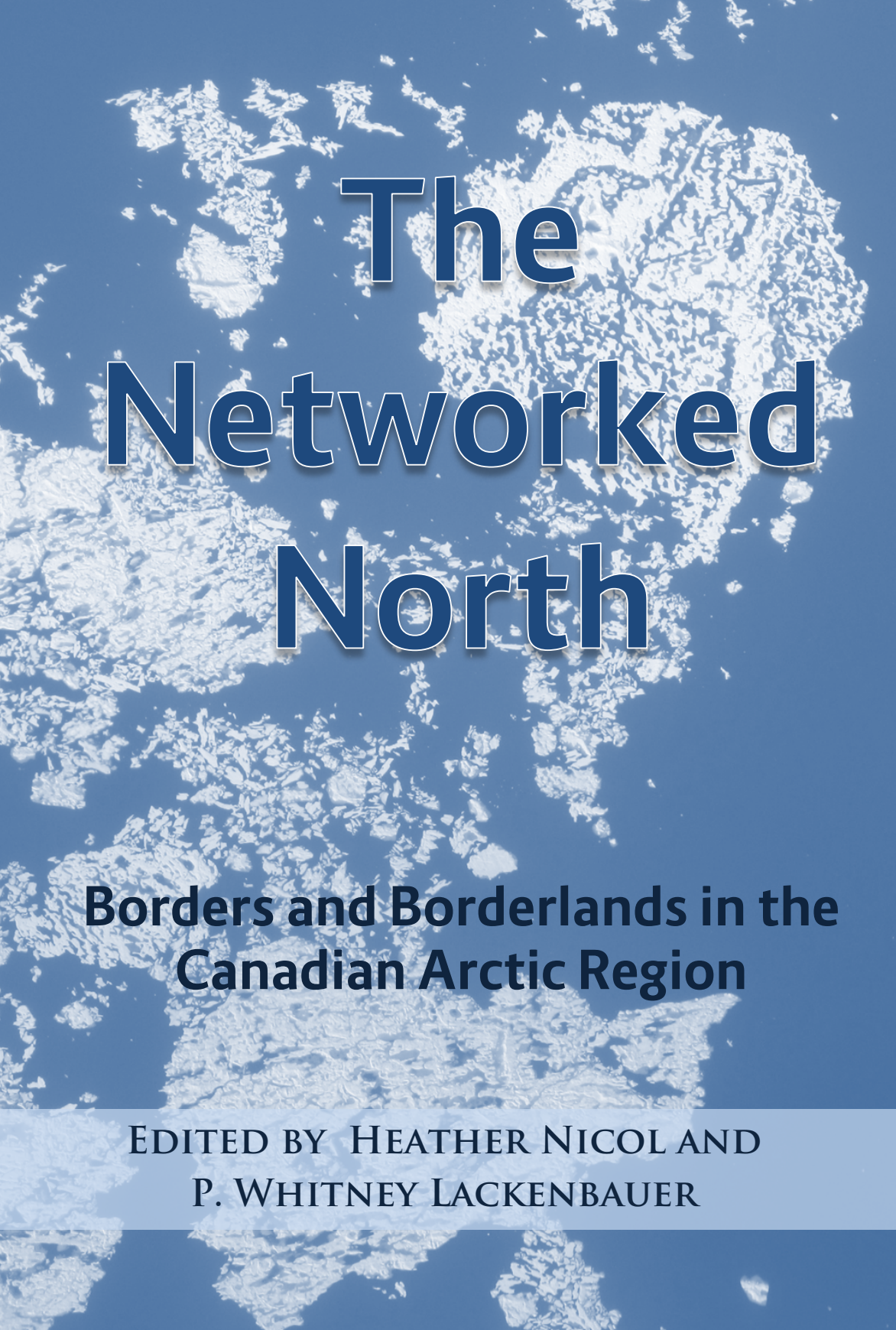

The Networked North

Borders and Borderlands in the Canadian Arctic Region

Edited by Heather Nicol and P. Whitney Lackenbauer

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Borders and Borderlands in the Canadian Arctic Region

Edited by Heather Nicol and P. Whitney Lackenbauer

CFPF Centre on Foreign Policy & Federalism

BORDERS IN GLOBALIZATION

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Introduction

Heather Nicol and Whitney Lackenbauer

This book identifies and addresses what we consider to be key lenses for understanding cross-border cooperation in the North American Arctic under conditions of globalization, climate change and changing international relations, building upon theoretical perspectives used by Brunet-Jailly (2007) and Konrad and Nicol (2008). Each chapter focuses upon a particular theme influencing cross border relationships, such as historical legacies, cultural relationships, cross-border flows of people and goods, security arrangements, governance practices and sustainability challenges. The authors recognize how the resulting borderlands can be understood in North American and international or global contexts. Divided into five parts (culture and history are treated together in part one) and fourteen short chapters, this book systematically defines the way in which Arctic and sub-Arctic borderlands are uniquely situated within processes of climate change, devolution, globalization, resurgent indigeneity and neo-realist geopolitical processes. All authors acknowledge how the North has been reterritorialized by each of these processes in ways that encourage the networked nature of sovereignty and territoriality.

The book begins with a discussion of history and governance (Parts One and Two). Victoria Hermann (Chapter One) traces how historical legacies are reproduced or contribute to our understandings of the Arctic in contemporary discourse. She suggests that while there has been much written about the connections between art, identity, and the nation, these analyses more often than not focus on the use and recycling of historical visual compositions in the context of war, violence, triumph, or revolution. Hermann identifies a dearth in the scholarship concerning how political actors "connect contemporary visual narratives with those of the past in an effort to gain political agency and legitimize sovereignty claims in the 21st century." Her research explores how "historic visual themes and aesthetic codes of the Arctic have been mobilized to construct values for and ideas of identity in Canada today on two levels: the nation-state and sub-nationally in Arctic civil society."

At another scale, however, devolution and new developments in governance have supported new styles of fluidity and innovation (Chapter Two). Borders are inimical to this process, Ken Coates and Carin Holroyd remind us. The result has been that "borders that meant next to nothing to northerners in the early 20th century had become formidable barriers to interaction by the 1950s, dividing people acceding to national boundaries and limiting intra-northern interaction." Today, the resulting extensive collaboration is based more on a northern problem-solving approach than a preoccupation with the integrity of territorial boundaries, reflecting the policy potential of structured interaction between national governments, international organizations, Indigenous governments and agencies, sub-national organizations and various bilateral structures. Building upon the idea of indigeneity, innovation and flexible territorialization, Barry Zellen reminds us (Chapter Three) that one important result has been the development of a nexus of borderlands which continue to translate cross-border governance innovation.

Still, as Jennifer Spence and Doug Nord discuss in Chapters Four and Five, the territorial boundaries created by Arctic policy and international relations remain ambiguous. Spence suggests that the Arctic Council was established "as a high level forum to provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of Arctic indigenous communities and other Arctic inhabitants on common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic." But it would be wrong to assume that state agency has been replaced by seamless borderlands. Indeed, Nord explains in Chapter Five that most policy discussions related to "the Arctic" tend to reflect countries' own distinctive sector of it and not a comprehensive portrayal of the region that recognizes the differing circumstances and concerns across Arctic communities. Innovation in cross-border governance continues to be embedded in Indigenous communities and in their accommodation of borderlands processes.

Accommodation is one way to understand processes of change in Northern borderlands. In Part Three, the contributors explore the related notions of sovereignty, security, and border management, beginning with the concept that the template upon which assumptions about state control of maritime spaces and processes is changing. Scott Stephenson and Rebecca Pincus (Chapter Six) summarize the data surrounding climate change, melting ice and potential shipping lanes in the circumpolar North, examining the potential of sea ice prediction as a tool to support

strategic planning in the trans-border marine space of the U.S. and Canadian Arctic. While detailed findings have been published in major American scientific journals, this version is much more focused on policy implications for borders and transborder mobility. At the same time, while acknowledging that degree of flexibility in the development of new transnational maritime spaces, contributors to this volume also acknowledge that resurgent nationalism and geopolitical interest have created new political responses to boundaries – both in terms of their delimitation and their management. As Whitney Lackenbauer/Suzanne Lalonde and Heather Nicol demonstrate (Chapters Seven and Eight), the perception, operationalization, and management of security in Northern borderlands is complex (both on land and on sea) and cannot ignore both national and international interests. Geopolitics reflecting the interest of state sovereignty remain important – much as Nord suggests earlier in this volume. For Lackenbauer and Lalonde (Chapter Seven), however, the long-term goal of a stable and secure circumpolar world, where each Arctic littoral state enjoys sovereignty and sovereign rights, is compatible with Canada's ongoing management of land and maritime boundary disputes, its determination of the outer limits of its continental shelves, and enduring disagreements over the legal status of the Northwest Passage.

In Chapter Eight we shift our attention to the land border between Alaska and Yukon, and explore the concept of security and border management. In this case, Nicol, Karen Everett and Adam Lajeunesse shift their attention to managing tensions over national borders and international flows. Their data is both empirical and narrative, shedding light on the understudied state of Yukon-Alaska border integrity.

Part IV continues the discussion of borderlands in the western Arctic. Everett's analysis of the Yukon economy and the impact of borders for small and medium-sized enterprises (SMEs) and Yukon economies (Chapter Nine) mirrors the concerns raised in Nicol's chapter about the border as obstacle for transnational economic flows. Everett emphasizes border management resources and managements flows of goods and peoples in Canada's Territorial North. Pushing this analysis to a larger scale, Liam Slaney-Kennedy (Chapter Ten) critiques the neoliberal foundations of newly emerging Arctic development strategies from the perspective of their disengagement with regional geo-economic imperatives. In this ground–breaking work, Slaney-Kennedy explores the documents produced by the Worked Economic Forum's Arctic

Protocol to deconstruct the enduring neoliberal "messaging" within regional development paradigms.

Finally, Leslie Collins turns to the concept of sustainability and cross border environments from the perspective of indigenous cross-border water management initiatives and the obstacles that they face in implementing a seamless borderlands approach to water quality. The Yukon River Inter-Tribal Watershed Council (YRITWC) is a world renowned leader in cross-border watershed management. Using information obtained from empirical research and interviews with key stakeholders, Collins (Chapter Eleven) looks at the challenges this organization faces with regard to policy and its implementation. This sheds new light on how the YRITWC understands its role, its challenges, and its successes to date, and positions these understandings within a framework that speaks to the larger context of an expanding roster of regional cross-border actors and organizations within international watershed governance.

Overall, this book seeks to identify how Northern borderlands function in specific regional frameworks. The challenge of discerning what is unique to understanding how specific borderlands function, while at the same time drawing broad comparisons and gleaning insights from other Canadian border regions, becomes clear through a comparative framework. This work also refreshes the somewhat rigid and over-determined study of Canadian regionalism which still remains at the pedagogic heart of Canadian geographical analysis. It explores the ways in which the tenants of methodological nationalism are overcome by connectivity through indigenous borderlands in Northern Canada, and the degree to which networks of connectivity span the Arctic and sub-Arctic region. At the same time, new boundaries re-inscribe territoriality through processes of devolution, land claims, and climate change. Each chapter and each theme in this volume speaks to a specific way in which this networking and re-inscription can be understood.

PART ONE:

CULTURE AND HISTORY

Chapter One

Layered Landscapes, Layered Identities: Historic Narratives, Arctic Aesthetics, and Indigenous Agency in Canada's Anthropocene

Victoria Hermann

In September 2014, Prime Minister Harper, seated in front of an imposing map of "A Strong Canada," proudly announced the discovery of Her Majesty's Ship (HMS) *Erebus*, an ill-fated vessel of the 1848 Franklin Expedition. "This is truly a historic moment for Canada," he pronounced as he congratulated the national expedition's success. "Franklin's ships are an important part of Canadian history given that his expeditions, which took place nearly 200 years ago, laid the foundations of Canada's Arctic sovereignty." With those words, the Prime Minister connected Canada's contemporary national identity to that of a centuries-old imperialist history of British exploration and presence in the North. In an era of melting sea ice and contentious questions of 'who owns the Arctic,' the importance of establishing such a deep-seated identity was not lost on domestic audiences or the international community.

But Harper's well-crafted diction wasn't the only identity-building tool in action during the Franklin press release. His verbal assertion of Canada as a centuries-old, historically legitimate Arctic nation was buttressed by an equally powerful instrument of identity construction: visual narration. By displaying paintings and prints in conjunction with scientific photographs of the wreck, all back-dropped by a Canadian flag, the press conference visually bolstered Harper's claims to a 200-year-old Canadian Arctic identity. Illustrations from 1845 of the *Erebus* and *Terror* braving ice-laden landscapes appeared beside images of modern-day Canadian explorers on the Canadian Broadcasting Corporation (CBC), National Public Radio (NPR), and *The Guardian*, visually presenting a continual Canadian Arctic presence to a wider audience.

Since antiquity, art has played a critical role in communicating the idea of the nation – its territorially bound personality, its epic myths, and its unifying past. Today, individuals are surrounded by images as never before. 24-hour television newsfeeds, social media, and Internet articles rich in photography and videography ensure that audiences are exposed to an endless stream of not just images, but conscious and subconscious visual storytelling. A single image seen on the front page of NYTimes.com and shared on Facebook carries with it a complex foundation of cultural knowledge, past experiences, and frames of meaning that are immediately interpreted by and influential to the viewer. Raising the Flag at Ground Zero is an easily recognizable example of the power of visuals in the 21st century. The photograph, taken by Thomas E. Franklin, of three New York City firefighters raising the American Flag in the rubble of the World Trade Center, resonates with patriotism and national strength, not least because it drew on an already established narrative from fifty years prior: the iconic World War II "Raising the Flag on Iwo Jima." Raising the Flag has been used on postage stamps, national memorials, and shared by private citizens millions of times across the globe. Its success, at least in part, is that it takes a familiar, historically framed aesthetic motif and reframes it for contemporary American nationalism.

There has been much written on the connections between art, identity, and the nation. However, these analyses often focus on the use and recycling of historical visual compositions in the context of war, violence, triumph, or revolution. There exists a dearth in the scholarship when it comes to evaluating how political actors connect contemporary visual narratives with those of the past in an effort to gain political agency and legitimize sovereignty claims in the 21st century. This chapter seeks to, in part, fill that gap by exploring the meaning of sovereignty and territory in Northern Canada as constructed by images of identity narrations. The research aims to demonstrate that historic visual themes and aesthetic codes of the Arctic have been mobilized to construct values for and ideas of identity in Canada today on two levels: the nation-state and sub-nationally in Arctic civil society.

The chapter will first introduce a brief theoretical framework for understanding Northern identity in contemporary Canada, highlighting scholarship on art and identity formation, imagined communities, and regional discourse. Even as climate change shifts the international community's conceptualization of the Arctic for the 21st century agenda, the imagery and textual discourse of past centuries of

imperialism, exploration, and militarism still shape the imagined North. Therefore, the research will examine legacies of contemporary Arctic discourses of identity and borders from previous eras wherein the Arctic was prominently featured in southern international discourse. This will largely focus on Victorian exploration but other historic motifs will also be addressed briefly.

The body of the chapter will explore two temporally parallel but conflicting constructions of identity in Canada today that have come to fruition through this visual legacy. First, the research will examine the aesthetic codes of the nation-state. It will survey the construction of Canada's national identity as Northern through connecting historic imagery to contemporary ideas and values of the state. It will focus on how these images relate to perceptions of Canada's Arctic territorial borders, sovereignty claims, and historically rooted right to its Northern waters and resources. This will be done by providing two cases linking identity narratives to historical imagery: (i) the visual representations of the discovery and presentation of HMS *Erebus* previously mentioned; and (ii) the visual exhibition, Canadian Arctic Expedition: 1913-1918, currently on display on the Government of Canada's Northern Strategy webpage.

The chapter will then turn to a second, differing identity narrative in Canada that also uses historically embedded visual themes to construct contemporary values and political agencies: that of Arctic indigenous communities. Using the experiences of the Inuit in Nunavut, as well as the Inupiaq in Alaska, it will argue that these communities have deterritorialized and reterritorialized, displaced and replaced imperial visual narratives to construct a new, temporally layered trans-boundary Arctic identity. It will explore the implications of a new landscape of traditional knowledge being drawn onto abstract grids of imperial power visuals and historic victimization.

It is the intent of this research to not only explore national and indigenous northern discourses in Canada distinctly, but also to better understand the dynamic relationship between competing and contested narratives in the age of the Anthropocene. Thus, the paper will conclude by considering the interactions between differing narratives of shifting borders and identities and their impacts on the benchmarks of legitimate governance and territorial sovereignty. It will explore how these aesthetic codes have influenced and transformed the other's messages and national and international communities. As climate change yields to new geopolitical

opportunities in the Arctic, it is important to look beyond high-level negotiations and development strategies at evolving visuals of Northern identity to understand an oft overlooked but crucial political tool actors are using to legitimize sovereignty claims and justify economic rights.

A Theoretical Framework

The intersection of identity formation, political perception, and visual representation is taken from the fusion of several post-structuralist postulations on the utility of aesthetics, chief among them born from the disciplines of sociology, psychology, political science, and the history of art itself. Each field provides a layer of understanding of how images govern the seeing and believing of both the individual and society. At its core, the adopted framework rests on John Berger's assertion that visual representation supplies the images that construct the world in which we act, and that those images, subliminally or evidently, create the perceptual and conceptual frames of value making and decisions, at the individual psyche and societal levels.

Political Perception and Pictorial Representation

Making the jump to the notion that imagery is an essential and fundamental element in the shaping of political identity and ideas has no simple causal connection. Aesthetics, in their entirety, are part of the overall social milieu that engenders nationalism and political behavior. As argued by Joseph Nye's theory of soft power, images supply a menu of models from which political entities make their choices. The beliefs and observations on which those decisions are based are not objective, but rather colored by the ideology imbued into every snapshot and video clip that is then multiplied, extended, and reinforced by all visual experiences.

In this way, imagery is the fountainhead from which national beliefs, identity discourse, and consequent political actions ultimately spring. With this inherent power, visuals not only passively condition identity, but they are actively propagated to do so by political actors. As argued by Ross' epistemic merit model, actors seek to ideologically mobilize imagery so as to translate its communicative power into political power; in short, to use visuals as a key means of political persuasion for national ideals.

Imagined Geographies and Concepts of Identity

Edward Said's concept of imagined geographies, where images, texts, and discourses of space are constructed as a means of political persuasion, forms the scholastic bridge between political thought models and theoretical conceptions of space and, in turn, territory. Heavily influenced by Foucault, Said's Orientalism argues that Western aesthetic and textual culture produced a view of the "Orient" based on a particular imagination of its territory as a feminized open, virgin space with no concept of organized rule and government. Power to legitimize geopolitical action thus resides in the hands of those who have the ability to objectify and manipulate territory into a biased imagined geography. This is particularly true in cases of distant territory, where imagined geographies make remote territory intelligible through cultural practices, like photography and videography, which make them relatable.

This concept of imagined geographies is further developed by Daniel Gregory's literature on the creation of geographies of truth. Using the example of the opera *Aida*'s creation, Gregory argues that directed visions of territory help to create a more readily accessible idea of distant peoples – a familiar cartography of identities. By using French costume and set design and Italian musical composition, Egyptian identity is placed within a European context and thus is more true to European audiences than any authenticity that could be found in Cairo itself. In this sense, imagined geography moves beyond territory to also include its peoples and their identity.

This translation of the aesthetics of imagined geographies to the political and national identity of a people can be seen throughout the history of art. Sober paintings of Washington crossing the Delaware River generated politicized notions of leadership, bravery, and national perseverance on the banks of America's fight for freedom. At the same time across the Atlantic, Constable's picturesque visions of the pastoral English countryside evoked an idea of the 'English homeland' and a national identity fused with the country's idyllic landscape.

Such visual narratives linking a state's geography and its peoples make identity and the nation a vivid, palpable, and tangible entity, inviting people to invest a part of their personal identity into the larger being of the nation. These images, imbued with ideas of the nation, are accumulated over the long term to form a tapestry of past and

present national narratives, which are then interpreted and sustained by later generations that come to feel and identify with the visual codes of national identity.

Theoretical Models for Melting Maps

Scholastic work on the political, economic, and societal implications of a changing Arctic environment predominately adopts a relatively narrow, mimetic framework of analysis that fails to engage the gap between representation and policy action. Applying an aesthetic approach as outlined above allows for a reorientation of the Arctic geopolitical landscape away from a mimetic model and towards an approach that generates a more diverse, direct encounter with Arctic political geography. It broadens the realm of our understanding of accepted power structures, political decisions, and public opinions of contested, value-laden Arctic narratives.

As Dittmer et al. contend, "Arctic space is made by foreign ministers, militaries, intergovernmental organizations, scientific bodies, academic researchers, self-styled explorers, and think tanks." (Note that indigenous groups are not included in this summary). Applied to the aesthetic framework, Arctic space is made, at least in part, by the visual narrative of those listed. The generation and use of images by any of these actors is inevitably an act of power, which, at its best, can disguise its subjective origins and values. Arctic territorial discourse and identity is an iterative interplay between representational, embodied, and performative practices and the materialization of space. The application of an aesthetic theoretical lens permits a comprehensive investigation into the very phenomenon of political understanding and practice in Arctic discourse and identity.

Layered Landscapes

Since the advent of the Modern Era, ruler and public alike have been fascinated by the mysterious, untamable ice frontier at the map's edge. Descriptions of pristine hills of tundra and grueling races to claim the pole enthused audiences, from English print media to Soviet propaganda films. But the region that became known as the Arctic has been subjugated as more than a mere land of enchanted allure by southern explorers – during the 19th and 20th Centuries it became a key instrument in reinforcing notions of national identity in England, America, the Soviet Union, and eventually Canada. Through exploration and expeditions, the North served as a tabula rasa to perform feats of national heroism and project identity ideas of stately

power, bravery, and international importance. In a place so geographically remote from the identities it was meant to extol, images and supportive textual discourse, whether in the form of maps, photography, documentaries, or multimedia platforms, became a medium for legitimizing an imperial nation's character. Each selective compositional or contextual element determined the realm of visibility and invisibility, enacting a particularly politicized disposition of the country's identity that it was used to propagate.

As noted by Janice Cavell, imagery of the Arctic has an established history of governments popularizing certain characteristics of national identity. The 'empty' snowscapes of the Arctic lent themselves to political manipulation to present the North as an uncivilized, physically challenging land to test one's personal and national authoritative resolve. As early as the 1570s, Englishmen, led by Sir Martin Frobisher, voyaged north in the quest for wealth, power, and adventure. With these first voyages came etchings of valor and control to financially legitimize their expeditions to domestic (and royal) audiences. During a later journey, Frobisher sailed with a flotilla of fifteen ships, containing all the makings for an Arctic colony, including bricks and mortar. Though the poor soil and extreme temperatures soon convinced the would-be colonists that this was no place to settle, the notions of power and superiority bound to colonialism persisted in the pictorial representations in English print media.

During the Victorian Era of exploration and expansion, the British government nationalized the role of Arctic exploration through visuals in print culture to not only bolster national identity, but also support claims of sovereignty over the North Pole. Etchings of British ships commanding the icescape, formidable explorers forging through their icy masculine fantasy, and exotic representations of Arctic natives and their artifacts constructed imperial narratives in order to justify control over the region. Robert G. David concludes that the use of illustrations in mass media and dioramas advanced the image of the British explorer as a state hero, buttressing the national myth of British providence to a benevolent global empire. Preparations, departures, and progress were closely followed and communicated to the English public as performative moments of national prestige, fueled by popular interest, commercial interests, and strategic motives. Over time, encounters with the Arctic in British print media became embedded in the rhythms and routines of daily life, providing a regularized space in the public imagination to expand an identity of Pax Britannica.

But such mobilization of Arctic visuals for national identity narratives was not unique to Victorian England. Michael Robinson, in his book *The Coldest Crucible*, traces the role of Arctic explorers in conceptions of American identity from 1850 to 1910. Through masculine imagery of traversing a frozen landscape, Arctic explorers used photography of themselves at the pole to feed commercial and political demands for a national hero. Commercial enterprise, mass media, cults of celebrity, and the public and government vision of cultural superiority all demanded a visual myth built on manliness and strength, which explorers in turn needed to meet in order to receive funding. These visual narratives were also used to popularize the American identity as white male, as they largely excluded Arctic explorers of color like Matthew Henson. The North provided a space for the US to establish itself as a great imperial power through masculine narratives of heroism, power, and glory, which were conveyed to the general public through universally accessible popular print media photography.

Although the focus of this chapter is connecting the aesthetic codes of 19th century Arctic exploration to contemporary Canadian identities, it is important to understand the importance Northern visuals have continuously played over the past 200 years as instruments of national identity construction across the globe. In fact, the use of visual representation of dominance over the Arctic to build a national identity domestically not only continued during the 20th century, but expanded. Trevor Pringle demonstrates the power that visual codes of Arctic landscape imagery mobilized during the First World War and in the 1950s played in forging an American national identity of international preeminence and perceived imperial heritage. Across the Iron Curtain, Stalin manipulated photography and film of Russian scientists and pilots into socialist heroes of a golden 'Socialist Future.' At this time, Canada, a country only just embracing its full independence, also embraced the far North as a central aspect of the national psyche. Arctic-themed comics, such as *Nelvana* and *Captain Canuck*, provide illustrative examples of a muscular, boisterous propagation of national identity using Arctic themes. These heroes' costumes, names, and personal values are explicitly tied to Canada's national mythology and the "imagined political community" of Canada as a Northern country.

The importance of Arctic visuals in national identity has been passed down through a long history of domestic propagation and international politicization, and has reemerged in thickly layered visual narratives from century to century. The next two sections will explore two contemporary Canadian identity narratives that have

built themselves upon the themes and styles of these reemerging past visual legacies of Victorian Arctic exploration.

Canadian National Identity

According to a recent Ekos survey of 9,000 Canadians, the average citizen sees the North as an integral part of their heritage and identity as a nation. The vast majority of Canadians, nonetheless, reside in the southernmost part of the country, and most will never venture to the Arctic. In spite of this, Canadians still identify their country as "the true north strong and free," a national identity made paramount by the Harper government. Canada's history of exploration has long been translated into narratives of nation building and patriotic citizenship. Although Canada only gained its independence in full in 1982, the idea of the North has played a part in its national identity since the turn of the 20th century. Canada's Northern identity appears in its national anthem, postage, and newly minted fifty-dollar bill, which features a national Arctic icebreaker. There was even a senate movement in 2011 to replace the national symbol of the beaver with the polar bear, which was argued to have better national traits of strength, courage, resourcefulness, and dignity. For the past century, heightened during the Cold War militarization of the Arctic, the North has functioned for Canada as a grand national myth that has the power to unite a diverse country and peoples.

Today, as melting Arctic opens economic and geopolitical opportunities, the Canadian government is keen to connect this Northern national identity to a historic occupation and use of the Arctic to fortify its sovereignty claims. Establishing a historic Canadian claim to the Arctic, one that reaches further back than independence, can help to buttress legitimacy in Ottawa's claims to the Northwest Passage. One way that the Harper government sought to establish this continual history of Arctic control was by connecting visuals of 19th and early 20th century polar exploration with images of Canadian icebreakers today, thus painting an unbroken, sweeping national Arctic narrative over the past 200 years.

Connecting visual narratives from the climax of polar exploration to contemporary notions of national identity do more than legitimate sovereignty claims; like the polar bear, they help to shift the national identity to a more dominant, power-laden narrative. From attempting to replace the beaver with the polar bear, to substituting human rights leaders with icebreakers on the fifty-dollar bill, Canada is in the process

of changing its identity from a 'peacekeeping nation' to one focused on security and strength. The Arctic of the Victorian Era provided national heroes with a frontier to establish an identity of masculinity, strength, and perseverance. More so than the troubled spaces of hot and humid tropical exploration, the Arctic served as an important site for the coalescence of an imperial British masculinity. It provided a landscape to prove one's abilities, both physical and mental, and distinguish oneself as a triumphant explorer – symbolic of their homeland - not only to domestic audiences, but also on the world stage. These Victorian values resonate with the shifting identity of Canada, where influence, dominance, and fortitude are the backbone of its latest international persona.

Masculine might and an established historical presence – two aspects of 19th and early 20th century Arctic imagery – were attractive to the Harper government as it looked to assert sovereignty and authority in the international arena. Two recent repossessions of earlier Arctic visual narratives by Canadian officials – the HMS *Erebus* discovery and the virtual exhibition of the Canadian Arctic Expedition – illustrate the mobilization of past aesthetic codes to construct a contemporary political identity.

Franklin Expedition

In 2008, Parks Canada announced its intent to sponsor a marine exploration to find the sunken and subsequently lost ships of the 1845 Northwest Passage expedition led by Sir John Franklin. A key reason given by the federal authorities for their sponsorship was the need to assert their claims to Arctic sovereignty in an unstable and tense circumpolar geopolitical environment. In 1992, the wrecks of HMS *Erebus* and HMS *Terror* were seen as important to Canada's national heritage and an integral part of the development of Canada as a sovereign nation. Accordingly, despite their unknown locations and their British origin, they were made "undiscovered national historic sites." This declaration transformed them from material objects lost to a past disaster into symbols of Canada's destined Arctic sovereignty. Framing the historic tragedy as part of Canada's national myth makes the history and heroic characteristics of the wreck more accessible to Canadians, provides a mandate for the Canadian government to assert their supremacy in polar science and technology through recovery missions, and offers a continual narrative of exploration in Canada's Arctic from Franklin himself to the explorers that discovered the ships in 2014 and 2016.

The discovery and publicity of finding *Erebus* in 2014 provided the Conservative government with an opportunity to propagate a vision of Canada based on heroic examples of a glorious imperial past and to draw historical legitimacy to Canada's claim to the Northwest Passage. Research in Motion (Blackberry) co-CEO Jim Balsillie called the discovery a "tremendous catalyst of nation-building." This nation-building is illustrated through the visuals used on the Parks Canada and other government webpages that display 19th century drawings and paintings of the ship alongside those of the recovery expedition. While presenting the profile plan of HMS *Erebus* from 1826 next to images of the wreck today may seem like a parallel of scientific information, the use of Romantic paintings and etchings of the height of polar exploration transformed the Franklin expedition from a Victorian sensation into a pillar of Canadian Arctic sovereignty. The drawings provided a visual narrative of 19th century ships commanding the northern landscape, their crew fearlessly sailing onwards in a heroic but ultimately tragic journey that is then built upon by photographs of modern-day icebreakers making the same voyage. The old and new images of vessels traversing the Northwest Passage connected the dots to depict a continual Canadian command of the Arctic, thus historically securing Canada's sovereign claims to the waters.

Beyond the visuals of the ship, the photographs of the people (all men) involved in the search, including Harper himself, also became a part of this modern-day Victorian exploration narrative. 19th century national explorers were seen as conquerors of a harsh wilderness and celebrated for their strength and determination. The contemporary Canadian Arctic explorers of the Franklin recovery expedition adopted classical exploratory poses for pictures, which were circulated amongst media outlets and government press releases. These included the men huddled around a table below deck, being briefed over a map; at the prow of a ship looking sternly towards the horizon; and group shots posed in cold weather gear against an icy backdrop. An often used photograph for Franklin news is one of Prime Minister Harper standing at the bow of HMCS *Kingston* while sailing through Nunavut in the summer of 2014, where he toasted the search for the lost ships. Standing alone below a Canadian flag waving in the wind, Harper grips the rail and looks pensively out towards the white expanse. The picture, used on CBC, Global News, and CTV, as well as by many print and online media outlets, places Harper as a contemporary explorer in an old-fashioned Romantic quest narrative. Used in the context of discovering the wrecks,

the photograph, as aptly put by Tina Adcock, conveys a message that "this latter-day explorer has braved the Arctic, found tangible evidence of the Franklin expedition, and thus secured Canada's claim to the Northwest Passage against foreign interlopers." Another frequently used visual was that of Harper being briefed by a Parks Canada official below deck on HMCS *Kingston*. Standing over a map, the modern-day explorer points to their position in Canada's Arctic archipelago, with Harper and others looking on seriously. By echoing these Victorian compositions and using historic visual quotations of masculine heroism, the Conservative government is able to reinforce the political identity of patriotism, militarism, and northernness it has sought to establish over its last term.

Canadian Arctic Expedition

Earlier in Harper's term, the Canadian government launched a virtual exhibit on their website to commemorate the 100 year anniversary of the Canadian Arctic Expedition of 1913-1918. Hosted on the government's Northern Strategy page under the "Sovereignty" subsection, "Commemorating the Canadian Arctic Expedition: 1913-1918" details the events and outcomes of the first nationally funded Canadian exploration of the western Arctic. The exhibition's introduction presents the expedition as key to shaping Canada into a nation and providing a significant turning point in Canada's territorial history by asserting Canadian control over thousands of kilometers in the north. The text explains to viewers that the photographs and 'artifacts' taken in 1913 defined Canada's northern boundaries as a young nation, borders that are still in use today and which lay the foundation for current development in the Arctic. This description is accompanied by 20th century cartography and audience-friendly maps demarcating the modern US-Canada border with the trail of the expedition. The exhibition then goes on to detail the voyage itself, led by Vilhjalmur Stefansson (an anthropologist and experienced Arctic explorer) and the collaboration between explorers and government officials. Stefansson personally thought that Canada needed to strengthen its Arctic presence through the occupation and economic development of the North, which was made possible by his 'living off the ice' techniques. He envisioned the Arctic not as a wasteland of sublime ice but as a region of potential, a vision that aligns with Canada's current conception of its north. Here too black and white photographs of courageous explorers and politicians of the early 20th century accompany the text, providing a visual narrative of a daring

expedition, a visionary Arctic explorer, and ultimately a mythic perception of the Arctic.

The virtual exhibit then goes on to link this 1913 expedition to a continual Canadian Northern strategy of exercising Arctic sovereignty. It moves into the 1930s and the Cold War militarization of the Arctic, on to the establishment of an exclusive economic zone and pollution prevention zone in the 1970s, the 1986 drawing of straight baselines to formally justify the enclosure of the Northwest Passage as internal waters, and finally to contemporary state submissions to claim an extended continental shelf pursuant to the United Nations Convention on the Law of the Sea (UNCLOS). Paralleling earlier images of the 1913 ships and explorers are "concept images" of large icebreakers currently being built by the Canadian government, such as the CCGS *John G. Diefenbaker*. This illustrates a continued and strong presence in the North and a long legacy of scientific-, security-, and sovereignty-minded explorers. The exhibition highlights the Conservative message of the need for a strong Arctic, the resilience of Canada's abilities, the gravity of its sovereignty claims, and the success of Canadian technology and innovation. It helps to embed a Northern, sovereign national identity as an integral part of the nation and its history through painting a captivating and historically valid narrative of Canadian Arctic occupation.

Implications of Imperial Conquest and Arctic Domination for Northern Indigenous Identities

Just as Victorian imagery of a masculine nationalist narrative has resurfaced in contemporary visuals of a Northern Canadian identity, so too have they influenced 21st century Northern indigenous identities. Unlike southern explorers, who were pictorially exalted as strong, adventurous heroes, indigenous peoples were depicted as an exotic "other." In one of the first Arctic expeditions in 1577, Frobisher captured and brought three Inuit from Baffin Island, a man, a woman, and her child. It is from this and Frobisher's subsequent voyages that the first Western visual representations of the Inuit were made. Similar to illustrations from other expeditions to the tropics and beyond, these sketchings simultaneously conjured imperialist extraterritorialities of being uncivilized, femininely weak, and in need (or in want) of Western culture. Watercolor portraits by John White of the three Inuit brought back to Bristol are prime examples, being both exotic and familiar to British audiences. Keeping their distinct seal skin attire and posed with native weaponry, White paints them in a

clearly Westernized *contrapposto* stance, one that would be familiar to audiences of the day. By combining native and local attributes, White was able to portray the Arctic region through his subjects as nationally British but subordinately colonial.

Since White's paintings of early expeditions to the North, the Arctic has continued to be visualized as a space for human fantasies and fears, particularly those of control and conquest, and the gendered, political, and cultural consequences that accompany such imagined geographies. This was particularly true of the Victorian era when the mapping of empire and masculine fantasy blanketed the tabula rasa of the North, and in turn the peoples that resided therein. The early- to mid-1800s produced a wealth of paintings, sketchings, and etchings of the Inuit encountered by English explorers. These depictions followed White's style, depicting an Anglicized version of native life in situ. Though stylized, the Inuit are still depicted as foreign, exotic peoples. "A Wild Ride on a Dogsled" (1824) portrays its sitters seated off-balance on a sleigh, long hair blowing violently in the wind while chewing through raw meat. Inuit wishing to trade with the explorers in Beechey's *Narrative of a Voyage* (1831) are almost demonized, with black holes for eyes and fang-like teeth in stern-lipped mouths. Juxtaposed next to the tall, elegant British sailors in uniform in "Greeting the Arctic Highlanders" (1819), the Inughuit are pointed to as significantly shorter, less regal, and overjoyed in the simple civilized objects brought by the British, such as a mirror.

Victim Identity: Reconceptualizing Imperialist Thought for 21st Century Crisis

These historic images, impregnated with various gendered identities, fantasies, and projections, had two major influences on perceptions of Inuit identity that can be seen in the reuse of these visual themes today: a universal Arctic identity and a narrative of vulnerability. First, the Victorian imagery of native Northerners did not discern between differing tribes, but instead labeled and depicted them as one peoples. Regardless of their geographic or identity origin, Inughuit of Greenland were shown as identical to the Yupik in Alaska. Second, themes of savagery and the need, or desire, for the 'white man's burden' of civilizing became intertwined with themes of vulnerability – the Inuit were in need of British assistance. Similar to the visual narratives of the uncivilized of Africa, Asia, and the Americas, the Western concept of Northern peoples as weak and savage, and in turn vulnerable, held very real

geopolitical consequences. Historically, the label of vulnerability has been linked to imperial notions of underdevelopment. Underdeveloped, when aligned with western standards of attainment as the benchmark against which lifestyle conditions are measured, often equates to backwardness, poverty, and the need for charitable control. Building on this legacy, vulnerability is synonymous with helplessness, powerlessness, and weakness. Defined as such, vulnerable visual labels have strong links to disempowerment and dependency stemming from general colonial rule and imperial power dynamics.

Unlike the use of Victorian visuals for Canada's national identity, which were used directly to support a continual Northern identity, Indigenous identities today use these past aesthetic codes more indirectly. Inuit civil society has borrowed the themes of these visual narratives and transposed them onto issues of today to create a contemporary identity.

Reusing the theme of a universal Arctic identity, taken from Victorian blanked representations of indigenous tribes, Canadian Inuit civil society groups today have adopted a trans-boundary Arctic identity. By transposing this regional identity onto climate change discourse, an Arctic citizen emerges. The diction and visuals of global climate science, much like Victorian aesthetics, show the peoples of the Arctic as a singular group at immediate risk of climate impacts. National governments, activism organizations, regional and international institutions, and indigenous groups have all assisted in the evolution of an identity of a pan-Arctic citizen for the 21st century, weaving together generational knowledge and political agenda-setting across peoples. This reused pan-regional identity, treating the Arctic as a single unit of an at-risk community, has imbued indigenous political actors with a sense of agency, which will be addressed in depth later in this section. This pan-Arctic identity, rather than a state-bounded identity, is important to note when considering the visual narratives below, which borrow examples from the North American Arctic generally rather than being specifically confined to the state borders of Canada.

Again, when Victorian vulnerability themes are grafted onto climate change discourse, an identity of defenselessness frames urgent action on climate change as yet another instance wherein developed nations can impose misguided solutions onto helpless, powerless, weak, and backward 'vulnerable Arctic communities.' Having a victim identity, Arctic indigenous communities are often visualized as being vulnerable to current ecological and climatic shifts. But vulnerability itself is an elusive

term, one that provides over a dozen definitions and evades a singularly accepted set of indicators or methods. According to the Intergovernmental Panel on Climate Change (IPCC), vulnerability is defined as "the degree to which a community is susceptible to and unable to cope with adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a community is exposed and its capacity to effectively adapt to change." This combines both the exposure to a physical hazard dependent on geographic location and human sensitivity to that hazard, which is determined by pre-existing social, economic, and political conditions such as inequality, poverty, power dynamics, social networks, and institutions. In the context of Arctic populations, being identified as vulnerable is the result of these communities being at particular risk because changing biophysical conditions create difficulties for hunting and fishing, threaten traditional and cultural lifestyles, and generate adverse health effects.

Indigenous communities and activists understand this contextualized identity as victim, the need for urgent climate action, and the legacy of imperial imagined geographies. And, with this understanding, they have reclaimed the victimization narrative to empower rather than disempower their political agency. In this way, they use the same Victorian identity of vulnerability, but frame it as a call to safeguard their human rights—and indeed their very lives. This reclaimed visual discourse presents Indigenous identity and territory as a sacred space removed from the problems of contemporary life, where people are being immediately threatened by climate change. The discourse portrays Indigenous Arctic communities as victims on the front line of climate impacts through observations of dramatic changes in their everyday realities. While technical papers, charts, and quantitative figures are also employed, these images turn away from redundant scientific data and instead rely on a more emotional medium to convey the reality of climate change and its effects on Arctic territory and humanized territoriality.

