that Niibish is able to communicate with the non-human spirits of the earth. The speaker notes that "While she's [Niibish] sitting and thinking she's also talking to Binesiwag" (65). "Binesiwag" is the plural form for a "bird of a large species such as a hawk or eagle" ("Binesiwag, NA."). For the Anishinaabe, it also refers to "thunderbirds," which are a

significant spiritual presence bringing information and news (Jones). The narrator explains that they bring "big rains and big thunder and sometimes careless lightening and the fog that lets them do the things that need to get done" (67). This spiritual communication recalls Niibish's concern for the "old way" and "the right way" of communicating. The narrator writes: "There is the crucial decision, which is always the same no matter what the question: Do we make the crisis bigger or smaller or keep it just the same" (67). Humans are failing to recognize communications from Niibish and the thunderbirds. Yet both have agency that will directly affect the survival of humans on the earth. Watts notes that non-human communication and agency are part of Anishinaabe and Haudenosaunee cosmology:

if we accept the idea that all living things contain spirit, then this extends beyond complex structures within an ecosystem. It means that non-human being choose how they reside, interact and develop relationships with other non-humans. So, all elements of nature possess agency, and this agency is not limited to innate action or causal relationship. ("Indigenous Place-Thought 23)

The Creation Story illustrates communication and agency in the interaction among human and non-human entities. The inability to communicate reflects the colonial disruption of this traditional relationship to land and water in Canada. McGregor writes, "Not only has our own relationship to water been disrupted through displacement, relocation, and alienation but the waters, too, have experienced alienation through these same processes" ("Indigenous Women" 72). Niibish's struggles to communicate reveal her alienation, which is part of a greater pain inflicted upon her.

The personification of water also expresses the Anishinaabe understanding that water is sentient. The narrator says: "I look out of the south-facing window of the condo and see her dense blue. She is full, too full, and she's tipsy from the birth control pills, the plastics, the sewage, and the contraband that washes into her no matter what" (Simpson 66). Niibish is suffering from the pollution of her body. The end result for this body of water is always some form of destruction. The narrator explains: "She is full. She is full of sad. She wants us to see her, to see what we're doing to her, and change. That's the same thing that Kwe wants, so I know both the problem and the solution" (Simpson 66). Both Niibish and Kwe experience pain and the desire for recognition and change. Equating the experiences and the feelings of the body of water with the body of the woman also aligns violence experienced by Indigenous women with the violence done to the waters in Canada.

The violence against Indigenous women is rooted in the "the conduct and policies of the Canadian government, [which] targeted Indigenous peoples as a whole" (*Supplementary Report* 13). The *National Inquiry Into Missing And Murdered Indigenous Women and Girls* concluded that "The intent to destroy Indigenous peoples in Canada ... fall within the scope of the crime of genocide" (*Supplementary Report* 10). It particularly identifies violence against women:

Canada's colonial history provides ample evidence of the existence of a genocidal policy. ... The Canadian state was founded on colonial genocidal policies that are inextricably linked to Canada's contemporary relationship with Indigenous peoples. Modern Canadian policies perpetuate these colonial legacies, and have

resulted in clear patterns of violence and marginalization of Indigenous peoples,

particularly women, girls, and 2SLGBTQQIA people. (*Supplementary Report* 24) The Anishinaabe women and water experience violence in this larger context of Canada's "colonial genocide" against Indigenous peoples. Odawa Elder Shirley Ida Williams notes that violence against the water is so extreme that the water itself struggles to recover: "I know that the water cleans itself … And, because we are putting too much dirt and other things in the water it doesn't have enough time to clean itself out, so it gets polluted" (qtd. in Mzinegiizhigo-kwe Bédard 91). This polluting of the water in turn affects the people through bioaccumulation: "For those who live a traditional lifestyle of harvesting fish, animals, and water from the rivers, lakes and streams in Nishnaabeg territories, there is danger in mercury poisoning, bacterial infections, and other harmful pollutants" (Mzinegiizhigo-kwe Bédard 91).