The climate victimization narrative calls political leaders and the public to action to help indigenous people safeguard their homelands, and to defend their human rights. These visuals frame disappearing islands in the high Arctic as a human problem -- an immediate threat to the livelihoods, cultures, traditions, safety, and health of native Arctic communities. This is exemplified in *The Last Days of Shishmaref: Inupiaq Community Swallowed by the Sea*, a feature-length film, photo

book, and traveling exhibition that captures the disappearance of an Inupiaq Eskimo community in Alaska due to climate change. The town of 600 inhabitants, located just south of the Arctic Circle in the Chukchi Sea, is facing thawing permafrost along the coast and a reduction in sea ice, which brings higher storm surges and shoreline erosion. The town's homes, water systems, and infrastructure are being threatened and the area is projected to be uninhabitable in ten years. Some climate models place Shishmaref and the island of Sarichef (upon which it is located) as the most dramatic frontline of climate change in the world.

The photographs and videos from *The Last Days of Shishmaref* attempt to capture this bleak reality of vulnerability to climate change. The intimacy of the field camera's carefully composed portraiture, details of interiors, village tableau, and sea- and landscapes highlight the harsh disappearance of the island, the community, and its identity passed down from generation to generation. The clips of family dinners and houses falling into the sea hauntingly juxtapose the community's past roots in local tradition with their uncertain future. The domestic, intimate visual narrative marks the Indigenous community as helpless against the changes in a way that makes them familiar to Southern audiences, an easily accessible geography of truth much like those of Orientalism.

Clips and photographs of the proposed relocation and resettlement of the community further inland into a neighboring city intertwine this reclaimed victimization narrative with past victimization, namely discourses of past exploitation, colonization, and the demand for redistributive justice. Interview videos about forced relocation within the feature film emphasize a familiar discourse, one where native people are excluded from the meaningful policymaking that is defining their future. Video narratives also underscore the government-sanctioned programs aimed at assisting them as instruments that only further exacerbate pre-existing economic and social issues. The relocation policy, from which community leaders have largely been absent, will force the traditional community to assimilate into a larger, urban location, raising fears of lost culture, discrimination, and low economic opportunity. This uncertain and frightful narrative is captured in the quivering voices of elders and close-up portraits of worried youth, and adds a further dimension to the overall victimization discourse.

Indigenous photographers and videographers use a victimization visual narrative in hopes of moving political leaders to action by suggesting a moral obligation to

safeguard their existence. Visuals of Indigenous communities as climate victims frame climate change as a human-interest story and use psychological principles of "innocent victims." The images and videos that frame this discourse are vocally echoed at climate negotiations, as indigenous leaders make speeches for urgent action to help save their peoples, their culture, and planet Earth. They are also buttressed by the narratives of ecological Arctic vulnerability told by the familiar imagery of melting ice and stranded polar bears popularized by civil society groups and photojournalists. This non-indigenous, but supportive, discourse is seen in photography campaigns like those of Greenpeace or James Balog's "Chasing Ice and Extreme Ice Survey," a long-term photography project that merges art and science to give a visual voice to the Arctic's changing ecosystem.

The displacement of colonial narratives of victim and their replacement with the indigenous narrative of climate victimization allows for a deterritorialization and reterritorialization of the Arctic as a frontier still in need of protection but strips it of its uncivilized characteristic. But in order to tactically reframe the last frontier to empower themselves in the geopolitical climate plight, indigenous communities have grafted a new visual narrative onto this imperial power-laden grid: that of traditional knowledge.

Triangulation of Power, Knowledge, and Territory

As the Latin aphorism goes, *scientia potestas est* - knowledge is power. And yet, this aphorism simplifies the complex relationship between power and knowledge – their mutually-reinforcing, independent coexistence. Foucault's conceptualization of this relationship moves the aphorism beyond the traditional view that power is wielded by people or groups by way of episodic or sovereign acts. Instead, power is embodied in discourse, diffused rather than concentrated, discursive rather than purely coercive. Knowledge is produced by power and reinforced by visual mechanisms that legitimize an individual's hold of that knowledge. Moreover, Foucault argued that such power could be demonstrated at a micro level by groups of ordinary citizens rather than large institutions, organizations, and the state. Power, then, can be a positive and productive force in society that has the ability to empower local, often marginalized groups.

The knowledge-holder narrative frames native Arctic communities as important observers and interpreters of changes in the environment. These visuals go beyond

labeling Arctic indigenous persons as vulnerable victims to defining the Inuit and other groups as experts of observation knowledge and traditional adaptation and mitigation strategies. In short, they translate knowledge of territory into political power through the mobilization of aesthetic codes that reinforce their scientific and traditional understanding of the Arctic landscape.

Understanding Traditional Knowledge

Traditional knowledge is a "cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings including humans with one another and with the environment." Although this definition is a suitable foundation for the term, it must be expanded beyond its western parameters to include its spiritual nature and the idea that this knowledge is both transient in immediate observations and perpetual in its multigenerational oral habit.

Traditional knowledge is increasingly recognized as an important component to understanding climate-related weather patterns, ocean phenomena, and other ecological changes through personal observation. Traditional knowledge is important to construct historical environmental baselines, identify impacts that need to be mitigated, provide observational evidence for modeling, offer technologies for adapting, and identify culturally-appropriate values to protect people from direct impacts or from the impacts of adaptation measures themselves. Traditional knowledge is seen as both a sentinel-like warning system for climate change and a critically valuable approach to low-carbon sustainable lifestyles and localized adaptation strategies. It complements scientific data, filling in observational gaps and supplementing scientific findings on shifting atmospheric and oceanic systems, and often helps to focus scientific research on data to support indigenous safety and subsistence needs. Nonetheless, this co-learning and co-production process of scientific and traditional knowledge does not guarantee fairness or equal standings, nor address power asymmetries.

Traditional Knowledge, Victimization, and Climate Narratives

Framing Indigenous groups as victims in visual representations is, at its core, a call to action against climate change—to safeguard vulnerable, and oftentimes marginalized, human and Indigenous rights in Arctic communities. While the visual

narrative of traditional knowledge also seeks to demonstrate the adverse effects of climate change on traditional lifestyles and livelihood systems through a territoriality of crisis, it more importantly emphasizes the contributions that Arctic traditional knowledge can make to scientific research and adaptive strategies. Photographs, videos, and maps that emphasize traditional knowledge frame Inuit and other groups as experts and active political actors that can provide meaningful observational data to local, national, and international climate research. This narrative framing is used to politically empower aboriginal actors – rather than being victimized objects of climate change, the Inuit are transformed into an integral part of the solution.

Qapirangaiuq: Inuit Knowledge and Climate Change graphs the power of traditional knowledge onto the historic grid of victimization. This documentary by Dr. Ian Mauro, Canada Research Chair in Human Dimensions of Environmental Change at Mount Allison University, and Zacharais Kunuk, an Inuit director based in Nunavut, links traditional knowledge with climate science to demonstrate that climate change is increasing the frequency of mirages, which are altering the visual landscape of the Arctic and making celestial bodies appear differently in the sky. The piece interviews and follows Inuit elders, hunters, women, and children to weave a rich narrative of a changing climate through everyday observations. The film has been shown at numerous film festivals and academic conferences, is available to the public, and was featured by the CBC on the eve of the UN Framework Convention on Climate Change (UNFCCC) Conference in Copenhagen, Denmark in 2009.

Qapirangaiuq presents traditional knowledge as intimate but authentic. Its use of native language, rather than translation, and the weight given to both literal and spiritual observations and wisdom legitimizes traditional knowledge on its own – outside of the southern scientific community. Like the victimization narrative, here too the visual narrative becomes expressive, illuminating these people's identity as a people of the earth – those who keep Mother Nature safe, a responsibility handed down to them by their ancestors. Traditional knowledge visual discourse, however, transcends this emotional side by aligning itself with globally- and politically-vindicated climate scientists. The film "portrays Inuit as experts regarding their land and wildlife and makes it clear that climate change is a human rights issue affecting this ingenious Indigenous culture." The combination of these two narratives, disempowerment and empowerment, creates a native narrative that, though in

contention, is capable of framing the Arctic climate change affecting indigenous communities as morally motivating and their role as scientifically legitimate.

This temporally-layered grid of images and aesthetic codes has created new values for an Arctic that is evolving from a regional frozen backwater into a global hot spot of economic promise, ecological disaster, and geopolitical conflict. Images of eroding shorelines, falling homes, and empowered elders have constructed a native Arctic identity that is simultaneously empowering and victimizing. But it is also an identity that combines Said's and Gregory's Oriental familiarity for southern audiences with historically belittled Indigenous perceptions of Arctic territory and identity. Through these climate narratives, the imagined geography of a melting Arctic becomes inherently multi-vocal, revealing both its continuities and discontinuities with past geopolitical imaginations.

These new narratives echo past imperial lines of responsibility for southern, developed states to take action to mitigate and adapt to climate change to protect Arctic communities. But they have also realigned power legitimacy to include the role of indigenous political actors in decisions of governance, climate action, and potential relocation. Victimization and traditional knowledge images have helped to shape the realm of the visible, and, no less importantly, the invisible, which in turn have rendered an imagined geography of the Arctic that is at once intimately familiar and empowering to Indigenous peoples. It bridges the abstract space of a changing Arctic with the occupied place, the homeland, of native communities. Their compositional and contextual aspects have helped to redefine sovereign responsibility and power in a region faced with shifting territories, ecological adversity, and human rights hazards – a redefinition of Arctic territory and territoriality themselves.

Conclusion: Moving Beyond Arctic Exceptionality

Over the past half century, the Arctic landscape has undergone a dramatic change, producing multiple, interrelated effects on and within Indigenous, socio-ecological, and political systems. While much research has been done on the effects that these changes have had on economic opportunities, geopolitical orders, human health risks, natural science disciplines (eg. hydrology, glaciology, and biology), and human-centric studies (eg. anthropology, sociology), there has been less investigation into the visual narrative and identity constructions that have come to fruition from these variations. In spite of this gap, the Arctic aesthetics of identity and territoriality are

critically important to understanding contemporary sovereignty, action on climate change, and ideas of territory itself. These images and videos create a shared way to apprehend a changing Arctic identity and territorial geography. They can limit or expand climate analysis, reshape our understanding of borders, and have the ability to promote and silence certain peoples.

The importance of Arctic narratives in Canadian national and Indigenous identities goes far beyond the circumpolar north. As globalization increases societies' exchanges, and as government, media, and industry increasingly assert a unified discourse, there is a global loss of diversity in ways of believing. Humanity is moving towards a global monoculture in how individuals make sense of things – how we problem solve, think critically, and interpret the world around us. This global monoculture is no different in how society perceives climate change. Humans, specifically those who do not face the immediate risks of climate change, have developed a handful of static ways to interpret the vast and dynamic ecological changes that are occurring in the global system. These singular, mainstream discourses limit our ability to understand climate change and perceive all possible solutions. The synthesized discourses include the securitization, environmentalization, and economization of climate change. While these conventional narratives provide a shared way of apprehending the world, they also obscure the less established discourses that are equally important to interpret and act upon climate knowledge. Visual narratives, like those inspired by the Arctic, are crucially important in providing different ways of viewing climate change to permit a much needed critical analysis of potential solutions.

The Arctic, though far removed from power holders in Ottawa, is intricately connected to the rest of the global system through climate feedback loops. Changes in the far North have immediate consequences for atmospheric circulation, ocean circulation, rising sea-levels, marine and land carbon cycles, and methane hydrate feedbacks. All of these bio-chemical systems have critically important roles in the cultures, human security, economic health, and very lives of societies from Shanghai to Somalia. As the Arctic faces the world's most drastic changes in climate and ocean patterns, the native narratives and potential to agitate for climate change mitigation and adaption will not only prove their power for the region and its inhabitants, but the future of our entire world.

Chapter Two

Re-Bordering the North: Governance, Northern Alliances and the Evolution of the Circumpolar World

Ken Coates and Carin Holroyd

Only a few decades ago, the Far Northern regions could reasonably be described as colonies of their respective governments. Major decisions, from the opening of Barents Sea oil, the development of major mines in the Canadian Territorial North and the exploitation of Alaskan oil and gas reserves, emerged from national governments with scant reference to northern residents and their governments, and even less to Indigenous peoples. In the intervening period, much has shifted, from the emergence of the Inuit Circumpolar Conference, the Arctic Council, sub-regional political alliances and, most powerfully, the establishment of Indigenous land rights, modern treaties and self-governing Aboriginal communities or regions. The result has been, at one level, jurisdictional chaos as governments, political leaders and organizations seek the appropriate venue or forum for their concerns. More constructively, this period also saw the emergence of one of the most collaborative, interactive and cross-cultural governance eco-systems in the world.

This essay reflects on the significance and role of borders and boundaries in the circumpolar world. It argues that, in the 1990s, the North experienced a partial dismantling or weakening of the nation state, a process led by Indigenous people and supported by non-Indigenous leaders. Despite the impressive developments in cooperation, increased contestation involving the North over such issues as climate change, northern boundaries, Arctic oil and gas exploration, and Arctic navigation raised the profile of nation states once again at the beginning of the 21st century. At present, the re-bordering of the Far North remains only partial, with substantial Arctic integration and collaboration offset by national rivalries and the stalwart defense of boundaries, particularly those extending from the Arctic coastlines.

Borders that meant next to nothing to northerners in the early 20th century had become formidable barriers to interaction by the 1950s, dividing people and limiting intra-northern cooperation. That changed dramatically. Extensive collaboration, based more on a northern problem-solving approach than a preoccupation with the integrity of territorial boundaries, took place in the 1980s and 1990s. Promising international collaborations quickly demonstrated the policy potential of structured interaction between national governments, international organizations, Indigenous governments and agencies, sub-national organizations and various bilateral structures. In this re-ordering of the North, new styles of governance, leadership, influence-making, and community engagement have emerged, creating the potential for responsive and cross-cultural governance systems that are tied to the unique circumstances of the Far North.

Societies have long used borders (variously defined) as means of regulating and controlling relationships between peoples. For generations raised in the age of the nation state, countries have been marked by fixed and patrolled borders with ongoing debates and conflicts over the precise location of national boundaries. In the 1990s, scholars and commentators, believing that the liberal democracies and capitalist countries had "won" the Cold War, argued that the world was entering into a borderless era. Powerful multinational companies, international organizations like the World Trade Organization and the International Monetary Fund, influential regional alliances like the European Union and the North American Free Trade Agreement zone, and the integrative and disruptive power of the Internet convinced many observers that borders were quickly becoming irrelevant and the nation state was being overwhelmed by extra-territorial forces. In this environment, international organizations assumed greater importance, albeit far less than the "one world government" so feared by conspiracy theorists. By definition, borders and national governments would assume lesser roles in a world defined by globalization, digital connectivity, the free(r) movement of people and the powerful influences of international capital.

A borderless world has not come to pass. Nations remain the bedrock of international affairs. In Africa, borders have proven to be changeable as a result of civil chaos, tribal conflicts, and regional wars. The European Union, the poster child of regional cooperation, has come under threat due to the 2016 Brexit referendum in the United Kingdom, just two years after a referendum on the secession of Scotland from

the UK went down to a narrow defeat. Tensions have escalated in the South China Sea over a complex web of overlapping claims to the seabed. Boundaries are a geopolitical fact of life and not the historical anachronism that some analysts believed them to be.

The North has also seen a tightening of its borders. Northern boundaries have been militarized and enforced, particularly those between Alaska and the former Soviet Union/Russia, and Norway and Finland and the former Soviet Union/Russia. Even those without land-based borders, including Greenland/Denmark, Arctic Canada, and Iceland, are monitoring military activities across the northern regions more closely and are worried about aerial, land-based or underwater incursions into their territories. Settlement in border regions is limited to small, remote, Indigenous communities, with few substantial non-Indigenous cities or large towns, but the Arctic hosts sizeable military establishments. Of particular importance, in the first decades of the 21st century, a long, science-based debate evolved relating to the international boundaries in the Arctic.

The North, however, is a unique zone, with the intense focus on the Arctic boundaries offset by extensive international collaborations across borders. The emergence of a Circumpolar socio-political reality (as opposed to a geographical zone) seemed, at one level, to demonstrate the porous nature of the northern boundaries. The collaborative process was led by Indigenous leaders, with non-Aboriginal politicians, business people, academics and others demonstrating a strong commitment to focusing on Circumpolar issues rather than nation-specific northern questions.

The concept of borders is modern and evolving. Indigenous peoples have different understandings of territories, ones defined by historical use and occupation, harvesting patterns, and typically flexible arrangements with neighbours. Indigenous control of key locations – usually associated with harvesting activity – was commonplace, but clearly defined and plotted "boundaries" were not. Over time, Indigenous peoples fought, traded, intermarried, and reorganized after famines, droughts or depopulation through diseases introduced by newcomers. Territorial occupations, although relatively consistent for long periods of time, were not rigid and changed over generations, particularly after European incursions and trading activity.

When Europeans moved into Indigenous territories, they brought with them the geopolitical rivalries and a desire to acquire and control new lands. The borders were set out in broad agreements between imperial rivalries. The Alaska-Canada boundary, for example, was set through an 1825 treaty between Russia and Britain, signed before any European had ventured into the affected area. After forty years of co-occupation of the area (the Hudson's Bay Company leased the Alaskan Panhandle, but not the panhandle islands, for commercial purposes), the United States of America purchased Alaska from Russia in a transaction described by some as "Seward's Folly," named after U.S. Secretary of State William Seward who signed the agreement on behalf of the United States. The main boundary, the 141st line of longitude, adhered to no geographic logic and bisected several Indigenous territories. The boundary had no substantial effect until the 1920s and 1930s, when American and Canadian authorities started the process of enforcing the border.

The Arctic Islands followed a different path. Several countries, including Britain, the United States and Norway, had participated in the exploration of the Arctic Islands. The areas that came under the notional control of Great Britain were not highly valued parts of the nation's sprawling global empire. Norway expressed a national interest in the area, but lacked the desire to press formal claims. In 1880, Great Britain assigned control of the Arctic Islands to the newly-formed Dominion of Canada, giving the country control over a vast northern area that it had, at that point, made little effort to administer. But for the Inuit people of the region, they had come under British, and then under Canadian, control with no input into the process. And so it happened across the Arctic. Denmark retained control over Greenland, linking the Indigenous peoples of the island to the northern European country for generations. The shifting boundaries of Scandinavia, as Norway separated from Sweden and as Finland wrestled with its complex relationship with the USSR/Russia, likewise left the Sami people and other northerners out of the border-setting process.

Similar processes happened internally. In Canada, for example, the Dominion gained control over a vast sub-Arctic expanse through the purchase of Hudson's Bay Company lands in 1870, initially defining much of the area as the Northwest Territories. Over more than a hundred years ago, the country carved the region into pieces, leaving large sections with the provinces of Ontario and Quebec, establishing the Province of Manitoba in 1870, creating the Yukon Territory in 1898 and the new provinces of Alberta and Saskatchewan in 1905. In 1999, the Inuit-controlled

territory of Nunavut was created, the only jurisdictional innovation in Canadian history that was instigated, created and defined in collaboration with Indigenous and northern peoples.

Arctic boundaries were, in each instance, created by imperial authorities or national governments without reference to or consideration of the interests and opinions of northern peoples. As a result, the boundaries served or reflected large geo-political interests and incorporated a series of cultural and geographic absurdities. Indigenous peoples saw their people and their territories divided by national boundaries that gained legal, physical and military authority over time. For the Indigenous peoples whose lives came to be regulated by these borders, the expansion of external control was often wrenching. In the case of the Soviet Union-Alaska boundary, for example, the enforcement of the boundary in 1947 left many residents stranded, separated from families and communities for more than forty years. Sami peoples found their reindeer territories divided by national boundaries and, eventually, national regulations.

Boundaries took on greater significance in the North, commensurate with the growing power of the nation state and increased concerns about national security and sovereignty. Defending a nation's borders is, after all, one of the primary responsibilities of a national government. But the vast distances, sparse populations, and limited administrative presence in the Far North meant that the government lacked the opportunity to impose its programmatic will on the region. With the self-sufficient Indigenous peoples still active in harvesting across most of the North, there was also no substantial pressure on the government to offer programs, protection or services throughout the region. They focused, instead, on larger communities, areas of agricultural settlement and pressure points with neighbouring countries or foreign authorities. As borders took on geo-political significance, governments did interfere with Indigenous mobility, a little-known but significant imposition on the lives of original inhabitants.

The northern boundaries took on greater significance over time. As the regulatory state expanded, governments started to enforce harvesting and other laws. The power of boundaries accelerated after World War II, an era which saw the rapid development of a military presence in the Far North and that, in the Cold War that followed, saw an even greater emphasis on protecting national interests in the region. The rapid expansion of the social welfare state, connected to the preoccupation with

Arctic sovereignty, meant that national authorities brought northern Indigenous peoples into their spheres of operation. In fairly short order, most Arctic governments expanded roads, airfields and telecommunication systems in the region, introduced new social programs, and encouraged Indigenous settlement, education and economic integration. Expanding international consumer and industrial demand made the North's vast resources economically and technologically viable, resulting in rapid development, increasingly by multi-national corporations. The border-skipping ability of international capital sparked northern growth but also increased the permeability of northern borders.

Significantly it was Indigenous peoples who led the process of reimagining boundaries in the Far North. The process started, officially, in the 1960s and 1970s as Indigenous groups pressured their national governments to respect traditional territories, lands and resources. This took a variety of forms, from Sami protests over hydroelectric dam projects in northern Norway to the launch of Aboriginal land claims in northern Canada and Alaska. The transition was remarkable. In the 1950s and early 1960s, national governments across the Circumpolar World paid scant attention to Indigenous peoples and governments, treating them as "wards of the state" or, in Scandinavia, as regular citizens and residents, without recognition of their indigeneity. The northern regions were subsidized substantially by national governments, contributing to the governments' sense that they were treating the northern peoples in a generous and favourable manner.

For Indigenous residents of the North, what national governments and southern residents generally saw as a "boom" time was actually an era of massive dislocation and cultural loss. The development of infrastructure "opened" vast regions to resource companies, and, in the cases of Alaska, Scandinavia and Russia, travellers, tourists and settlers. Being relocated to government-chosen settlements accelerated cultural and economic transformation and increased Indigenous concerns about the dramatic loss of control and autonomy. They responded, in many different ways, by pressuring governments for attention to their rights, demands and needs. Fundamentally, they sought recognition of traditional territories, Indigenous land and resource rights, and the wherewithal to defend and sustain their culture and lifestyles in times of rapid change.

The rise of Indigenous political movements transformed the Far North in dramatic ways. Legal demands for recognition and rights put Indigenous peoples on

regional and national political agendas. The emergence of particular groups, especially the Inuit in northern Canada and their counterparts in Greenland and Alaska, put northern Indigenous people on the global political scene, in league with the work of such organizations as the International Work Group on Indigenous Affairs, Survival International and Cultural Survival, plus a loosely connected network of religious, environmental and human rights organizations.

Indigenous demands challenged the integrity and relevance of national boundaries and asserted the right of Aboriginal peoples to be accepted as key players in national and international affairs. Between the 1960s and 1980s, the Far North was covered by an array of both Indigenous and land claims negotiations. The First Nations created alliances amongst themselves, through such multi-cultural groups as the World Council of Indigenous Peoples and more culture-specific organizations like the Inuit Circumpolar Conference and the Arctic Athabaskan Council, finding strength and political authority in numbers. Governments responded awkwardly to the demands, struggling to fit Indigenous expectations and demands into existing legal and political frameworks and struggling to connect Aboriginal positions with public expectations about government support for Indigenous peoples. The latter proved problematic as non-Aboriginal residents were, in the main, not completely sympathetic to Indigenous demands for land, resources, compensation and rights.

The modern rights and claims processes forced governments to reconsider fundamental questions about boundaries. Sami reindeer herding in Scandinavia, for example, bore no relationship to the national boundaries imposed and created in the early 20th century. The Porcupine caribou herd supported Gwich'in peoples in Alaska and, across the 141st line of latitude, in the Yukon and Northwest Territories, involving an international boundary and an internal border in Canada. Many traditional Indigenous territories in the Far North also spanned imposed national and internal boundaries. Resolving Indigenous resource rights and claims brought the conflict between Indigenous and geo-political boundaries to the fore.

In the second decade of the twenty-first century, the boundary-making process in the Far North had entered yet another transitional phase. Arctic governments sought a final determination on the boundaries in the Far North, specifically those associated with undersea land and resource rights. The governments turned to the United Nations Convention on the Law of the Sea (UNCLOS), which has science-based procedures for determining the precise location and national-control of the

continental shelf. This process (the boundary between Norway and Russia has been set by political agreement), undertaken with extensive and often collective ocean floor research, is nearing completion. The UNCLOS result is sure to produce nationalistic commentary and international debate. Because the focus of this Arctic boundary-making process is on off-shore and continental shelf issues, Indigenous peoples have not been extensively involved, although the final resolution may have significant implications for fishing and other ocean-based activities.

From the formation of the Inuit Circumpolar Conference in 1977, Arctic Indigenous peoples have been actively involved with international Indigenous collaborations. Drawing on shared culture and common interests, Inuit from Greenland, Canada and Alaska gathered regularly to promote Inuit and Arctic concerns. The Inuit collaborated on social, cultural, economic and political matters, sharing information, developing common strategies, and pushing for the attention of civil society and national governments. The Inuit played a vital role in the formation of the Arctic Council, established through the 1996 Ottawa Declaration. The Arctic Council is a unique initiative, providing full recognition of Indigenous participants by the founding nations (Canada, the United States, Sweden, Russia, Norway, Finland, Iceland and Denmark/Greenland). The organization provides a meeting ground for Indigenous peoples and national governments, creating a forum for the detailed study and debate of Arctic issues, particularly relating to the environment. The early years of the Arctic Council produced an agreement on Arctic search and rescue and held significant promise for Indigenous engagement in the long-term management of the Far North. As global forces intruded, particularly through climate change, the opening of Arctic waters for commercial navigation, and the identification of the resource potential of the region, non-Arctic nations asked to be included. Within a few years, countries as diverse as Japan, China, South Korea, India, Italy, Poland and the United Kingdom gained Observer Status within the Arctic Council. It is not yet possible to determine the full impact of the enlarged membership on the Indigenous permanent members of the Arctic Council, but it is hard to see the growing number of Observer Nations as adding to Aboriginal influence and control.

The modern reality is that national boundaries and therefore national governments matter. The globalization of the North has been continuing apace, as climate change has a dramatic impact on northern peoples and regions, and resource development spreads through the region. National borders, far from weakening over

time, appear to be growing in significance through the combination of UNCLOS boundary-making, substantial investment (slowed by the recent economic downturn) in Arctic resource development, the early-stage commercial exploration of Arctic navigation, and increasingly formal relationships between national governments and Indigenous peoples.

Borders have played a crucial role in the shaping and re-shaping of the Circumpolar world. Before the 19th century, Indigenous boundaries and territories were the primary determinants of human movements and relationships in the North. The imposition of imperial and national boundaries, in each instance without Indigenous participation or concurrence, changed Aboriginal lives and ushered in an era of colonial control of Indigenous affairs. In the 1960s, Indigenous peoples' rights and demands took organizational shape at both the national and international level, fueling expectations that international collaboration could produce an intra-regional political system that could accommodate the broad, multinational and Indigenous-led political process that would be truly North-focused.

The Far North remains an international zone of considerable significance. UNCLOS is one of the world's most important illustrations of the value of international legal questions. Climate change – sparking Inuit declarations of the "human right to be cold" – is truly global in nature, requiring worldwide collaboration to offset significant regional implications. Resource development and commercial navigation combine local regulation and, often, international investment and management. Indigenous groups continue to cooperate, sharing experiences and meeting regularly. Non-Indigenous regional governments meet in a variety of national, continental and Circumpolar formations. Academic groups, particularly through the University of the Arctic, maintain extensive links and collaborations. Business engagement (beyond the resource sector) is much less international in nature and national governments rely largely on the Arctic Council and bilateral relationships in managing northern affairs.

In recent years, however, the Arctic appears to have experienced a "re-bordering." National governments have paid increasing attention to their Far Northern regions, particularly in countries where the Indigenous people are facing severe socio-economic trauma. The countries move forward within international frameworks of human rights, climate change amelioration and the regulation of navigation. Arctic international collaboration will continue, through Indigenous organizations, the

Arctic Council and other global organizations. Indigenous peoples and national governments have expanded their legal and political relationships, focusing more on autonomy and regional governance matters than international arrangements.

Boundaries matter, in the Far North as elsewhere. They are an integral part of governance and administration in the Arctic, particularly as Indigenous concepts of territories and boundaries run up against the boundaries established by imperial edicts, negotiations between national states, and various internal and external political negotiations. Promising moves toward regional integration, such as the Inuit Circumpolar Conference and the Arctic Council, played a substantial role in empowering Indigenous peoples and attracting the attention of national governments to northern Aboriginal concerns. The interplay between national and international imperatives, and between Indigenous and national government concerns, remains a critical part of northern political life and will remain so into the future. Borders define political and administrative boundaries and shape the rights and opportunities of Indigenous peoples across the Arctic.

Regional alliances have been politically influential across the Circumpolar World, drawing global attention to the Far North and raising the profile of Arctic concerns within individual nation states. These relationships remain in place. But the artificial and imposed boundaries, formed over the last three centuries but still under debate (as seen through the UNCLOS process), have retained their authority and remain the primary focus of legal, political and administrative relationships with Indigenous peoples. Put simply, the politics and administration of the Arctic continues to be defined by the boundaries of nation-states. The efforts to empower Indigenous peoples and other northerners through Circumpolar cooperation and cross-border collaboration, while still important and creative forces, have not yet produced the political transition to a comprehensive Arctic zone.

Chapter Three

Crossborder Indigenous Collaboration and the Western Arctic Borderland

Barry Scott Zellen[1]

The North's distinct nexus of borderlands converges in the Yukon with a network of interconnected natural and man-made corridors, from the high mountain passes along the southeast Alaska/northern British Columbia borderland; to the interior Yukon river system stretching from the headwaters just above the Whitehorse Rapids to the Bering Sea, some 1,980 miles away; all the way up to the Western Arctic borderland along the North Slope of Alaska, Yukon and the Northwest Territories, contiguous with the Inupiaq homeland.[2]

These natural borderlands are increasingly connected by several man-made transit corridors that facilitate crossborder flows of trade, commerce and settlement. These include the 1,420-mile "Alcan" (short for Alaska-Canada, now generally called the Alaska) Highway linking northern British Columbia with Alaska's interior since 1942, but not fully paved for another 50 years; the single-lane gravel Dempster Highway, linking the Klondike Highway just south of Dawson City with the Western Arctic's

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[2] See the Yukon River Watershed, http://www.adfg.alaska.gov/static/fishing/images/research/sonar/sites/12/yukon_pilot_map.jpg; and Inupiaq Language Map, http://www.stoningtongallery.com/images/map_13.gif

first planned community, Inuvik, 458.3 miles away on the East Branch of the Mackenzie Delta -- part of Canada's "Roads to Resources" strategy announced in 1958 but not completed until 1978; the 79-mile Top of the World Highway seasonally linking the summer ferry at West Dawson to the Taylor Highway in Alaska, a northern spur off the Alcan at Tetlin Junction, since 1955; the Haines Highway, also known as the Haines Cut-Off or Haines Road, joining the Alaska Marine Highway port of Haines with the Alcan 146 miles to the north at Haines Junction; and the South Klondike Highway, linking the Alaska Marine Highway port of Skagway to the Alcan 98 miles to the north via Carcross – each superimposed atop the underlying networks of natural corridors formed by rivers, mountain passes and coastal plains to further facilitate crossborder flows from adjacent states and territories (Valencia 2016).[3]

The Western Arctic borderland encompasses the Arctic coastal plain stretching from Alaska's North Slope Borough all the way to the Mackenzie River Delta. Despite the construction of the Dempster Highway, which opened in 1978 during the frenetic oil and gas boom of the 1970s on both sides of the international boundary, the pace of external settlement has remained slow, and Inuit demographic predominance continues to define the region from end-to-end. While an influx of settlers during the Klondike Gold Rush would permanently rebalance the demographics of the Yukon Territory further south (Coates 1985; Easton 2016), the Western Arctic borderland escaped such a fate, though only by a whisker. While Russian-America, and British North America (and in particular the North-Western Territory adjacent to Rupert's Land), asserted sovereign control over the region), subsequently defining the international boundary that continues to subdivide the Inupiat homeland, these competing fur empires would only lightly settle the region.

Epidemics decimated local populations of Mackenzie Inuit during the early years of the 20th century, exposing the region to a high risk of demographic upheaval (McGhee 1976). But an influx of Inupiat settlers from Alaska in the years that followed would ensure the continued Inuit demographic predominance, and in many ways helped to solidify the cultural and linguistic cohesiveness of the region, imbuing it with enduring qualities that have ensured it remains a distinct borderland strongly

[3] See Highways of the Yukon. http://www.oag-bvg.gc.ca/internet/images/content/200702ylaxe02.gif

bound by geography, culture and language that reaches across the international boundary to this day. It was the fluidity of crossborder migration by the Inupiat, drawn in part by economic opportunities presented by the fur trade, that preserved the demographic balance, when it was a similarly fluid crossborder migration by non-Native settlers during the Gold Rush that would transform the demography of the Klondike. This challenges many of our preconceptions about settlers and about what constitutes indigeneity; that both were in flux gives the Western Arctic borderland region a particularly dynamic nature.

As recounted by Robert McGhee in his chapter in volume 2 of the 1976 Inuit Land Use and Occupancy Project Report: "By 1910, the Mackenzie Eskimos were reduced to a few score survivors scattered among the more numerous Alaskan Eskimo immigrants who flooded into the Delta in the company of European whalers and traders" (McGhee 1976: 141). As McGhee further describes: "After the appearance of the American whaling fleet along the Mackenzie Delta coast in 1889, and with the increasing association between the indigenous population and the whalers wintering at Herschel Island and elsewhere, the effects of disease and the disruption of aboriginal social patterns accelerated rapidly. The population was subjected to two devastating measles epidemics in 1900 and 1902. By this time, according to police reports, the Mackenzie Eskimo population had declined rapidly from an estimated 2,500 people in 1850 to about 250 in 1905 and under 150 in 1910. At the same time as Eskimos were being decimated by disease, local aboriginal culture was being submerged beneath a wave of American and Alaskan Eskimo introductions" (McGhee 1976: 144). McGhee recounts Vilhjalmur Stefansson's 1919 observations of this influx of Alaskan Inuit into the Mackenzie Delta region: "A large number of the Nunatama have come either overland by themselves or eastward from Point Barrow or Kotzebue Sound as passengers on whaling ships, while those from Bering Strait have ordinarily come as whalers or servants on board. The net result is that the Mackenzie Population is becoming mixed in blood, is already deeply influenced in its culture, and has taken up many strange words into the spoken language" (McGhee 1976: 144).

A Theoretical Framework for the Northern Borderland

My research on the Western Arctic borderland region began in the late 1980s, in the final years of the Cold War. With a background in international relations, I

turned to concepts in international theory for guidance, finding helpful insights in regional subsystems theory, which emerged in the early 1970s (Thompson 1973), and from regime theory which soon followed (Young 1982; Krasner 1983; Young 1994; Young 1998). The former sought to fuse realism and structuralism with the diversity of regional politics around the world, drilling downward from the infamous "Third Image" toward the "Second" in search of patterns and causal loops between these two (Waltz, 1959; Waltz, 1979). With the emergence of regime theory a decade later, one encounters a new structure that hovers between these same two levels, describing an analytical unit that is at once trans-state and sub-state, and which can be used to describe many collaborative and joint-management efforts between states and/or regions of states in what we can now describe as borderlands. Such a nimble use of regime theory as a lens through which to understand what we now know as the northern borderland can be illustrated by the pioneering work of Oran Young. He wedded regime theory with the study of the Arctic and Subarctic in the 1970s and 1980s, and his examination of Beringia as a regional sub-system can be viewed as a theoretical precursor to northern borderland studies, as can his broader work on the Circumpolar North which is, in essence, a circumpolar borderland that encompasses the boundaries of all the Arctic states (Young and Osherenko 1989; Zellen 2009a).

Just as regional subsystems and regime theories were broader than and inclusive of components of world politics beyond borderlands, they provided a hint of the underlying structures overlooked by the image-three system theorists who dominated IR theory on the eve of the Cold War's surprising, and largely peaceful, conclusion, taking with it the very bipolar system the neorealists embraced as perpetual. This systemic collapse not only liberated hundreds of millions of people in captive nations under Moscow's hegemony, but also liberated a new generation of theorists to re-imagine world politics. In borderland theory, we find a new and intriguing set of concepts to describe these very same corners of the world system that had been overlooked during the rise of the neorealists. Indeed, borderlands – like regional subsystems and some crossborder regimes – emerge as a viable contender for this previously nameless structure in world politics, snugly fitting between the second and third "Waltzian" images (Waltz 1959). This is the same level of analysis within which regional subsystems operate, and where many crossborder interstate, intertribal and hybrid state-tribe regimes (and other collaborative bodies) operate, such as the Yukon River Intertribal Watershed Council and the Arctic Council. Borderlands thus

provide us with a hybrid "level of analysis" where cultures, languages, identity, geography, and jurisdictional authority blend – planting seeds for future autonomous regions and potentially even new independent states to rise, and containing echoes of an earlier order before the modern state arrived, absorbing everything in its path. These underlying echoes continue to help bind a borderland together, leveraging regional centripetal forces to offset the state's centrifugal forces.

Right-Sizing Realism for the Post-Colonial World

Rather than being defined by "power politics" as emphasized by Morgenthau and many of his contemporaries (Morgenthau 1954; Lebow 2003; Molloy 2006; Williams 2007), realism from its classical roots onward can be more accurately defined as an impassioned body of political (and strategic) philosophy concerned with the construction of enduring political orders where none had previously existed – starting with the polis, later expanding to include the early and modern states, and continuing into the colonial world as realism became global in its aspirations (Keohane 1986; Frankel 1996; Lebow 2003; Zellen 2011). At each stage of the realist journey from city-state to global superpower, the state, and those at its helm, sought to pacify the uncertain and largely unknown world beyond the border, whether it was a city-gate or a continental frontier (Zellen 2011). Realism presumed a zero-sum world divided between the ordered tranquility of domestic politics and the chaotic anarchy of the international realm. But realism, like neorealism, surrendered to the persuasive logic of over-simplification, and projected disorder beyond borders when in reality, islands of order and oases of regional stability were as ubiquitous as the eddies of anarchy that so worried the keepers of the realist canon (Zellen 2011). Had they ventured out a little more beyond those very borders they theorized about, they may have come back a little less Hobbesian, and a little more Rousseauian.

In the postcolonial world, as in our own post-Cold War era, the realist approach to international relations theory, along with the size and complexity of the constituent sovereign states that populate the international environment, has been right-sized. By this I mean it has been restored to an appropriate or optimum size – from the earlier era of imperial expansion and overreach, finding equilibrium in smaller sovereign (and quasi-sovereign) orders (Zellen 2012) – some carved out of multinational states cobbled together during the colonial period, some found along the outer edges of states or securely nested deep within their interiors – often insulated by natural

geophysical boundaries that helped sustain an ethno-cultural distinctiveness and moderated the influx of settlers, preserving at a regional level an indigenous demographic preponderance, and with it an enduring regional order. This is the realm of non-state, sub-state and trans-state entities so salient in today's world – a group of actors in world politics perceived by many as the root of international insecurity in the years following the 9/11 terror attacks on New York and Washington, finding sanctuary in "ungoverned spaces," "failed" or "rogue" states that, it was then argued, threatened the global order. But in actual fact, these complex, granular components of world politics are quite the opposite; rather than the root of global disorder, they can instead reinforce the very foundation stones of world politics – especially so the further you get from Europe's Westphalian core (Zellen 2012).

Amidst this post-Cold War right-sizing of realism – along with our expectations of the foundational building blocks of world order – I began what has become a quarter-century of research on the Western Arctic borderland, and its world of settled land claims, emerging systems of indigenous and regional governance, balancing of subsistence culture with economic modernization and development, and blending of two worlds – one traditional, one contemporary, informed by my previous (and continuing) theorizing on international relations theory and world politics, looking for lessons from the former to help refine our understanding of the latter so it better reflected the realities of international politics, including the emergent "fourth image" of borderlands (Zellen 2009b). The Western Arctic borderland is thereby significant, presenting us with a compelling example of enduring order in the absence of strong state institutions and without traditional tools of border fortification and security to apply to the world at large. Indeed, not all regions of the world are defined by international anarchy, nor dominated by armed conflict and political violence. Some have found their own ways to mitigate regional conflict and foster peaceful and collaborative interaction across borders, sometimes borrowing ideas and emulating policies for application from adjacent areas.

The Western Arctic borderland is just such a place. Here, we have witnessed an alternate historical narrative defined by an historic reconciliation of tribe and state, a restoration of indigenous land and cultural rights, and a rise in native participation in international relations at the regional level. Here, ideas and insights from the Alaska land claims process of the 1970s flowed across the international boundary and into the Western Canadian Arctic where they were re-thought, refined, revised, and re-

applied – resulting in a stronger, more resilient, and ultimately more scalable model for northern development (Zellen 2008). The modern state in its many northern forms – whether the State of Alaska on the U.S. side of the international boundary, or the Yukon and Northwest Territories on the Canadian side – overlaps with these underlying indigenous crossborder networks. This has resulted in the emergence of a diverse, inclusive, and fascinating political culture in the North, one where this nexus of borderlands has embraced a deep and enduring commitment to collaborative crossborder management, inter-group (and international) partnerships, and constructive transboundary relationships that present a compelling model for how the world can and should be governed. It is not always frictionless collaboration, since there are times and issues where interests can and do clash. But despite these very real and recurring collisions of values between Native, environmental, settler, and resource-extractive interests – as we have seen ever since the oil strike in Prudhoe Bay catalyzed the rapid emergence of the Alaska Native Claims Settlement Act in 1971 – collaborative efforts between neighboring Native communities that reach across the border are ongoing, and continue to help counterbalance those conflicts when they do arise.

Inuit Land Claims and the Western Arctic Borderland

Alaska and Canada, as we now know them, were born within a day of one another. The Treaty of Cession, by which Russia sold Alaska to America, was concluded on March 30, 1867, marking the start of Alaska's integration into the American polity. Just one day earlier, on March 29, 1867, Queen Victoria gave Royal Assent to the British North America Act which would formally establish the Dominion of Canada on July 1, 1867, creating a self-governing nation to the North of the continental United States (Zellen 2008).

When the Alaska Native Claims Settlement Act of 1971 (or ANCSA) was enacted, it aimed to quickly bring Alaska Natives into the modern economy, and at the same time to clarify the limits of aboriginal title, thus making it possible to fully develop the state's natural resources and in particular to build the trans-Alaska pipeline (Naske & Slotnick 1979; Zellen 2008). Because its objectives were largely economic, its corporate model became its defining and most transformative characteristic – not without controversy, since the corporate model was viewed with some skepticism by indigenous leaders as a tool of assimilation, and there remains a continuing debate

over the appropriateness of the corporate model to the indigenous north (Berger 1985; Zellen 2008). ANCSA formally extinguished aboriginal rights, title, and claims to traditional lands in the state, while formally transferring fee-simple title to 44 million acres – or some twelve percent of the state's land base – to Alaska Natives. The latter received $962.5 million in compensation for the lands ceded to the state, $500 million of which was to be derived from future oil royalties – as a result of which over half the "compensation" was to be derived from resources extracted from the Inupiat homeland – an irony not missed by Alaska Natives (Tundra Times 1969; Zellen 2008).

ANCSA also created 12 regional Native corporations (and later a 13th for non-resident Alaska Natives), and over 200 village corporations to manage these lands and financial resources.[4] These new corporate structures introduced a brand new language and culture, as well as a new system of managing lands and resources, that seemed at variance with the traditional cultures of the region and their traditional subsistence economy. The early years of ANCSA were famously described by former B.C. Supreme Court justice and prominent land claims expert Thomas Berger as dragging Alaska Natives "kicking and screaming" into the twentieth century, and many Native corporations approached the brink of bankruptcy, forced to monetize their net operating losses in a last desperate bid to stay in business. (Berger 1985; Zellen 2008) A new cottage industry of northern investment, legal, and policy advisors emerged – sometimes to the benefit of their clients, but often not – a problem that would remain as the land claims model migrated into Canada (Richards 1971; Zellen 2008; Widdowson & Howard 2009). In addition to the corporatization of village Alaska, ANCSA's original design also had some structural flaws that nearly proved fatal to the land claims experience, including a 20-year moratorium on transferring shares in Native corporations to non-natives, which many feared would inevitably result in the dilution of Native ownership, known as the "1991 time bomb" (Sykes 1985; Worl 1988). While critics of the land claims process are correct to point out these original structural flaws and the assimilating pressures introduced by new corporate structures, the land claims model has nonetheless proved resilient and adaptive, as Native corporations matured and their boards, managers and shareholders found ways to

[4] See Regional Alaska Native Corporations as Created by the Alaska Native Claims Settlement Act in 1971, https://www.nps.gov/parkhistory/online_books/norris1/images/map4-1.jpg

better balance traditional and modern values, learning from their crash course in capitalism as they went – so today the Native corporations represent a huge economic force in the state of Alaska.

On the Canadian side of the international boundary that divides the Western Arctic borderland on world maps, lessons from the Alaska land claims experience and its worrisome structural flaws were closely studied. This crossborder flow of ideas and insight influenced a new model for land claims settlements that ensured Native lands and corporations would always remain in Native hands, that young Natives would be automatically enrolled as shareholders upon adulthood, and that subsistence would forever be protected on both Native-owned lands as well as adjacent government lands. The Alaskan experience thus proved critical in guiding Canadian Natives forward in their quest to assert, and protect, their Aboriginal rights.

Just across the border from Alaska, the Inuvialuit of the Western Canadian Arctic – many of whom were descendants of early 20th century Inupiat settlers as chronicled by McGhee – had a front row seat to ANCSA, and were impressed by all the money that was flowing north, as well as the new corporate structures created and the sizeable land quantum formally transferred to Alaska Natives. But they also took note of the continuing threat to indigenous culture, and the lack of adequate protections of subsistence rights, traditional culture, and environmental protection, and were determined to do better. So when they negotiated the 1984 Inuvialuit Final Agreement (IFA) in the latter years of the 1970s, the land claims model became significantly enhanced. In addition to creating new Native corporations, the IFA also made an equal institutional commitment to Native culture and traditions, preservation of the land and its wildlife, and the empowerment of not just new corporate interests but traditional cultural interests as well, by creating new institutions of co-management and more powerful hunters and trappers committees. They also made sure all Inuvialuit became shareholders, and that no non-Inuvialuit ever could, learning from the Alaskan experience. The Inuvialuit thus successfully modified the land claims concept, so that its structure included a natural institutional balancing – not unlike our own "balance of powers" concept – that has enabled a greater commitment to cultural and environmental protections (Zellen 2008).

The Western Canadian Arctic land claim entitled the 3,000 Inuvialuit living in six communities to 35,000 square miles of land; co-management of land and water use, wildlife, and environmental assessment; wildlife harvesting rights; financial

compensation of $45 million in 1978 dollars, inflation-adjusted to $162 million, for lands ceded to Canada; a share of government royalties for oil, gas, and mineral development on federal land; the formation of new national parks in their settlement area that further protect their land base from development, while allowing subsistence activities to continue unhindered; and a commitment to meaningful economic participation in any development in their settlement area. This model has remained largely intact in later comprehensive land claims, showing great endurance as a model for northern development. But one issue that was not yet on the table in the late 1970s and early 1980s when the Inuvialuit chose to pursue their own regional land claim – and thereby gain some control over the intense oil boom in their homeland – was the establishment of new institutions of aboriginal self-government, something for which Inuit of the central and eastern Arctic – the future Nunavut territory – decided to wait. The Inuvialuit felt they did not have the luxury of time given the frenetic pace of oil and gas exploration in their lands. But Nunavut remained far more isolated than the Western Arctic and under much less external pressure to develop, thus providing more time to re-think, and renegotiate, the land claims model.

Crossborder Collaboration in the Western Arctic Borderland

By 1991, the year many Alaska Natives long feared their land claim would implode, the very model for Inuit land claims had become transformed across the Western Arctic Borderland. Using their new powers enshrined in their 1984 land claim, the Inuvialuit were able to stand up to the oil companies and to the federal government – successfully insisting that their environmental concerns be addressed before oil development would be welcomed back to the region. That same year, traditional Inuvialuit hunters in Aklavik restored their ancient tradition of subsistence bowhead whale hunting, standing up to a wide range of opponents including the U.S. government, the International Whaling Commission, and the worldwide community of animal rights activists. The land claim also empowered the Inuvialuit to stand up to the military as they insisted that Canada's Department of National Defence (DND) must follow Inuvialuit rules of land access as enshrined in their land claim before holding military exercises, on both privately-held Inuvialuit lands as well as adjacent Crown lands. When the Inuvialuit flexed their land claim's muscles to insist on meaningful and equal economic participation on lucrative defense projects (such as DEW Line modernization and clean-up efforts) the DND ultimately backed down and came to terms with the re-empowered Inuvialuit.

On both sides of the Western Arctic borderland, 1991 would be the year land claims proved their resilience and endurance. By 1991, the Alaska land claim had ceased to be solely a vehicle of assimilation, and with new protections to strengthen Native land ownership and facilitate the enrollment of newborns as land claim beneficiaries, ANCSA evolved into an institution of Native empowerment, just as on the Canadian side of the border, 1991 was the year the Inuvialuit land claim proved itself as a tool to assert greater control over the economic development of the region, fend off unauthorized trespass of the Native homeland by external actors as powerful as the military, and restore an ancient hunting tradition that had been unpracticed since the 1920s, and which was opposed by various external interests.

While across the collapsing Soviet bloc 1991 proved to be a year of dissolution, for the Inuit of the Western Arctic borderland, it was a year of renewal, a year of transformation, a year of affirmation, when their land claims settlements disproved their doubters and their critics, demonstrating once and for all that the balance of political power in the Arctic had been forever altered. While the terminology may differ from one side of the international boundary to the other, the aspirations of the Inuit on both sides of the border have been one and the same ever since their first contact with colonial settlers from far and away: the restoration of indigenous rights and traditions, and the creation of effective institutions of self-governance. As Alaska Native anthropologist Rosita Worl has described, "Alaska Natives have been bold, persistent, innovative, and fairly successful in our attempts to achieve self-determination and self-governance" (Worl 2003). This is equally true on the Canadian side of the international boundary – where the land claims model pioneered by Alaska Natives was refined to better serve their needs, and leveraged as a stepping stone toward the restoration of greater self-governance.

The Inuvialuit land claim presents a substantial evolutionary leap beyond the Alaska land claim which inspired it, with many prescient and enduring advances in collaborative management and stronger protections of native lands and traditions missing from the Alaska claim. Had the Inuvialuit not so enthusiastically embraced and constructively improved the land claims model, the many structural weaknesses of the Alaska land claim – as described by Thomas Berger in *Village Journey* (Berger 1985) and more recently by University of Alaska professor and publisher Edgar Blatchford (Blatchford 2009; Blatchford 2013) – might well have doomed the model altogether. Blatchford noted how the very land claim model that has transformed the

political economy of Alaska, Yukon, the NWT, and Nunavut would ultimately be rejected by "Indian Country" in the "lower 48" as a flawed model. In the Arctic, however, it has become a central and evolving blueprint for strengthening the bond between First Nations and the state, and a defining feature not only of the Western Arctic borderland but of the entire nexus of borderlands overlapping and adjacent to the Yukon. This embrace of, effort to improve, and continuing process of reforming the land claim model as it flowed from the Inupiat to the Inuvialuit and on to Nunavut and Nunatsiavut is a reflection of the collaborative mechanism that defines the Western Arctic borderland. When the land claims movement swept across the Arctic coast, starting in Alaska in 1971 and culminating with the birth of Nunavut in 1999, it was the Western Arctic borderland, long a crossroads of cultures, that served as the gateway for ideas about land claims to migrate into Canada from across the border in Alaska.

Early challenges of the post-land claim era have been a common growing pain throughout the Western Arctic borderland and beyond in the more newly-settled land claims areas to the east, reflecting a vulnerability inherent in all societies new to capitalism, where democracy and accountability need time to mature, so when the windfall comes, temptation quickly follows, and before long corruption sets in. But inevitably that corruption is unmasked as more experienced leaders rise up to fix what is broken and reboot a system that is not irreparably damaged, but merely off course. This happened in Alaska, in its early post-settlement days, recurred in the Beaufort-Delta after the Inuvialuit claim was settled, and recurred again in Nunavut, beyond the Western Arctic borderland. It is not that the North is any more or less susceptible to corruption than elsewhere, but rather that the rapid introduction of capitalism and, with it, economic modernization, in a culture where subsistence reigned supreme for untold millennia, is a profound change to undertake in a single generation. Before land claims, the villages of the Far North were often described as a "Fourth World" and their lack of cash economies perceived to be a failure in economic development. (Center for World Indigenous Studies, n.d.) But the absence of a vibrant cash economy is more than offset by the presence of something more enduring – a subsistence economy and culture well-suited to the land, one that is self-sufficient, whose values tie humanity to the very land from which we have all evolved, and upon which we all still depend. Even as we continue on the path of modernization, we

should therefore maintain our connection not only with the past, but with the land in its most natural form – something the North can still do with relative ease.

The Western Arctic Borderlands: A Place for Experiment, Mobility and Change

The introduction to "Languages at/of the Border," presented in the February 2013 issue of the St. Petersburg *Chto Delat* newspaper, argues that "Borderlands always aggravate differences" because a "border's physicality, particularly in the form of rigid paramilitary zones impeding the free circulation of people, causes anyone who becomes caught up in their force fields to re-examine the world and themselves." And yet, these contested border areas have also been "special habitats encouraging the development of new forms of language, behavior and culture. The border is a place for experiment, a zone of mobility and change." This juxtaposes two competing visions of borderlands: one defined by "a history of wars, militarization, securitization, bureaucratic control, biopolitical regulation, forced displacement, flight and migration," and the other defined as "an essential factor of existence, shaping not only the lives of people, but also impacting the natural environment and the animal world" (*Chto Delat* 2013).

The Western Arctic borderland contains many of these same ingredients, including intense pressures of militarization and geopolitics earlier in history. And yet from this cauldron has emerged a strikingly collaborative, crossborder dynamic reflected in the relations between the indigenous communities on both sides of national, territorial/state, and regional borders. This is particularly evident in the close collaborative relationship between the Inupiat and the Inuvialuit, who have partnered on numerous crossborder issues including the Inuvialuit-Inupiat Polar Bear Management Agreement in the Southern Beaufort Sea and the Inuvialuit-Inupiat Beaufort Sea Beluga Whale Agreement. Their collaboration also extended to the resumption of bowhead whale harvesting by the Inuvialuit during the 1990s, when community-to-community exchanges ensured the transfer of traditional knowledge required for a successful and safe restoration of bowhead hunting.

The modern state, in its many northern forms – whether the State of Alaska, or the Yukon and Northwest Territories in Canada's North – overlaps with these underlying indigenous crossborder networks, producing a diverse, inclusive, and fascinating political culture in the Western Arctic borderland. This political culture

has embraced a deep and enduring commitment to collaborative crossborder management, intergroup (and international) partnerships, and constructive transboundary relationships that present a compelling model for how the world can and should be governed. It is not always frictionless collaboration, since there will inevitably be times and issues where interests can and do clash. Examples include the post-settlement challenges faced by Alaska Natives as well as Inuvialuit, and more recently in the clash between Yukon First Nations and the Government of Yukon to protect the Peel River watershed, an effort now heading to the Supreme Court of Canada for resolution. It nonetheless presents our world with an intriguing model for crossborder collaboration worthy of emulation.

PART TWO:

GOVERNANCE AND POLICY

Chapter Four

Arctic Thaw and the Future of the Arctic Council: An Ecosystem-Based Analysis of the Region's Governance Prospects

Jennifer Spence[1]

> Since its inception, the [Arctic] Council has undertaken important work to address the unique challenges and opportunities facing the Arctic Region. As these challenges evolve, so must the Arctic Council. Canada will work collaboratively with its Arctic Council partners to strengthen the Council. The aim is to enhance the capacity of the Permanent Participant organizations, improve the Council's coordination and maximize efficiencies. (Government of Canada 2013)

Introduction

The Arctic Council was established in 1996 as a forum that "provide[s] a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues; in particular, issues of sustainable development and environmental protection in the Arctic" (Arctic Council 2013b). The chairmanship of the Arctic Council rotates through the Member states[2] every two years. A permanent secretariat was established in 2013; however, the Member states have limited the role of the secretariat to providing administrative and communication support.

[1] Some of the ideas and material presented in this paper have been previously introduced by the author in "Strengthening the Arctic Council: Insights from the architecture behind Canadian participation," *Northern Review* (2014).

[2] The member states of the Arctic Council are Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States of America.

In May 2013, Canada reacquired the chairmanship of the Arctic Council and, like the Swedish Chair before it, acknowledged the importance of "strengthening" the Arctic Council to respond to the evolving challenges facing the region. By many accounts, the current and future circumstances in the Arctic do warrant attention and, by extension, so does the Arctic Council – an institution that many commentators credit with being the region's primary international policy forum. As more and more states from outside the region, as well as International Governmental Organizations (IGOs) and Non-Governmental Organizations (NGOs), arrive on the Council's doorstep expressing a desire to participate in this forum, leadership is needed to envision and enact its future path(s). Yet, up until this point, efforts by the members to strengthen the Council seem to be focused on administrative and procedural adjustments that remain disconnected from any longer-term vision for the role the Council can or should play in the region.

What does this mean for the Arctic Council? What role is it best positioned to play in a complex and dynamic international arena? A growing number of observers are sharing their perspectives on what is best for the region and the Arctic Council; however, much of the discourse seems to be stuck in a political realist frame. In other words, much of the analysis and advice assumes that states are the primary actors and that these actors can be understood as unitary and rational. This means that much of current debate has focused on whether or not the Council would benefit from becoming a formal international regime.

This paper is premised on the assumption that the Arctic and its governance have the potential to offer a much richer and more nuanced perspective on the relationship between a region and its institutions. The overarching objective of this paper is to explore how an alternative analytical framing can provide an expanded understanding of the possibilities available to the Arctic Council in this rapidly changing environment.

This chapter begins by considering the importance of how the framing of the issues in the Arctic directly affects how problems are defined and what solutions are available. This provides an opening to introduce the concept of the ecosystem as a fruitful analytical frame to provide a unique understanding of the complex dynamics at play in the Arctic. This frame also offers a useful foundation for an alternative perspective on the governance challenges and opportunities currently facing the region.

To illustrate the value of an alternative analysis, this paper then adopts and develops the concept of the ecosystem as a frame to examine the creation of the Arctic Council. This analysis emphasizes the distinctive environmental, cultural, socio-economic and political context that existed when the Council was being formed. Furthermore, it highlights the critical role played by civil society actors, including indigenous groups, environmentalists and peace activists, in the establishment of the Arctic Council and how their leadership served to shape its unique governance features. The paper goes on to consider the implications of significant environmental and political change in the region and evaluate the impact on the Arctic ecosystem and its governance.

I argue that this ecosystem-based analysis provides a "game changing" perspective because it offers an alternative explanation for how the Arctic Council works and what makes it an effective institution. Furthermore, the analysis in this paper reinforces the argument that the Arctic Council now rests at a critical juncture; however, I propose that the Council's open and participatory governance model, which has been central to its success, may cause it to internalize the current tensions that exist between a growing number of interests in the region. This suggests that this forum has itself become a potential "site of struggle," which in turn makes it very hard to predict how the Council's governance model will evolve.

Nonetheless, I conclude that the current environmental challenges facing the globe and the failings of conventional international regimes should drive us to take alternative governance models, such as the Arctic Council, seriously. The Arctic ecosystem offers an opportunity to learn from and actively shape new governance approaches that may be critical to respond to complex and dynamic global challenges.

Framing the Arctic Discourse

It is well recognized in the public policy literature that the framing of an issue plays a critical role in shaping how problems are defined, what questions are posed, as well as how solutions are characterized (Dryzek 2005; Gregg 1974; Young 2002). The nature of the public discourse serves to construct meaning and relationships, define legitimate knowledge and establish coherent stories; however, it is also important to acknowledge that the framing of each discourse rests on specific assumptions (Dryzek 2005).

In the international relations literature focused on Arctic governance, realist analyses remain prominent. This frame assumes that the state is the central actor and focuses the debate regarding the management of the region around the effectiveness of bilateral versus multilateral state relations, as well as the advantages and disadvantages of states maintaining their regulatory authority versus transferring that authority to formal international regulatory regimes. This framing presents state-to-state relations as the key factor to understand the institutional dynamics within the region generally and the Arctic Council specifically. Moreover, as an international entity, emphasis is placed on the Arctic Council as an institution led by states, which underscores the role of regulatory authority as a critical variable in the Council's effectiveness. The prevalence of this realist analysis of the Arctic Council is evident in debates that feature a review of the formal institutional structures of the Council and discussions centered around whether the Arctic would be best served by the Council continuing its evolution from a policy-shaping to a policy-making body.

However, there are also interesting trends in the literature that seek to challenge our current conceptions of state sovereignty and consider how an alternative discourse might transform our perceptions of how transboundary issues can best be understood and governed (Shadian 2010). This includes a growing area of work that seeks to identify and understand an ecosystem-based approach to managing human-environment interactions. It is with the objective of further advancing this alternative discourse that this paper explores how framing the Arctic as an ecosystem can inform our understanding of the network of governing institutions in the region and shape our perceptions of the Arctic Council and its future.

The ecosystem concept has been used to capture the network of relationships that exist at diverse scales of analysis – a particular stand of trees, a watershed, a geo-climatic region and even the globe. This framing facilitates a growing recognition that environmental issues are interconnected and multidimensional. This literature encourages us to recognize the dynamic and complex connections that exist within an ecosystem and to adopt a holistic approach to its management. Although the concept of the ecosystem was originally coined as a purely scientific term in the 1930s (Willis 1997), it began to gain relevance in the public policy discourse in the 1970s (Grumbine 1994) and, in 1988, Agee and Johnson made the case that factoring in people, and their social and political systems, was an essential component of ecosystem-based management (1988). Of course, acknowledging the relationship

between human and natural systems serves to multiply the complexity of challenges being faced, but it also provides a more accurate picture of the dynamic forces at play when seeking to understand environmental issues (Dryzek 2005). Ecosystem-based management has become an important conceptual framework to understand complex systems and articulate appropriate principles for their management, as well as to consider the governance levers that are available to respond to current and future policy challenges.

For the purposes of this analysis, to characterize the Arctic as an ecosystem is to propose that the region has environmental, socio-economic and political features that are intimately connected to each other and can be characterized as distinct from surrounding areas. This characterization of the Arctic also serves to emphasize that changes in one part of the ecosystem can be expected to have implications for other aspects of the ecosystem – an idea that may seem self- evident and yet remains surprisingly absent from the conventional approaches used to develop and implement public policy at both the national and international levels.[3]

An ecosystem understanding of the creation of Arctic Council

In the 1980s and 90s, the Arctic lay on the periphery of global attention. The Arctic states' interests in the region was limited to navigating fading Cold War tensions, while the region held little or no interest for non-Arctic states. Arctic economies and natural resources where predominantly managed as domestic affairs and managed in isolation, with the exception of certain common pool resources such as transitory fish stocks. Furthermore, the public policy discourse concerning the Arctic environment remained based on a relatively static image of the region – characterized as a harsh, barren and frozen landscape, where the challenges that garnered attention included state security and sovereignty, treacherous marine transportation, as well as managing some of the region's unique animal populations that attracted public affection, such as polar bears and seals.

[3] There is evidence at both the national and international levels of efforts to create horizontal linkages across traditional policy areas; however, established governance structures and processes are recognized to limit the effectiveness of these efforts.

When the Arctic Council was officially established in 1996, it received no recognition on the global stage (English 2013). World leaders had little time for peaceful efforts to establish a discussion forum on the environment and sustainable development in the Arctic, when they were preoccupied with other priorities, such as wars in the Gulf, Yugoslavia and Chechnya. In fact, few government officials from the Arctic states themselves were present to recognize the official launch of the Council. As a result, to rely on a political realist understanding of the creation of the Arctic Council, where states are the primary actors of importance, would be to miss important features of the political and social dynamics evolving in the region.

A more fruitful lens of analysis is to consider how the region's unique social and cultural interconnections were the impetus for an emerging notion of an Arctic ecosystem. By many accounts, the push to establish a regionally-focused governance body like the Arctic Council was intimately linked to efforts that began in the early 1970s to create connections across states by the region's indigenous peoples, who had been separated for decades by cold war politics (English 2013; Heininen 2010).[4] These efforts highlight that many of the people of the Arctic felt more socially and culturally attached to Northern peoples of other states, than to Southerners within their own countries even after decades of separation.

The Arctic's indigenous peoples were subsequently joined in their efforts to establish connections across state boundaries by environmentalist and peace activists, who were interested in environmental pollution and demilitarization of the Arctic. These civil society actors were inspired by Gorbachev's Murmansk speech (1987) that called for an era of peaceful relations in the region. They saw this as a window of opportunity to facilitate new relationships and types of engagement in the region. After several years of working primarily behind the scenes of frontline politics, the determination of these actors resulted in the creation of the Arctic Council Panel that worked to define this still hypothetical body (Griffiths 2011). The Panel released a framework report in May 1991, which outlined the proposed mandate and structure of the Arctic Council (Arctic Council Panel 1991). This document defined an institutional form that regional cooperation could take. It introduced many

[4] The Inuit Circumpolar Conference, an Non-Governmental Organization representing Inuit from the United States, Canada, Denmark (Greenland) and Russia, is specifically credited with being intimately involved in the creation of the Arctic Council (English, 2013; Griffiths, 2011; Lamb, 2010).

governance features that were unique for an international body – a number of which were implemented in some form with the creation of the Arctic Council.

In particular, through the work of these actors the Arctic Council can be understood to embody a uniquely "Arctic" understanding of the way the world works and how the region should be governed. The Arctic Council Panel proposed that a meaningful place at the table for the region's indigenous peoples was critical to ensure the incorporation of local knowledge, empower the Arctic people and increase the legitimacy of the Arctic Council within the region.

Through much negotiation, the Panel's proposal would result in the creation of Permanent Participant[5] positions at the main table of the Arctic Council, where organizations representing the region's indigenous peoples would sit alongside Member states to set the organization's priorities and direction. This governance feature was unheard of in international fora prior to its introduction in the Arctic.

As a result of the work of these civil society actors, the Arctic Council was also unique because it not only allowed non-Arctic states to participate in the Council's business as Observers at both the main table and the Council's working groups, it also allowed Inter-Governmental (IGOs) and Non- Governmental Organizations (NGOs) to participate. Furthermore, the establishment of a participatory and consensus-based decision-making approach for all Council activities not only enhanced the position of the region's indigenous peoples and non-state actors, it also created a governance space and dynamic reflective of the cultural values of the region's peoples.

Given the interests of peace activists involved in the Arctic Council Panel, it is not surprising that significant effort was also expended to include security issues of the region generally, and military disarmament specifically, in the mandate of the Arctic Council. This effort not only signaled the high importance that this issue held for the people concerned about the future of the region, but also stemmed from a recognition that security issues in the region were intimately linked to the health of the Arctic ecosystem (both the human and natural environment).

[5] "[The Permanent Participant] category is open equally to Arctic organizations of Indigenous peoples with a majority of Arctic Indigenous constituency representing: a) a single Indigenous people resident in more than one Arctic State; or b) more than one Arctic Indigenous people resident in a single Arctic State"(Arctic Council, 2011).

However, the inaugural declaration of the Arctic Council (1996) included a brief footnote intended to explicitly clarify that security issues would not form part of the Arctic Council mandate. This reflected a firm position by the United States that it would not endorse the Arctic Council without this limitation being visibly articulated. As a result, the Council would be limited to matters related to the environment and sustainable development – an artificial separation of issues that would be exposed and would regain prominence in later policy discourse in the region.

The Arctic Council governance model created a very different space to tackle common Arctic issues than the hierarchical, rule-based approach common to the international arena. The establishment of the Arctic Council offered a unique form of international governance and symbolized the increasing stability and peace in the region. For some, it represented a new phase of global politics that challenged the traditional state-dominated system and created a legitimate place for non-state actors (Heininen 2010). It offered an alternative model for policy decision-making where knowledge and meaning are generated through an open and participatory process. It created the opportunity for new relationships and legitimized the perspectives of the region's people and acknowledged the contributions of non-state actors.

So how has it faired? What role has it played? Interestingly, the work of the Arctic Council has been consistently acknowledged for its high caliber research and analysis, as well as being credited for its ability to raise the profile of environmental, social and economic policy issues that are relevant to the region and, in many cases, the globe. For example, although scientists had expressed concern about signs of significant environmental change evident in the region for several decades, broader public concern for the Arctic environment was not ignited until 2004 with the Arctic Council's release of the Arctic Climate Impact Assessment (English 2013; Jackson School of International Studies Arctic Task Force 2013; Koivurova 2010). The Arctic Human Development Report, issued that same year, also attracted attention not only for the quality of its analysis of issues and circumstances facing the people of the Arctic, but also for the inclusive process that was used by the Sustainable Development Working Group to prepare the report (Dodds 2012; English 2013). As a result of the quality of its work, the Arctic Council has been recognized as an important voice of the Arctic both regionally and in global fora.

What this ecosystem-based analysis of the creation of the Arctic Council emphasizes is how our understanding is transformed by placing the social and cultural

interconnections of the region's peoples and the work of civil society groups at the center of efforts to establish the idea of the Arctic Council. We can begin to appreciate the primarily endogenous and non-state forces that facilitated its creation and consider the significance of the fact that it was the efforts of NGOs that drove states toward Arctic cooperation in its current form (Heininen 2010). What this analysis also reinforces is that when we broaden the concept of the ecosystem to include human systems, how institutions are designed to organize and shape interaction are exposed as a critical factor that can either complement or detract from an ecosystem-based approach to the region's management. Ultimately, the interests and actions of actors cannot be understood in isolation of region's network of institutions, which includes, but is not limited to, the Arctic Council (Hall 1993; Pierson & Skocpol 2002; Thelen 1999). Finally, this analysis emphasizes that the future path(s) available to the Arctic Council cannot be understood in isolation of its environmental, socio- economic and political context.

The Arctic Ecosystem in Transition

The world has changed over the last 20 years. The Arctic has gone from being on the periphery of world affairs to holding a prominent global profile and importance triggered by the dramatic environmental changes being observed in the region (Bravo & Rees 2006; Heininen 2010; Young & Kankaanpää 2012). There is growing global interest in the more prevalent environmental changes in the Arctic, including increasing water and air temperatures, as well as the resulting melting ice and permafrost; however, no less significant is the decreased ocean surface salinity observed in certain areas and changes to the circulation of the region's air and sea currents. All of these environmental changes signal a region that is undergoing a "forced transformation" (Folke et al. 2010) – in other words, environmental changes in the region that were not introduced deliberately and, largely, are the result of decisions and actions taken outside the Arctic. The North has become a poster child for the symptoms of climate change and global environmental degradation – a laboratory for studying the speed, magnitude and impact of changes to the world's natural environment.

Within the Arctic ecosystem, it is important to recognize that this "forced transformation" extends to the physical, social and economic circumstances of the region's people – these communities are intimately connected to their natural

environments and, as that environment is fundamentally altered, so are the lives of the people that live there. Some paint this as a picture of opportunity. If Arctic melting results in increasingly accessible natural resources that enhance the strategic importance of the region in the global economy, the socio-economic and physical health of the region's people will benefit. However, others are more skeptical. They suggest that, based on past experience in this and other regions, global interests and demands are more likely to be met at the expense of the region's people and the extraction of the region's natural resources are unlikely to benefit Northern communities and may, in fact, generate further detrimental natural and human effects in the region.

Reiterating the interconnections of the Arctic ecosystem emphasizes that the socio-economic prospects of the Arctic people are intimately connected to the political structures and processes that are in place to manage the region. With this in mind, it is important to highlight that the rapidly changing natural environment and the region's elevated profile are also credited with spawning a political transformation in the Arctic – a "state change" that sees Arctic states actively laying claim to a majority of the region, while the international community expresses a growing interest to be involved in Arctic governance (Young, 2009a).

This complex mix of environmental, socio-economic and political changes being exposed in the Arctic ultimately foster a growing awareness of the complexity of the Arctic ecosystem, as well as its interdependence with the rest of the planet. The diverse and expanding interests in the region are now the result of both endogenous and exogenous forces that are also recognized as sources of growing tension. This, in turn, is perceived as providing the region's states and other key players with incentives to foster mechanisms for cooperation or, at the very least, as a means to contain potential conflict (Huebert 2009; Keohane 1984; Young & Kankaanpaa 2012).

However, in the Arctic, there is no comprehensive governance mechanism to manage the region or its diverse issues. The institutions available to facilitate cooperation currently take many different forms: there are a variety of international and region-specific governance bodies where, to varying degrees, states, communities, NGOs, business interests and other stakeholders can engage (Young 2013), including: the United Nation Convention on the Law of the Sea (UNCLOS), the International Maritime Organization (IMO), the Arctic Council, the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR), and the Barents

Euro-Arctic Council (BEAC).

It is in this disaggregated governance context that the Arctic Council has garnered international attention as a prominent player in the region (Young & Kankaanpää 2012). In the opinion of many observers, the Arctic Council has exceeded expectations as a forum for generating regional knowledge, framing the issues, and setting scientific, socio-cultural and political-economic agendas. Furthermore, despite the assertion that the Arctic Council would not have a mandate for security-related issues, the work of this organization and others has directly and indirectly challenged conventional military-focused conceptions of security. By using broader definitions of human and environmental security and emphasizing the interconnectedness of the diverse policy challenges facing the region, an opening has been created for Arctic institutions to tackle important policy issues, including environmental pollution, search and rescue, and the development a Polar Code for marine safety.

Through its work, the Arctic Council has successfully attracted the attention of key policymakers to the importance of specific environmental and economic development issues, and, as a result, it has influenced member states and even policymakers outside the area (Young & Kankaanpää 2012; Young 2013) – a notable achievement given that the Council has no formal decision-making authority. The Arctic Council has gained international recognition as a focal point in a disjointed network of institutions that exist in the region, which is illustrated by the growing number of countries and organizations lining up to gain observer status on the Council.[6] With this success in mind, some experts argue that, as an international governance body, the Council offers the best potential to be the central forum for managing issues and relationships in the region.

A Critical Juncture for the Arctic Council

Based on a majority of scientific predictions, environmental changes will continue to transform the Arctic and these changes will noticeably accelerate. Given the speed with which the region will continue to change and anticipated global energy demands, it is safe to assume that interest in the Arctic will also increase and place growing pressures on the institutions seen to play a role in the region's governance and policy

[6] As of 2013, the Arctic Council now has 32 observers: 12 non-Arctic states, 9 IGOs and 11 NGOs (Arctic Council, 2013a).

decision-making.

Participating in the Arctic Council is currently recognized as an important way to influence the environmental, socio-economic and political agenda of the Arctic ecosystem. However, as the membership of the Arctic Council grows and changes, it will internalize and increasingly be called on to navigate the tensions between local, regional and global interests and manage the power and capacity asymmetries that exist between different states, indigenous organizations, businesses, as well as IGOs and NGOs. Furthermore, given the Council's participatory and consensus-based governance approach, this would suggest that the Arctic Council may increasingly suffer from internal contradictions – "instability inherent as models of behavior appropriate in one situation and dysfunctional in new conditions" (Clemens & Cook 1999), which could have an impact on both the Council's future effectiveness and legitimacy.

Once again, this serves to reinforce that the transformation of the Arctic ecosystem can be the source of institutional change, as well as opening the door for interested actors, with varying degrees of power, access and capacity, to play a role in defining the institutional needs of the region and shaping the evolving form of the region's governing structures and processes. This suggests that the Arctic's institutions now rest or may soon rest at a critical juncture, which will potentially create an opportunity to (re)frame legitimate knowledge, priorities and relationships in the region – making current discourse about the governance approaches of the region of central importance to the future of the Arctic ecosystem.

Some observers believe that the region would benefit most if the Arctic Council were granted the authority that would enable it to evolve from a soft-law discussion forum into a comprehensive international regime or treaty-based organization (Exner-Pirot 2011; Fenge 2012). Some experts point to the legal and regulatory certainty required in the Arctic to attract further international investment and development (Ebinger & Zambetakis 2009); while others place primary importance on the legal mechanisms needed to ensure that development in the Arctic is undertaken in a responsible and sustainable manner.

In contrast, there are those who are skeptical that the Arctic states have the political will or even interest to empower the Council with the necessary treaty- making and enforcement authority required to make such a transition. Littoral Arctic states have

consistently taken the position that no new international regimes are necessary to manage the region (Koivurova, Molenaar, & Vanderzwaag 2009; Ilulissat Declaration 2008). They point to prominent international regimes, such as the United Nations Convention on the Law of the Sea (UNCLOS) and the International Maritime Organization (IMO), which co- exist in the region and are recognized as holding the necessary authority that the Council lacks. Furthermore, Arctic states prefer to focus their energy on current efforts, under UNCLOS, to confirm their exclusive economic zones, which is intimately linked to securing international recognition of their sovereignty.

What this analysis highlights is that, for all the expectations currently placed on the Arctic Council by both observers inside and outside the region, this is a period of change for the Arctic ecosystem that ultimately calls into question any predetermined role that this governance body is positioned to play in the future. In other words, the institutional form that the Arctic Council will assume in the future is best understood as a "site of struggle" (Conca 2006) and, as a result, the path that this institution follows is extremely hard to predict. This analysis clearly does not lend itself to providing any predictions on the path that the Arctic Council will follow in the coming years – if anything it makes the future governance prospects in the Arctic murkier.

Conclusion

This ecosystem-based analysis seeks to expose that something is missing in the current debate about the future path of the Arctic Council. It proposes that the value of the Arctic experience as a case study for understanding the complex and dynamic forces that shape a region has not been fully explored.

Increasingly accelerated climate change and ever expanding global environmental challenges provide evidence that the current formal international regimes and the conventional governance mechanisms are and will be inadequate. These regimes are supported by a system of values that legitimize traditional geopolitics, scientific rationality and economic growth that reproduce themselves at the expense of the long-term health of the Earth's human and natural systems (Altenburg & Pegels 2012; Conca 2006). So why center the debate around which international regimes exist or could exist to resolve the problems these types of institutions have been central in creating?

Beyond the dominant discourse on whether or not to empower the Arctic Council with formal authorities, confidence in states' abilities to unilaterally manage[7] the complex mix of environmental, socio-economic and political issues characterized by the Arctic ecosystem is fading; while pressure is increasing to identify new, more effective mechanisms to realize sustainable development (Delmas & Young 2009).

It is with these circumstances in mind that Young (2009b) challenges us to consider how Arctic issues are best framed for the purposes of policymaking. And it is with Young's question in mind that this paper seeks to emphasize that policymaking in the Arctic will fall short if the institutional processes and structures in place do not effectively navigate the dynamic and complex relations between the economic, social, cultural and environmental aspects of the region. In fact, this Arctic ecosystem framing has the discomforting effect of calling into question traditional distinctions between local and global, domestic and international, humans and nature – all distinctions that conventional, state- dominated international regimes rely on as a foundation.

In this complex and overlapping institutional environment, I propose that it is critical to consider that what may have made the Arctic Council successful up to this point is the unique, inclusive, and consensus-based governance structure that provides the Council with the flexibility to incorporate different forms of knowledge, adjust to changing priorities and ensure that quality scientific analysis is not hindered by regional, "lowest common dominator" treaty-making politics (Young & Kankaanpää 2012). From this perspective, it could be argued that the reluctance of Arctic states (irrespective of their motives) to allow the Arctic Council be subsumed into conventional international political mechanisms and regimes, may provide a window opportunity for the Council to continue to evolve as an alternative governance model that is successful in its own right. This is not to suggest that the Arctic Council does not face challenges and pressures that will make it necessary to change its structures and process; rather, it introduces the idea that those with influence to shape the Arctic Council carefully consider how its unique institutional form has been critical to its success and consider a future path that respects its distinctive features and the role that it can play in the region.

[7] Although this paper encourages and hopefully helps to facilitate an exploration of more pluralistic governance approaches, there is no question that states remain important and powerful actors, especially when formal regimes continue to maintain legitimacy as the dominant governance mechanisms for policy decision-making in the international arena.

If we accept that institutions are a result of long-term and interacting processes that shape and reshape states, politics and policymaking (Pierson & Skocpol 2002), then the history of the Arctic Council and its success as an institution are unlikely to be erased. But what if this governance model were actively supported? Given that the Arctic is viewed as a laboratory of environmental transformation, is it not well positioned to also be recognized as a laboratory for alternative governance mechanisms that may offer a more effective sustainable development model? The Arctic Council provides an example of how human-environment interactions can be managed differently – how it defines legitimate knowledge, creates meaning and produces policy ideas for the region is of global relevance and merits further attention.

Chapter Five

Identifying Changing Arctic Policy Preferences: Canada and the United States Compared

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It is difficult to provide any comprehensive vision of the policy concerns of "the peoples of the Arctic." Most residents of the Arctic, whether they live in Russia, North America or the Nordic countries, often tend to adopt a sectored view of the region. They assume that their own understanding of the Far North and its needs, priorities and possibilities extend fully around the entire area. Thus most policy discussions related to "the Arctic" tend to be a reflection of their own distinctive sector of it and not a comprehensive portrayal that recognizes the differing circumstances and concerns found among the several Arctic communities. What is needed today in the case of most Arctic policy discussions is more comparative analysis—looking at the differences as well as the similarities in visions found between and within these various sectors and bordered spaces of the Far North.

The analytical focus of this essay is on the distinctive North American visions of the Arctic that have been held by Canada and the United States over time. It endeavors to look at the specific features of each country's Arctic policy concerns both at the end of the twentieth century and in the new millennium. The essay seeks to highlight what the two countries have shared in their views of policy priorities in the North during each period and where they have gone in somewhat different directions in defining and acting upon their key policy priorities in the region. Where has the 49th parallel featured as a line of division or as a line of accommodation in policy choices? These latter differences are often not seen nor understood from the other side of the circumpolar world with the consequence that important changes in North American policies and priorities are not rapidly discerned. The essay will also touch upon the specific undertakings of the two countries during their respective Arctic Council Chairmanships. It will examine the results of such leadership efforts and their consequences for the future development of Arctic policy priorities around the region

as a whole, irrespective of national and regional boundaries. The essay will also briefly address possible future directions in both Canadian and American policies in the Far North, underscoring the continuing role of international borders upon regional policy frameworks. The essay will conclude its inquiry by again pointing to the need for additional comparative studies to be undertaken if we are to fully understand and appreciate the variety of changing Arctic policy preferences that can be found within the current circumpolar world.