Throughout the story, the threat of water is present in the floods and in Niibish's warnings and reflections. As the voice of Niibish recedes at the end of the story, the absolute destructive power of the water still looms and the narrator reveals her presence in the first creation event. She recalls: "I breathed". This is the explicit revelation of the voice and spirit of Sky Woman. As she prepares to find a log on which to sit and plan the creation of a new world, the narrator says: "We are not so confident in our making powers this time around though" (Simpson 67). It is clear from this statement that Niibish's expressions are the extension of the desire, will, and agency of First Woman just as Niibish's memory is extension of Sky woman's prior creation experience. The invocation of the first creation indicates of the presence of memory in the body of the

water. In addition, Niibish's sentience of human violence to her body is an indication of her memory or retention of that violence. The speaker is not confident of survival: "Our false consciousness is large, our anxiety set to panic, our depression waiting just around the corner" (67). Her description of a mid-life crisis makes survival seem unlikely: "We're ... out of shape and overcompensating because it's too late to change any of that" (67). The false consciousness is evident in the preparation for a new creation. The reference to the "soggy grass" on which Beaver is doing push-ups indicates that the floodwaters are already present. Bear's "bragging about his seven-minute workout app" suggests an attention to technology rather than to the actual workout. The description of Muskrat's wetsuit as "new" alludes to consumption as a false sense of security and points to the speaker's recognition of an inextricable link to capitalist culture. Finally, the strongest indication of the challenge of a new creation is the narrator, the spirit and voice of First Woman, who is "wandering around the island instagramming pictures of big logs, deciding which one will be ours" (Simpson 68). This action refers back to the false sense of communication that entails constant checking of the iPhone to avoid missing anything, while missing the most obvious material signs from Niibish that the world is in imminent danger. The story ends with the narrator's reassurance to Kwe that "we almost always survive," but the fate of humans remains under the agency of water and remains unknown (Simpson 67). It is hopeful because Sky Woman herself is engaging in the project of a new creation, but the fate of humans remains unknown as it awaits human engagement.

As a personified subject, water has the voice to express her emotions, will, and spirit. This is evident in its social and spiritual communication, which involves all forms

of life, and is in accordance with Haudenosaunee and Anishinaabe society. Watts explains that

habitats and ecosystems are better understood as societies from an Indigenous point of view; meaning that they have ethical structures, inter-species treaties and agreements, and further their ability to interpret, understand and implement. Nonhuman beings are active members of society. Not only are they active, they also directly influence how humans organize themselves into that society. ("Indigenous Place-Thought" 23)

Simpson's personification of water situates water in a position of social communication and relations, epitomized in the Creation Story. Not only are non-humans active members of society, but also humans are not always privy to the communication of non-humans, as depicted by Niibish's conversation with Binesiwag. The answer to the question, "Do we make the crisis bigger or smaller or keep it just the same?" remains unknown to humans. The answer to the question of whether it should be a Braxton Hicks warning or creation also remains unknown to humans (Simpson 67). Simpson's Creation Story depicts human "unknowability" of water. The personification of water as a human subject allows for an embodied, human understanding of the actions towards water, literally focusing on water's experience as a physical body. Yet water precedes human life and exceeds the embodied human experience, therefore exceeding the limits of human knowledge. Even as it communicates to humans, humans are incapable of fully knowing water. Still, it has absolute agency in the life and death of human beings and all others in the ecosystems of the earth.

Neimanis's proposal of the metaphor "subjectivity is water" broadens the scope for the understanding of subjectivity beyond the conventional understanding of subjectivity as a discrete entity. The qualities or "hydro-logics" of water-gestation, dissolution, communication, differentiation, archive, and unknowability-are also theorized in Simpson's story "Big Water". The actions of water as subject in the Creation Story are consistent in some ways with the features of Neimanis's schematization of water. First, the process of gestation is present as the body of the earth and the body of woman. This gestative capacity of the female body is one manifestation of the gestative capacities of water configured by Neimanis's schematization: "maternal bodies are just one actualization of a more expansive gestationality as a capacity that all bodies of water share. Gestationality does not begin and end with the human, nor with a (heteronormatively inflected) female one at that. Gestationality is something we learn something we repeat, differently—from water" (Bodies of Water 118). These metaphors allow for a different scope of gestation. The personification of water as a female body focuses on gestation as a feminine capacity. The metaphor "subjectivity is water" extends the gestative capacity beyond the female body to the general gestational capacity of water.

In addition to gestation, Simpson's "Big Water" depicts water's powers of dissolution. In "Big Water" the water threatens to dissolve life through flooding. The rising waters of Lake Ontario are a threat to the communities around the lake, such as Toronto. However, the issue of a second creation alludes to climate change as a global ontological threat, even as it consolidates the local presence of place. So, water's threat of

absolute ontological dissolution is present throughout the Creation Story. Even the highly abstract schematization of water in terms of differentiation resonates with the articulation of family and society in "Big Water". Mzinegiizhigo-kwe Bédard explains the connection of Indigenous identities to water: "Without water and watersheds like the French River, Nishnaabeg individuals like myself would experience a *fundamental disconnect* with who we are as Nishnaabeg people. The water, along with the land, defines our identities, sustains our families and communities, and provides us with the knowledge of how to live as Nishnaabeg people" (91; my emphasis). Not unlike the material contingency illustrated by Neimanis in the schematization of differentiation, Mzinegiizhigo-kwe Bédard expresses water's social contingency with the identity of the individual subject as well as the larger cultural communities. Her assertion of a "fundamental disconnect" from her identity in the absence of water reveals an understanding of identity, traditionally established by Anishinaabe cosmology, that is also congruent with the specific feature of differentiation in the schematization of water. The schematization of material communication among all watery forms of life in the biosphere is congruent with the social and spiritual communication of water, which shares responsibility and concern for all life on earth in the story "Big Water". Water retains the memory or pain of pollution, and as a manifestation of Sky Woman's will, it also retains the memory of the first creation. Finally, because water precedes human existence and creation on land, it exceeds human epistemology and ontology. In this way, Simpson's "Big Water" depicts the element of "unknowability" also articulated in Neimanis's schematization of water. Though they emerge from incommensurable ontological and

epistemological traditions, the Anishinaabe and Haudenosaunee conception of water share some elements with the feminist conception of water schematized by Neimanis. The metaphors—subjectivity is water and water is subjectivity—are grounded in the body, even as they exceed the body by immeasurable material and spiritual contingencies. Mzinegiizhigo-kwe Bédard explains the practice of the material and spiritual conception of water: "Our traditional stories tell us that in the webs of Creation, water is a sacred medicine. ... The Elders use water as a medicine in ceremony to both nourish and cleanse our bodies, minds, and spirits" (96). Belief in the sacredness of water is shared widely across Indigenous cultures. For example, Mohawk thinker, activist and political leader, Joyce Tekahnawijaks King notes, the lesson of the Creation Story is that "water is sacred on Earth" (453): "one of the root words for 'rain' in Mohawk means expensive, or precious or holy. Culturally, we would not abuse this resource. Our society treats and cares for the waters as a sacred element so that water remains pristine" (452). King's explanation reveals that the spiritual conception of water is inherent in the Mohawk word for water. This revelation exposes that the English language does not inherently assign a sacred value to the word water. Furthermore, the English language requires no obligation to respect water. According to King, "From the perspective of the traditional Haudenosaunee, we speak in terms of responsibilities with respect to water, not in terms of water rights" (452). This responsibility exists in the context of the Great Law of Peace: "This law, in our view, is divine" (King 452). It entails sharing and respecting water: "Water does not exist solely for use by human beings. All life has access rights to the use of the water and its gifts. Exploiting the water to human ends will ultimately mean

breaking relationships with other parts of creation: the animals, the land, plants, the birds, land, and sky" (Mzinegiizhigo-kwe Bédard 96). The story "Big Water" draws on the spiritual law, invoking a spiritual obligation in Sky Woman's appeals to humans to uphold their responsibilities towards water and maintain their relationships with all creation. Articulated as spiritual obligation and social relation, the Anishinaabe conception of the interdependence of life aligns with the material interconnection of life. Mzinegiizhigo-kwe Bédard writes: "Traditionally, the Nishnaabeg people consider water to be our relative. Nishnaabeg believe that 'all my family' includes not just our human family, but the animals, plants, birds, fish, the water, air, and the earth, which all form part of the great interdependent web of life" (95). Though it diverges from the explicit spirituality of Indigenous cosmologies, Neimanis's conception of subjectivity as water positions water as an omnipresent manifestation of life that is nevertheless profound. A feminist subjectivity of water reimagines the planetary hydrological system as a matrix of configurations of all forms of life, water in a multitude of constitutions, all interconnected across the scales of time and space. This conceptualization of creation, on the basis of the natural cultural position of posthuman feminist phenomenology, acknowledges both "scientific explanations of our watery debts" and "other kinds of origin stories" (Neimanis, *Bodies of Water* 111). It unequivocally asserts that, "Life began in the sea" (Neimanis, Bodies of Water 116). Like Simpson's creation story, many origin stories, Neimanis notes, place the beginning of life at sea. In addition to the stories of life originating at sea, there are "evolutionary tales". Neimanis contends: "In evolution as elsewhere, our biological matters are always storied, and our knowledges are always

situated and contingent" (*Bodies of Water*, 111). The concept of "hypersea" demonstrates water's proliferation of life.