The Development of North American Visions of Arctic Policy

For much of the histories of both Canada and the United States, the Arctic has occupied a distinctive but not prominent position in the policy thinking of their government leaders. Prior to the middle of the twentieth century the Far North was seen in both countries as primarily a distant, empty and inhospitable region fit only for the exploits of daring adventurers and brave explorers who aimed to secure access to the mineral and fur resources of the region and chart possible trade and communication routes across the top of the world (Fogelson 1992). In both countries the Arctic was envisioned as part of the northern peripheral frontier of the state fit only for possible economic exploitation and limited settlement. During much of their early histories, the governments in Ottawa and Washington exerted very little energy within their Arctic domains aside from mapping and delineating their boundaries, providing limited social services to their small indigenous and settler populations and offering rudimentary elements of law enforcement. The image of the courageous Mounties pursuing their quarry across the vast, desolate North became part of the folk culture of both societies (Nord 2007).

With the coming of the Second World War, however, the Arctic assumed a new strategic significance to North American policy planners on each side of the 49th parallel. Suddenly both Alaska and Canada's northern territories became possible arenas for international conflict, vital sources of war material, and important staging points for troops and supplies destined for the Atlantic and Pacific theaters. The Far North also became a component of homeland defence. Important wartime investments were made by both countries aimed at expanding Arctic transportation and port facilities—perhaps most visibly seen in the construction of the iconic Alaska Highway (Morrison and Coates 2009). For the first time in memory, the region

became of vital concern to officials of the governments of both Canada and the United States.

The military and strategic significance of the Arctic that had first emerged during the Second World War became increasingly evident to both Ottawa and Washington foreign policymakers during the course of the subsequent Cold War. By the late 1940s it was clear that the Circumpolar North was to become one of the potential "zones of conflict" between the major alliance systems of the day. From the vantage point of the members of the Western Alliance, the Arctic was critical to their defense efforts. With the creation of the North Atlantic Treaty Organization (NATO) in 1949 both the United States and Canada saw themselves committed to providing critical military support and assistance to one another and to their European allies from their northern territories (Young and Osherenko 1989). New military bases were established there and troops and equipment stationed in northern Canada and Alaska were made available to respond to any perceived military threat arising from the Soviet Union. Similarly, plans were drawn up for the quick deployment of North American personnel and supplies to Europe in the event of a crisis there (Jervell and Nyblom 1986).

Throughout the Cold War era both the Canadian and American governments and their publics developed similar overall visions of the Arctic. They saw the region as a zone of potential conflict within a deeply bifurcated international system characterized by both ideological and military confrontation. It was a region around which the Western and Eastern alliance systems deployed their most prized strategic assets and in which little circumpolar cooperation or collaboration could be contemplated. The Arctic became equated with the need to provide military protection and security for their societies and this became central to its image in the minds of most Canadians and Americans (Jockel 1991).

Changing Canadian and U.S. Foreign Policy Priorities in the Arctic

These attitudes and perspectives continued for nearly four decades and were mirrored in large part by their Eastern Bloc rivals. It was not until the collapse of the Cold War system in the late 1980s and early 1990s that new North American understandings of the Arctic and its needs began to emerge. At that time, it was the Canadians who led the effort to re-conceptualize the region as a zone of possible collaboration and common purpose among all Arctic states. They became interested

in addressing the serious environmental and sustainable development challenges that had emerged in the area. They also recognized the potential of circumpolar cooperation (English, 2013). In the final decade of the twentieth century, the Canadian government intensified its Arctic diplomacy efforts and became a stalwart advocate for the creation of the Arctic Environmental Protection Strategy (1991), the Arctic Council (1996) and the University of the Arctic (2001). This broadening of the Canadian vision of the Arctic can be seen in a thematic listing of their government's foreign policy priorities for the region in the mid-1990s (see Table 5-1). Military defense continued to remain a concern at this time, but the priority it enjoyed throughout the Cold War era was replaced by new Canadian interests in international cooperation, environmental protection and human development. This expanded Canadian vision of the Arctic continued for a decade or so under both Conservative and Liberal governments in Ottawa.

On the other hand, American interests in the Arctic tended to remain focused on military security matters much longer than their Canadian neighbors. Well into the 1990s, and even as late as the early years of the new millennium, American policymakers tended to retain a distinct Cold War vision of the Arctic (Nord 2010b).

Table 5-1: Canadian Policy Priorities in the Arctic - mid 1990s[12]	**Table 5-2:** U.S. Policy Priorities in the Arctic - mid-1990s
International Cooperation Environmental Protection Human Development Resource Development Sovereignty Defence	Defence Resource Development Sovereignty Human Development Environmental Protection International Cooperation
Source: Content Analysis of Canadian Government Policy Statements on the Arctic 1988-1998.	*Source*: Content Analysis of U.S. Government Policy Statements on the Arctic 1988-1998.

[12] Information on the documents examined and the methodology utilized in this content analysis and the others set forth in the remaining tables of this article can be obtained by contacting the author.

They held an orientation that was focused on security and defense concerns with a secondary interest in natural resource development and exploitation (see Table 5-2). It was not until the very end of the George W. Bush Administration that significant changes in this established American perspective were first articulated. Only then did the Americans begin to acknowledge the pressing needs of climate change and international collaboration within the context of the Arctic (Borgerson 2008).

Over the last decade, however there has been a remarkable shift in both American and Canadian discussions of their priority policy concerns for the Arctic. With the coming to power of the Obama administration in Washington there has been a whole-scale adoption of climate change as a major concern of U.S. foreign policy. This priority concern has been incorporated into the United States government's overall vision of the Arctic and has become a central component of its new strategy for the region. It has become a central feature of all of its key regional policy planning documents (Borgerson 2013). Similarly, new American interest in the potential of circumpolar collaboration and the need for environmental protection and stewardship in the Far North have also been expressed in its revised Arctic strategy (Kraska 2011). Although defense concerns remain a key part of the American vision of the Far North, they now figure at a significantly reduced level of priority than could be seen in earlier decades (see Table 5-3).

Over nearly the same period of time, the Harper government in Canada also dramatically altered Canada's official perspective on the Arctic. Since 2006, it reemphasized the importance of military preparedness in the region and expressed considerably less interest in addressing environmental threats in the Far North. Concerns over protecting the nation's sovereignty in the Arctic as well as developing its own share of the extensive natural resources to be found in the region became central themes of its revised vision and discussion of the area. This was neatly summarized in the often-repeated slogan "Our North, Strong and Free." The earlier pre-2006 Canadian interests in promoting environmental protection and international cooperation in the Far North were largely relegated to lesser levels of concern by the decidedly pro-resource development and increasingly unilateralist policies pursued by the Harper government (see Table 5-4).

Table 5-3: U.S. Policy Priorities in the Arctic - 2015	**Table 5-4:** Canadian Policy Priorities in the Arctic - 2015
Environmental Protection International Cooperation Defence Human Development Resource Development Sovereignty	Sovereignty Defence Resource Development Human Development Environmental Protection International Cooperation
Source: Content Analysis of U.S. Government Policy Statements on the Arctic 2006-2015.	*Source*: Content Analysis of Canadian Government Policy Statements on the Arctic 2006-2015.

It has been suggested by several observers of Canadian and American policies in the Arctic that what occurred over the last decade comes very close to resembling a near exchange of visions and priority lists between the two North American countries (Roussel and Fossum 2010; Nord 2014). During this period of time, the United States government had broadened its perspective on the region to embrace both environmental and "soft security" concerns. The Canadian government, for its part, had decidedly narrowed its orientation toward the Far North, giving its "hard security" and economic development interests distinct and privileged positions. These differences can be clearly seen when one looks at a comparative listing of the identified priority concerns of the two countries (see Tables 5-3 and 5-4).[13] Placed side by side, it seems quite apparent that the United States and Canada have been articulating very different visions of the Arctic over the last several years and designing their respective national policies around very different priorities.

This switch in stances has not been clearly perceived nor fully understood by all in the international arena. Many residents "on the other side" of the circumpolar world have continued to believe that either both North American states still operate from

[13] For the results of a similar study looking at policy preferences for Canada and the United States prior to the coming to power of the Harper and Obama governments please see: D.C. Nord, "Northern Foreign Policies: Tensions between Canadian and American Visions—Past and Present" in L. Hedegaard and B. Lindström, eds. *Northern European and Baltic Integration* (Berlin: Springer –Verlag, 2004).

the same Cold War vintage orientations (or if there are differences between the two North American perspectives) then they are characteristic of those which existed during the 1996-2006 period. From this latter vantage point, Canada is seen often as the more innovative player in Arctic affairs and the United States is usually viewed as the recalcitrant actor on the regional stage. Yet, if one closely examines their actual articulation of their policy priorities for the Arctic, one finds that this is not at all the reality of the situation. In fact it could be argued that the opposite has been the case for the past several years (Nord 2014).

The Harper government in Canada throughout its tenure presented a very focused and consistent vision of the Arctic which emphasized Canadian national security and sovereignty concerns in the region. As first outlined in *Our North, Our Heritage, Our Future: Canada's Northern Strategy*—and then later refined in *Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada's Northern Strategy Abroad*—the Conservative government in Ottawa stressed the need to protect and develop its own national interests in the Arctic (Government of Canada 2009; Government of Canada 2010). Under the rubric of "use it or lose it" the Harper government made a series of promises to upgrade and expand its security and defense capabilities in the Far North. It also encouraged the private sector to engage itself in the rapid development of Canadian energy and mineral resources in the region.

The Conservative Canadian prime minister made annual visits to the country's northern territories where he underscored these themes and to a lesser extent discussed the importance of northern residents having a greater voice in planning for the future of the area. He "talked tough" regarding the need to protect and advance security and economic interests in the Arctic. He warned the Russian government about any incursions into Canadian waters or airspaces. He encouraged Canada to make claims (as wide as possible) under current international law to the offshore resources of the Arctic Ocean including to those of the North Pole. He regularly reminded the international community—including the United States—that Canada claims the right to wholly control and regulate transit through the Northwest Passage (Byers 2014).

When examining the key policy statements and actions of the Obama administration regarding the Arctic during a very similar period of time one encounters a significantly different tone and focus of concern. As outlined in a series of key policy pronouncements, the current American government has moved a

considerable distance from its former Cold War orientation toward the region. While national security requirements remain a part of the Obama administration's ongoing interests in the Far North, these have become far less determinative than they were in the past in characterizing its agenda for action in the area. Washington has suggested that addressing the regional impacts of climate change and protecting the threatened ecosystems of the Arctic are far more reflective of its current policy concerns (Borgerson 2013).

This reorientation of U.S. policy preferences is clearly set forth in the Obama administration's 2013 National Strategy for the Arctic Region (U.S. Government 2013). This document notes that "environmental security" must become a major concern of the country when considering its orientation toward the Arctic. So too must efforts to encourage regional and international collaboration in addressing these and other U.S. Arctic interests. Both of these highlighted themes of "environmental security" and "international cooperation" have even become significant elements of the articulated mission of the U.S. military in the Far North. The recently appointed U.S. Arctic envoy, the former U.S. Coast Guard Commandant Admiral Robert Papp, Jr. has argued that United States' efforts at environmental stewardship in the Arctic must occupy a central position in all future American planning for the region (Papp 2015).

Comparing Canadian and American Chairmanships of the Arctic Council

National priorities and preferences are reflected in the recent undertakings of Canada and the United States to provide leadership and direction for the Arctic Council. Instead of offering two similar and concurrent North American chairmanship programs, each country has chosen to follow its own distinct path in addressing the needs of the Far North. Each country has emphasized its own understanding as to where the primary focus of attention should be placed on current Arctic affairs (Exner-Pirot 2014).

The recently concluded Canadian Chairmanship of the Arctic Council (2013-15) clearly reflected the Harper government's prime policy priorities for the region. During its time at the helm of this key circumpolar body, Canada tended to devote less attention to the organization's previous focus on regional collaboration in environmental protection in the Arctic in favor of the promotion of the "human dimension" of the region. Under the thematic title of "Development for the Peoples

of the North," representatives of the Harper government gave special emphasis to the future economic and business needs of the Far North. One of the key initiatives of the Canadian Chairmanship was the establishment of an Arctic Economic Council that would involve the private sector more directly in promoting trade and resource development in the region, as well as charting future economic growth (McGwin, 2014). Throughout its two year Chairmanship of the Arctic Council, Canada also regularly insisted on the right of sovereign states to determine their own priorities in the Arctic and how they might protect their economic, social and political interests there. Little attention was given to the collective needs and aspirations of the broader circumpolar community.

A very different orientation toward the Arctic region and its concerns can be seen in the announced priorities for the U.S. Chairmanship of the Arctic Council that followed Canada's and will run from 2015 to 2017. Under its thematic title of "One Arctic: Shared Opportunities, Challenges and Responsibilities" the top three stated policy concerns of the American government are listed as: 1) addressing the impacts of climate change in the Arctic; 2) providing safety, security and stewardship for the Arctic Ocean; and 3) improving the health and living conditions of the indigenous peoples of the Far North (U. S. Government 2015). While some lip service has been given to "continuing the work of the Canadian Chairmanship" no special emphasis has been given by the United States to the importance of the private sector's role in natural resource development. The new Arctic Economic Council has been only tangentially mentioned under the U.S. Chairmanship. Likewise the sovereign rights of member states to protect their specific political and economic interests in the region have not been voiced by the United States nearly as frequently as during the Canadian Chairmanship. Instead the Americans have chosen to speak of the environmental challenges faced in the North and the urgent need for regional collaboration in addressing the effects of climate change in the Arctic.

These rather differently composed Canadian and American programs for action on the part of the Arctic Council suggest that the body's attention has shifted significantly as Washington has taken over the gavel from Ottawa. While some effort has been made to stress programmatic continuity within the body, it is likely that the organization will continue to present itself in a discernibly different manner over the remainder of the American Chairmanship. This detectable difference in focus and tone is reflective of the overall policy preferences that emerged from the alternative

Arctic orientations of these two North American governments over the past decade. These distinct differences in policy preferences may or may not have been clearly recognized by the other members of the Arctic Eight.

It is prudent to remind ourselves at this point that these existing Arctic policy differences may decline somewhat, or even reverse their course, as a consequence of changing political tides in both Canada and the United States. The election of Justin Trudeau's Liberal government in Canada may result in a significant shift in that country's attitudes and policies toward the Arctic in the coming years. It appears that the former Harper government's fixation on sovereignty and defense issues in the Far North might be replaced by new priorities in the areas of environmental protection and international collaboration. A new direction in overall Canadian foreign policy was very much in evidence at the Climate Change Conference in Paris in 2015 and may be indicative of revised thinking on the part of Ottawa regarding the key needs of the Arctic. If this is the case, Canada may be returning to patterns of thinking about the North reminiscent of that which was seen on its part in the mid-1990s. However, only the passage of additional time and events will tell us if this is to be the current direction for Canadian policy thinking and action in the region.

In the case of the United States, the conclusion of the Obama administration holds out the possibility of similar changes in American behavior. On the one hand, the election of Hillary Clinton as president may herald a further expansion of U.S. interests in environmental protection and international collaboration in the Arctic. Clinton as the American Secretary of State during the first half of the Obama presidency displayed a keen interest in both areas and generally argued for a more collaborative and engaged American presence in the Far North than had any of her recent predecessors (Nord 2010a). On the other hand, the possible election of any of the leading Republican candidates for the American presidency may spell a return to a focus on security and defense issues in the Arctic region and a downplaying of current environmental and international cooperation themes in the region. If the latter should come about, we might again see a listing of American policy priorities in the Far North that will look somewhat similar to those presented by U.S. leaders in the mid-1990s. This might result in the remarkable case of the two neighboring countries again exchanging positions with respect to their Arctic orientations and policies. Whether this reversal of stances will take place—or whether they would be fully recognized by the other members of the Arctic Eight—remains to be seen.

Concluding Thoughts

As we endeavor to consider the policy requirements of "the peoples of the Arctic" we need to avoid the trap of assuming that all the communities of the circumpolar world think about and assess these concerns in the same way. While certain policy perspectives and priorities are shared, others are not and they are reflective of distinct differences in orientation, conditions and attitudes between and within the various sub-regions of the Far North. As we have seen from the above discussion, Canadian and American leaders do not always see eye-to-eye regarding their views and actions in the Arctic. The same can be equally said regarding the current Russian government under Vladimir Putin and most of its circumpolar neighbors. There are even differences in policy preferences and priorities among the Nordic states that need to be noted and better understood. We should not be lulled into thinking that there is a single Arctic policy orientation or perspective throughout the region today. Additional research needs to be focused on identifying existing Arctic policy differences between the Arctic Eight and investigating their consequences. Similarly, attention needs to be given to differences between these several nation-states and the indigenous and regional communities that exist within and across their borders.

We also need to become more aware and attuned to the fact that these alternative national and sub-regional policy concerns and priorities can and will alter over time. Developments in the Arctic are dynamic in character and the policies and initiatives of these circumpolar actors may alter over time reflecting a variety of significant environmental, economic, social and political forces. We should not become overly confident that existing policy preferences will not alter over time—and not change again—as circumstances demand. Such is the reality for every other region of the world and the Arctic will not be immune to this pattern.

We also should be more cognizant of the reality that the representatives of these circumpolar societies can and will speak differently about their Arctic policy goals and priorities among one another—even if they are long-standing partners and geographic neighbors as is the case with Canada and the United States. As we have seen, the two North American governments have at times been in common accord with their visions of the Arctic and at other times have thought and acted in marked contrast to one another. Such behavior can and will continue even among similar societies across the circumpolar world.

Finally, we also must avoid assuming that our own evaluation of our policy priorities in our specific portion of the Arctic can be freely generalized across the entire region. As is the case in other areas of Arctic knowledge, we need to avoid engaging in narrow, sector-oriented thinking. We need to become more aware of the specific conditions and attitudes of residents from other parts of the Far North and not assume that they are the same as our own. We should avoid becoming too preoccupied with only the thinking of our own specific sector of the region. We need to become more conversant with the goals and objectives of other residents of the North and the policies behind them. We should expand our knowledge and comparative study of the various policy priorities seen to exist across the Arctic focusing on both government and civil society perspectives. There is a clear need for those on all sides of the Arctic Circle to become considerably more familiar and conversant with the policy preferences and objectives of each of their northern neighbors. This requirement applies equally to those communities which have regular interactions with one another (such as Canada and the United States) as well as those who have less frequent contact with each other across the region of the Far North. A true awareness of contemporary northern societal goals and priorities requires an expanded degree of commitment to comparative study and investigation that is often lacking in most current inquiries. Too often these remain "sector-based" in their structure and orientation. Only by looking for both differences and similarities in the thoughts and actions of the full breadth of national, regional and indigenous communities across the Arctic can we hope to build a truly comprehensive picture of the full scope of policy preferences that exist within the region.

PART THREE:

SECURITY, SOVEREIGNTY AND BORDER MANAGEMENT

Chapter Six

Challenges of Sea Ice Prediction for Arctic Marine Policy and Planning

Scott R. Stephenson and Rebecca Pincus

In September 2015, Shell announced a halt to its controversial offshore drilling program in Alaska's Chukchi Sea. Citing disappointing drilling results, high operating costs, and an uncertain regulatory environment, the company abandoned its "Burger J" well after more than $7 billion in investment. The decision followed years of regulatory and technical setbacks including high-profile failures with the Kulluk and Noble Discoverer rigs in 2012. For the U.S. government, Shell's exit leaves "an important component of…the national energy strategy" in limbo, one which the Obama Administration hoped to exploit as part of a "balanced approach to oil and gas leasing and exploration" (US DOI 2015). For Shell, the prospect of 28 billion barrels of technically recoverable oil and 122 trillion cubic feet of gas in offshore Alaska (Gautier et al. 2009) could not offset a market downturn that saw the price of oil drop below $30/barrel by January 2016. Even so, Shell has yet to relinquish its 275 leases in the Chukchi Sea that are set to expire between 2017 and 2020, leaving open the possibility for a return by the company in the coming years.

Should Shell return to offshore Alaska, its activities will be closely monitored to ensure regulatory compliance and maritime domain awareness. During the 2015 drilling season, the U.S. Coast Guard maintained a presence in the Chukchi Sea and Bering Strait to provide search and rescue (SAR) and disaster response capabilities in the event of a crisis. These activities were informed by in-situ and remotely sensed data on shipping traffic, storm patterns, and sea ice concentration and drift. State and local governments have a strong interest in obtaining such information for the strategic planning of future Arctic maritime operations, outlined in two research objectives in the U.S. Implementation Plan for the National Strategy for the Arctic Region (2014): "Prepare for Increased Activity in the Maritime Domain" and "Enhance Arctic Domain Awareness." Canada is taking similar steps to enhance

maritime safety and security as part of a broader agenda of exercising sovereignty over the Far North (Government of Canada 2013). While offshore drilling is not currently underway in Canada, 16 exploration licenses have been issued for the Beaufort Sea (Government of Canada 2015).

Shell's Arctic campaign came amid years of speculation about the Arctic as a new economic frontier in a context of climate change. Increased maritime access to substantial undiscovered oil and gas reserves and numerous mineral deposits is often cited as driving an imminent "Arctic bonanza" spurring intensive resource extraction. Despite claims of an emerging "Polar Mediterranean" linking major Asian and European markets, prospects for international transit shipping through the Northwest Passage (NWP) and Northern Sea Route (NSR) are marginal at present (Dodds 2010; Farré et al. 2014; Lasserre 2014). Resource transport, community resupply, fishing and tourism continue to be important destinational drivers of traffic in the U.S. and Canadian Arctic (Stewart et al. 2007; AMSA 2009; Stewart et al. 2013). Regardless of its provenance, all Arctic shipping carries significant environmental risks, especially in the case of offshore oil exploration and extraction. Under a hypothetical long-term exploration and production scenario, the chance of one or more large (>1,000 bbl) oil spills occurring in the Arctic over the next 77 years is 75%, with 44-62% of the oil resulting from such a spill remaining after 30 days (BOEM 2015). Such a disaster would have devastating impacts on marine and coastal ecosystems and the livelihoods and cultural identities of local indigenous communities (Huntington et al. 2015). Even without an oil spill, Shell's own application to the National Marine Fisheries Service acknowledged that its plan would involve the harassment of thousands of bowhead whales and ringed seals through continuous and pulsed subsurface drilling sounds (Shell 2015).

Given the potential trans-border impacts of offshore activities on the marine and coastal environment (Keil 2015), sea ice prediction as a means of reducing uncertainty for Arctic shipping is of critical interest to industry and community stakeholders throughout the Beaufort-Chukchi coastal zone. For example, the prediction of fall freeze-up is a high priority for coastal communities as the presence of sea ice constrains community resupply and buffers coastlines against fall storms (Stroeve et al. 2015). While seasonal forecasts can assist in short-term decision-making, decadal projections are necessary for the long-term planning of energy, security, and environmental policy. This paper reviews the use of sea ice prediction as a tool to

support strategic planning in the U.S. and Canadian Arctic. The paper first discusses the utility and limitations of seasonal forecasts and decadal projections for short- and long-term planning, respectively. The paper concludes with a discussion of the infrastructure and policy context within which sea ice forecasts may be used to enhance safety and mitigate environmental risk.

Seasonal Forecasts

Sea ice in Arctic Alaska and Canada, as elsewhere in the Arctic, is on the decline. Satellite observations reveal substantial reductions in overall ice extent, thickness, and age since 1979 (Maslanik et al. 2007; Kwok et al. 2009; Comiso 2012; Stroeve et al. 2012). Most climate models project a nearly sea-ice free Arctic by 2040 or later, though recent reductions in sea ice volume suggest this may occur as early as 2020 (Overland and Wang 2013). In the region north of the Bering Strait, climate models project an increase in open water duration of one month by 2040 with a significant north-south gradient (Wang and Overland 2015). Significant bottom melting in the Beaufort Sea suggests that ice decline off the coast of northern Alaska and northwest Canada will outpace the decline in the central Arctic Ocean (Perovich and Richter-Menge 2015). Within the western Arctic, several important regional dynamics are apparent. Open water duration is projected to be one month shorter in the Beaufort Sea than in the Chukchi Sea along the same latitudes (Wang and Overland 2015). In the Canadian Archipelago, ice will remain hazardous as its total extent decreases due to the infiltration of thick, deformed multi-year ice from the central Arctic Ocean (Sou and Flato 2009; Howell et al. 2013; Haas and Howell 2015). Even with the disappearance of multi-year ice, ice conditions in the Canadian Arctic will remain very different from first-year ice regimes at lower latitudes such as the Gulf of St. Lawrence due to a long freezing season and an increase in the frequency of pressure ridges, growlers and icebergs (Bourbonnais and Lasserre 2015).

While the long-term trend in sea ice extent is expected to remain negative, seasonal sea ice forecasting will play an important role in Arctic maritime decision-making as ice conditions exhibit large variability from year to year (Holland et al. 2011; Tietsche et al. 2013). Ice forecasts are obtained from a variety of methods including heuristic, statistical and coupled ice-ocean or ice-ocean atmospheric models (Stroeve et al. 2014; Serreze and Stroeve 2015). Because ice conditions in any given month usually depend on conditions in the previous month, the persistence of sea ice

extent anomalies is often the first source of sea ice predictability (Guemas et al. 2014). Satellite observations show that sea ice extent anomalies tend to exhibit high persistence in summer and winter and low persistence in May and June (Blanchard-Wrigglesworth et al. 2011), suggesting that a late-spring start to the navigation season will be difficult to predict. Fall sea ice conditions are comparatively easy to predict, as September sea ice area is significantly correlated with the previous July and August sea ice area (Blanchard-Wrigglesworth et al. 2011). Other predictive methods involve the analysis of atmospheric circulation, oceanic heat fluxes, and the advection and re-emergence of sea ice anomalies (Guemas et al. 2014).

Modern data collection and analysis methods have increased the accuracy of sea ice forecasts. Forecast skill has generally improved with increasing satellite coverage of the Arctic Ocean, such as the introduction of passive microwave imagery in 1978 allowing for the retrieval of sea ice concentration at 2-day frequencies and roughly 1° resolution (Cavalieri et al. 1996; Guemas et al. 2014). In addition, recent efforts to incorporate more realistic ice thickness initializations, data assimilation methods, improved model physics, and summer melt pond dynamics have shown promise (Day et al. 2014a; Massonnet et al. 2015). For example, the strong correlation between summer ice loss and winter ice thickness suggests that the initialization of seasonal forecasts with accurate, up-to-date ice thickness data may improve predictions of summer ice extent several months ahead (Hewitt et al. 2015). Data availability for such efforts is likely to increase as research strategies and objectives become more streamlined among Arctic observing networks, such as the Arctic Council's Sustaining Arctic Observing Networks (SAON) and the Global Earth Observation of Systems (GEOSS) (Eicken 2013). Updates to seasonal sea ice forecasts are likely to also improve the skill of long-term projections due to the high correlation between the magnitude of the seasonal cycle of ice extent in climate models and the date of ice-free conditions (Massonnet et al. 2012; Hewitt et al. 2015).

Even as data collection methods improve, the science of sea ice prediction faces several important challenges. Much of the existing knowledge on sea ice predictability is primarily obtained from studies in lower latitudes, and is not easily transferable due to the unique characteristics of polar regions (Jung et al. 2016). In particular, seasonal forecasts have been complicated by recent rapid change in the extent and properties of Arctic sea ice. Most polar predictive models were developed using data derived from thick, old ice, most of which has been replaced by younger, thinner ice. In general, sea

ice thinning decreases the potential predictability of monthly sea ice area, while increasing the predictability of sea ice volume (Holland et al. 2011). The seasonal melt of first-year ice has been difficult to predict owing to its higher mobility and lower albedo compared to multi-year ice (Eicken 2013). The higher velocity of first-year ice promotes the formation of leads (cracks), decreasing albedo and accelerating ice thinning further (Rampal et al. 2009). The resulting younger, thinner ice pack exhibits a steeper downward trend in overall extent (Serreze and Stroeve 2015) and is more prone to anomalous rapid declines (Holland et al. 2006; Parkinson and Comiso 2013), highlighting a need to account for trend non-linearity as well as interannual deviations. In general, forecasting has been less accurate in years in which the ice extent deviated significantly from the long-term trend, especially in September (Guemas et al. 2014; Stroeve et al. 2014). Satellite observations show that sea ice extent anomalies tend to exhibit high persistence in summer and winter and low persistence in May and June (Blanchard-Wrigglesworth et al. 2011), suggesting that a late-spring start to the navigation season will be difficult to predict. Furthermore, ice extent predictability tends to be lower in the perennial ice zones of the central Arctic and marginal seas than in the seasonal ice zones of the North Atlantic and North Pacific (Day et al. 2014b), suggesting that forecasting in support of operations in the Bering Sea may not be readily applicable to operations in the Chukchi and Beaufort Seas.

Variability in the climate system also hampers prediction efforts. Recent observations suggest that atmospheric variability imposes a fundamental limit on sea ice predictability (Serreze and Stroeve 2015). While the record minimum extent of Arctic sea ice in 2012 resulted in a large fraction of thin, first-year ice in 2013, comparatively benign atmospheric conditions in the summer enabled much of that ice to survive, which was not anticipated by most sea ice forecasts. Major departures from the long-term trend in ice extent caused by atmospheric variability have generally not persisted more than a few years, suggesting that heat loss in winter acts as a stabilizing feedback in the sea ice system (Serreze and Stroeve 2015). Furthermore, large-scale oceanic and atmospheric variability has been shown to increase interannual variability in the persistence of sea ice anomalies, potentially reducing the predictability of summer ice extent (Blanchard-Wrigglesworth et al. 2015; Bushuk et al. 2015). Predicting the initial occurrence of major anomalies such as those observed in 2007

and 2012 will continue to pose a challenge, but a better understanding of negative winter feedbacks will assist the prediction of sea ice extent "rebounding" in later years.

It should be noted that the limitations of sea ice forecasts apply mainly in summer and late fall "shoulder season," when uncertainty in ice extent matters most for decision-making. In winter, icebreakers will be required for most maritime operations as ice is projected in nearly all climate models in the winter even under relatively aggressive climate forcing (Semenov et al. 2015). In the Alaskan Arctic, ice cover is projected from January to May through the second half of the 21st century (Wang and Overland 2015). In the Canadian Arctic, the M'Clure Strait is projected to remain inaccessible in the winter to non-ice strengthened vessels in most climate models (Stephenson and Smith, 2015). Overall, the average rate of sea ice decline in the winter (-3% per decade) is more moderate than in the summer (-13%) (Perovich et al. 2014), and no recent negative winter trend has been observed in the Bering Sea (NSIDC 2014). Even with the rapid summer ice loss caused by natural climate variability, ocean heat loss is expected to promote the continued recovery of spring and early summer ice cover for the foreseeable future (Tietsche et al. 2011).

Decadal Projections

Better initializations from seasonal forecasts will complement ongoing efforts to improve decadal projections from general circulation models (GCM) within the World Climate Research Programme Coupled Model Intercomparison Project (CMIP5). CMIP5 is the fifth phase of an international framework for coordinating the development and analysis of more than 50 global coupled ocean-atmosphere GCMs (Taylor et al., 2012). In recent years, several studies have demonstrated the utility of GCM projections for modeling future Arctic marine accessibility. Smith and Stephenson (2013) utilized an average of outputs from models selected by Massonnet et al. (2012) to project the future viability of optimal, least-cost trans-Arctic shipping routes for two vessel classes. Even when averaged with additional output from the relatively conservative Community Climate System Model Verion 4 (CCSM4) (Gent et al. 2011), September navigation routes via the NSR were found to be viable for all vessel classes by mid-century, while numerous routes over the North Pole were projected for ships with medium ice strengthening (Smith and Stephenson 2013). This work followed the initial development of the Arctic Transportation Accessibility Model (ATAM), a GIS-based transport model to project 21st-century navigation

season length and variability as a function of ice conditions for a range of vessel types and warming scenarios (Stephenson et al. 2011; Stephenson et al. 2013; Stephenson et al. 2014). Results from the ATAM illustrating the zones accessible to three vessel classes for 90 days or more from July-December are shown in Figures 6-1 and 6-2.

Despite the ability of many climate models to represent well the overall historical trend and seasonality of sea ice, GCMs are a somewhat blunt instrument with several important limitations. Many GCMs fail to replicate the observed frequency of sudden ice loss events (Rogers et al., 2015), and tend to underestimate the true rate of ice loss due to observational uncertainties, high climate variability, and limited understanding of geophysical processes such as ice drift (Kattsov et al. 2010; Rampal et al. 2011). In addition, GCMs often represent sea ice extent well at the circumpolar scale while masking important regional dynamics. Biases may cause model output to differ markedly at regional scales even as they exhibit similar seasonal dynamics and ice extent at the circumpolar scale. For example, biases in CCSM4 lead to high ice concentration in Baffin Bay, low ice concentration in the coastal Beaufort Sea and central Arctic Ocean, and a weak Beaufort Gyre resulting in unrealistic sea ice motion in all seasons except winter (Jahn et al. 2012). In contrast, MIROC5 and MPI-ESM-MR exhibit thick ice in the Kara Sea and warm temperatures over northern Canada, respectively (Komuro et al. 2012; Notz et al. 2013), which may explain why the NWP exhibits greater accessibility than the NSR in these models (Stephenson and Smith 2015). Furthermore, not all climate models resolve the waters of the inner Canadian Archipelago, and the resolution in those that do (~1°) is sufficient to resolve the deep-channel route of the NWP only (Lancaster Sound – Parry Channel – M'Clure Strait) (Stephenson and Smith 2015).

For strategic planning purposes, such spatial and temporal uncertainties are critical concerns. While projections for a single region may be sufficient for some Arctic marine operations, such as destinational shipping in the Beaufort Sea, multi-region forecasts are required for others, such as trans-Arctic shipping via the NWP. Policy-makers therefore require projections from multiple complementary models whose biases are well understood. Furthermore, the need to balance short-term (< 3 years) and long-term (> 10 years) planning means that models ideally should be able to replicate the recent observed ice loss well while maintaining skill in other aspects of the coupled ocean-atmosphere system. Despite widespread agreement on trend sign, there remains considerable spread among models in the projected trend, seasonality

Figure 6-1: Areas of 90 days of accessibility or greater on average from 2006-2015 (A), 2020-2029 (B), 2030-2039 (C), and 2040-2049 (D) from July-December, for Polar Class 3 vessels (PC3; aquamarine), Polar Class 6 vessels (PC6; light blue), and open water vessels (OW; dark blue), as projected by the Community Climate System Model 4.0 (CCSM4) (Gent et al., 2011) under a low-moderate climate forcing scenario (RCP 4.5). Areas with fewer than 90 days of accessibility for all vessel types shown in white.

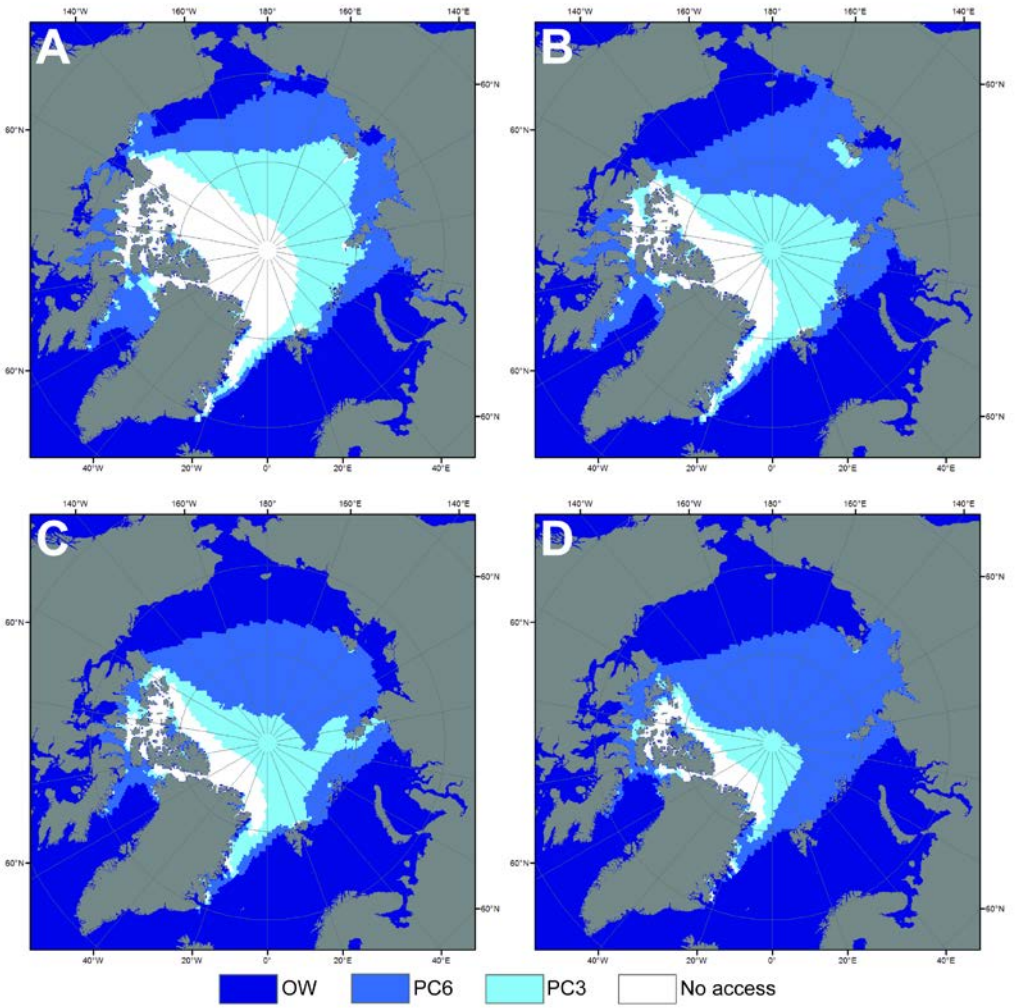
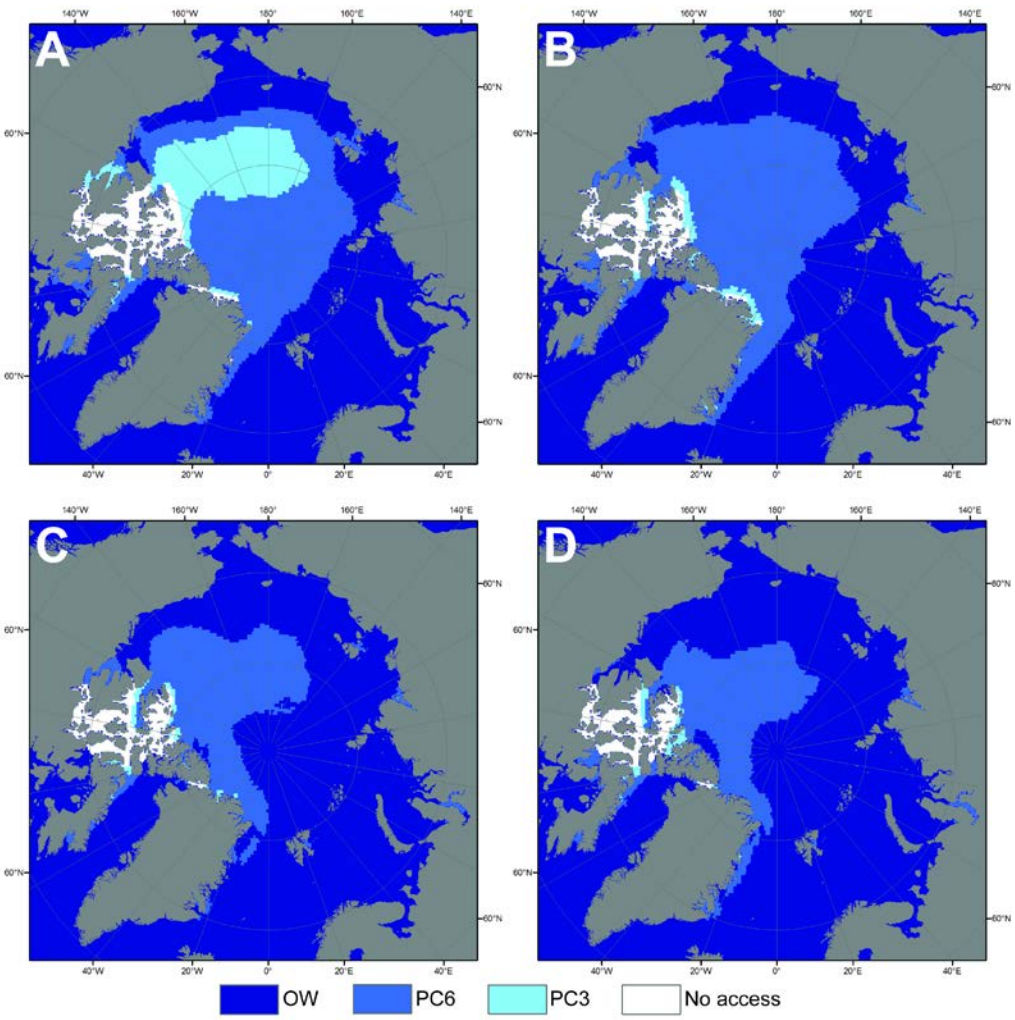


Figure 6-2: Areas of 90 days of accessibility or greater on average from 2006-2015 (A), 2020-2029 (B), 2030-2039 (C), and 2040-2049 (D) from July-December, for Polar Class 3 vessels (PC3; aquamarine), Polar Class 6 vessels (PC6; light blue), and open water vessels (OW; dark blue), as projected by the Australian Community Climate and Earth System Simulator 1.0 coupled model (ACCESS 1.0) (Bi et al., 2013) under a low-moderate climate forcing scenario (RCP 4.5). Areas with fewer than 90 days of accessibility for all vessel types shown in white.



and variability of ice conditions (Massonnet et al. 2012). Liu et al. (2013) narrowed this spread by identifying 9 of 30 CMIP5 models that simulated well the observed sea ice climatology and September sea ice extent. Massonnet et al. (2012) employed a similar approach, further evaluating models on their ability to simulate the observed amplitude of the seasonal cycle of sea ice extent and the reanalyzed annual mean sea ice volume. Narrowing model spread in this way provides planners with a "first, best option" for more streamlined decision-making.