In Hypersea, life nests within other life on land like sets of Russian dolls. Or, one species visits another, bequeathing to it new species who seek out new routes of fluid fecundity in a novel other-species internal habitat. Without the sea to serve as a prime communicator and facilitator, life on land needed to chart its own watercourses—most available in the watery tissues and body fluids of other life forms. (Neimanis, *Bodies of Water* 123)

Neimanis's position on the origin of life in water is one "where scientific knowledge acts as an amplifier of embodied knowing" (*Bodies of Water* 111). She argues that "evolution is hardly a grand design of transparent improvement. It is a complex, multivalent, and often ambiguous. If reading various evolutionary stories teaches us anything, it is that life evolves according to a multiplicity of processes, interconnected, certainly but by no means uniformly sourced or directed" (*Bodies of Water* 116). So, the metaphor, subjectivity is water, reflects an epistemological position that acknowledges both evolutionary science and historical and cultural narratives. This position initiates a new imaginary in order to protect waters. The goals of the feminist figuration—subjectivity is water—are "an expanded ontological understanding of the subject and a new ethics of accountability—to ourselves, but also to more-than human communities" (Neimanis, "Feminist Subjectivity" 35). It is "reimagining oneself as a 'body of water' ... in order to cultivate more ecologically responsible relations to water" (Neimanis, "Feminist Subjectivity" 24).

The metaphors—water is subjectivity and subjectivity is water—confront the conception of "modern water" that is the basis of legislative conceptions of water. While they emerge from different cosmologies and epistemologies, and while they diverge in some characterizations, these metaphors show that the complex material functions of water can be conceptualized in more accurate ways to confront the current reductive ways of thinking and being with water. First, they confront the dominant conception of water as a spatial and temporal chemical compound by embodying water through subjectivities. Water is enlivened as embodied human and non-human subjectivities in the biosphere. In addition, outside of its material configuration as subjectivities, water itself is alive. It is no longer confined to the Cartesian characterizations as object and substance. Instead, it is internal as it is external. Second, contrary to the universality of the abstracted modern water, waters are situated. Neimanis situates waters in bodies. Simpson situates waters in the context of the Anishinaabe cosmology, land, and spirituality.

Metaphoric conceptions of water are significant because they establish the parameters for how we think about water and how we act towards it. Whatever theoretical position they occupy, they constitute conceptual and rhetorical frameworks that shape actions towards water. So, the different theoretical positions of Neimanis and Simpson do not preclude the formulation of compatible metaphors that confront reductive, and dominant conceptions of water. This compatibility can be observed in a recent legislative change in New Zealand, which affirms a metaphoric conception of water as subjectivity. On March 20<sup>th</sup> 2017, the Te Awa Tupua Act declared the Whanganui River of New Zealand a "legal person" with "all the rights, powers, duties and liabilities of a legal

person" (Te Awa Tupua, Section 14, par. 1). It was the first time that legislation enshrined a body of water with the rights of a human subject, recognizing Indigenous knowledge and law in the English common law system. Attributing the rights of a person to the Whanganui River is a significant shift in the conception of this local body of water. It is the legal recognition of that this particular body of water is not an object, but a subject. Although the legislation applies to a single river, it is a transformative conception of water that provides an example of how alternative conceptions can be integrated into the framework of policy and law. A week after the ruling on the Whanganui River in New Zealand, the Indian High Court in the State of Uttarakhand granted the Ganges and Yamuna rivers the legal status as "living human entities" (BBC, "India Court"). This decision was subsequently overruled by India's Supreme Court (BBC, "India's Ganges"). These contradictory legal rulings indicate that conceptions of water are contested. There is a struggle over how water is conceptualized. The stakes in the struggle over the status and rights of water are directly connected to environmental justice and human rights, as water constitutes life.

## Conclusion

## **Overflowing Relations**

In this study, I situated water and metaphor in a metaphoric relation, and argued that this relation is a productive theoretical space from which individual water metaphors can be interrogated in order to foster those metaphors that strengthen our relations with water, and challenge those metaphors that lead to water's pollution and exploitation. Ultimately, water does not just embody, but also challenges the limits of metaphor and metaphor theory in significant ways that are yet to be fully explored. It challenges the traditional A is B construct of metaphor, as water defies the A is/is not B logic. Water both is, and is not, simultaneously. In addition, the discrete constitution of A and B are challenged as water permeates both, in its expression as the multitudes of the biosphere. Water's inherent ability to dissolve and to carry away challenges the process of metaphor, which only filters in the context of the presence of associated commonplaces. Finally, water's co-constitution by nature and culture undermines the bifurcation on which the empiricism of metaphor theory is based. Yet I have concluded that the intersection of water and metaphor is especially productive for the exploration of representations of water that govern our relations with water.