While the selection methods employed by Liu et al. and Massonnet et al. are scientifically defensible, they do not represent a consensus of the climate modeling community. There is no single way of measuring a model's ability to predict future climate based on observations from the past or present (Tebaldi and Knutti 2007). For example, models may be weighted based on how well they simulate the climatological mean temperature, the observed warming trend over the last few decades, or their performance in specific regions (Greene et al. 2006; Furrer et al. 2007). Furthermore, it is possible that models identified to perform well on key metrics may have compensating errors, causing them to give good simulations for the wrong reasons (Hewitt et al. 2015). Because no single climate model is best with respect to all variables, model weights will vary based on the metric used to evaluate them, which is subjective given that the weights for future projections are unlikely to be the same as those found to be optimal for the present-day climate (Tebaldi and Knutti 2007). Furthermore, the internal variability of sea ice models can be very large, even exceeding the spread in 30-year sea ice area trends between different models (Notz 2015). This further complicates efforts to exclude "unrealistic" models from multi-model ensembles.

Academic debates over model performance might appear to have little consequence outside of the climate modeling community, except that the lack of a substantive consensus over which models are "correct" prevents the results of high-performing models from being highlighted by the IPCC. Instead, IPCC summary reports for policy-makers usually discuss future climate in terms of so-called "ensemble averages" derived from many climate models, some of which exhibit greater congruence with observed ice loss than others. The scientific rationale for ensemble averaging is that combining models will cause intrinsic errors in individual models to at least partly cancel, resulting in more skillful results than single-model studies (Tebaldi and Knutti 2007). However, this approach also narrows the range of

potential outcomes, and carries a risk of producing implausible results that do not resemble output from any single model (Knutti et al. 2010). This limits the utility of model projections for policy, as decision making is often better informed by a range of plausible outcomes rather than a series of prescribed narrative scenarios based on permutations of variables (Groves and Lempert 2007). In light of these uncertainties, policymakers should avoid basing decisions on the results of one model, and instead aim for a more comprehensive assessment of climate impacts that highlights overall trends common across multiple models as well as spatiotemporal differences and divergent outcomes among individual models.

Figures 6-1 and 6-2 illustrate how outputs from different climate models under identical time periods and climate forcing scenarios exhibit very different characteristics. The central Arctic Ocean is projected to be accessible by Polar Class vessels only throughout the first half of the 21st century in CCSM4 (Figure 6-1), while non-ice strengthened open-water vessels may access the NSR from 2006-2015 and the central Arctic from 2030-2039 in ACCESS 1.0 (Figure 6-2). In contrast, the NWP and northern Canadian Archipelago remain inaccessible to all vessel types in all study periods in ACCESS 1.0, while the Lancaster Sound – M'Clure Strait route opens to Polar Class vessels in CCSM4. Ice in ACCESS 1.0 also appears to lose thickness much more rapidly than in CCSM4 as most multi-year ice in ACCESS 1.0 is gone by 2020-2029. In an analysis of the influence of inter-model variability on future trans-Arctic shipping routes, Stephenson and Smith (2015) found a similar divergence between models that broadly reflect the present-day pattern of Arctic marine traffic via the NSR and those that exhibit a strong preference for the NWP. Their analysis benefited from an initial round of model selection by Liu et al. (2013) and Massonnet et al. (2012), demonstrating that models with similar overall performance metrics may nonetheless produce divergent policy-relevant outcomes. Presented together, the results from CCSM4 and ACCESS 1.0 illustrate a range of climate futures for the Arctic owing to the inherent uncertainties in the climate system.

Even taking inter-model differences into account, the climate scenarios underlying GCM simulations may not represent the full range of relevant outcomes for medium- and long-term strategic planning. The CMIP5 models utilize several so-called Representative Concentration Pathways (RCP) ranging from 2.6 to 8.5 W/m^2 of climate forcing to represent how the future may evolve with respect to a range of

variables including socioeconomic change, energy and land use, technological change, and greenhouse gas and air pollutant emissions (van Vuuren et al. 2011). While these scenarios are the most authoritative and widely used trajectories of future climate, they are not necessarily the right tools for decision-making at local or regional scales. IPCC scenarios (broadly shaped by the RCPs) aim to understand and reduce uncertainty in climate projections and focus mainly on the central distribution of "likely" outcomes, classified in IPCC AR5 as events falling within the 66-100% probability range. These scenarios may be insufficient to guide the planning of responses to low-probability, high-risk events in the "tail" of the distribution (0-33% probability), such as vessel damage caused by early freeze-up or multi-year ice incursions. A risk-averse approach to environmental policy often makes sense in coastal zones in order to mitigate the impacts of catastrophic events on ecosystems and coastal communities (Hinkel et al. 2015). Therefore, additional scenario development beyond IPCC prescriptions will be necessary to represent the range of outcomes of greatest concern to Arctic stakeholders.

Trans-border Policy Implications

In a call for heightened scientific focus on polar predictive capabilities, Jung et al. (2016) and Eicken (2013) argue that sea ice prediction is still in its infancy, and would be best advanced through greater coordination between natural and social scientists in a concerted international effort. Lovecraft et al. (2016) further point out the need to align scientific objectives with the needs of the institutions and communities most affected by Arctic sea ice change. Given the strong association between sea ice and the marine mammals that support subsistence lifeways in some coastal communities, sea ice prediction must be linked to policy in a variety of areas as well as levels of governance.

Such coordination will be essential in order to ensure the timely dissemination of predictive results, as well as overcome the challenges and limitations of the sea ice prediction methods discussed here. Given the methodological uncertainties, the potential for vessel operators to misinterpret forecasts, or for the forecasts themselves to be wrong, is significant. For the international scientific community, this represents an imperative to clearly communicate uncertainty in sea ice forecasts to stakeholders. Scientific coordination also will be critical across Arctic borders, including those between coastal states as well as the area of high seas in the central Arctic Ocean. Ice

forecasts, if created or handled differently between different Arctic states, may further confuse vessel operators. However, scientific coordination should be broadened beyond ice prediction. The Arctic Council's Task Force for Enhancing Scientific Cooperation in the Arctic (SCTF) is in the process of drafting a legally-binding agreement that will address scientific cooperation among Arctic states as well as with non-Arctic states. This embryonic treaty is expected to be the next legally binding instrument to emerge in the Arctic, following the 2011 SAR agreement and 2013 treaty on oil spill response. The SCTF treaty is expected to address access to scientific data, the "simplification" of movement for scientists and their equipment, and infrastructure (Arctic Council 2016). The Task Force itself is co-chaired by the U.S. and Russia.

Beyond its scientific value, sea ice prediction is a shared interest of all Arctic states, and of particular importance to the five states with an extensive Arctic coastline: Russia, Canada, the United States, Norway, and Denmark (Greenland), which share a common interest in ensuring safe and environmentally responsible maritime activity. The newly-established Arctic Coast Guard Forum (Braynard 2015) may provide a platform to enhance the trans-border cooperation and coordination of sea ice prediction between scientists and maritime regulatory authorities. By bringing together coast guards (or equivalent authorities) from the eight Arctic nations, the ACGF provides a platform for operational harmonization in areas like search and rescue, oil spill response, domain awareness, illegal/unregulated fishing, and other key shared issues. One of the first steps of the ACGF will be to strengthen the communication links between its members, through identifying points of contact and communication procedures. The establishment of regular communications exercises is an important step, and could be based on discussion of ice observations and predictions. Basing communications enhancements on sea ice science would not only serve as a pragmatic and apolitical common ground upon which further coordination could grow, but would provide an opportunity to enhance joint situational awareness of ice conditions among Arctic coastal neighbors. Communication around ice conditions and forecasts might also build a bridge between the Arctic scientific community and the Arctic Coast Guard Forum. It is important that the ACGF build cooperation and coordination among Arctic coast guards on the basis of best available knowledge and data-driven best practices. Like the Arctic Council, the regular expert-level meetings held by the ACGF may provide an opportunity to convene ice-

prediction scientists to discuss ideas for coordinating ice forecasting across maritime boundaries in a way that will tangibly enhance maritime safety and stewardship.

Accurate ice prediction is vital to preventing environmental and human emergencies in the Arctic region. Particularly in the North American Arctic, with its enormous distances and sparse infrastructure, incident prevention is of critical importance. If diminishing ice conditions tempt increasing numbers of vessel operators into the region, coast guard capabilities may become strained in both Canada and the United States. Existing SAR and oil spill response capabilities in the Beaufort and Chukchi Seas is limited, as the nearest Coast Guard station is more than 900 miles south at Dutch Harbor. As a result, forward deployment of support vessels may be necessary to ensure the timely arrival of assets, requiring forecasting results to be available and clearly communicated to public and private entities. Oil and shipping companies may make unilateral decisions to contract Coast Guard assets for operational support, as Shell did to establish "safety zones" around its exploratory vessels in May 2015 (Schwing 2015). However, if such ships are not ice-class, one of the Coast Guard's two icebreakers (the *Polar Star* and the *Healy*) will be required in the event of an accident in the ice. Even these may be insufficient for heavy ice conditions, as the *Healy* is a medium icebreaker only and the 45-year-old *Polar Star* is nearing the end of its lifecycle.

Another sub-region where trans-border coordination of ice predictions is of particular importance is the Bering Strait and adjacent areas. The U.S. Coast Guard is completing a multi-year review of the Bering Strait, called a Port-Access Route Study (PARS), required before the establishment of new rules governing marine traffic. PARS outcomes may also contribute to international agreements governing maritime activity, and therefore the Bering PARS is an indication of growing interest in U.S.-Russian coordination of traffic management in the region. The PARS language notes that the development of a Bering Strait vessel routing system will "increase the predictability of vessel movements," decreasing the potential for collisions, oil spills, the disruption of wildlife and hunting, and other human and environmental incidents (USCG, 2014). The current proposed ship routing measures under consideration include two-way routing of traffic (essentially creating traffic lanes) and four precautionary areas (USCG 2014). Among the various aspects under consideration by the PARS is weather, and the effects of weather on vessel operations. Therefore, efforts to enhance trans-boundary management in the Bering area may benefit from

the coordination of ice prediction in order to better understand and direct future traffic. Trans-boundary coordination of ice awareness will also support U.S.-Russian co-management in the Bering Strait beyond the PARS rulemaking.

Although the political tension between the U.S. and Russia is currently high, shared interests in enhancing the awareness and management of growing maritime activity in the Arctic region has enabled a greater degree of dialogue to continue between the Coast Guard and its Russian counterparts. While it may be more difficult to achieve consensus on politically sensitive subjects like offshore energy regulation or environmental standards, the need for accurate ice forecasting—particularly forecasts available in both Russian and English, in a common format and scale—may be a simple area for the development of trans-boundary vessel safety procedures.

The arrival of new international standards for sailing in Arctic waters should offset some of the environmental risk stemming from climate and weather uncertainty. The International Code for Ships Operating in Polar Waters, known as the "Polar Code," was adopted by the International Maritime Organization (IMO) in May 2015 and will enter into force in January 2017. The Polar Code contains numerous provisions for preventing accidents and minimizing environmental impacts. For example, vessels will be prohibited from dumping oil and other toxic materials into Arctic waters, and ice-classed ships will be required to have ice-strengthened hulls, onboard ice navigators, and search and rescue and spill response capabilities. Compliance with Polar Code recommendations will make ship operators better equipped to deal with early freeze-up conditions, and future updates to the Polar Code may require crew training in ice forecast interpretation. Several important issues were omitted from the Polar Code, such as regulations on the use of heavy fuel oil, which contributes to global warming through black carbon emissions and is more environmentally damaging than lighter fuels if spilled. Still, as the first marine regulatory framework to specifically address the unique environmental challenges and vulnerabilities of the Arctic, the Polar Code represents an important step forward in international cooperation and environmental stewardship in the region.

Sea ice prediction would appear to complement IMO rules and enhance environmental protection further by providing information on the expected location and movement of the ice edge. The IMO does not engage in sea ice prediction activities, nor does the Polar Code require ships to obtain ice forecasts in advance of a

voyage, so a robust exchange of sea ice predictions among regulators and industry would fill an important information gap. However, other gaps in the Polar Code suggest that the improper interpretation of sea ice forecasts could actually increase accident risk. The Polar Code purposely does not prescribe a single set of standards for ice-class vessels in order to give ship operators and sovereign Arctic states the freedom to find optimal solutions to operational and environmental challenges (Shettar 2015). This lack of strict guidelines on which ships will be permitted to sail in the Arctic, coupled with the high cost of ice strengthening, means that many of the vessels plying Arctic waters in the near future will not be ice-class under the current regulations. Cruise liners carrying in excess of 1000 passengers are among the vessel types without ice strengthening that are expected to increase, particularly in the Canadian Arctic (Lasserre and Têtu 2013; Stewart et al. 2013). A series of sea ice forecasts signaling below-average ice extent in a given season could encourage additional Arctic voyages by non-ice-class vessels seeking to take advantage of an earlier start (or later close) to the navigation season. Such seasonal traffic increases might initiate a "positive feedback" by which vessel traffic spurs faster investment in support infrastructure, lowering insurance costs and mitigating a key economic constraint to Arctic shipping. Some insurance companies currently offer coverage to vessels without ice-class certification, though the impact of the Polar Code on the insurance industry remains to be seen (Sarrabezoles et al. 2014).

Against a background of limited funding for Arctic operations, sea ice forecasts fill a critical infrastructure gap. Investment in the region as a whole remains far below the level required to maintain a robust energy logistics network from northern Canada to global markets, as some have supposed (Jolles and Tiffin 2013). Without the political resolve to invest in accordance with projected increases in vessel traffic, stakeholders must rely on the best available information on ice conditions to deploy resources to where they are needed most, and provide advance knowledge of an early retreat in summer or freeze-up in fall. The limitations discussed previously highlight the risk of a heavy reliance on ice forecasts for operational and strategic planning, and ice forecasts can never substitute for an icebreaker presence "on the ground." However, when interpreted within a context of dynamic uncertainty, sea ice forecasts are a useful tool for identifying areas of critical concern for domain awareness and accident prevention.

Conclusion

This paper has reviewed the key challenges of using sea ice prediction for strategic planning with focus on the U.S. and Canadian Arctic. While seasonal forecasts and decadal projections hold promise for understanding the future extent of Arctic marine accessibility, the rapidly changing Arctic environment and natural variability in the climate system will continue to introduce new prediction uncertainties for years to come. Additional observations and refinements to model processes should increase seasonal forecast skill, bolstered by international data sharing and collaborative science networks (Eicken 2013). Long-term projections will similarly improve with continued data collection, though the fragmentation of the scientific modeling community into numerous independent groups within CMIP5 suggests that the range of projected futures for the Arctic will remain large. The accessibility projections presented here from CCSM4 (Figure 6-1) and ACCESS 1.0 (Figure 6-2) reveal very different spatial and temporal dynamics even as they exhibit broadly similar seasonality and long-term trends. While both are potentially useful tools for decision-making, outputs from either alone are insufficient to justify policy action. The fragmentation of methods and projections also challenges policymakers grappling with multiple and possibly competing pathways to utilizing ice forecasting for management objectives.

Analysis of Arctic shipping has often focused on the development of international trade routes via the NWP and NSR, despite the fact that most shipping in the region is driven by local resource extraction. Collaborative sea ice prediction may help to orient U.S., Russian, and Canadian authorities toward improved trans-border regulation of destinational as well as transit shipping. In terms of the ability to delegate disputes, precision in the specification of regulations, and obligation to abide by them, the Beaufort Sea is currently governed by the weakest regional oil and gas regulatory institution in the Arctic ("Joint Marine Pollution Contingency Plan" of 1974, revised in 1984) (Keil 2015). While not a replacement for a more robust regulatory structure, sharing ice forecast information would improve both countries' response capabilities without requiring a restructuring of the existing framework. As a spill in either the Beaufort or Chukchi Seas would likely expand across Canadian and Alaskan waters, both countries have an incentive to obtain forecasts of seasonal duration and identify high-risk ice zones. Similarly, accurate and harmonized ice forecasting across the U.S.-Russia boundary in the Bering Sea will improve domain awareness, enhance ongoing management efforts, and improve co-management in a

key maritime traffic zone. Reducing uncertainty through collaborative sea ice prediction would help to articulate needs for maritime interdiction and environmental monitoring by the U.S. and its Arctic neighbors. If the Arctic is to become a new energy frontier, such efforts will be increasingly vital for the environmental security of the region.

Chapter Seven

Canada, Sovereignty, and "Disputed" Arctic Boundaries: Myths, Misconceptions, and Legal Realities

P. Whitney Lackenbauer and Suzanne Lalonde

As the introduction to Canada's 2010 *Statement on Arctic Foreign Policy* proclaims, "the Arctic is fundamental to Canada's national identity" and is "embedded in Canadian history and culture, and in the Canadian soul." Acknowledging the importance of the Arctic in the collective Canadian psyche, Canada's Northern Strategy (2009) identifies "exercising Canada's Arctic sovereignty" as the country's number one priority, committing the government to "seeking to resolve boundary disputes," securing international recognition for the full extent of Canada's extended continental shelf, and addressing Arctic governance issues. Despite all of the media, academic and political attention, as well as public anxiety, surrounding melting sea ice, increased international interest and uncertain Arctic boundaries, the Northern Strategy insists that all of Canada's disagreements with foreign states about its Arctic lands and waters "are well-managed and pose no sovereignty or defence challenges for Canada. In fact, they have had no impact on Canada's ability to work collaboratively and cooperatively with the United States, Denmark or other Arctic neighbours on issues of real significance and importance." This chapter provides an overview of Canada's Arctic terrestrial and maritime boundary disputes, extended continental shelf claim and the debate surrounding the status of the Northwest Passage to evaluate Canada's official position that its sovereignty over its lands and waters in the Arctic is "longstanding and well established." It confirms that Canada's three boundary disputes in the Arctic are well-managed and do not pose a risk to regional peace and security. It also demonstrates that ongoing work to define the outer limits of the Canadian continental shelf pursuant to the UN Convention on the Law of the Sea (UNCLOS) conforms with international law and practice, as do the activities and claims of the neighbouring states with which Canada is likely to have overlapping claims. The chapter does,

however, highlight the sensitive nature of the debate surrounding Canada's asserted right to exert exclusive and absolute authority over its Arctic historic internal waters, including the various routes of the Northwest Passage. Therefore, while there is little merit to the idea that Canada's sovereignty is on "thinning ice" because of geopolitical tensions arising from boundary disputes, the legal status of the water within the Canadian Arctic archipelago does remain a contentious issue.

Historical Context

In 1880, Canada inherited all of Great Britain's territories/possessions and associated rights in the High Arctic. The Alaska Boundary Dispute between Canada and the United States at the turn of the twentieth century suggested, in the minds of many Canadians, that not only did the United States covet Canada's Northern territories but that Britain would sell out our interests to court American goodwill (Munro 1970; Penlington 1972). The Government of Canada would have to defend its own national interests in the North. The Klondike Gold Rush prompted the first official assertions of authority in the form of the Northwest Mounted Police and a small field force sent to the region around the turn of the twentieth century, but the expansion of official state activity into the region remained modest before the Second World War. Official expeditions into the Northwest Passage, matched by flag planting and asserting a Canadian "sector claim" up to the North Pole, were complemented by diplomatic activities to confirm Canadian sovereignty over the islands of Canada's Arctic archipelago (Smith 2014).

The Second World War ushered in a new realization that the Canadian North also represented a military frontier. The American imperative to build the Alaska Highway through the Canadian Northwest, as well as to support airfields and an oil pipeline, brought a flurry of new activity into the region. Although undertaken in the name of continental security, these activities also resurrected fears about the United States' encroachment on Canadian sovereignty in this sparsely-populated corner of North America (see Coates and Morrison 1992; Grant 1988). The Americans withdrew at the end of the war and confirmed Canadian ownership over the Yukon and the infrastructure built therein, but visions of a looming Cold War provided a primary impetus for another round of military-inspired development beginning in the late 1940s. The dictates of geography placed the Arctic at the centre of Cold War superpower geopolitics, and in popular opinion and the eyes of some Canadian

officials, the American security agenda again seemed to pose a potential threat to Canada's sovereignty. In the end, however, the North American neighbours found solutions that affirmed Canada's terrestrial sovereignty (Lackenbauer 2002; Lackenbauer and Kikkert 2011).

Economic development became intertwined with issues of sovereignty, Indigenous rights, and environmentalism in the context of oil and gas exploration in the late 1960s. The discovery of the Prudhoe Bay field off the north slope of Alaska in 1968 set off an Arctic exploration boom that persisted until oil prices declined precipitously in the mid-1980s. The viability of these northern projects depended upon the ability to transport resources to market. In 1969, American-owned Humble Oil sent an icebreaker, the *Manhattan*, through the Northwest Passage to determine whether it was a viable commercial shipping route for oil and gas from the Alaskan North Slope. The Canadian media reported the voyage as a direct challenge to Canada's Arctic sovereignty. In response to the ensuing public outcry, the Liberal government of Pierre Trudeau announced its "functional" approach to Canadian sovereignty in 1970. It cast the Arctic as an ecologically delicate region: Canada needed to extend its jurisdiction northward to ensure that foreign vessels did not pollute Canadian waters. The *Arctic Waters Pollution Prevention Act* (1970, R.S.C. 1985) allowed Canada to regulate and control future tanker traffic through the NWP by creating a pollution prevention zone which encompassed the entire archipelago and stretched seaward out to one hundred nautical miles (Beesley 1971; McDorman 2009). Although initially opposed to this unilateral measure, the United States supported Canadian-sponsored Article 234 in the 1982 UN Convention on the Law of the Sea (UNCLOS), which endorsed Canada's initiative by giving coastal states "the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone" (see McRae 1987; Huebert 2001).

Domestic drivers dominated the Canadian political agenda for most of the 1970s and early 1980s, but the external dimensions of sovereignty re-emerged with the August 1985 voyage of the US Coast Guard icebreaker *Polar Sea* through the Northwest Passage. Although launched for reasonable operational reasons relating to the resupply of the American base at Thule, Greenland, the Americans refused to seek official permission from Canada, recognizing that this would prejudice their own legal position on international straits globally. In response, the Conservative government of

Brian Mulroney announced that Canada was officially drawing straight baselines around the Arctic Archipelago effective 1 January 1986, thus confirming Canada's sovereignty over the NWP as "historic, internal waters." Concurrently, it outlined an aggressive plan to exercise control over its waters and assert its Arctic sovereignty (Huebert 1995; Huebert 2011). Canada also promised to negotiate with the United States—a prudent move that, owing to Prime Minister Mulroney's close relationship with President Ronald Reagan, yielded the 1988 *Arctic Cooperation Agreement* under which, in the interests of safe navigation, the "United States pledges that all navigation by U.S. icebreakers within waters claimed by Canada to be internal will be undertaken with the consent of the Government of Canada" while also explicitly reserving each party's legal position. By "agreeing to disagree" on the legal status of the passage, the two countries reached "a pragmatic solution based on [their] special bilateral relationship, [their] common interest in cooperating on Arctic matters, and the nature of the area"—one that did not prejudice either country's legal position or set a precedent for other areas of the world (Kirkey 1995). With this understanding in place and the perceived "crisis" averted, Canadian political engagement with Arctic sovereignty faded once again.

The rising tide of evidence about the pace and impacts of global warming in the Arctic resurrected visceral Canadian concerns about Arctic sovereignty in the early 2000s. Demands for a more proactive Arctic strategy anticipated the perceived security challenges associated with climate change, boundary disputes like that regarding Hans Island, the contested status of the waters of the Northwest Passage for international transits/navigation, resource development, and heightened international activity in the region more generally (Huebert 2001c; Coates et al. 2008; Byers 2009). In 2005, the Liberal Government's International Policy Statement (Canada 2005) also identified the Arctic as a priority area, noting that "in addition to growing economic activity in the Arctic region, the effects of climate change are expected to open up our Arctic waters to commercial traffic by as early as 2015... These developments reinforce the need for Canada to monitor and control events in its sovereign territory." However, it fell to the Conservatives, who came into office in January 2006, to implement this agenda and make Arctic sovereignty and security a major political priority.

The Canadian North was a key component of the Conservatives' 2005 election platform, which played on the idea of an Arctic sovereignty "crisis" demanding

decisive action. Stephen Harper promised that Canada would acquire the military capabilities necessary to defend its sovereignty against external threats. "The single most important duty of the federal government is to defend and protect our national sovereignty," Harper (2005) asserted. The new prime minister's political message of "use it or lose it" emphasized the need for Canadian action with a particular emphasis on conventional military forces and state "presence," designed to project an image of strength and resolve to defend the country's sovereignty (Lackenbauer 2009). According to a recent study, "standing up for Arctic sovereignty" did heighten support for the Harper government in public opinion polls (Landriault and Minard 2016). The *Rethinking the Top of the World: Arctic Public Survey* conducted by Ekos for the Walter & Duncan Gordon Foundation in 2015 found that, when posing the question to residents of Arctic states of how their government should generally handle border and resource-sharing disputes in the Arctic, Canadians are divided between pursuing a firm line by defending their sections of the Arctic (selected by 35 of southern Canada and 38 per cent of Northerners) or negotiating a compromise with other nations (41 and 47 per cent respectively) (Ekos 2015: 56). This reveals a modest decline in support for a "firm-line" since 2010 (Ekos 2011), but the polling data also suggests that Canadians remain amongst the most fervent advocates of "defending" sovereignty in the circumpolar world (Ekos 2015). What are these boundary disputes that generate so much attention?

Boundary Disputes

Hans Island (Denmark): Canada's Northern Strategy (2010) observes that "Canada's sovereignty over its Arctic lands and islands is undisputed, with the exception of Hans Island, which is claimed by Denmark." Because it is the only outstanding dispute involving land, this 1.3 km^2 barren and uninhabited island situated in the Kennedy Channel between Ellesmere Island and Greenland has attracted a disproportionate amount of attention.

The question of the ownership of Hans Island arose in 1973 when the two countries delimited the continental shelf between Canada and Greenland. The two sides could not agree on the status of Hans Island, which fell right on the maritime boundary line, so they chose to set aside the question of the island itself. The shelf surrounding the island was delimited, with the maritime boundary stopping at the low-water mark on the island's south side and starting again from the low-water mark

on the north side (Canada Treaty Series, 1974). Accordingly, and despite popular misconceptions, the dispute has no significant impact on the status of the waters, seabed resources, or navigation rights around Hans Island itself.

The issue of ownership has been raised sporadically by both countries who, since the 1980s, have undertaken various public demonstrations to reinforce their claims. After discovering that Canadian company Dome Petroleum was doing research on Hans Island, the Danes sent an expedition to it in 1984 to plant their flag and proclaim sovereignty, leaving the message "Welcome to the Danish Island" and a bottle of brandy. Canada responded in kind with their own sign, the Canadian flag, and bottles of Canadian Club whiskey (Harper 2004; CBC 2005; Huebert 2005). This comical dance continued for the next two decades.

The Danish position rests primarily on the principles of discovery, geology and usage. Hans Island was "discovered" in 1853 by an American expedition undertaken in agreement with Danish authorities and with the participation of the famous Greenlander Hans Hendrik of Fiskenaesset (Kristensen 2005). Prior to this "discovery," Greenland Inuit stopped on the island when crossing to Ellesmere Island to hunt. On the other hand, Canadian Inuit have never used Hans Island regularly (Freeman 1976).

For its part, Canada claims that the entire region was transferred to Canadian control by a British Order-in-Council in 1880 that incorporated "all British Territories and possessions in North America, not already included in the Dominion of Canada, and all islands adjacent to any such territories or possessions." Ottawa has always understood Hans Island to be on the Canadian side of the median line demarking the boundary with Greenland. In 1953, the Topographical Survey of Canada surveyed Hans Island and placed a cairn claiming it for Canada, and Canada issued a land use permit to Dome Petroleum, a Canadian company, in the 1980s to use the island as a scientific base to study ice movements. In 2000, a team of scientists from the Geological Survey of Canada mapped the island and took geographic samples. Canadian sources also suggest that the geological and geomorphological evidence cited by Denmark is relevant only when claiming continental shelf and not islands, where the test is effective occupation.

Given that the island is uninhabited, possesses no strategic value, and boasts no natural resources, this territorial dispute should raise little practical concern – but it

has been imbued with symbolic and nationalist significance since the Danes sent naval vessels to the island in 2002 and 2003. Canada responded in 2005 with an inukshuk-raising and flag-planting visit by Canadian Rangers and soldiers, followed by a highly publicized visit by its Minister of National Defence Bill Graham. The media frenzy soon spiraled out of hand, alluding to Canada's 1995 "Turbot War" with the Spanish and even a possible "domino" effect, suggesting that if Canada lost Hans Island its other Arctic islands might succumb to a similar fate (Huebert 2008).

In an effort to reduce tensions, the two countries issued a joint statement in September 2005 declaring that "we will continue our efforts to reach a long-term solution to the Hans Island dispute." The statement also provided that "in the tradition of cooperation in the region between our scientists we will explore the feasibility of joint scientific projects on or in the area of Hans Island." The two neighbours also agreed to keep each other informed of any activities related to the Island and pledged that "all contact by either side with Hans Island will be carried out in a low key and restricted manner." Since that time, the two countries have pursued regular bilateral discussions in a bid to arrive at a mutually acceptable solution.

Various diplomatic options exist to resolve this dispute. Canada and Denmark could negotiate an agreement which would see one country gain complete sovereignty over the island: the simplest solution, but one that is politically unattractive to both sides. Alternatively, the island could simply be split by connecting the lines currently demarcating Nares Strait, which would result in roughly half of the island going to each party, thus creating a new land border for both countries. International legal scholar Michael Byers proposes that Canada and Denmark should share sovereignty and jurisdictional responsibility over the island, appointing a joint commission to settle governance issues where required. In any case, a negotiated solution requires political will, and the optics of surrendering sovereign territory – however small and insignificant in practical terms – are a strong disincentive. Given the excellent relations between the two countries, and their mutual satisfaction with the current arrangement over Hans Island, there is no acute pressure to settle this dispute.

Lincoln Sea (Denmark): The disagreement between Canada and the Kingdom of Denmark regarding two small maritime areas in the Lincoln Sea north of Ellesmere Island and Greenland, totalling approximately 65 square nautical miles, is highly technical in nature. The two countries signed a treaty in 1973 agreeing that the boundary in the Lincoln Sea should be an equidistance line, with Denmark

subsequently using tiny Beaumont Island to establish its baseline and Canada arguing that this "rock" is too insignificant to influence the boundary line (Boswell 2010a). On 28 November 2012, the foreign ministers of Canada and Denmark announced that they had reached a tentative agreement on where to establish the maritime boundary, stating that "with the passage of time" their "differences" on technical considerations had "faded" (Canada 2012). Since that time, negotiators have been working to transform the tentative agreement into a treaty text for ratification by their respective governments which, in turn, will yield a shared maritime boundary stretching more than 1,600 nautical miles.

Beaufort Sea (United States): Canada and the United States disagree as to the trajectory of their maritime boundary in the Beaufort Sea, north of Yukon and Alaska. International law scholar Donald Rothwell (1988: 30-31) summarizes the dispute as follows:

> Canada's position with respect to the maritime boundary in the Beaufort Sea has traditionally been that its maritime sovereignty extends from the Alaska/Yukon land frontier, at the 141st meridian, and north along that line towards the North Pole. The principal basis of the Canadian claim is the 1825 Boundary Treaty signed by Great Britain and Russia. In support of this claim, Canada can also rely upon the sector theory, the historical usage of the area by Canadians, the acquiescence by the United States towards the Canadian claim, and the coastal geography of the area. On the other hand, the United States relies upon the equidistance theory as the basis for an equidistance line which would run in a north-east direction from the land frontier. The United States does not accept that the 1825 Boundary Treaty defines a maritime boundary in the Beaufort Sea.

In short, Canada claims an extension of the land boundary into the sea while the US bases its claim on an equidistant line drawn from the low-water line of each country's coast. Because the Canadian coastline stretches in a southeasterly direction, the equidistant line deviates away from the 141st meridian, creating a 6250 n.m.² disputed zone.

Canada used the 141st meridian as a functional western boundary when it began granting oil and gas exploration permits in the Beaufort Sea up to and along that line in January 1965. It also used the 141st meridian when defining its Arctic waters pollution prevention zone in 1970. The United States did not issue a formal protest until 1976 when the two countries announced their intentions to extend their

fisheries jurisdiction from twelve to two hundred nautical miles, bringing their respective boundary lines into conflict. Although the Canadian Department of External Affairs and the U.S. Department of State held exploratory discussions from 1975-77 on the Beaufort Sea continental shelf and water column as part of a "package deal" process addressing all of their outstanding bilateral maritime boundary disputes, neither side was willing to concede. Subsequent negotiations over a hydrocarbon shared access zone in the Beaufort also ultimately failed (Kirkey 1995b). Both countries have issued oil and gas exploration licences and leases in the disputed zone since that time, but neither has allowed actual exploration or development in the area to proceed pending the resolution of the dispute.

Canada holds the position that an unbroken succession of Canadian governments has treated the 141st meridian as the agreed boundary in the Beaufort based on the 1825 Treaty, which states that the border follows the meridian "dans son prolongement jusqu'à la Mer Glaciale" – a phrase that can be interpreted to mean "to the main body of the Arctic Ocean, as distinct from the Beaufort Sea" (Pharand 1988: 20-22). Furthermore, Article 2 of the 1990 US-USSR *Maritime Boundary Agreement* uses the western limit in the 1867 Treaty to constitute the maritime boundary between the United States and Russia in the Chukchi Sea (Antinori 1987). The United States, however, has consistently rejected the notion that the 1825 or 1867 treaties established an ocean boundary in the Beaufort Sea, given that international law and treaties at that time did not contemplate ownership or exclusive marine rights or zones beyond a narrow band of territorial sea. The United States would argue that the law of the sea, both customary and treaty-based, as well as international case law mandate that an equidistance line should be used to determine the maritime boundary in the Beaufort Sea.

According to some Canadian experts, the geographical reality of Alaska's convex coastline and Canada's concave coastline in the Beaufort region makes any simple application of the equidistance principle inequitable. Michel Frederick (1979) concludes that the configuration of the Yukon coast represents a "special circumstance" that must be accommodated in an "adjustment" to the equidistance line. Furthermore, Pharand (1973) observes that beyond the 200-mile exclusive economic zone (EEZ) the equidistance line starts turning away from the Canadian coastline, owing to the presence of Banks Island. This is significant owing to the extensive continental shelf beyond 200 nautical miles in the Beaufort Sea, which

extends laterally as one continuous entity from Russia, across the Chukchi Sea, along the north shore of Alaska, Yukon and the Northwest Territories as far east as Amundsen Gulf (Gray 1997: 63). Accordingly, James Baker and Michael Byers (2012) note that Canadian and American rights to the continental shelf in the Beaufort might stretch up to 400 nautical miles from shore. The curious situation is that the legal positions of both countries within 200 nautical miles might, if extended beyond the EEZ, actually favor the other party.

With the collapse of the offshore oil and gas industry in the North American Arctic since 2014, there is no acute pressure to resolve the Beaufort Sea dispute. Any future initiatives are likely to involve direct negotiations between the two parties rather than litigation to ensure they retain control over the sensitive boundary delimitation process. For the time being, the dispute is well managed by the two neighbours, who consider themselves each other's "premier partner" on Arctic issues (Lackenbauer and Huebert 2014), and who insist that the dispute will be resolved peacefully, in accordance with international law, when both parties are ready to do so. Although Canada reached out to the United States in 2010 to seek a negotiated settlement in the Beaufort (Boswell 2010b), the US indicated that it wished to resolve the maritime boundary within 200 nautical miles as well as the extended continental shelf boundary at the same time. Accordingly, government experts from both countries have met to evaluate the scientific data collected and discuss the technical aspects involved in establishing the outer limit of their respective continental margins.

Canada's *marge de manoeuvre* in negotiating a compromise solution for the Beaufort Sea is severely restricted in light of domestic constitutional imperatives. In 1984, the federal government used the 141st meridian to define the western edge of the Inuvialuit Settlement Region, in a constitutionally recognized land claims agreement. In addition to granting title over land areas traditionally used and occupied by the Inuvialuit, Pharand (1988: 61) notes that "the Canadian Government purported to grant certain rights in a considerable area of the Beaufort Sea extending along the 141st meridian up to the 80th parallel of latitude. These include the exclusive right to harvest certain species of wildlife such as the polar bear and the preferential right to harvest other species of wildlife as well as marine mammals and fish." Under international law, Canada is certainly at liberty to enter into a boundary treaty with the United States that would impinge upon the constitutionally protected rights of the Inuvialuit. However, this action at the

international level would be in direct conflict with its duty under Canadian law to consult with the Inuvialuit, limit any infringement of Aboriginal rights as much as possible, make any such limitations clear through an Act of Parliament, and provide compensation.

Extended Continental Shelf

To counter the popular misperception that the Arctic is a "lawless frontier" and a "reincarnation of the Wild West" (Riddell-Dixon 2008), high-level political representatives from Canada and the other four Arctic Ocean coastal states met in Ilulissat, Greenland in May 2008. The ensuing Ilulissat Declaration (2008) noted that "an extensive international legal framework applies to the Arctic Ocean," emphasizing in particular that "the law of the sea provides for important rights and obligations concerning the delineation of the outer limits of the continental shelf, the protection of the marine environment, including ice-covered areas, freedom of navigation, marine scientific research and other uses of the sea." The Arctic littoral states insisted that they all "remain committed to this legal framework and to the orderly settlement of any possible overlapping claims," and that the existing "framework provides a solid foundation for responsible management by the five coastal States and other users of this Ocean" — an unambiguous rejection of those scholars and international organizations promoting the need for a "new comprehensive legal regime to govern the Arctic" based on the Antarctic model (eg. Koivurova 2008; Huebert 2009).

The Arctic Ocean, as a maritime space, is governed by the "constitution of the oceans": the 1982 United Nations Convention on the Law of the Sea (UNCLOS). Under article 76(1) of the Convention, coastal states are entitled to claim a continental shelf up to 200 nautical miles from their territorial sea baseline, which is also the maximum extent of the Exclusive Economic Zone (EEZ). Under the legal regime governing the EEZ, coastal states have sovereign rights over the natural resources of the water column and the seabed, as well as jurisdictional authority over certain specific matters like marine scientific research and the protection and preservation of the marine environment. Whether a coastal state can claim a continental shelf beyond 200 nautical miles depends on whether the submarine areas beyond 200 n.m. are a natural prolongation of its land territory, as determined in accordance with article 76 of UNCLOS. Coastal states have sovereign rights over the natural resources of the seabed and subsoil of their continental shelf both within and

beyond 200 n.m, as well as jurisdictional authority over certain activities (such as marine scientific research). Coastal states do not, however, have sovereign rights or jurisdiction in the water column beyond 200 nautical miles. This important consideration is often missing in media narratives that conflate the issues of continental shelves and waters beyond the EEZ by suggesting that claims to extended continental shelves pose a direct threat to freedom of navigation or represent a massive "grab" of living resources by the states involved.

UNCLOS sets out a process for its state parties to determine the precise limits of their extended continental shelf. This process involves making a submission to an expert body called the Commission on the Limits of the Continental Shelf (CLCS) which reviews the submission, assesses the extent to which a state has defined its outer continental shelf in conformity with the technical scientific requirements laid out in article 76 of the Convention and finally makes recommendations to the state (Jares 2009; Reichert 2009; McDorman 2010). UNCLOS provides that limits established by the coastal state on the basis of the CLCS's recommendations are final and binding (Elferink and Johnson 2006).

Although the Commission formulates recommendations as to the outer limit of a state's continental shelf, it does not apportion shelf between states. Areas in dispute or claimed by more than one state are outside its remit. As a result any overlaps of continental shelf between coastal states must be resolved bilaterally through negotiation or third party adjudication (such as arbitration or submitting the matter to the International Court of Justice or the International Tribunal for the Law of the Sea) (Canada 2016b).

Canada became a party to UNCLOS in 2003 and, according to its provisions, had a procedural obligation to file a submission (or, at the very least, a letter of intent) with the CLCS within a decade. Senior government officials highlighted that defining the outer limits of the Canadian shelf in the Arctic was a legacy issue for Canada and fundamentally important to its long-term prosperity (eg. GAC 2013), thus perpetuating a sense of urgency (see Lackenbauer and Dean 2016). Although popular commentaries suggested that the different Arctic coastal states were engaged in a "scramble" or a "race" to gobble up the continental shelf, Canada's sovereign rights over the natural resources of its extended continental shelf exist and have always existed by virtue of its sovereignty over its landmass extending under the sea and those rights are in no way affected or jeopardized by the delimitation process. "What

'scramble' is taking place in the Arctic Ocean amongst the bordering States has been one of seeking to acquire scientific data respecting the geologic composition and other physical properties of the continental margin areas in the Arctic Ocean," legal scholar Ted McDorman observes (2009: 195-6). Accordingly, Canada has invested heavily in the scientific, technical and legal activities and assessments necessary to prepare its submission to the CLCS.

This has not been a purely unilateral exercise. Over the past decade, Canada has cooperated closely with its Arctic neighbours in collecting scientific data to support its submission. Regular joint surveys with the US and Denmark since 2006 have yielded essential information about the shape and composition of the seabed, obtained by collecting bathymetric and seismic data, which Canada can use to apply the Article 76 formulas of UNCLOS to its shelf (Canada 2016a). Even though the outer limits of the continental shelves of these countries are expected to overlap with Canada's, collaborative seabed-mapping brings mutual scientific benefit and may even serve as a "foundation for joint ecosystem-based, integrated management" of ocean areas (Baker 2009). Canada and Russia have also reached agreements to ensure that, at the very least, neither country blocks the CLCS's consideration of the other's submission (DFAIT 2007). Although leaders in both Ottawa and Moscow have sometimes downplayed their cooperative track record to play to national identity politics (Manicom 2012), this should not obfuscate a shared interest in pursuing the orderly and legally-established process outlined within UNCLOS. Canada's strong response to Russian aggression in the Ukraine since 2014 has inhibited official contact between the two countries, leading to the cancellation of the annual scientific workshops between the five Arctic Ocean coastal states on continental shelf issues since that time, but recent overtures by the new Liberal Government in Ottawa signal a willingness to resume bilateral dialogue on Arctic issues of common interest (Lackenbauer 2016). Technical discussions on setting the outer limits of their respective continental shelf certainly fit this criterion.

Canada has indicated that it intends to submit its Arctic shelf claim in 2018 and, according to officials, it is expected to include the North Pole (thus overlapping with Russian and Danish submissions) (Sevunts 2016). On 6 December 2013, Canada filed preliminary information in respect of the outer limits of its continental shelf in the Arctic Ocean, indicating its intention to file a submission in the future. While this satisfied the 10-year timeframe for filing prescribed by UNCLOS, it also provoked a

reaction with media outlets reporting that Prime Minister Harper had ordered (the) civil servants "back to the drawing board" after their proposed submission stopped short of the North Pole even though the scientific data collected at the time did not back the more expansive claim (Chase 2013; Cheadle 2013).

The Status of Arctic Waters: The Ongoing Saga of the Northwest Passage

Successive Canadian governments have declared that all of the waters within Canada's Arctic archipelago are historic internal waters over which Canada exercises full sovereignty. This includes the right to govern and control access to the various routes that make up the Northwest Passage, which Canada insists are subject to the full force of its legislative, administrative, judicial and executive powers as a coastal state. This necessarily implies an unfettered right to deny access if national imperatives so dictate, with no right of transit passage for foreign-flagged vessels (as would be the case were it an international strait) and no right of innocent passage for foreign-flagged vessels (since the waters are internal and not part of the territorial sea).

Washington, on the other hand, has maintained consistently over the past five decades that the Northwest Passage constitutes an 'international strait' through which the ships and aircraft of all nations enjoy a right of transit passage (eg. White House 2009, 2013). Indeed, though Canadian Arctic governance measures have in the past been the object of protests by other states (eg. McDorman 1983: 215) and recent European Union policy documents have emphasized freedom of navigation in the newly-opened Arctic routes (EU 2008; European Parliament 2015), the United States has been the most vocal and persistent objector to Canada's sovereignty position.

Following the transit of the American icebreaker *Polar Sea* in 1985, Canada acted to consolidate its legal position by drawing lines around the outer perimeter of its Arctic archipelago. Although the Canadian Government's intention may have been to simply draw lines to better identify the extent of Canada's historic internal waters, most states and commentators assess the Canadian lines according to the legal rules that govern the drawing of straight baselines (eg. Roach and Smith 2012: 111). Accordingly, several commentators question whether the geographical circumstances of the Canadian coastline justify straight baselines or if Canada's Arctic baseline system respects the construction criteria laid out in Article 7 of UNCLOS. Another core question relates to whether the Northwest Passage already constituted an 'international strait' when Canada drew its straight baselines in 1985. As Donat

Pharand (2007) explains, the critical test flowing from the landmark International Court of Justice (ICJ) decision in the Corfu Channel case (1949) is "its geographical situation as connecting two parts of the high seas [or EEZs] and the fact of its being used for international navigation."

In the absence of a clear, widely-accepted definition of an 'international strait' subject to the right of transit passage, the question of the legal status of the Northwest Passage continues to attract much academic and expert commentary. Some commentators, primarily Americans, have argued that so long as the body of water can, potentially, be used for international navigation, the ICJ's definition or test is satisfied (eg. Grunawalt 1987; Kraska 2007). Other experts, including Pharand (2007), have argued that before a strait can be defined as an international strait it must be a "useful route for international maritime traffic" with a history of usage, as of right, by the ships of foreign nations. While there are diverging opinions, most commentators seem to agree that in light of the absence of any non-consensual transits by foreign vessels through the NWP, it does not at present meet the definition of an international strait subjected to the right of transit passage (eg. Rothwell 1996: 206; Churchill and Lowe 1999: 138; López Martin 2010: 59; Byers 2013: 149). However, as Pharand warned in his final published contribution on the question of the legal status of the Northwest Passage, it could well become "internationalized" in the future as the Arctic region becomes increasingly accessible as a result of climate change:

> Given the current thinning and shrinking of the ice pack that is presently taking place, Canada must envisage an eventual use of its Passage for foreign commercial navigation… Because of special factors such as the remoteness of the region, the difficulties of navigation, and the absence of alternative routes, comparatively little use for international navigation might be required. A pattern of international shipping across the Passage, developed over relatively few years, might be considered sufficient to make it international. (Pharand 2007: 44)

It must be emphasized that Pharand was envisaging increased commercial use of the NWP by ships that might not recognize Canada's dominion over the Passage. Increased maritime activity, if respectful of Canadian authority, would not in itself jeopardize the legal status of the Northwest Passage.

Although the *Arctic Marine Shipping Assessment Report* (Arctic Council 2009) predicts that the Northwest Passage will not be an attractive commercial route for the

foreseeable future, any increase in shipping activities (including destinational traffic through segments of the Northwest Passage) brings with it increased risks for marine safety and the environment. The tempo of yacht and cruise ship activity in Canadian waters continues to rise and projections of increased maritime activity "driven largely by growing northern communities, expanding resource development projects, and increasing tourism" (Office of the Auditor General 2014) continue to generate warnings about possible environmental incidents and Canada's need to protect the environment and the livelihood of northern communities. Even with a significant decrease in sea ice extent and thickness, marine operations within the Canadian Arctic archipelago including along the various routes of the Northwest Passage will continue to take place in a hostile environment, with variable climatic and ice conditions, across vast distances.

While much of the popular discourse in Canada focuses on sovereignty as the right to control and exclude the activities of other states, sovereignty does not only confer powers and prerogatives but also imposes obligations. As the landmark Island of Palmas decision noted in 1928, "Territorial sovereignty cannot limit itself to its negative side" (Huber 1928). Accordingly, as a responsible steward of its Arctic waters, Canada has enacted various measures to effectively govern and protect the marine environment and promote safe and efficient navigation. For example, it extended its jurisdictional limit under the *Arctic Waters Pollution Prevention Act* from 100 to 200 nautical miles in August 2009, and brought into force regulations requiring vessels of 300 tons or more to report when entering and operating within Canadian Arctic waters (NORDREG) effective 1 July 2010 (Transport Canada 2010). Canada noted that these rules were consistent with UNCLOS, but they also elicited protests from the United States, Germany and Singapore. Canada is also investing in new military, naval, and coast guard capabilities to ensure that it has the tools to respond to unannounced or uninvited incursions into its waters by foreign vessels in contravention of Canadian laws and regulations (Lackenbauer and Lajeunesse 2016).

Changing environmental conditions, emerging geopolitical threats to continental security, and new patterns of maritime use have led some commentators to insist on the urgent need for a new bilateral agreement to resolve the NWP issue (eg. Byers 2016). Other analysts state that this line of thinking fails to appreciate broader international realities. Would this set a legal precedent for other countries to reach

their own bilateral treaties to control traffic through strategic straits? Furthermore, the Northwest Passage is not simply a Canada-US issue. "Any bilateral agreement between the two countries would not affect the rights of other states such as Korea, China, or Germany," James Kraska (2009: 1127-28) notes. In his view, the International Maritime Organization (IMO) already represents "an effective multilateral forum for increasing coordination and cooperation throughout the Arctic generally and the Northwest Passage specifically."

Decades of public pronouncements reiterating the official Canadian and American positions have severely limited the governments' political *marge de manoeuvre*. Perhaps most importantly, ambiguities in the legal regime, including the very definition of an international strait, have allowed the Arctic neighbours to craft solid, reasonable and persuasive arguments. Although the disagreement over the NWP may have no easy solution that conciliates Canadian, American, as well as broader international interests and rights, some commentators note that there is still room for bilateral cooperation without settling the underlying legal dispute (eg. Lackenbauer 2009; Griffiths 2009: 129-30; McDorman 2010). The United States and Canada, as "premier partners" with a longstanding track record of mutual respect and practical cooperation, should continue to "agree to disagree" over the status of the waters while actively promoting bilateral initiatives and mechanisms of mutual benefit. Whether this arrangement can or will withstand pressures originating from outside North America in the coming decades, however, remains uncertain.

Conclusions

Global warming, dreams of increasingly navigable sea routes, rampant hype about undiscovered oil and gas deposits in the offshore, and allegedly uncertain boundaries have thrust the Arctic into the international spotlight. A popular "race for resources" narrative has fed anxieties about the potential for inter-state conflict fueled by imaginary resource disputes and sovereignty challenges. And yet, as this chapter has demonstrated, Canada's Arctic boundary disputes are well-managed and do not pose an acute threat to the territorial integrity of the country, its identity, or its future prosperity. The myth of Arctic resource or boundary wars is pure fantasy, conjured by political and media commentators seeking simple, sensational frames to grab public attention (Lackenbauer 2016). The Kingdom of Denmark and the United States are close allies, friends, and Arctic partners with which Canada shares deep mutual

interests. There is no risk of a serious breach in bilateral relations over longstanding and well-managed disputes over Hans Island, in the Lincoln Sea, and in the Beaufort Sea, or over potential overlaps in extended continental shelves. Even potential friction between Canada and Russia over competing claims to extended continental shelves up to the North Pole are much more exciting in theory than in legal and political reality. The outer limits of the Canadian and Russian extended continental shelves in the Arctic Ocean are sure to overlap on the basis of scientific evidence, but there is no defence component to this issue, and relative capabilities to assert control over resources has no bearing on the outcome. In fact, both Russia and Canada stand to gain the most if the delineation process unfolds in conformity with the United Nations Convention on the Law of the Sea. There is every reason to anticipate that, in the end, diplomatic negotiations will yield mutually advantageous outcomes. Canada and Russia may find themselves on different sides in an era of renewed great power rivalry, but they also have much in common as Arctic states and a general state of international competition does not portend Arctic conflict over overlapping rights to the resources on the outermost fringes of extended continental shelves (Lackenbauer 2016).

The idea that outstanding Arctic boundary disputes will be solved through diplomacy rather than brute force received a boost in April 2010, when Russia and Norway resolved a forty-year disagreement over the division of the Barents Sea. Cajoling Canada to take note of this landmark resolution, Sergei Lavorv and Jonas Gahr Støre (the Russian and Norwegian foreign ministers respectively) noted that "the Law of the Sea provided a framework that allowed us to overcome the zero-sum logic of competition and replace it with a process focused on finding a win-win solution. We hope that the agreement will inspire other countries in their attempts to resolve their maritime disputes, in the High North and elsewhere, in a way that avoids conflict and strengthens international co-operation" (Lavrov and Støre 2010). A shared commitment to the Law of the Sea, however, does not preclude ongoing and even intractable disputes stemming from differing interpretations and applications of international law in specific contexts.

The lingering question of transit rights through the Northwest Passage remains the primary source of Canadian sovereignty concerns, despite official insistence from Canada's foreign ministry that Canada's ownership of the waters is not in doubt (eg. Kessel 2010). Canada's well-established legal position that it has the right to exercise

full and exclusive sovereignty over the waters of the Northwest Passage remains contested, not in terms of foreign states claiming rival ownership but certainly in regards to Canada's right to control foreign navigation. While opposition to Canada's historic internal waters position has traditionally been centred in Washington, other nations are waking up to the possibility of a trans-polar route through the Canadian Arctic and the benefits that they might accrue from a regime of free transit through these waters.

Marine transportation plays a critical role in Canada's plans to facilitate the responsible and sustainable development of Northern resources. This fact was explicitly acknowledged by Canada when it chose "development for the people of the North" as the theme of its 2013-15 chairmanship of the Arctic Council, which identified safe Arctic shipping as an essential element in reaching that goal. Canada welcomes navigation in its Arctic waters, provided ships respect Canadian conditions and controls related to safety, security, protection of the environment, and Inuit interests. The country has exercised leadership in terms of promoting legal rules for safe navigation in the Arctic, rules that are now largely reflected at the international level, notably in the IMO's polar code. Provided that Canada continues to act responsibly, in a transparent manner, to guarantee the safety of shipping and the preservation of fragile Arctic waters, opposition to its legal position on the NWP will hopefully become more muted. Thus, the long-term goal of a stable and secure circumpolar world where each Arctic littoral state enjoys sovereignty and sovereign rights, is compatible with Canada's ongoing management of land and maritime boundary disputes, its determination of the outer limits of its continental shelves, and enduring disagreements over the legal status of the Northwest Passage.

Chapter Eight

Managing Flows: Profile of Regional Border Security Management in the Territorial North

Heather N. Nicol, Adam Lajeunesse, and Karen Everett

There is a problem with 'borders' and 'border security' in the North. The way in which boundaries and borders have been perceived and regionalized leads to the presumption that there is a single region over which security is evenly operationalized. But nothing could be further from the truth. There are scales of bordering and securitization that emerge from the very different contexts and historical legacies through which Westphalian notions of state are operationalized. Indeed, border management and security has taken multiple forms and been found at multiple scales.

There are borders which delimit the territorial extent of the Canadian state in conjunction with its northern neighbor, the United States. There are also maritime boundaries which for the most part remain undelimited, but which define the international edges of Canada's state interest. There are also layers of boundaries which divide sub-national regions and actors from each other and which determine the limits of subsidiarity. These are increasingly relevant in the context of border management and integrity.

For the purposes of this discussion we explore the existing borders of what is here considered to be the 'Territorial North'. It includes three territories lying north of 60 degrees north latitude: Yukon, the Northwest Territories and Nunavut (see Bone, 2009). This is an extremely large area of land and freshwater which occupies approximately 40 per cent of Canada – some 3,921,739 square kilometers. While there are many air and maritime boundaries in the region, resourced by CBSA facilities, there are only two international land border crossings located along the 141th meridian between Alaska and Yukon. Two more crossings are technically located outside of the Territorial North – lying on the boundary between Alaska and British Columbia. These crossings are located in northern British Columbia,

positioned along the Klondike Highway and Haines Road. Both are integral to access and egress to and from the Territorial North. They manage cross-border movement along the only major roadways leading from the southern Yukon to the Alaskan panhandle and the ports of Skagway and Haines.

Land borders and borderlands

Land borders manage mobility in a borderland which mediates a close but complex transnational relationship between Canada and the US, in the North. Overall, the management of the international land border by the Canadian Border Services Agency (and the US Department of Homeland Security in Alaska) is consistent with other regions of Canada. This means that the same rules and regulations apply. The evolving Beyond the Border Framework for border management invites cooperation, but it also clearly aligns border practices and discourages exceptionality. The borderlands of the Territorial North are important for managing the flow of goods and people between the Alaska and Yukon borderlands. Border crossings (at Beaver Creek and Little Gold Creek) between Yukon and Alaska, and are linked by a system of roads and highways which connect Alaska to Yukon and parts of the Northwest Territory. Most crossings between Yukon and Alaska take place at Beaver Creek located along the Alaskan Highway.

As previously noted, two more border posts between British Columbia and Alaska, located along the Haines Road and the Klondike Highway, also serve as a gateway for flows of Yukon goods and people to the Alaskan ports of Haines and Skagway. These are posts which facilitate a network of roads directing flows of international goods and people between Yukon and Alaskan ports. Located on the Haines Highway, the Dalton Cache / Pleasant Camp, BC crossing also has considerable vehicular traffic, and effectively links Haines Junction, Yukon to the port of Haines, Alaska. The Dempster Highway, and an ice road link heading north and east, connect settlements in the Northwest Territories as far north as Tuktoyaktuk on the Beaufort Sea, but there is no direct point of entry between the NWT and Alaska, nor any direct route via the Dempster Highway. Outside of the Yukon-Alaska borderlands with British Columbia, no other international land boundaries are situated in the Territorial North.

Managing the Flow of People and Goods

Overall, there are three general categories of flows which cross the land borders. These include the cross-border movement of goods including flows from the Yukon's primary extractive industries and small-and medium-sized enterprises (SMEs); the flow of trains, buses and vehicular traffic facilitating the tourist industry; and the movement of local peoples, among them Yukoners, Alaskans, as well as First Nations and Inuit whose transnational homelands pre-date the border itself. The latter – reflected in the movement of locals in personal vehicles – dominates the flow of traffic on both sides of the land border. Over half of those entering Yukon in 2015, for example, were Americans who arrived in personal vehicles, while another one third were Yukoners, returning home to the territory. Less than one quarter were tourists or visitors from outside of Canada and the United States (http://www.tc.gov.yk.ca/pdf/12-dec-2015-indicator-report.pdf).

It is important to understand that the Yukon-Alaskan borderlands play a central role in managing the cross-border economy and facilitating transnational modes of development. Borders are the portals through which exports and imports flow, and through which Canadians and Americans engage in income-generating activities on both sides of the line. While the economy of the Territorial North has seen significant boom and bust, in relation to the exploitation and shipment of natural resources and mineral products, there is a consistent, although low-level demand for flows of goods to and from international markets. For example, just under 40% of the $717-million dollars in exports of Yukon-produced goods in 2011 went to international markets (http://www.eco.gov.yk.ca/stats/pdf/mr_apr2016.pdf), and much of the product exported moved through the international borderlands road network to do so. As Everett discusses later in this volume, border policies and regulatory frameworks that create additional burdens to this flow can influence the flow of resources or the export of products from vulnerable SMEs which make up the backbone of the Northern economy. This also makes any obstruction to the road system or the creation of potential bottlenecks extremely disruptive for maintaining economic flows.

Infrastructure vulnerability is thus a real concern given the restricted network of roads and international border crossings which are accessible to those in the Territorial North. It is possible to cross into the United States via the existing network of roads from parts of the Yukon, Northwest Territories and Northern British Columbia. Otherwise highways and road networks in the Northwest

Territories lead to urban centres in northern Alberta and Saskatchewan. Distances between centres in the Northwest Territories and the Alaskan ports make northern road transportation generally prohibitive. Furthermore, Nunavut is without any direct connection to Alaska, let alone Yukon and the NWT. Indeed, "Nunavut is the only jurisdiction in North America that remains entirely isolated from the National Highway System and the land-based North American Trade Corridor" (Department of Economic Development & Transportation: 17). There are more numerous transportation options between the territories and provinces, and while international borders are not encountered in this relationship, there are significant policy barriers which impact border integrity and security (see 'inadmissible immigration').

While all four of the land border posts which handle cross-border traffic between the Territorial North and Alaska are equipped for most travel and commercial services, there are differences in both the levels of flows (Figure 8-1) and hours of operation at each. These reflect the degree to which specific border posts handle different types of activity as well as different volumes of traffic.

Indeed, most trucks loaded with exports from Yukon which enter Alaska directly cross at the Beaver Creek/Alcan crossing on the way to the port of Haines, which is located west of Skagway on the Alaskan Panhandle. The Alcan border post in Alaska sees approximately ten times more truck traffic from Yukon than the Dalton Cache crossing with BC, and about two to three times more traffic than the Fraser Skagway crossing in any given year, partly because this is the main crossing for trucks loaded with product from Yukon, traveling to the Port of Haines. On the other hand, although located in British Columbia, the Fraser CBSA post (directly connected via the Klondike Highway to both Carcross and Whitehorse) is among the busiest border crossings in terms of vehicular traffic, as large numbers of tourists and local traffic follows the Klondike Highway to the Fraser/Skagway crossing (US CBA; http://www.tc.gov.yk.ca/pdf/12-dec-2015-indicator-report.pdf). In 2015, 63% of all land border crossings took place here - most between May and September (Figure 8-2). And although the numbers of trucks crossing from Canada to the US are still significant, the hours of commercial and traveler services at Fraser are more restricted than at the Beaver Creek crossing. Problems of capacity thus face those who cross certain borders in the Territorial North. Nightly closures or restricted hours for certain border services create problems for both commercial and non-commercial travelers.

Figure 8-1: Border crossings by point of entry. *Source:* http://www.tc.gov.yk.ca/pdf/12-dec-2015-indicator-report.pdf.

Border Crossings by Port of Entry

	Dec 2015	Dec 2014 to Dec 2015 Change (#)	Dec 2014 to Dec 2015 Change (%)	Jan to Dec 2015	Year-to-date % Change
	(number of people)				
Total Border Crossings	3,457	75	2%	327,778	-4%
Total Land Crossings	3,415	58	2%	315,036	-4%
Beaver Creek	1,452	83	6%	62,266	-4%
Fraser	1,153	-31	-3%	204,797	-7%
Little Gold	..	..	...	13,655	9%
Pleasant Camp	810	6	1%	34,318	16%
Total Air Crossings	42	17	68%	12,742	-11%
Beaver Creek	0	0	...	11	83%
Dawson City	0	0	...	8,341	-9%
Whitehorse	42	17	68%	4,390	-15%

Figures include Yukoners.

Figure 8-2: Travellers Entering Yukon by Land through Canada Border Services Ports of Entry. *Source*: http://www.eco.gov.yk.ca/stats/pdf/mr_apr2016.pdf.

	Total	Yukon Residents	Other Canadians	US Residents	Other Foreign Travellers
Year-to-date change	1,930 13.1%	1,034 22.5%	-61 -10.1%	1,080 11.8%	-123 -30.4%
2016					
March	7,842	3,040	261	4,343	198
February	4,542	1,450	148	2,884	60
January	4,281	1,144	132	2,981	24
2015 total	**399,340**	**39,047**	**27,780**	**292,557**	**39,956**
December	4,020	1,201	98	2,707	14
November	4,439	1,068	214	3,115	42
October	8,132	2,221	341	5,381	189
September	49,709	3,721	3,577	35,974	6,437
August	86,388	6,455	6,720	64,362	8,851
July	93,941	5,208	7,497	71,930	9,306
June	80,747	5,146	5,474	62,023	8,104
May	48,331	5,965	2,739	33,215	6,412
April	8,898	3,462	518	4,722	196
March	7,228	2,595	304	4,065	264

Air Borders

The dearth of road connections, and the seasonal nature of ice roads which transport goods only in the winter and spring, mean that much of the region's commercial and non-commercial traffic arrives via air and sea connections. Small airports are particularly important, as they constitute the only lifeline for many remote communities to southern Canada and the United States. Still, only about ten per cent of travelers to Yukon arrive by air, most at the Eric Nielsen International Airport in Whitehorse, while just under 25 per cent of visitors land directly at Dawson City (http://www.eco.gov.yk.ca/stats/pdf/mr_apr2016.pdf). The only regularly scheduled CBSA facility for processing international travelers on large commercial flights in the Territorial North, however, is located in Whitehorse at the Eric Nielsen International Airport. The latter is an "Airport of Entry" (AOE - meaning that it has the full services required to process large commercial flights filled with international travelers). Direct international flights to the remainder of the territories are small and unscheduled, and where they do occur they are processed by CBSA at sites with located facilities. CBSA has also made arrangements with Holland America to clear international flights arriving in Dawson City.

CBSA agents process upwards of 250,000 international passengers annually. In 2008, an unusually high percentage was South Asians claiming refugee status – although this proved to be a short-lived anomaly. International immigration surrounding the mining industry attracts foreign nationals. At one point, however, the requirements for landed immigrant status were more relaxed in Yukon for foreign workers entering through the Yukon mining program. This program attracted foreign nationals travelling north from southern Canada and created problems of admissibility for CBSA officials managing the foreign worker program.

Overall, however, most flights that service the Territorial North or connect with southern Canadian AOEs. Many flights are seasonal, and there are no regularly scheduled international flights for passengers or cargo. Even where there are direct international flights, these tend to be non-scheduled and small. Airports for processing small international flights of 15 passengers or less exist outside of the Yukon but are few and far between. A direct international flight from Greenland to Iqaluit existed several years ago, but was discontinued in 2015, and currently only five Canadian and/or Indigenous-owned airlines fly from this site.

International trade is similarly limited via air transport, and air cargoes originating in Nunavut tend to ship directly to southern airports via Canadian North (Ottawa), Cargojet Airways (Winnipeg), First Air (operated by Cargojet Airways to Ottawa), and Purolator Courier (operated by Cargojet Airways to Calgary). Nolinar Aviation flies from Mary River to Kitchener-Waterloo and services the Baffinland project. Similarly, flights from Yellowknife connect with territorial destinations or large southern cities like Edmonton, Vancouver and Ottawa – which become the gateways for international immigration and security clearances.

Consequently, there are fewer permanent sites for the processing of commercial or non-commercial flows in Canada's north. In many cases the CBSA is "on call" when unscheduled international flights and vessels arrive – creating pop-up processing facilities. The Eric Nielsen International Airport in Whitehorse, for example, offers Airport of Entry (AOE) clearance for all classes of scheduled and unscheduled aircraft – for both travelers and cargo. The AOE in Whitehorse is the only one for the entirety of the Territorial North, suggesting that the region is underserviced in comparison to Southern Canada. More common are AOE/15 facilities (see http://www.cbsa-asfc.gc.ca/do-rb/services/aoe15-eng.html), which facilitate the processing of travelers and cargo for smaller non-scheduled general aviation, provided the number of passengers does not exceed fifteen, and reported to and received authorization from CBSA and provided that they land during normal office hours. There are eight such designated airports of entry in the Territorial North, including the territorial capitals of the NWT and Nunavut - Yellowknife and Iqaluit, respectively.

As was the case with highways and other transportation infrastructure in the Territorial North, outside of a few specific designated centres, airports and airstrips are quite limited. Float planes or seaplanes are thus important ways of accessing small communities. AOE/15 SEAPL facilities process seaplanes in much the same way as other unscheduled AOE/15 flights (see http://www.cbsa-asfc.gc.ca/do-rb/services/aoe15seapl-aoe15hydra-eng.html). As is the case for CBSA agents involved in land border integrity, problems of inadmissible immigration related to foreign labour, visitors and potential Canadian residents affect air as well as land borders.

Security Vulnerabilities

The previously described patterns of transportation and transborder flows within Yukon and Alaska are important in understanding the vulnerabilities that such reduced hours, along the busiest border point of connection between Yukon and Alaska, entail. Our conversations with Northerners suggested that border bottlenecks in the transshipment of goods and the flow of tourists create real vulnerabilities. The patterns of relatively small, diverse and seasonal demands on conventional border security services in the Canadian North make the accessibility of security processing problematic for those who operate outside of these parameters. The seasonal nature of cross-border travel originating from tourism, for example, sees peak periods between April and September. Over 250,000 travelers crossed from Yukon to Alaska using the Fraser CBSA post in 2015, not quite record numbers, but nearly. In 2015, however, the CBSA decided to reduce its hours of service beginning April 1. Arguing that "the infrastructure and the human resources costs are tremendous for pretty small metrics," the CBSA did not reinstate its summer service hours between midnight and 8 a.m. On the US side, Skagway then reduced its hours comparably. A local representative at the Skagway Convention and Visitors Bureau identified the issues that are at stake for Canadian travelers should the US border post adopt equal hours: "I think the folks that it's going to affect the most are people that … normally might get up early in the morning and drive to Skagway to put their car on the ferry to go to Haines or to Juneau for the 7 o'clock departure times…If the United States border at Alaska did reduce its hours, Yukoners would have to travel to Skagway the night before to catch the ferry to Juneau" (http://www.cbc.ca/news/canada/north/fraser-border-hours-reduced-for-travellers-entering-yukon-1.3015860).

Simultaneous with these cutbacks, the Fraser crossing has seen growing commercial vehicle traffic. Since 2010 between two and three thousand loaded trucks from BC and Yukon cross annually, while equivalent numbers return back across the border, now empty, for more cargo. Currently, commercial processing is closed after 4:45 p.m. on weekdays, and remains closed each weekend. Similarly, the problem of low population and low security demand thresholds cripples regular service and complete coverage of the North. But even more generally, the special circumstances of cross-border communities notwithstanding, there is a real problem with the application of southern models of border management to north border regions. For example, Everett (this volume) notes that "In Yukon, there are no FAST lanes and it

is not necessarily feasible to use alternative crossings to get to the port in Skagway if there are delays at the Fraser/Skagway crossing. The next closest crossing to the port is through Pleasant Camp/Dalton Cache and requires added drive time to get to Skagway, which would increase transportation costs. Other problems arise from the requirement of all pre-cleared goods to go to a C-TPAT importer in the US to be eligible for use of the FAST lanes (Horibe 2008), which can be a problem for businesses that ship to multiple locations."

The Fraser-Skagway crossing is also not the only border post that experienced reduced border control hours. On April 1 2015, the Stewart, BC CBSA border post also reduced its service hours to save money by closing between midnight and 8 a.m. and cutting off access to Hyder, AK. This was problematic for the integrated border community "who share almost everything, including an area code, hydro, and emergency services" (Killen 2015). In response to complaints from local residents who were worried about access to the hospital and the effect the closure would have on local tourism, the CBSA initiated a pilot program whereby "people can pick up the phone and flash their passport on video if they want to cross at night" (CBC 2015a). However, this system is not without its flaws as the passport images are not reviewed in real time and the honour system on which the pilot program relies experienced some setbacks as people failed to phone in as they crossed (CBC 2015b). Despite these challenges and community complaints, the Stewart crossing offices continue to remain closed between the hours of midnight and 8 a.m. (CBSA 2015).

There are two implications from the reduction in hours of these smaller, remote northern border posts. First, although the government made these decisions based on cost-saving needs, it suggests that northern borders are not considered a major security threat, potentially leaving a gap that can be exploited. Second, it also demonstrates a misunderstanding about the needs of northern communities and their economies.

Maritime Boundaries

We have so far focused upon the land and air borders and their security and border management functions. Only two conventional ports and port security management structures are in place in Canada's North, and of these only one is located in the Territorial North –Tuktoyaktuk. Churchill, Manitoba is the other major port servicing the north. The port of Churchill, MA serves primarily to export

grain produced in the Canadian prairies internationally. Although technically located outside of the region, it is a major port for the Northern Transportation Company Limited (NTCL), a marine transportation company owned by Norterra, which in turn is a holding company for the Inuvialuit Land Claims development corporation. Most Arctic cargo from Churchill is destined for Canadian communities, but proposals have been made which could see Churchill become a major international port for transshipping goods and products to and from the Canadian Arctic.

Overall, Canada has seen a large increase in the number of tourists and cruise vessels visiting the Arctic, lured to the region by the decreasing sea-ice and a growing international interest in the Arctic environment. While speculative, it is safe to assume that the further melting of the Arctic ice will lead to more cruise ship operations in the future. The continued reduction in the extent and age of sea ice will likely extend the window of navigability, thus enabling more reliable scheduling. In addition, the construction of Arctic shipping infrastructure and the continued hydrographic mapping of safe sea-routes should lower insurance premiums and allow for more diverse itineraries. However, as hydrographic mapping only identifies depth and sea bed obstacles, "diminished ice does not mean an absence of ice, and the changing ice patterns and composition of that ice are in some ways making the waters less predictable for vessels" (Standing Committee on Foreign Affairs and International Development 2013: 32). Nevertheless, Canada's Arctic will likely see increased maritime activity moving in and out of the Northwest Passage and, in many cases, depositing tourists and workers into the Arctic. Currently the international flow of goods and products through the maritime spaces of Canada's Territorial north is limited.

These factors, including the potential for greater activity within the maritime spaces of the Canadian North, make security management demands in this region much more complex than the map of shipping and border management facilities provided by the CBSA suggests – not least because the main security concerns now reside in the lack of delimitation of these maritime boundaries. The potential sea routes and ports of entry in the Territorial North, and the potential for greater traffic, also raise the risk of maritime disasters – both for tourist and commercial cargo ships. The existing boundary security facilities are not intended to control greater degrees of traffic or monitor environmental degradation. The Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic discussed in previous

chapters attempts to rectify the dearth of security facilities available to cope with an expanding roster of new security concerns related to maritime activities. Similarly the Agreement on Cooperation on Marine Oil Pollution, Preparedness and Response in the Arctic was adopted at the Arctic Council's Kiruna Ministerial Meeting in May 2013 and attempts to minimize the likelihood of environmental disaster in response to increased shipping.

Canadian Arctic maritime security institutions thus face a problem of capacity. Import and export clearance facilities are available only at Inuvik, Tuktoyaktuk and Iqaluit, where traffic is expected to increase. The CBSA has begun a pilot project to broaden the reach of its regional offices in managing commercial shipping, while the Coast Guard and Canadian Forces are planning to meet the Search and Rescue requirements which this new situational awareness demands. The CBSA launched a pilot preclearance program, the Arctic Shipping Electronic Commercial Clearances Program (ASECC), in the 2015 Arctic shipping season to provide greater oversight. Its goal is to enhance the management of commercial transits within Arctic waters, and it utilizes electronic reporting to overcome the substantial costs to the carrier of a long distance diversion to the only Arctic C/VESS port in Tuktoyaktuk or a port in southern Canada. It offers an alternative to current practices whereby the CBSA, through a request from a regional office, can require a vessel to divert to the nearest designated customs office, or may make arrangements to clear marine vessels and cargo while they are anchored at sea, on a special service or cost recovery basis (http://www.cbsa-asfc.gc.ca/publications/cn-ad/cn15-026-eng.html). The ASECC also attempts to provide an alternate process to that which requires CBSA agents to examine Arctic vessels in uncontrolled and/or dangerous environments. Recognizing that a lack of resources and facilities in the Arctic often means a limited ability to conduct exams, the CBSA pilot project also seeks to eliminate the risk of clearing vessels after a vessel has arrived in the Arctic, without sufficient advance notice for a thorough risk assessment.

While speculative, it is safe to assume that the further melting of the Arctic ice will lead to more cruise ship operations in the future. Continued reduction in the extent and age of sea ice will likely extend the window of navigability, thus enabling more reliable scheduling. For example, the first luxury cruise ship, *Crystal Serenity*, set sail through the Northwest Passage in August, 2016. In addition, the construction of Arctic shipping infrastructure and the continued hydrographic mapping of safe sea-

routes allow for more diverse itineraries. As a result, Canada's Arctic will likely see increased maritime activity moving in and out of the Northwest Passage and, in many cases, depositing tourists and workers into the Arctic, which will no doubt have an impact on northern communities and possibly mean an increased presence of CBSA officers at transit stops (Kyle 2016).

As economic activity increases in the Arctic, and the number of ships passing through Canada's Arctic waters (the Northwest Passage) grows with the region's declining ice-cover, responsibilities surrounding law enforcement, pollution control, immigration, and public safety will increase. This view reflects, however, the understanding that Arctic shipping is primed to grow exponentially while Arctic resource extraction will, likewise, expand dramatically. In 2016, however, several of these core assumptions may be out of date. The long-anticipated increase in transit shipping (direct transit through the Northwest Passage) has not materialized, with only fourteen complete transits of the Northwest Passage in 2015 (compared to twelve in 2014 and twenty-two in 2013). In fact, the number of transit voyages through Canada's Arctic waters has not materially increased since 2008. Furthermore, the most in-depth work on this subject (by geographer Frédéric Lasserre) uncovered no serious interest from the world's major shipping companies new or increased Arctic activity.

Cruise ship activity has also generated commentaries about the potential risks to Arctic waters. These concerns are generally related to environmental disaster or the risk to human life and limb, and centre on the capacity of Canadian responders to monitor and effectively rescue those in danger at sea within Canada's international waters. Beginning in 2005, Canada has seen a large increase in the number of tourists and cruise vessels visiting the Arctic, lured to the region by the decreasing sea ice and a growing international interest in the Arctic environment. The number of transits levelled off after 2008, however, and has remained relatively steady ever since. Examining this market's potential, geographers Frédéric Lasserre and Pierre-Louis Têtu (2015) conducted a broad survey of cruise ship operators to gauge their future interest in the region (see Table 8-1). The results countered the prevalent view that cruise tourism is expanding exponentially, instead indicating a tepid interest in expanding what are already high-end, niche operations. Nevertheless, the number of voyages is likely to remain steady and the region may attract larger vessels as "last chance tourism" continues to grow in popularity.

Provincial and Territorial Migratory Workforces: Documented and Undocumented Migration

While instances of illegal immigration and attempted entry of inadmissible foreign nationals as a result of air and cruise ship activity are not overly prevalent, concerns do exist. These are not just related to international cross-border mobility, but provincial mobility as well. In recent years, however, CBSA officers have seen increased levels of immigration related to temporary foreign worker programmes targeting the Territorial North. These include foreign nationals on temporary work permits from southern Canada who relocate to the North to take advantage of foreign national-specific nomination programmes. Foreign nationals wishing to relocate to the Northwest Territories, for example, may apply under the Northwest Territories Provincial Nominees Program (NPNP) for provincial nomination, under one of four categories: Skilled Worker, Critical Impact Worker, Entrepreneur Business, or Self-Employed Business. The NPNP program allows immigrants with the appropriate skills and experience to receive a Northwest Territories Provincial Nomination Certificate. This allows foreign nationals to apply for Canadian Permanent Residence with processing times that are faster than other Canadian immigration classes. In Yukon a similar nominee program exists. In addition, Yukon has developed both a Business Nomination and Express Entry program to assist in the development of a regional labour force. The latter provides most successful applicants with permanent residence within six months of verification. The security issue here is associated with the inadmissible movement of foreign nationals under this provincial nominee programme – particularly between companies and between provinces and territories, shifting concern about illegal migration away from the international border line or port of entry to the corporate and social landscape of the North itself. A controversial case of a Filipino worker deported from Yukon in 2010 for being in violation of a work permit highlights the degree to which, under such circumstances, an exclusion order is required (http://www.yukon-news.com/news/illegal-yukon-worker-gets-excluded).

In general, the problem with inadmissible immigration at all ports of entry is larger than concerns regarding terrorist activity. Indeed, concern about terrorist activity remains relatively low, in large part because of limited activity and evidence concerning terrorist incursions. Increases in cruise ship activity along the Northwest Passage in recent years has also generated some commentaries about the potential risk

of illegal immigration through the small Arctic hamlets which those ships frequently visit. Since the early 2000s, there has been a widespread expectation that Canada was on the verge of an Arctic resource boom. High commodity prices, coupled with increasingly accessible deposits and foreign investor interest created the impression that workers might soon be flooding into the region. The potential security dimensions of this boom were obvious. An influx of workers meant more safety concerns, more activity at regional transportation hubs, and more crime and smuggling.

These projections, however, must be re-evaluated in light of the crash in commodity prices in 2015. As mentioned earlier, the pace of exploration and resource development has slowed dramatically. As such, the anticipated influx of new workers and shipping has, likewise, diminished. Nevertheless, the resource industry is a cyclical one and prices are likely to rise in the future. This reversal of fortunes may bring new investment that kick-starts many of the region's mothballed projects. Due to the low influx of foreign workers, it is not surprising that the Criminal Investigations units of CBSA that investigate and enforce any "suspected cases of evasion or fraud with respect to various pieces of border legislation that regulate the importation and exportation of goods, or the admissibility of persons to Canada" (CBSA 2011) are located in southern Canada: Yukon is serviced by the Vancouver office, NWT is serviced by the Calgary office, and Nunavut is serviced by the Ottawa Office (CBSA, 2011).

Resisting Borders

While we have focused here upon managing cross-border flows of people and goods, there is also a perspective that sees border management as embedded in an unequal relationship perpetuating colonialism and a settler society. This perspective sees boundaries as an imposition upon first peoples and an infringement of rights to unimpeded mobility. Archaeologist Norman Easton reminds us that the establishment of the international border in the early 20th century was coupled by assurances to some indigenous residents that their homes could continue to straddle the line between Canada and the United States. For those groups, and particularly the White River First Nations in the Beaver Creek area, the border is an arbitrary imposition which divides their community and perpetuates the historical injustices of Canadian and American white settler societies. Despite mobility rights being

guaranteed by the "Jay Treaty of 1794, section 35 of the Constitution Act, 1982, and Article 36 of the United Nations Declaration on the Rights of Indigenous Peoples" (Assembly of First Nations 2014), Indigenous communities continue to experience difficulties in international mobility related to specific frameworks and structures of the law which are exacerbated by an uncomfortable fit between legal requirements of border management and the demographic, social and identity needs of local cross-border Indigenous polities.