Nothing can contain water. In representation and in materiality water is fluid and always exceeds containment. I aimed to demonstrate that the revelation of the metaphoricity of water metaphors provides a critical lens for the evaluation of individual water metaphors. The revelation of the metaphoricity of water metaphors allows for a measure of water metaphors' capacity to reflect the inherent and emergent qualities of

water, water's co-constitution by nature and culture, and water's profound relation to the human and more-than-human world. At the same time, the process of metaphor allows for the generation of new water metaphors that can foster different relations with water; relations that are more intimate and caring. The profound and sacred connection with water, which is characteristic of Indigenous relations with water, is not a central feature in the dominant setter imaginary of water. As shown in Chapter One, Indigenous cosmologies of water continue to be marginalized by the laws and actions of the settlercolonial state, Canada. Restoring and reconciling Indigenous rights can reconfigure relations with water. The processes of metaphor can mediate the dominant, abstracted, and distanced settler colonial relation we now have with water. For instance, in the conception of hypersea, the material reality of the ocean as ancestor is one that has manifested over millions of years, a timeframe that is far beyond a human lifespan. This creates a temporal distance between water and human life in the settler imagination. Moreover, evolutionary changes have created dissociation between the ocean and humans, as we cannot survive in the ocean in the same way as a marine animal survives in it as a home. In addition to the temporal distance and evolutionary transformations, dissociation between water and humans is based on the dominant perception of the human being as a discrete subject, and water as an object. While it is well known that the human body is constituted by water, the weight and implications of this relation are not prevalent in the dominant settler imaginary. Consequently, the material dissociation over time and evolution, and the dissociations of subject and object in Western thought require metaphor to restore the connection and kinship with water. Thinking with metaphor may

also offer a starting place for Western cultures to engage with Indigenous cultures' complex understandings of more-than-human consciousness and kinship. Drawing on the conception of metaphor as a process, this study argues it is also a method to develop an affective relation with water, a relation that respects water's material constitution of human life and all life in the biosphere. Different water metaphors will strengthen the relation with water on the basis of care and reciprocity. Metaphoric connections are necessary to bridge the gaps, and to strengthen the perception of the literal connection between human life and water, which has always existed and continues to exist, but has been obscured by time, evolution, and settler culture.

I hoped that this study shows that ecocritical analysis, which is excluded from most serious resolutions for addressing water issues, plays a valuable role in amplifying the full scope of our relations with water in all of its complexities. In addition, it draws attention to the significance of representation, specifically, the presence and various uses of metaphors in representation. Metaphors are the mechanisms by which we enact our relations with water in law, and develop those relations in the realities of our infrastructures and environmental practices, such as the building of dams and the extracting and displacing water for the corporate pursuit of profits. In his articulation of human relation to water as "blue mind", Nichols writes that, "through poetry, literature and testimonies of all sorts, we humans have been self-reporting the effects of water on our minds and bodies. But it's only in the past two decades or so that scientists have been able to examine what's going on when we encounter different aspects of our world and ourselves" (25). Literature not only serves as testimonies of our relation with water, it can

also function to clarify our perceptions of our relations with water and to build new relations with water, relations which will respond to the conditions of the waters in the Anthropocene. The levels of water pollution all over the world, the effects of climate change, which will be felt through the hydrological cycle, and the unconditional human rights to water are the challenges of the Anthropocene that compel the re-imagination of water. The metaphors of literature and poetry are imperative to the re-imagination of water. Just as metaphor is not only decorative, literature and poetry are not decorative. Instead, they are substantial domains for the exploration and constitution of our relations with water. Why continue to neglect these domains when the stakes are peace and conflict, and life and death, in our relations with water?

Finally, I hope that this study reveals currents of collaborative knowledge that can strengthen our kinship with water in the interest of fostering human rights and positive peace. Connecting us in time and space, water is the kinship that extends to every human body and to every life form of life on our small, vulnerable, blue planet. A drop of water in an ocean, this study is completed with deep humility, for the humanity and water that is all of us.

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