Equally important when considering the location and management of security, however, is the fact that the Territorial North has been the location of comprehensive land claim negotiations among Canada's Inuit and First Nations. This has affected not only the internal structures of governance within northern territories, but has had a considerable impact on maritime jurisdiction and expanded claims to Canada's EEZ and Continental Shelf. Inuit now challenge the exclusivity of the federal government to make decisions concerning offshore marine jurisdictions, while Ottawa recognizes the implications of its legal agreement with the Inuvialuit Land Claims upon the future of Beaufort Sea boundary arrangements. Inuit and First Nations, empowered by the UN Declaration on the Rights of Indigenous People and their Permanent Participant status in the Arctic Council, are demanding a greater role in international decision-making, including the determination of boundary lines and management functions. Recognition of tribal boundaries as distinct from those managed by Washington and Ottawa maintains cross-border communities in ways which encourage cooperation and enhanced human security, but which lead to a distinctive set of security concerns. Cross-border communities feel targeted and find the CBSA border regulations infringe upon centuries-old traditions such as bringing guns and blankets for funeral ceremonies. They also feel compelled to register their concern for the continued survival of hunting practices and cultural traditions.

Indigenous leaders and community members are therefore very critical of existing border security practices. Yukon's White River community in particular feels that the imposition of the international border in Beaver Creek is itself a security concern in that it has created hardship for indigenous peoples located on both sides of the line. Speaking with researchers, White River's Chief David Johnny indicated how vulnerable the boundary has made existing indigenous communities. Chief Johnny recounted that historically, First Nations hunted, trapped and fished with no regard for the boundary between Canada and the US, which indeed had not been

established. "We had our own government, we had our own laws," but when the border divided the single community "everything that First Nations had spent thousands of years building was misplaced. Many older people got into trouble with the law in thinking they still had the freedom to move freely. Nobody was thinking about the impact on First Nations."

Today the US border post sits atop a former fishing camp, but it is out of bounds for the White River band. For Johnny and his family, the effect of border enforcement was both confusing and arbitrary. As a child living on the Alaskan side of the line in the 1950s he was nonetheless scooped up by the RCMP and returned to Canada. Johnny now lives on the Canadian side of the border, but he and his family face hardships when connecting with those on the US side – and the impact of the border continues to be felt by the First Nations. The experience of Johnny's family when travelling from Alaska to Yukon for Bessie John's funeral has become an infamous example of the problem. The guns, blankets and other accoutrements brought to her funeral to honour her were seized at the border. Individuals whose criminal record excluded them from crossing the border for family and band functions have encountered similar problems. Johnny argued that "It just doesn't seem right," and that special arrangements should be made for First Nations exemptions. For Johnny, "It's a really big issue." For him, and the White River Band which straddles the border, the boundary line severely impacted both the identity of the First Nations people and their cultural survival.

The imposition of the border is further complicated by the location of the border post itself, which is not always situated at the physical land border. For example, the Beaver Creek CBSA post is located approximately 25 km before the land border, meaning people can drive past the post and still be in Canada for some time and do things without entering the US. Difficulties arise when returning to Beaver Creek and having to go through the CBSA post and prove you did not enter the US. Similar experiences are now occurring at the Akwesasne #59 reserve in Cornwall, ON following the relocation of the border post from Cornwall Island to the mainland (Coyne 2012). This is where an electronic immigration and customs database connected to the US would come in handy.

Conversations with CBSA officials confirm that this issue is also important to them. CBSA officials feel that they work hard to accommodate and facilitate anomalous mobility and potentially inadmissible goods and peoples as much as

possible, within the limits of their discretionary powers, and worry about local resentment. Their discretionary power is being challenged by Indigenous peoples with growing access to global governance and rights legislation, raising the issue of how to better structure and manage cross-border passages for interconnected and mobile indigenous peoples through arrangements and implementation of agreements that have been negotiated or adopted elsewhere in Canada and the United States.

Conclusions

The North is fraught with real mismatches of resources and personnel in relation to international and transnational security imperatives. Low level 24-hour demand for cross-border services is met with closures, and normal movements of local peoples across boundaries where firearms are regularly carried on both sides create an inordinate problem. The amount of time that CBSA border officials devote to gun management, and the relative lack of resources for maintaining continuous services at all border posts, provides a sense of insecurity for those who rely upon frequent border crossings. This highlights a major challenge to adjust regional crossing management to meet the protocols and concerns identified in larger cross-border security agreements that are continental in scope and which target the security concerns of major management issues in southern Canada. Security challenges in the North are no different in some ways, and yet very different in others. One of the main problems for the future will be in better facilitating the cross-border movement of indigenous peoples through arrangements which undertake to evoke special status and recognize connected cross-border communities.

This may well be one of the most important conclusions. The CBSA has tools and legislation to obstruct or eliminate cross-border mobility, but few tools or discretionary powers to resolve some of the insecurities and integral disjunctions that the superimposition of this international line have on local communities, flows of goods, and people.

PART FOUR:

BORDERLANDS, ECONOMIES, AND SUSTAINABILITY

Chapter Nine

National Border Management Polices and their Effect on Regional Trade: A Study of the Yukon Exporting Industry

Karen Everett

The federal government has improved the ability of businesses to export their products to new overseas markets. In particular, the government entered into new free trade agreements with the European Union and South Korea, removing tariffs from most goods going to those locations (Foreign Affairs, Trade and Development Canada 2014a; 2014b). Furthermore, the Global Market Action Plan (GMAP) was put into effect in 2013 to help businesses, and particularly small- and medium-sized enterprises (SMEs), with their ability to export (Government of Canada 2013a). These agreements are of interest to Yukon not only because most Yukon businesses are SMEs (Government of Yukon 2015a), but also because businesses will be better able to expand their trade networks (Government of Canada 2014). This is important for the territory as recent exporting trends show a decrease of goods going to the United States and an increase of shipments going to Asia (Lambert-Racine 2013).

However, shipping challenges in Yukon negate some of the benefits gained from these agreements. More specifically, goods being exported from Yukon have to go through the port in Skagway, Alaska as there are no marine ports in the territory (Government of Yukon 2008). Therefore, there is an added security and customs element to overseas shipping as goods are subjected to American border policies and practices which tend to prioritize security over freer trade (Brunet-Jailly with Dupeyron 2007). Consequently, Canada-US border management policies, and arguably the needs of the US, result in additional costs for Yukon SMEs when exporting their goods.

Analysis of this issue takes a combined approach of a top-down examination of border policy and a bottom-up examination of the needs of Canadian SMEs in the

Yukon-Alaska borderland (Brunet-Jailly 2013). This paper is divided into four main sections and begins with an overview of the Yukon economy and the territorial transportation infrastructure. Second is an examination of the trade-security connection that exists at the Canada-US border. Third is an analysis of the national policies that affect security and trade in the North, with a particular focus on both nations' northern strategies and the Beyond the Border agreement. Finally, using Brunet-Jailly's (2005) theory of borderlands, recommendations are made that serve as provide a starting point to work towards improving the export capabilities of Yukon SMEs through cross-border collaboration between provincial/state governments, academic institutions, and cross-border trade groups.

Yukon Economy and Transportation

To fully appreciate the effect of these national policies and programs on Yukon SMEs, it is necessary to understand both the territorial economy and the transportation infrastructure systems.

The private business composition in the territory is comprised predominately of SMEs. To be sure, SMEs "[account] for approximately 63 per cent of private sector employment" (Government of Yukon 2015a; para.2) and the Government of Canada identifies 1,549 small and 18 medium sized businesses in Yukon (Government of Canada 2013b). However, the federal government has a particular formula used to calculate these numbers and according to the Yukon Bureau of Statistics (2014) there are over 3,500 businesses in the territory. This suggests the number of SMEs is likely higher as some businesses may not meet the federal criteria, including many of the territory's at-home operations that account for 58.9% of all businesses in Yukon (see: Government of Yukon, 2015b; Yukon Bureau of Statistics, 2014).

The types of industry in Yukon are also quite diverse. Table 9-1 shows a breakdown of the top 10 industries by the percentage of businesses in each industry. Most businesses are found in construction and professional, scientific, and technical services, yet natural resources and trade are considered Yukon's top non-governmental industries (Pasloski, 2013; Voswinkel, 2012).

With regards to the export industry, the 2013 Yukon Business Survey determined that only 12.4% of businesses in the territory are involved in export trade, with Canadian provinces/territories as the final destination for most of these goods (Yukon

Table 9-1: Top 10 industries by percentage of businesses in each industry

Ranking	Industry	% of Businesses in Yukon
1	Construction	16.9%
1	Professional, Scientific, and Technical Services	16.9%
3	Retail Trade	7.8%
4	Management of Companies and Enterprises: Administrative Support Services	7.5%
5	Accommodation and Food Services	6.4%
6	Mining, Quarrying, and Oil & Gas Extraction	5.6%
7	Other	5.4%
8	Health Care and Social Assistance	5.1%
9	Agriculture, Forestry, Fishing and Hunting	5.0%
10	Transportation and Warehousing	4.6%

Source: Adapted from: Yukon Bureau of Statistics, 2014, p.1.

Bureau of Statistics, 2014). Nevertheless, there are businesses that do primarily export internationally, with 12.2% of businesses exporting to the US (not including Alaska), 11.4% exporting primarily to Alaska, and 10.3% primarily shipping their goods to other international locations (Yukon Bureau of Statistics, 2014). To be sure, the top international destinations for exports are "The US, followed by South Korea, Peru, China, and Chile" (Lambert-Racine, 2013: 3). In terms of the top exporting industries (see Table 9-2), it should be noted that natural resources are quite low on the list.

The argument that resources are important to the economy is likely based on the dollar value of these exports. Although only 12.6% of businesses in the resource industry export, this trade was valued at $215.6 million in 2012, which was a 42.7% increase from 2011 (Lambert-Racine 2013). In fact, "resource-based goods accounted for 95.6% of the value of Yukon's exports, with manufactured goods representing the remaining 4.4%" (Lambert-Racine 2013: 2). The resource sector goes through ups and downs based on production and the market value of minerals, which can be fickle. At the time of writing, the market was not as strong as in the past and that is hindering resource development and production in the territory (Government of Yukon, 2015b; Halliday 2014). As of May 2015, only one mine was in operation and

Table 9-2: Top ten exporting industries in Yukon, 2013

Ranking	Industry	% of Businesses that Export
1	Information and Cultural Industries	45.3%
2	Agriculture, Forestry, Fishing, and Hunting	36.6%
3	Utilities: Manufacturing	25.8%
4	Wholesale Trade	23.6%
5	Arts, Entertainment, and Recreation	23.2%
6	Professional, Science, and Tech Services	19.4%
7	Rental and Leasing Services	13.5%
8	Mining, Quarrying, and Oil & Gas Extraction	12.6%
9	Retail Trade	11.7%
10	Educational Services	10.7%

Source: Adapted from: Yukon Bureau of Statistics, 2014, p. 8.

other projects had been put on hold (Halliday 2014). Regardless of the fickleness of the market, resource-based businesses continue to earn significantly more than non-resourced based businesses. Indeed, because non-mineral exports have such a small financial value, it is likely harder for them to absorb additional costs associated with shipping their goods than is the case for resource-based businesses.

Comprehensive transportation infrastructure networks are necessary to export goods. As Yukon is a remote location, the cost associated with exporting is directly connected to the quality of transportation networks. For example, Bristow and Gill (2011) state that marine transport is "the least expensive mode of freight transport" (p. 13), but the closest marine port for Yukon businesses is in Skagway, Alaska (Government of Yukon 2008). This means that goods must cross international borders by road before they can be shipped to their destination.

The Canadian North, in general, does not have a comprehensive road network in comparison to the rest of the country (Transport Canada in Statistics Canada 2009). However, the road networks in Yukon are more widespread than in the other territories (Bristow & Gill 2011). Specifically, the roads connect 16 of 17 communities and of these roads, "250 kilometres are paved and 1,900 kilometres surfaced with bituminous surface treatment (BST), a thin asphalt membrane. The remainder is gravel" (Government of Yukon, 2008: 8). While this is good, the road networks to resource developments need to be improved (Government of Yukon

2008). In terms of usage, approximately 3,700 cars travel in the busiest parts of the territory, which are around Whitehorse and the road to Skagway (Bristow & Gill 2011; KPMG & Gartner Lee 2006).

The rail network in the Northwest Territories (NWT) is better than in Yukon. Rail lines in the NWT connect to Alberta and are used by mining and other industries to bring supplies into the territories (Government of Yukon 2008). In contrast, rail is limited in Yukon as passenger lines only connect Skagway to Fraser, British Columbia, and at times service extends as far north as Carcross, Yukon (Government of Yukon 2008; KPMG & Gartner Lee 2006), which is south of Whitehorse. Similar to the road network, this means that transportation options for the resource industry are limited. Moreover, it limits cost effective transport options for both the resource sector and SMEs. Nevertheless, transportation infrastructure is in place, even if minimally, and ensures that businesses have access to the port in Skagway.

Political Context: Trade-Security Connection

Following the creation of the North American Free Trade Agreement (NAFTA), joint border management programs between Canada and the US were implemented to regulate and facilitate the movement of low-risk people and goods (Cote-Boucher 2010). The events of September 11, 2001 served to further entrench shared border management programs, notably with the Smart Border Accord (Canada-US) in 2001, Security and Prosperity Partnership (Canada-US-Mexico) in 2005, and Beyond the Border (Canada-US) in 2011. Although these efforts are supposed to be jointly managed and reflect the needs of both nations, the American security agenda is often prioritized and can result in American unilateralism when it comes to policy decisions (Hale & Marcotte 2010; Moens & Gabler 2012). Furthermore, American politicians consider the shared border to be a significant security concern (Stana 2010), which can result in increased barriers to trade if the border is hardened. National border policies tend to overlook regional differences (Brunet-Jailly 2007), and Yukon politicians do not necessarily consider their border security needs in the same way as those in southern Canada or the US (eg. see Hart in Yukon Hansard 2005). This is further complicated by the politicization and prioritization of the border along the 49th parallel; the 2010 US Government Accountability Office's report (Stana 2010)

did not examine the security concerns and needs along the Yukon-Alaska or British Columbia-Alaska borders, sending signals that these borders are of little importance.

Border management programs are supposed to reduce barriers (Moens & Cust 2008), which is critical to exporters as delays at the border can be quite costly (Brunet-Jailly 2004). Yet, these programs have not necessarily resulted in improved crossing experiences. For example, policies are not always applied uniformly at each crossing (Vance 2012; see also: Hale & Marcotte 2010), which can lead to delays (Globerman & Strorer 2009). Indeed, in the first few years after 9/11, delays at Ontario border crossings cost businesses as much as "$1.64 to $3.55 billion annually" (OCC 2004: 14). Pre-clearance programs are essential for an efficient border (Bersin 2012), however, membership in these programs is not always cost effective for small businesses (Bradbury & Turbeville III 2008), thus privileging businesses that can afford membership. Moreover, pre-clearance programs are positioned as the solution to border delays (see CBSA 2013), yet, not all border crossings are equipped with the required infrastructure to accommodate pre-cleared trucks and goods. In Western Canada, for example, only two out of sixteen border lanes are dedicated for the Free and Secure Trade (FAST) program. Problematically, truck drivers are choosing to drive to non-FAST crossings to avoid lengthy lines (Bradbury & Turbeville III 2008), which would likely result in increased transportation and fuel costs. In Yukon, there are no FAST lanes (see CBSA 2012) and it is not necessarily feasible to use alternative crossings to get to the port in Skagway if there are delays at the Fraser/Skagway crossing. The next closest crossing to the port is through Pleasant Camp/Dalton Cache, which could require additional drive time to get to Skagway and increased transportation costs. Other problems arise from the requirement that all pre-cleared goods go to a C-TPAT importer in the US to be eligible for using the FAST lanes (Horibe 2008), which can be a problem for businesses that ship to multiple locations.

Another way that border management programs are supposed to improve cross-border flows is through "regulatory harmonization" (Fergusson 2011: 22). However, this has not yet happened and "Regulatory barriers are likely to pose important fixed costs on potential exporters" (Anderson, Milot, & Yotov 2011: 3). Exporters continue to complete an increasing amount of paperwork (Moens & Gabler 2012; Vance 2012) and pay inspection fees even if they are members of pre-clearance programs (Canadian Chamber of Commerce 2008; Moens & Cust 2008). To be sure, inspection fees can be costly; in 2010, the fees collected by the US at all crossings

totalled $230.2 million, the majority of which were collected on agricultural goods (Customs and Border Protection, n.d.). Both the Ontario Chamber of Commerce (OCC 2014) and the Canadian Chamber of Commerce (2014) argue that fees should not be applied to goods from industries that have similar or comparable safety programs, like agriculture. Fry (2012) suggests that due to the costs of inspection fees, numerous businesses are seeking to send their goods overseas rather than to the US. Ostensibly, the result of the security-trade connection is that the volume of cross-border trade has decreased since 2001 (Globerman & Strorer 2006; Grady 2008). Indeed, there was an 11.1% decrease in Canadian exports to the US between 2000 and 2010 (Moens & Gabler 2012). While Fry (2012) may be correct, diversifying markets does not serve to reduce exporting costs for Yukon businesses as their goods continue to cross the US border.

When developing border management programs, decision makers often fail to consider the effect of the policies in regional contexts and on local businesses (Vance 2012). Furthermore, SMEs are not always in a financial position to employ border experts to help them navigate the system (Liu 2012). Therefore, it is regulatory fees, and not border delays, which are the primary challenge to Yukon SMEs that export overseas.

National Policies

To understand border management in the North, there must first be an understanding of how both Canada and the US view the region, and this is achieved through an analysis of their Northern policies. Historically, the Canadian North has been viewed as a frontier (Konrad & Nicol 2008). However, this perception began to change following the Mackenzie Valley Pipeline inquiry in 1977. Berger (1977) stressed that the North is also a homeland and this position is reflected in Canada's Northern Strategy.

The Strategy prioritizes four key areas for the N sovereignty, "social and economic development," the environment, and Northern governance (Indian & Northern Affairs 2009: 2). The sections on economic development and sovereignty have significance for export trade. Particularly, the federal government focuses on the importance of natural resources for economic development. The Strategy does recognize that there are other industries, such as tourism and culture, but there is an inadequate discussion around how these will be promoted and there is no indication

that export trade and SMEs are an important contributor to the Northern economy. As for security, this is directly connected to sovereignty. The federal government prioritizes ensuring sovereignty through bolstering the military presence in the region, expanding the continental shelf, and participating in the Arctic Council (Indian & Northern Affairs 2009).

In contrast to Canada's view of the North, the US still considers its North a frontier. Their official strategy and security directives for the region prioritize national security, mostly through military action and intervention on the water and in the air. Furthermore, natural resources and economic development are positioned as security concerns to be protected rather than things that are vital to northern life (White House 2009; 2013).

Diverging views on the role the Northern economy have consequences for Yukon export trade (and arguably SMEs) as they suggest that trade needs, and especially those outside of the resource sector, are not a policy consideration for the US. Furthermore, neither strategy mentions the shared land border, nor how security concerns at the border will be addressed and managed. This is likely because these issues are covered under border management programs. Nevertheless, this omission suggests that border security in the north is not a priority.

The current border management program is Beyond the Border: A Shared Vision for Perimeter Security and Economic Competitiveness (BtB) and was put into effect in 2011 (Government of Canada 2011). Some argue that this agreement will serve to improve cross-border flows, especially if there is a move towards policy harmonization (Bersin 2012; Fry 2012; Moens & Gabler 2012). BtB outlines a number of pilot programs that are designed to improve these flows; however, these projects are to be tested only at key crossings (Government of Canada 2011) that are usually found along the 49th parallel where there is heavy cross-border traffic. As such, none of these projects will be tested in Yukon or northern British Columbia, or any other remote location. In terms of SMEs, there was a significant cost savings under BtB in 2013. Specifically, the customs limit moved "from US$2,000 to US$2,500, allowing for more goods of higher value to cross the border with an expedited release process" (Payer 2014: 24). This is beneficial for SMEs that export smaller amounts of goods. However, not everything in BtB provides benefits for Yukon-based SMEs.

Part two of BtB specifically addresses cross-border trade and identifies a number of priority areas. The relevant initiatives for this study include improving pre-clearance programs and reducing inspection fees (Government of Canada 2011). In terms of pre-clearance, the focus appears to be on improving the NEXUS program, which has little benefit to the movement of goods. In addition, there are no pre-clearance facilities in the north and there is no indication that this kind of infrastructure will be developed in the region in the near future. Rather, investments in remote locations will focus on sharing infrastructure and "operational alignment (for example, mirroring hours)" (Government of Canada 2011: 20). While this may help businesses in terms of scheduling their shipments, it will not improve the ease at which trucks get through the border.

Reducing inspection fees has the greatest benefit for Yukon SMEs, although there is no indication these fees will be removed altogether. In fact, in 2014, the US put forth a proposal to increase, not decrease, inspection fees on agricultural goods (Foreign Affairs, Trade and Development Canada 2014c). While these fees were discussed in the context of cost recovery, they go against the intent of BtB and demonstrate an act of American unilateralism. Furthermore, this does not address duties or taxes that are collected by the US at the border. Businesses that export overseas do have the option of placing their goods in bond to avoid this cost. However, they must be able to "[post] a bond for twice the amount of duty, taxes, etc. that would otherwise be owed" (Customs and Border Protection 2001: 1) and inspection fees still must be paid. Many SMEs might not have the capital required to post this kind of bond. Furthermore, bonds are not applicable to many items, including minerals and agricultural goods (United States International Trade Commission 2015). When considering the value of exports from the resource sector, big mining companies are likely to be able to afford these fees. However, smaller businesses, especially those in agriculture, might not and therefore this puts them at a disadvantage. Overall, BtB privileges larger border crossings, does not account for regional differences, and thus disadvantages Yukon businesses that have little option but to export through Skagway.

Recommendations

Some recommendations to improve export trade have already been put forth. The first recommendation comes from the Canadian Chamber of Commerce (2014)

which argues that export trade would be improved through regulatory changes. The Canadian and American governments began to address these concerns in 2011 through the formation of the Regulatory Cooperation Council. While this may be a good first step in addressing these costs, the Council only looked at fees in four areas: "agriculture and food; health and consumer products; transport; and, the environment" (Canadian Chamber of Commerce 2014: 20). Clearly, the reduction and elimination of inspection fees need to be discussed in all sectors if costs are to be reduced for Yukon businesses.

Port development is another area for improvement. In 2006, KPMG and Gartner Lee conducted a large-scale study on this issue and suggested that developing existing infrastructure at Skagway and developing new infrastructure in Haines, Alaska would be beneficial. It appears the Alaskan government has committed the funding required for improvements at Skagway (Office of Governor Parnell 2012), and the funding required for Haines would be $1.3 billion for the port and $5.4 billion for the rail network (KPMG & Gartner Lee 2006). These developments would surely increase the amount of goods that could be exported at any given time; however, the costs associated with crossing the border would remain in place. Alternatively, a new port could be built in Canada, and the Yukon government has floated the idea of doing so in Stewart, British Columbia (Government of Yukon 2006). This development would eliminate the costs associated with moving exports through the US, but it would also increase transportation costs (ex. fuel, truck maintenance, driver wages, etc.) as Stewart is further away than Skagway.

Neither of these options, as they currently stand, is inclusive of all interested parties. Therefore, Brunet-Jailly's (2005; see also Brunet-Jailly with Dupeyron 2007) theory to understand cross-border dynamics is useful to make recommendations to improve the export situation in Yukon. More specifically, it builds the case that the conditions in the Yukon-Alaska borderland are ripe for regional actors to advocate for structural/policy change at the federal level.

Brunet-Jailly's (2005) theory has four points of analysis that, if they are all present, indicate an integrated border region. The first concerns the multiple activities of government, which can happen in two different ways. First, there are general purpose vertical governance structures that address a number of issues within set jurisdictions (Brunet-Jailly 2005). This system has the potential to result in shared responsibility between different levels of government (Brunet-Jailly with Dupeyron 2007). This

type of governance has become possible through the recent rescaling of government (Brunet-Jailly, 2013) in which federal and territorial/provincial governments are increasingly working together. Second, there is horizontal governance where work has usually focuses on a specific issue. This system is inclusive of "public and private local, national, and international actors within a specific policy process" (Brunet-Jailly 2005: 637). Task-specific governance includes such a diverse array of participants as each one has a vested interest in the issue.

The second component of the borderlands theory is culture. This emerges when there is a strong community connection that spans the border and is "unified by culture […] or by the nature of local political institutions" (Brunet-Jailly with Dupeyron 2007: 6). This connects to the third component, local political clout. Essentially, political clout occurs with cross-border policy networks that focus on a particular set of interests. This work can be done through an organization that spans the border or through linkages between organizations on either side of the border (Brunet-Jailly 2005). Finally, there are market forces, whereby barriers to regional free trade exist due to the costs associated with crossing borders (Brunet-Jailly 2005). This approach has been applied to the borderlands of Windsor-Detroit, which is the busiest crossing, to find lessons learned for Yukon and the Yukon-Alaska borderland.

The Windsor-Detroit borderland is cohesive in two of the four areas. The first area is market forces as freer trade began with the integration of the auto-industry through the 1965 Auto Pact (Anastakis 2013; Nelles & Sutcliffe 2013). This was further enhanced following the implementation of NAFTA as trade in other sectors began to flow north-south rather than east-west (Brunet-Jailly 2006). The second area is shared culture. For instance, "The two communities share cultural, entertainment and news sources across the border, including allegiance to sporting teams" (Nelles & Sutcliffe 2013: 217). Thus, people and goods cross the border on a regular basis.

This region, however, is lagging when it comes to multiple activities of government and political clout. As for governance and the multiple activities of government, the federal and provincial/state governments fail to include local governments in decision-making processes that directly affect them (Nelles & Sutcliffe 2013). Furthermore, local governments on either side of the border do not always cooperate with each other on shared issues. Nelles and Sutcliffe (2013) discuss this lack of communication in their examination of the development of and decisions around the new bridge/border crossing. They found that instead of working together,

each government "developed their positions independently and only occasionally worked co-operatively if these positions overlapped" (Nelles & Sutcliffe 2013, p.222). Indeed, this is part of a larger regional trend in which any cross-border cooperation that does happen occurs through interest groups that lack the clout needed to effect change (Brunet-Jailly 2000). If local politicians on both sides of the border collaborated on this project, they would be in a better position to negotiate with the provincial/state and federal governments over the location of the bridge.

Similar to Windsor-Detroit, the Yukon-Alaska borderland is connected through the market and culture. In terms of the market, 11.4% of Yukon exports go to Alaska (Yukon Bureau of Statistics 2014), and in 2012 the long standing Alaska-Yukon Intergovernmental Relations Accord was renewed and prioritized mining development (Government of Yukon 2012), which is the economic driver of the region. There are also multiple shared cultures in this borderland. For example, there are different Indigenous groups that span the border, such as the Tlingit, Han, and Gwich'in (Government of Yukon 2013c). Yukon and Alaska also connect through tourism planning based on their shared landscapes, and also through cross-border events, such as the annual Yukon Quest dog race that goes from Whitehorse to Fairbanks, Alaska (Government of Yukon 2013b; Yukon Quest n.d.). Both the market forces and shared culture result in steady cross-border flows.

The key areas where Yukon-Alaska differs from Windsor-Detroit are through the multiple activities of government and political clout. For governance, the federal, territorial, municipal, and First Nations governments work together and co-manage land use in Yukon (Government of Yukon & Association of Yukon Communities 2014). Interestingly, this is a vertical structure that focuses on a single issue. The Yukon and Alaskan governments also work together on a number of shared issues, and this is reflected in the renewal of the Alaska-Yukon Intergovernmental Relations Accord (Government of Yukon 2013a; Government of Yukon & Government of Alaska 2008). Moreover, there is horizontal cross-border cooperation through the work of the Pacific Northwest Economic Region (PNWER), a blend of provincial/territorial/state leaders and legislators along with members of the private sector who work collaboratively on economic and environmental issues, and seek to influence the policy-making process (PNWER, n.d.a). This indicates that PNWER also has political clout within the region. Moreover, political clout in the region is evident through partnerships between Yukon College and the University of Alaska as

they work on developing education and training for the resource industry in the north (Government of Yukon 2012). As all four components of Brunet-Jailly's (2005) theory are present in the Yukon-Alaska borderland, the potential for meaningful change exists.

Brunet-Jailly (2013) argues that for change to happen, solutions need to come "through institutional processes" (p. 41). Therefore, we could look towards PNWER and their borders working group as a starting point. The working group is already "encouraging private companies to give their stories/information to the Beyond the Border Working Group about their current costs associated with crossing the border and potential savings with further border management improvements" (PNWER, n.d.b., para.2). The working group is also "Calling on the U.S. and Canada to support independent university-based research institutes such as the Border Policy Research Institute at Western Washington University to conduct data-driven performance studies of how the border is performing" (PNWER, n.d.b., para.2).

I suggest the working group could take a more proactive role and oversee a project of their own rather than hope businesses report their experiences to the BtB working group. As Yukon College and the University of Alaska already have an existing relationship, PNWER can collaborate with them to conduct an independent research project that pulls together the data needed to provide a full picture of the costs associated with exporting through the US. When this project is completed, PNWER's borders working group can then work with both the Yukon and Alaskan governments to advocate for regulatory changes at the federal level. Furthermore, advocacy may include drawing on the political clout of the Canadian Chamber of Commerce (CCC), especially as the CCC has similar goals when it comes to eliminating regulatory fees. To be sure, the CCC has a winning track record of effecting change at the federal level (see: Canadian Chamber of Commerce 2015). This project will also need to include the British Columbia government as it is the Fraser crossing that connects to Skagway. Nelles and Sutcliffe (2013) also stress that local governments need to be included in collaborative efforts, and in the case of Yukon, this would also mean including First Nations governments as they may be affected by policy changes. This collaboration may result in a new multi-level, issue-specific governance structure that can work to reduce the barriers for not only Yukon SMEs, but all Yukon (and arguably northern British Columbia) businesses to export their goods overseas and benefit from Canada's numerous free trade agreements.

Conclusion

New Canadian free trade agreements and federal economic plans have made it easier for SMEs to export overseas through the reduction or elimination of tariffs. However, SMEs in Yukon only see a partial savings as they are required to pay fees at the US border in order to ship their goods from Skagway, Alaska. The continued application of these fees results in added costs for Yukon businesses, and especially for SMEs. Although national border management programs, like Beyond the Border, are meant to facilitate cross-border trade, they do not address regional needs, like those in Yukon. To improve these conditions, Brunet-Jailly's (2005) approach to borders is used to recommend a research project that will draw together the experiences of Yukon SMEs to reveal their actual added costs of exporting overseas. To accomplish this, the Pacific Northwest Economic Region would collaborate with post-secondary institutions in Yukon and Alaska, local businesses, and possibly the Canadian Chamber of Commerce and use their political clout to advocate for regulatory changes at the federal level. The end result very well may be a new multi-level governance structure that focuses their work on the exporting needs of Yukon-based SMEs.

Chapter Ten

Protocol: Soft Technologies of Neoliberal Geographies

Liam Kennedy-Slaney

The World Economic Forum and the Arctic

Variously described as a congregation of bogeymen or a glorified cocktail party, the World Economic Forum (WEF) is a transnational policy group that gathers elite members of globalized business. By membership, its centre of gravity lies in the North Atlantic with deep ties to American business elites (Carroll & Carson 2003). The WEF espouses neoliberal values that privilege free-market capitalism and the relegation of state functions to the custodianship of a global equal-opportunity market. Like other transnational financial institutions, such as the World Bank and the International Monetary Fund, the WEF is not only an active agent of globalization, but a de facto extension of American hegemony (Agnew 2005). Hegemony describes a particular power geometry that is not equivalent to a neo-realist geopolitical "territorial empire" nor a subtle "network of influence" (Nicol 2015: 189). Hegemony, as constructed through neoliberal discourse and action, produces new geographies of point-to-point connection that are unlike those produced by the cartographic puzzle of nations.

In December of 2015, the Arctic Global Agenda Council (AGAC) of the World Economic Forum produced the Arctic Investment Protocol (AIP), outlining six "guidelines for responsible investment in the Arctic" (WEF 2015). While the document takes pains to acknowledge the complex and heterogeneous nature of the region, the WEF still finds it useful to conceive of the Arctic as a singularity. The AGAC, as a non-governmental group, and the AIP, as a non-binding but consequential document, will likely amplify neoliberal restructuring within the Arctic, having profound implications for cross-boundary relationships. The AIP is part of a set of processes that re-organize space into a supply chain of frictionless corridors for the movement of capital, and securitized gateways that determine the direction of capital flows and control participation in globalized trade. In the Arctic, scientific and

environmental region-building among nations, and collaboration on maritime safety infrastructure both contribute to the construction of corridors. Gateways are constructed through the AIP's vernacular of enclosure and the re-location of the technology of border security further away from the cartographic national borders. These components of the Arctic neoliberal supply-chain inform the content of the AIP and serve as aspects of cross-boundary relationships that will be re-worked by the AIP.

The Arctic Global Agenda Council and the Arctic Investment Protocol

"The Global Agenda Councils are a network of invitation-only groups that study the most pressing issues facing the world. Each council is made up of 15-20 experts, who come together to provide interdisciplinary thinking, stimulate dialogue, shape agendas and drive initiatives. Council Members meet annually at the Summit on the Global Agenda, the world's largest brainstorming event, which is hosted in partnership with the government of the United Arab Emirates" (WEF 2016).

While other Global Agenda Councils focus on "the Future" of various technological assemblages, the geographic councils focus explicitly on "Africa" or "Latin America" or "China." The Arctic Global Agenda Council is very much a future-facing organization positioning itself amongst a glut of analysts who are knowledge producers in the "booming trade in Arctic Futures" (Dittmer et al. 2011). The AGAC has taken up the task of developing "principles that lay the foundation for responsible Arctic development" (WEF 2015). The literature of the AGAC repeatedly insists that the Arctic is not an empty frontier. However, the goals of the Arctic Investment Protocol reveal that the AGAC imagines itself as filling a vacuum where no other organization is working towards sustainable development of (or in) the Arctic. This may not have been the case if more Arctic residents, specifically indigenous residents such as the international Inuit, had been members of the AGAC. The AIP itself is a slim document outlining six non-binding principles:

1) Build resilient societies through economic development
2) Respect and include local communities and indigenous peoples
3) Pursue measures to protect the environment of the Arctic
4) Practice responsible and transparent business methods
5) Consult and integrate science and traditional ecological knowledge

6) Strengthen pan-Arctic collaboration and sharing of best practices

Each principle in the AIP has several accompanying bullets that present little in the way of additional specific content (WEF, 2015). There is nothing immediately contentious or substantive about the AIP, so why would the AGAC feel the need to produce it at all? Understanding the implications of the AIP requires scrutiny of the other literature produced by the AGAC. In the document "Demystifying the Arctic," the AGAC dispels the notion of an Arctic barren of people yet full of extractable resources (WEF, 2014). Instead, the AGAC presents its own construction of an Arctic characterized by needs that can be met through sustainable development by private enterprise assisted by nation states. The document declares four main challenges confronting the sustainable development of the Arctic:

1) The Arctic needs protection from environmental damage, resolution of certain global agreements, and new collaborative models to secure sustainable growth.
2) The Arctic needs investment.
3) The Arctic needs measures to better ensure human and environmental safety in the face of increased shipping and offshore activity.
4) The Arctic needs science. (WEF, 2014)

The conspicuously more detailed challenges 1 and 3 highlight the role of national and trans-national governments in Arctic development. The AIP does not target nation states as the audience of its directives. The only mention of borders in the AIP falls under the principle of strengthening "pan-Arctic collaboration and sharing of best practices." Under this heading, it is the responsibility of adherents to "encourage public-private partnerships" and respect "relevant national and international laws." Throughout the document, the Arctic Council and the International Maritime Organization (IMO) are cited as crucial supranational organizations supporting development. Under neoliberal reconfigurations these and other systems of governance form an "enterprise whose task it is to universalize competition and invent market-shaped systems of action for individuals, groups and institutions" (Lemke, 2001: 197). The suggestion from the AGAC that these organizations may help facilitate the protection of the Arctic environment and the safety of capital moving through Arctic space is not merely an idea, but a softly declared demand. Private investment depends on government subsidy through the establishment of infrastructures, but the AIP lays the groundwork for a financial polity.

"Demystifying the Arctic" highlights the need for a "Sustainable Arctic Investment Vehicle, designed much like (and possibly in cooperation with) one of the international development banks" (WEF, 2014). Despite the benevolent declarations of the AIP, the regional development bank model has been relatively unsuccessful in anything other than the proliferation of American-style free market neoliberal ideology (Agnew, 2005). The AIP anticipates the spirit of the loan terms of an Arctic development bank, and as such, constitutes a document outlining privately-mediated soft-governance for Arctic development.

Neoliberal Cartographies: Gateway and Corridor

The AIP's influence on transboundary relationships is best understood through the neoliberal production of space. In general, this model of space is composed of nodes that serve as sites of production and consumption separated by spaces of flow with their own unique, but secondary characteristics (Dodds & Nuttall 2015). Neoliberal productions of space have been studied and articulately theorized by geographers of critical logistics (Cowen 2010; Cowen 2014; Cowen & Smith 2009). They have formulated a taxonomy of space as it is conceived by neoliberal logistics logics: gateways (nodes), and corridors (connections) (Cowen 2014). Both gateways and corridors are modular components of the supply chain: a master-plan of capital movement. Gateways can be understood as valves whose modification controls flow. The AIP does not make demands for radical changes to the current geometry of Arctic geopolitics. It is part of a longer process of the neoliberal re-organization of space where the territorial containers of nation-states are less relevant than the flows between metropoles.

The national border is a gateway, however the border is no longer necessarily located along the seam between countries, but wherever it most conveniently fits in the supply chain. Corridors are generally the least-cost paths between gateways, they are spaces of flow where friction to capital movement is minimized but never obliterated by technical expertise (Cowen, 2010). This logistics geometry is not new in global or Arctic contexts, but it serves as a convenient model to understand the implications of documents like the AIP. The production of a neoliberal Arctic space is amplified by the processes contingent to the AIP.

Corridor: Maritime Safety and Security

The AIP encourages pan-Arctic collaboration and the AGAC makes specific mention of the role of the Arctic Council and the International Maritime Organization in "enhancing marine safety" for shipping and offshore activity (WEF, 2014). The most valuable product of ocean space has been its resource of connectivity (Steinberg, 2001). The ocean, as a space of flows, has been historically constructed as a space outside of the territoriality of nations that is desirably annihilated or at least smoothed for the movement of capital. The ocean is a corridor space, and the Arctic Ocean is increasingly becoming a space of capital flows (Ghosh & Rubly 2015). The optimal logistics corridor is one with little or no friction. The environmental contents of the Arctic are imagined as both perilous, and fragile (Steinberg et al. 2015). Doubly, the Arctic environment is a source of material friction in terms of sea ice and cold temperatures, as well as the moral friction of environmental stewardship. For the AIP, cross-border security renders the state's primary function as the removal of friction elements.

The International Maritime Organization (IMO) is a technocratic arm of the UN which drafts policy for shipping in waters outside of any singular national jurisdiction, which the AIP cites as a candidate supranational organization for the coordination of policy ensuring "human and environmental safety in the face of increased shipping" (WEF 2014). This sentiment echoes previous contentions of the United States, which asserts that IMO policy would be just as effective as national environmental protections (Steinberg et al. 2015). Already, under Article 234 of the United Nations Convention on the Law of the Sea, coastal states have a right to enforce special regulations to ensure human and environmental safety in frozen waters within 200 nautical miles of their shores (Arctic Governance 2016). However, the enforcement of Article 234 by Canada has been characterized as an example of excessive environmental nationalism by the United States which "noted with concern the references to 'sovereignty'" (Steinberg et al. 2015: 60). The United States is primarily interested in preventing any extensions of Arctic sovereignty under the guise of environmental protection, preferring the free mobility of its navy. The IMO is historically both an administrator of American security policy and an explicitly market-shaping agency.

The International Code for Ships Operating in Polar Waters (Polar Code) will come into global force in 2017 (IMO 2016). The IMO's involvement in the national

waters of the Arctic can be read as an incursion of a transnational organization legitimized by its valuable resource of maritime expertise. The declared goal of the IMO is a "level playing-field so that ship operators cannot address their financial issues by simply cutting corners" (IMO 2016). The rationale of the IMO as an entity is articulated through neoliberal demands for the universalized market morphology (Lemke 2001). The enforcement of IMO regulations, like the Polar Code, is under the jurisdiction of a vessel's origin state (IMO 2016). A vessel functions as a miniature extension of sovereignty as it travels through oceans, past other nations and ecosystems that stand in the effluent of international waters. The responsibility for securing Arctic environments is downloaded onto the certification apparatus of the state, while the generalized ocean environment remains extra-territorial. In this way, the Polar Code can demand international collaboration for search and rescue as well as environmental remediation from states without invoking any connotations of environmental sovereignty.

The United States endorses the Polar Code to defuse sovereignty claims through the Polar Code, and this should be understood within the context of previous uses of the IMO as an instrument of American foreign policy. The International Ship and Port Security (ISPS) code was "crafted at the direct behest of the United States" and serves as a central component to the globalization of supply chain security (Cowen 2014: 88). The universalized market administered by the IMO is disproportionately oriented towards the United States and thus, American business interests. The AIP's advocacy of the Polar Code legitimizes the interests of American hegemony through the inarguable need for environmental and human safety.

The Arctic Council, as another supportive structure for neoliberal supply chains, is implicated by the AGAC as a provider of security for Arctic shipping. The Arctic Council is left to pursue its agenda of "enhancing Arctic marine safety, protecting the region's people and environment and building Arctic marine infrastructure" (WEF 2014). One of the two binding agreements produced by the Arctic Council pertains to a sectoral divide of Search and Rescue (SAR) responsibilities between Arctic coastal nations (Arctic Council 2011). SAR has been highlighted by neo-realist scholars as a crucial infrastructure to support safe shipping (Higginbotham et al. 2012). And as noted in the Tromsø declaration, the SAR agreement is a direct response to the increase in marine traffic in the Arctic (Arctic Council 2009).

The SAR agreement is an important document for Arctic region building, assigning Arctic nations the custodial work of securing the harsh environment. It is of practical value as a departure from Cold War postures, forcing the integration of pan-Arctic security complexes under peaceful operations (Exner-Pirot 2012). Cross-border security integration initiatives are undoubtedly endorsed by the AIP and more generally the WEF community as much as they are by national state interests. However, the impetus for this round of region-building is the reduction of friction through the Arctic trade corridor, realizing the ocean-space resource of connectivity.

The SAR is legitimized through a construction of the Arctic as a transport surface that is both fragile and hostile. The risk of shipwreck generates a set of frictions composed of the threat of unforgiving elements and the obligation to environmental and labour ethics. An additional, rarely-mentioned problem solved by the SAR agreement stems from the insurability of vessels under international law. The Nairobi International Convention on the Removal of Wrecks couples compulsory vessel insurance with a requirement to report and, where possible, remove shipwrecks (Transport Canada 2010). Under Articles 6 through 9 of the Nairobi Convention, the state in whose waters a wreck occurs is responsible for locating wrecks and assessing the degree of hazard a wreck poses. Under Article 12, the owner of the wrecked ship is liable for the costs of locating, marking, assessing and, if necessary, removal. All of these costs must be insured. Search and Rescue infrastructure provided by states incurs maintenance costs that cannot be reimbursed through individual operations. In the Canadian Arctic, infrastructure is embedded in a dominant narrative of emergency response and survival that favours the treatment of immediate and tangible situations rather than the "slow violence" of colonial legacy (Ruiz 2014: 19). The Arctic Search and Rescue infrastructure disproportionately benefits shipping out of and through the Arctic while there is no infrastructural program for food security and sovereignty for Arctic residents.

Crucial to the movement of capital, the Arctic SAR agreement facilitates the evaluation of the shipwreck as hazardous to future vessels by providing accurate locational data. While the SAR may provide marginal benefits to the residents of the Arctic, it amounts to a subsidy of shipping interests who faced severe technical barriers to the insurance of their vessels.

Corridor: Scientific Region-Building

As an under-studied and changing region, the AGAC proclaims that "the Arctic needs science" (WEF 2014). The purpose of this claim is twofold: to legitimize scientific narratives through environmentalism, and to generate data for the mitigation of environmental risk. The "fragile environment" imagining of the Arctic has held a strong currency among commentators and politicians (Dittmer et al. 2011).

Scientific knowledge production provides an opportunity for international collaboration on issues that can be cast as outside of politics, while justifying a paternalistic approach to governance. Nationally-orchestrated science in the Arctic has historically been conducted by non-residents (Shadian 2014; Dodds & Nuttall 2015). Scientific research faces numerous funding challenges, which often justify the consolidation of scientific activities, and their associated official region-building narratives, within state bureaucracies. The scientifically-constructed Arctic-in-peril is routinely exported as a subject of moral and increasingly practical concern for outsiders. AGAC member Neil Hamilton states that the Arctic is "of critical importance in global sustainability" (Quaternary Research n.d.). Hamilton is an environmental scientist and consultant who has previously worked for Greenpeace and the World Wildlife Fund. Perhaps his work history is not disclosed in the AIP, because environmental NGOs have had a historically uneasy relationship with Arctic inhabitants. These organizations are perceived as perpetuating the Arctic as the environmental other of the spaces of modern society (Dodds & Nuttall 2015). This process of othering casts the Arctic and its inhabitants as victims in need of saving. Science as a tool of an environmental saviourhood is a profoundly legitimizing force. This saviour complex underpins the legitimacy of the AIP as much as state-led conservation programs. Science is less obviously an exploitative and extractive industry than natural resource development, and produces binding metaphors for regional integration (Nicol 2005).

Although the claim that the region is not the subject of intense study is certainly contestable, the AGAC re-iterates the claim that the bathymetry of the region is incomplete for the construction of shipping corridors (Higginbotham et al. 2012; Ghosh & Rubly 2015; Gill & Sevigny 2015). In addition to smoothing out the moral surfaces of corridor management, scientific knowledge is crucial to risk assessment for navigation. The call for more thorough bathymetry datasets is more transparently tied

to the smoothing of friction between sites of production and consumption. Currently, all twenty-six communities within Nunavut are serviced by marine delivery of dry goods and fuel, suggesting that domestic delivery routes are fairly unhindered by incomplete knowledge of the sea floor (Yukon 2008: 14). The Arctic, as constructed by oceanographic science, is legible through the friction it creates for a corridor geography.

Gateway: Vernacular of Enclosure

The AIP is a thin document with no specific Arctic content, focusing on transferable "broad principles" that could easily be adapted to any region (WEF 2015). The Protocol in turn appeals to other platitude lists from supranational and private philanthropy-oriented organizations. The document is directed at investors and is an attempt to make the Arctic legible to business interests. However, there is no further specialization of regional conduct directives, and the directives fall back on the pronouncements of sustainability that are familiar to multinational corporations. The complete lack of new substance within the AIP signals that the same vernacular of sustainability and Corporate Social Responsibility (CSR) will be the preferred dialect of business in the Arctic. This vernacular functions as a form of linguistic enclosure, ensuring that those in the global club are given preferential treatment.

In her treatment of international standards, Easterling terms the language of these content-empty codes of conduct as a "managerial esperanto" that produces closed circuits of compliant organizations (Easterling 2014). The comparable International Standards Organization (ISO) standard on Quality, ISO 9000, outlines a set of principles that form "a set of fundamental beliefs, norms, rules and values that are accepted as true and can be used as a basis for quality management" (ISO 2015). The principles are essentially self-referential and present no clear definition of Quality, their meaning is wholly flexible. Regardless, the ISO sells certification for quality management to organizations across the world which aspire to speak a common language of corporate culture. Since the principles are meaningless, certification membership rather than actual implementation determines compliance. This gateway vernacular can be contorted to arbitrarily exclude organizations from participation in development processes. Or worse, it can grant access by inoculating organizations against criticism.

International CSR standards have a history of supplanting national environmental law for nebulous corporate ethics (Kimerling 2001). While the AIP makes appeals to general benevolence, they provide no recourse for individuals and communities affected by environmental and social negligence. The first among a list of international guidelines in the appendix of the Protocol is the Aspen Principles of Arctic Governance. They are a product of the Aspen Institute, a private NGO complicit in the extension of US hegemony through its promotion of neoliberal market ideals (Vogel 2006). The principles are a set of banal commands to consider ecosystems and social systems when conducting business in the Arctic. That they are considered principles of governance rather than conduct or behavior blatantly illustrates an aspiration to replace systems of national environmental and social law with solutions from the private sector. Unenforceable corporate standards have a habit of trading minimum guidelines with maximum standards, undermining the consequences of regulation for corporate actors while constructing a conspicuous brand-identity around responsibility (Easterling 2014).

The thin and broad content of the AIP is legitimized by the variability of the region and a reassurance that the Arctic is "diverse" with "variations that will determine the optimal regulatory frameworks and approaches across regions and situations" (WEF 2015). The vague nature of the AIP constructs a gateway vernacular, excluding those who lack competence in the managerial Esperanto of CSR and conferring a moral protection upon members of the supply chain club.

Gateway: Technology of the Mobile Border

Returning to "Demystifying the Arctic," the AGAC identifies the Arctic as in need of increased security in the context of transnational shipping (WEF 2014). While security is inarguably important, it is never deployed in a political vacuum. The United States has a history of securing the supply chain at sites far removed from its territorial jurisdiction. The agenda of national and international security, coupled with the AIP principle of "Pan-Arctic Collaboration and sharing of best practices," is a paired wedge for the insertion of American military and private security into gateways of Arctic supply chains.

Technologies such as surveillance and risk calculation are deployed at the national border to serve projects of state security. These technologies mediate the experience of objects and subjects that flow across borders. Within the supply chain as well as

geographic space, the position of coupled borders and border technologies is not static. Functionally, the border can be relocated following its technologies of enforcement. Already, supply chain security and national security are conflated by security experts (Cowen 2014: 78). Projects such as the Container Security Initiative have placed American Customs and Border Protection agents at maritime ports throughout the world, including Sweden and Canada. Programs that extend the security technologies of the American border to foreign points of origin are currently geared towards commodities imported into the territorial United States. The relocation of the maritime border to stable land is the product of an inability to ubiquitously patrol ocean space. However, the narrow waters of the Bering Strait may lend some legitimacy to American security intrusions into foreign port zones. The AIP requires the "strengthen[ing] of pan-Arctic collaboration and sharing of best practices" (WEF 2015). Under this principle, the AIP advocates for public-private partnerships (PPPs). The World Bank has historically imposed export-oriented development though its lending terms, and is currently reproducing this model through the finance of logistics infrastructures (USAID n.d.). The companies that are generally prepared to participate in logistics PPPs are largely American-owned and compliant with security initiatives.

Mead Treadwell, a member of the AGAC, asserts that the "top of the world is no less ripe for infrastructure than the American West was after the Louisiana Purchase and before the transcontinental railroads" (Treadwell 2015). He uses the example of American administration of the Panama Canal to draw a parallel between global trade and the interests of the United States. His appeal for a collaborative approach to the management of the Northern Sea Route "with or without Russia" signals a tacit acknowledgement of the importance of Russian Arctic ports for the preferred Arctic transport corridor (Ircha & Higginbotham 2015; NSRIO n.d.). However, the suggestion that the governance of the St. Lawrence Seaway presents an appealing icebreaker escort "business opportunity" betrays an ulterior motive of American hegemony. Treadwell is formerly the lieutenant governor of Alaska (2010-2014) and currently the president of the Arctic-focused investment firm Pt Capital, LLC (Pt Capital 2015). His comments can serve as a litmus test of the security implications of the AIP's desire for the sharing of "best practices."

For an eventual Arctic Development Bank, best-practices of security and PPPs that insert American companies could be attached as demands to funding projects.

Existing and non-compliant ports could be threatened with excommunication for global trade through ports where American security intrusions are mandatory. While the practicalities of an American presence at ports along the NSR are politically improbable, the security of Canadian resources within the Arctic is already known to be an American issue. Canadian pipelines are listed as part of the foreign critical infrastructure of the United States (Wikileaks n.d.). Given that Canada is already accommodating the presence of US border inspections at its port in Prince Rupert, British Columbia, there exists the potential presence of American border security technology at sites of resource production (Cowen 2014: 73). The presence would render resource development sites as zones securitized by a foreign force, meaning that labour has to cross the American border for employment. Under the rubric of supply chain security, all disruptions to the flow of goods are treated the same. This could be disastrous for organized labour at resource extraction sites within the Canadian north.

Trans-locatable border technologies deploy the rationale of security to render borders selectively permeable to objects and subjects. The security in question is not primarily the safety of human life or the protection of the environment: it is the security of a commodity supply chain. Previous neoliberal gateway technologies of the American border have emerged as attachments to logistics-oriented development assistance. With a precedent of American security intrusions into foreign sites along the global supply chain, the AIP presents opportunities for Arctic rehearsals of these security practices.

Conclusion: Neoliberal Arctic Cartographies

The Arctic Investment Protocol will amplify current neoliberal processes that are re-working transboundary relationships in the Arctic. The AIP advocates the collaboration of Arctic nation states under efforts to ensure frictionless corridors for the movement of capital. These corridors require cooperation under supranational organizations such as the International Maritime Organization to restrict extensions of national maritime sovereignty. Equally, the sectoral divide of search and rescue responsibilities, and region-building through collaborative "a-political" scientific exercises, remove friction for extraction and shipping within the Arctic region. The AIP also reproduces a set of gateways, controlling access to the corridors of the Arctic supply chain economy. The AIP establishes a vernacular of enclosure, demanding that investors speak the language of globalized sustainable development if they wish to access international capital through WEF initiatives. The AIP and the AGAC allude

to needs for securitization of Arctic trade, with AGAC members appealing to American security involvement in foreign countries as benchmarks. Overall, the Arctic Investment Protocol will further entrench neoliberal cartographies of supply chains across borders while advancing American foreign policy by other means.

Chapter Eleven

Indigenous Transboundary Cooperation and Water Governance in the Yukon River Watershed: The Yukon River Inter-Tribal Watershed Council

Leslie Collins

Indigenous populations worldwide are mobilizing to have a stronger voice in the preservation of the environment and their traditional ways of life. For Indigenous peoples the two are profoundly linked in the sense that traditional cultural and spiritual practices are intimately connected to the natural world and are rooted in ways of life that predate European colonization. The rise of the North American Indigenous environmental movement coincides with calls for decolonization and political and economic autonomy over land and water resources across the continent. Throughout North America Indigenous people are now at the forefront of environmental grassroots organizations and social/environmental/political movements such as "Idle No More" and the Indigenous Environmental Network.

One of the most pressing issues within these movements is that dealing with the preservation of clean water. Not only is water essential for the sustainable health of the environment, human populations and all species, its preservation, conservation of water quality and the health of waterways are of paramount importance to maintaining healthy fish and game for traditional ways of life for present and future generations. However, water governance is a complex issue with cultural and spiritual ramifications for Indigenous populations because water is considered sacred, spiritual and essential to cultural practices as well as essential for human and ecosystem health. Indigenous concepts of and relationships to water differ from those of the Western perspective. Rather than viewing it as a resource to exploit, Indigenous knowledge teaches that water is a living and spiritual entity. Indeed, Wilson (2014) calls this a "hydrosocial" relationship, and outlines how this relationship is dependent on the interactions among users of water, cultural politics, and power relationships.

The Politics of Water

Water flow does not necessarily respect political borders. In many cases rivers, lakes and oceans are shared water bodies between nations or other political jurisdictions, reflecting the fact that many water bodies cannot ultimately be managed or controlled by one political entity. Moreover, there are nested jurisdictions with responsibilities over some aspect of water use and/or control - including municipal, state or province, and federal areas of responsibility even where international cooperation occurs. In North America the most obvious example of internationally shared water bodies are the Great Lakes, where the international boundary between Canada and the United States is drawn mid-way through Lakes Superior, Huron, Erie and Ontario and managed by an International Joint Committee established by the Boundary Waters Treaty of 1909 (Norman, 2015).

While the International Joint Commission is responsible for managing waterbodies along the Canadian-United States border, within Canada transboundary water agreements also exist between provinces and territories, such as the Mackenzie River Basin Transboundary Waters Master Agreement (1997). The signatories to this agreement include the governments of Canada, British Columbia, Alberta, Saskatchewan, the Northwest Territories, and Yukon, as all entities share some portion of the Mackenzie River basin within their political borders (MRBB 2015). A more complex water governance situation can be found within Yukon Territory. Indigenous governance jurisdiction over lands and resources has increased the complexity of the management of lands, waters and natural resources within the Territory. In 1993, for example, Yukon First Nations (through the Council of Yukon Indians, now the Council of Yukon First Nations) signed a tri-partite agreement with the federal and territorial governments, known as the Umbrella Final Agreement. This agreement gave Yukon First Nations rights and title over settlement lands and the framework for each First Nation to develop individual Final Agreements with the other parties. These Final Agreements include self-government agreements, whereby individual First Nations are empowered to "enact laws in respect of their lands and citizens, to tax, to provide for municipal planning, and to manage or co-manage lands and resources" (CYFN 2016).

Since 1993, eleven of fourteen Yukon First Nations have negotiated final agreements over land claims, self-government and the management of lands and resources. This includes First Nations residing within the Yukon River basin. This

paper will examine how the latter, through the Yukon River Inter-Tribal Watershed Council (YRITWC), are working together toward environmental protection of the Yukon River watershed, a river system crossing provincial/territorial/state borders between Canada and the United States. The YRITWC is an Indigenous organization that provides resources to Indigenous people for land and water management programs in the Yukon River watershed. The study was based upon a series of interviews with YRITWC decision-makers during site visits to the Yukon River basin and the biennial YRITWC Summit at Minto, Alaska, in the summer of 2015.

The Yukon River Watershed

The Yukon River headwaters are considered to originate from the Llewellyn Glacier in the Juneau Icefields in northern British Columbia and flow into Atlin Lake, although other glacier fed lakes are also considered as headwaters. The Yukon River is the fifth longest river in North America, at 3185 km in length, and flows in a northwesterly direction through British Columbia and Yukon into Alaska, where it then arcs southwestward before discharging into the Bering Sea on the west coast of Alaska. The Yukon River has the longest Pacific Salmon run in the world due to the fact that it is the longest free-flowing river in North America, dammed only with a single dam at Whitehorse for hydro-electric power for the city. Several major rivers in Yukon and Alaska are tributaries to the watershed and contribute to a basin of approximately 850,000 sq. km (330,000 sq. mi.) in size (USGS, 2000), the seventh largest drainage basin in North America. The Yukon River flows through twenty ecoregions of subarctic and arctic terrain and supplies 8% of the freshwater to the Arctic Ocean (Bailey 2005).

The region of the Yukon River watershed has been used since prehistoric times as populations crossed the Bering land bridge approximately 12,000 years ago to allow distinct Indigenous cultures to develop and thrive (Yesner 2001). Hence, these Indigenous communities and cultures were well developed before the European colonization of North America. The Yukon River basin was sparsely colonized until the historic gold rush era in the late 1800s, when an influx of large numbers of non-Indigenous people travelled to the Yukon Basin. The population at Dawson City peaked above 30,000 during the height of the gold rush, with the rest of the territory home to approximately 4,000 First Nations residents. After the end of the Klondike gold era, the non-Indigenous population within the territory collapsed with the 1921

census at 4,157. Currently the population of Yukon Territory is largely urban, with the majority of the Yukon Territorial population (>76% as of June 2014) situated in the city of Whitehorse (Coates and Graham 2015). According to the most recent census data (2014) from the State of Alaska, the Alaskan portion of the watershed is far more heavily populated with the city of Fairbanks and southern towns home to 97,972 people (State of Alaska 2016). In addition, the Yukon Koyukuk and Kusilvak census areas along the length of the Yukon watershed are home to a total of a further 13,530 people, situated in small villages, all of them being considered Indigenous communities.

Origins of the Yukon River Inter-Tribal Watershed Council

In both Yukon and Alaska, governance over Yukon River waters is complex, involving federal, territorial/state and First Nations/tribal governments and a variety of other actors through water boards and other resource agencies. Indigenous water rights were not addressed by the State of Alaska within the landmark Alaska Native Claims Settlement Act (ANCSA) (1971), whereby formed Native Tribal Corporations in the State collectively received a cash settlement and 44 million acres of land. To this point there are still outstanding legal challenges regarding water rights within Alaska between the State and US federal government, and Indigenous water rights are not formally acknowledged. Within Yukon Territory, First Nations have some governance over water, which is outlined in the Umbrella Final Agreement describing the rights to use and manage water flow through lands under First Nations governance. To date eleven of the Yukon First Nations have signed Final Agreements, with many of these being Nations in the Yukon River watershed (CYFN 2016).

Although remote, the Yukon watershed has been subject to significant human impacts from historic mining and the large-scale military activity that began during the Second World War, especially in the Alaskan division of the watershed. The development of military bases, the creation of the Alaska Highway, and the development of the oil and gas industry and pipelines have left a legacy of contaminants within the watershed that continue to impact the waterway along with municipal sewage and dumpsite contamination and solid waste (YITWC 2012). Within the large transboundary watershed, and acting across the international border, the Yukon River Inter-Tribal Watershed Council (YRITWC) was developed due to the concerns of the Indigenous peoples all along the length of the river over changes

they were observing in the water quality of the Yukon River, a vital source of food, water and livelihood.

In December 1997 the YRITWC was initiated with the meeting of thirty-four First Nations and Tribal leaders at Galena, Alaska. This historic meeting was the first time that peoples from all along the river had come together for a common goal of the restoration and protection of the water of the entire Yukon River (YRITWC 2016). As founding member and elder advisor Harold Gatensby observed about this first Summit meeting, "people had an opportunity to express their concerns, and what I think we became more aware of at the time was that we all had the same concerns about the river, about the visual results of it being neglected environmentally, and from there the organization started" (personal interview August 2015).

The meeting at Galena resulted in the formalization of the Yukon River Inter-Tribal Watershed Council, whose decision-making process is consensus driven, and whose mandate and direction are community-driven and guided by what Norman (2015) refers to as integrated resource governance. According to Gatensby, at Galena "we decided to use the values of our ancestors to conduct ourselves and to govern ourselves which I think also came a little bit more alive at that time. Where the people at that gathering felt….the goodness of it, being respectful to one another, to be recognized as part of the land and part of the water that we are and it turned into more a native organization and from there we continued on" (personal interview August 2015).

The development of the YRITWC created the first organization to observe and study the Yukon River watershed from source to mouth (Norman 2015). The vision statement, "to be able to drink water directly from the Yukon River," was developed (to be achieved over a fifty year period), and was reflected in the subsequent mission statement: "We, the Indigenous Tribes/First Nations from the headwaters to the mouth of the Yukon River, having been placed here by our Creator, do hereby agree to initiate and continue the clean-up and preservation of the Yukon River for the protection of our own and future generations of our Tribes/First Nations and for the continuation of our traditional Native way of life." The YRITWC describes itself as "an Indigenous grassroots organization dedicated to the preservation of the water quality of the Yukon River watershed," and is a non-profit charitable organization in the State of Alaska, where the organization is headquartered" (YRITWC 2016). Since its inception, the organization has grown to include seventy-three First Nations and

Tribal signatories, while Indigenous governance interest over the entire watershed adds a significant layer to the patchwork of governance already in place within the binational region.

The YRITWC Cross-Border Program

The development of the YRITWC has acted to empower the Indigenous communities within the vast area, through a unified collective voice focused on First Nations and Tribal needs and the health of the river system on which they depend. The organization works across Indigenous, State, Territorial, Provincial and International borders within the natural boundary of the watershed. The YRITWC consists of an Executive Committee of the Board of Directors, led by co-chairs from Alaska and Yukon. The Committee consists of Chiefs or designated persons from members of the Council, with 7 Alaskan and 7 Yukon members selected through a consensus process. The committee members represent geographic regions of the membership Tribes and First Nations as well as a number of Elder Advisors. The council's staff includes a regional director and department staff members, working under the directives of the Executive Committee. Based on funding sources and projects, the number of staff and department organization fluctuates and currently there are three departments: administrative, sustainable lands, and science (YRITWC, 2016). Significantly, only the Science Department operates across the international and state/territorial/provincial borders, as this department is responsible for the water quality monitoring in the entire basin, a suite of "Active Layer Network" sites to monitor permafrost, and training of community monitoring technicians through the Indigenous Observation Network (ION), a grassroots citizen science program for water and environmental monitoring. The YRITWC is unique in that it is endorsed by and operates as a collective of separate Indigenous governments nested within the watershed boundary, where each has some jurisdiction over a portion of the watershed. In contrast, in other jurisdictions that have adopted a "watershed approach," governance bodies such as municipalities, provinces, states, or nations work to fit the watershed into political governance jurisdictions where decision-makers can be held accountable to interests outside the watershed boundary (Cohen, 2015).

The goal of environmental protection of the waters of the Yukon River is directly tied to the preservation of traditional culture through deep cultural, spiritual and

livelihood ties to the health of the river ecosystem. The goal of restoring and preserving good water quality is the foundation for the preservation of fish and other food species. The YRITWC Watershed Accord provides the guiding principles for the organization. This Accord outlines how the signatory First Nations and Tribes understand the reciprocal relationship between the health of the river and its inhabitants (preamble points 1-4), that the signatories have political rights, including rights to self-determination, participation in government-to-government decision-making, and that the relationships among First Nations and Tribes predate the International border (preamble points 5-8). By signing the Accord, the signatories agree to the Strategic Plan that outlines the short and long-term goals of the organization under the headings of understanding, education, restoration, preservation and stewardship, and capacity building (YRITWC, 2016).

Although the YRITWC has been recognized for its accomplishments, notably when the US President Barack Obama awarded Alaskan co-chair and co-founder of the council Clarence Alexander with the Presidential Citizen's Medal in 2011 (YRITWC, 2016), its relationships and interactions with other governance bodies in Canada and the United States whose jurisdictions overlap within the Yukon watershed have not been fully explored. An assessment of the mechanisms that allow the YRITWC to meet its mandate across borders and within a variety of governance situations may inform our understanding of the challenges and successes of other Indigenous-led organizations and initiatives in other areas of the world, where Indigenous peoples are demanding more control over their traditional territories and resources. Through personal interviews with staff and Council executives, this paper further explores the ability of the organization to meet its mandate. We begin by exploring governance relationships across borders and water governance in the Yukon River basin. We identify the governance and fiscal challenges across borders, and conclude that in large measure, although the work of the YRITWC is remarkable and effective, stable funding remains one of the greatest challenges for its operation.

Water Governance in the Yukon River Basin

At the biennial Summit meeting of 2013, held in Mayo, Yukon, the YRITWC endorsed its Yukon River Watershed Plan. This historic moment saw all signatory First Nations and Tribes sign an agreement whereby individual First Nations and Tribal governments agreed to a set of water quality standards for the Yukon River

from the source to the mouth (YRITWC 2013). The agreement to set standards for water quality for the Yukon River waters was adopted to meet the vision set out in the original YRITWC Accord. The Watershed Plan outlines measurable standards for water quality, based on the most protective standards from the Northwest Tribes and States/Guidelines of the U.S. Environmental Protection Agency and Canadian Council of Ministers of Environment for numerous substances, and describes river flow objectives to ensure environmental water quantity in all regions of the river to sustain aquatic and human health (YRITWC 2013). The plan also will be a tool to address governance issues around water quality and quantity, and Indigenous rights related to water on both sides of the International border. The plan's

> … objectives are also consistent with a) the water rights of the First Nations in Yukon and British Columbia as described in the Yukon Umbrella Final Agreement, b) with the premises and provisions of the Self-Government Agreements in Yukon, c) with the reserved water rights of the U.S. government under the Alaska Lands National Interest Lands Conservation Act, d) with the inherent water rights of the Tribes and First Nations of the Yukon River as sovereign governments within the U.S. and Canada, and e) as recognized in the United Nation's Declaration on the Rights of Indigenous Peoples. However, these objectives will be understood and expressed in different ways in the different legal jurisdictions within the watershed.

The Watershed Plan was developed with the intention of shared governance over water quality standards for the Yukon River.

The question of how the watershed plan will be implemented, and how it will be affected by, or affect, other layers of governance in relation to the different governance models across the International border, was addressed in a series of personal interviews with YRITWC and Yukon government staff. According to Acting YRITWC Executive Director Rob Rosenfeld, implementing regulations through the Tribal system of governance in Alaska will be very challenging because Tribal governance in Alaska is complex. Although the federal government works with Alaskan Tribes on a government-to-government basis, the State does not. He stated that the Tribes could adhere to the environmental standards of the Watershed Plan themselves, but the enforcement of these standards for others within the watershed is currently not possible, as they do not have the ability to be part of the regulatory process under the U.S. legal framework. A Tribal government must have a land base to be part of a

regulatory body, but Tribal lands are most often held by separate Tribal Corporations under the Alaskan Native Land Claim Settlement Act (1971).

Within Yukon, First Nations governments have the ability to enact legislation that must be recognized by other levels of government, thus making it easier for First Nations to "have a seat at the decision-making table" (Rob Rosenfeld personal interview 2015). The Yukon Umbrella Final Agreement, Chapter 14 on Water Management, states that: "subject to the provisions of the Umbrella Final Agreement, a Yukon First Nation shall have the exclusive right to use Water which is on or flowing through its Settlement Land when such Water is on or flowing through its Settlement Land," and "a Yukon First Nation has the right to have Water which is on or flowing through or adjacent to its Settlement Land remain substantially unaltered as to quantity, quality and rate of flow, including seasonal rate of flow." The section on interjurisdictional agreements states that "Government shall make best efforts to negotiate Water management agreements with other jurisdictions which share drainage basins with the Yukon," and "Government shall Consult with affected Yukon First Nations with respect to the formulation of Government positions on the management of Water in a shared drainage basin within those Yukon First Nations' Traditional Territories in negotiating an agreement pursuant to 14.10.1" (CYFN 2016). Through the YRITWC Watershed Plan "the Tribes and First Nations of the Watershed Council expect to enter into government-to-government discussions with the other sovereign governments in the Yukon River basin, on both sides of the international border, to implement the water quality standards and other elements of this plan" (YRITWC 2013).

Governance Relationships across Political Borders

The problem of cross-border governance in the Yukon River Basin may be challenging in general, but according to YRITWC staff and Executive Committee members there are no significant challenges with working among First Nations and Tribal governments, and boundaries between these political entities are not a barrier to working together. According to YRITWC leadership, the vision is consistent and the integral strength of the cross-border governance structure is significant: "I don't see any difficulty or cross-border issues per se. We all have the same vision and mandate and we developed that vision and mandate collectively" (Darren Taylor, Tr'ondek Hwech'in First Nation, personal interview 2015). Founding member and

elder Harold Gatensby recalls how the initial group that met at Galena came up with the theme "One River, One People," and that this clearly embodied the notion of cooperation and working toward their stated goals as one people regardless of territorial borders.

That said, the structure of the organization facilitates cross-border engagement at all levels. The Council's collective goal is to empower those at the community level to work on projects that meet the mandate of the organization. The staff of the YRITWC provide regular training workshops for community members and governments pursuant to various programs, ranging from water quality sampling methods to solid waste management and brownfields redevelopment (YRITWC 2016). The organization's aim is to build capacity within member Tribes and First Nations to meet the goals of the Watershed Accord. According to science staff member Jody Inkster (Whitehorse), this is easier in the Canadian portion of the watershed in some respects since some self-governing First Nations have resource and environment staff within their own governments. As Natcher and Davis (2007) have noted elsewhere, however, Yukon First Nations governments have challenges related to the devolution of responsibility for resources management in terms of finding/retaining First Nations personnel to fill natural resource management positions, especially from within their own small communities. This presents the real possibility that a significant lack of technical skill, knowledge of other government(s) regulations, and policies for water and other resource management may challenge the organization at some point.

Indeed, in an interview Yukon regional manager Jody Inkster observes that one of the goals of the strategic plan is to "help build scientific capacities" by training First Nations. She observes that, in general, the YRITWC program relies on First Nations technicians to do the work and build it into their work plans and departmental budgets. This, however, is not always possible because of the limited funding provided to First Nations governments to implement natural resource management in Canada. For the monitoring of water resources within their territories, the YRITWC lends a critical technical element to all Indigenous governments under their umbrella. Often there is no funding through the community to conduct water quality sampling and monitoring, and First Nations staff or community members collect samples voluntarily with materials provided by the YRITWC (Jody Inkster, personal interview 2015). If a particular community does not have sufficient capacity, YRITWC science

staff provide assistance and help the First Nations monitor what it considers to be an environmental concern.

Alaskan communities have also partnered with the YRITWC to monitor water quality. Tribal government personnel are funded through the community government to collect samples, while the YRITWC provides training, sample logistics and analysis of water samples (Edda Mutter, personal communication). In this sense, maintaining and expanding the ION program across the watershed requires partnership with community governments to conduct the actual sampling. The binational monitoring programs under the ION initiative are the essential organizational glue that reinforces the operational transboundary nature of the YRITWC. This binational programming is accomplished through work within individual signatory communities on both sides of the international border. The water quality program provides scientific data to inform the entire Council of the state of the Yukon River, at various points along the length, and can serve as the basis for evaluating the improvement or impairment of the river.

While there is significant cooperation amongst the various Indigenous governments along the length of the river, there are differing levels of engagement with other levels of government. Within Yukon, YRITWC staff indicated that there have been some communications and collaboration between the YRITWC and the territorial government through the Water Resources Branch at the Department of Environment. For example, through Water Resources, the territorial government provided funding for a Yukon-based youth initiative project and attended a YRITWC climate change workshop. The government also funded and participated in a water quality training initiative, supplying $350,000 through the Northern Strategy Trust fund to the YRITWC. The Department also has had personnel deliver presentations at the biennial Summits.

According to staff, there is room for more collaboration. George Shepherd, Chief of Carcross First Nation and newly-elected Yukon Regional co-chair, related in an interview that, from his perspective as a member of the Council, there is not a great deal of interaction with the Yukon government. In terms of the Yukon River, he explained that the Yukon government collects their own water data, as does the YRITWC, and the metadata from the YRITWC is shared with the Water Resources Branch and presented on their website called YukonWater.ca. This site, however, does not show actual water quality data, but only reports the sites that are monitored.

YRITWC science staff indicated that science information on water quality collected through the ION is not considered precise enough for government programs so it is not considered by decision-makers in other levels of government. YRITWC Science Director, Dr. Edda Mutter, explains that the Science Department of the YRITWC is striving to "develop partnerships or facilitate partnerships between federal, regional and state government and YRITWC/First Nations/Alaska Tribes to strengthen or establish funding opportunities to implement science projects addressing environmental and human health" (personal interview).

How individual First Nations and Tribes implement regulatory or guidance tools as part of the Watershed Plan remains to be seen. However, the YRITWC reveals clear expectation for government-to-government agreements on water quality standards for the Yukon River. The YRITWC Watershed Plan is a tool to assert governance rights in the Yukon River watershed and Tribal and First Nations regulations and negotiations will test the multi-level governance regime across the watershed:

> The plan is constructed to reflect shared governance among the sovereigns, and to acknowledge and underscore the historic and contemporary role of the indigenous nations in the governance of the Yukon River to protect the resources and sustain the life of all the people who will live along the river for generations to come, including support for the fish, wildlife and plants that are essential to their lives. (YRITWC, 2013)

The Watershed Plan is an example of how individual Tribal and First Nations governments have created a shared strategy and agreement across the Yukon River basin. Individual governments will be responsible for implementing the watershed plan locally. With self-government agreements in Yukon Territory, the implementation of Indigenous regulatory tools for water quality for the Yukon River and tributaries will be a case study of the concept and practice of self-governance within the Territory.

Fiscal Challenges

The YRITWC is funded from federal/state/territorial and private foundation sources. The Council is operated as a not-for-profit charitable agency, and as such programming is dependent on grants to the organization. Council members, the Acting Alaska Region Executive Director (Rob Rosenfeld), and the Science Department staff all stated that stable funding is the biggest challenge that the

organization faces in meeting its mandate. An inequitable distribution of available funds poses challenges to program administration across the entire watershed. The majority of funding is obtained from sources within the United States, so the majority of programming takes place with Tribal communities in Alaska. Both Canada and the US require that grant funds are spent within the country of origin, making international projects (such as the ION project) difficult to administer.

As the funding priorities of governments and foundations change over time, the organization must adapt. New fiscal realities for charitable giving can impose constraints on the ability to apply for funding. Many charitable foundations and government programs now require matching funding from other sources, creating the need to access funds from more than one source for projects. The YRITWC has developed partnerships with other institutions in order to access funding sources to meet shared research interests within the watershed.

A key partnership with the US federal government is through the United States Geological Survey (USGS). The USGS initiated a study of baseline water quality monitoring in the US portion of the Yukon River in 2000 to identify changes in water quality related to climate change (USGS 2010). Through discussions with the YRITWC in 2005 the partnership was formed to expand this project across the basin. The project was created across governments and communities to facilitate long-term monitoring across the basin and to develop a database for studies related to climate change. The USGS agreed to conduct the analysis of all water quality samples obtained through the community-based water quality monitoring network developed for the entire Yukon basin through the YRITWC (USGS 2010). This collaboration has made a significant in-kind fiscal contribution to the program and allows for water samples from across the entire watershed to be analyzed. This is significant as no agency in Canada currently provides the same services to the YRITWC. In contrast to this ongoing partnership with a US federal agency, there is no form of consistent federal funding from the Government of Canada, although project-specific grants for water quality monitoring program projects have been obtained from Health Canada and Environment Canada for specific contaminant sampling (Jody Inkster 2015).

These cross-border fiscal constraints were not initially considered when the YRITWC was developed. Mr. Gatensby, speaking about the creation of the YRITWC, related that "the [International] border wasn't really, at first, … a big issue. However we had to understand the border on both sides. When we came up with the

theme 'one river, one people,' that is when we became aware of the challenges of the border" (Harold Gatensby personal interview). He related how the Council realized the need to increase their knowledge and education on how to work with governments on both sides of the international border for funding and with respect to different laws and regulations. The new Council sought to meet with people from government agencies to participate and discuss with the Council how best to work together on the challenges of the border. "Those people that we worked with certainly complimented our efforts instead of challenging us to be compliant to government regulation" (Harold Gatensby 2015).

These initial interactions with members of government agencies signaled to the new YRITWC that their work would be a valuable asset within the Yukon River basin. Both federal and state/territorial government priorities affect the ability of procuring funding. The organization has made adjustments due to funding constraints, but the core science programs of basin-wide water quality monitoring and the ION remain priority binational projects and are maintained.

Subsidiarity and Governance

There are differences in perspective regarding the degree of engagement between Yukon Territory and YRITWC water quality agencies. For example, staff associated with the Yukon Government's Water Resources Branch indicated regular interaction with the YRITWC (Miranda Allison, Yukon Water Branch, personal interview), by attending summits, sharing the government's Yukon Waters Strategy, and participating in various initiatives discussed earlier in this chapter. According to the YRITWC, these interactions could be made more collaborative through data sharing and working in partnership toward the protection of the river. Some YRITWC members believed that the government's main goal was to use the river to create revenue, through dams, mines, and industrial uses, in contrast to the YRITWC concern that any development along the watershed might degrade the quality of the river water (personal interviews with Harold Gatensby, George Shepherd, Darren Taylor). Harold Gatensby summed up the situation when he explained that "it feels like we are at a side table" when decision-making in the Territory is undertaken, and the work of the YRITWC is done in isolation. The federal government devolved its powers over lands, water, mineral resources and forestry to the Yukon through the 2001 Yukon Northern Affairs Program Devolution Transfer Agreement, leaving it

little direct connection with the YRITWC (PWGSC 2001). In light of newly-established relationships with Yukon-basin First Nations in northern British Columbia, it remains to be seen what degree of interaction the Counci will have with agencies of the B.C. provincial government, and how those relationships may develop.

There are similar problems on the American side. The relationship between Alaskan Tribal governments and the US federal government is legally structured along the lines of a government-to-government relationships. Under federal law, many government agencies meet with representatives of Tribal governments on this basis under US Native American protocols, where Tribal concerns are addressed at the federal level (Rob Rosenfeld, personal interview). However, the State of Alaska does not recognize Tribal governments on this basis and, as such, the voice of the YRITWC is rarely considered during decision-making at the State level (Rob Rosenfeld, personal interview).

When considering these cross-border and multi-scalar engagements and interactions with governments, Harold Gatensby frames the discussion in terms of relationship building. He describes governments as being a constant body with continual changes in employees and personalities, contributing to instability in building a foundation and relationships between the YRITWC and government. He identifies the challenges of language (the issue of having to learn the language of government to interact effectively), and asks why the government seems to be averse to learning Indigenous ways of speaking about governance, lands and waters. Mr. Gatensby sums up the challenges of working with other governance bodies as:

> What we've done as an organization is we've rebuilt relationships with each other. With the people up and down the river, we're reconnecting and we're rebuilding those relationships and it's the relationships that help us to have the continuity to continue on to do what we want to do. It's not policy driven, it's about a family relationship with each other, it's a different world that needs to be, not adopted perhaps, but certainly it needs to be recognized and acknowledged that there are different ways of seeing the world if you like. But again government is a "thing," government is not a being, but the Yukon River is a being and the villages and the people and that are beings so there lies the difference. So that's a challenge. (Harold Gatensby 2015)

Conclusions

For the signatory First Nations and Tribes, the YRITWC provides a strong unified voice for the protection of a vast river watershed. The strong cooperation between Indigenous communities and governments across territorial/state and national borders is remarkable considering the differences in Tribal and First Nations governance in Alaska, Yukon, and British Columbia. Working as a unified organization, the YRITWC operates with a consensus model of decision making. The Council adheres to a traditional governance model and strives to work within both traditional and "colonial" governance systems. There is regular communication between the committee members and regular reconnection through biennial summits that allow members of the Council to meet face-to-face, and the staff to update the entire Council on their work toward meeting the overall goals of watershed water quality improvement. This is not say there are not challenges within such a large and diverse organization. Recent restructuring of the YRITWC has taken place to address what has been described as a "mission drift" within the mandate in recent years, and the YRITWC has refocused itself on the mandate as set out in the Watershed Accord to protect the Yukon River Watershed (YRITWC 2015).

The international border between Canada and the United States which divides Yukon and Alaska has arbitrarily separated communities and is considered to be an imposed barrier – what political geographers might call a superimposed boundary – meaning it divides an otherwise connected community where, historically, no border existed. Although this superimposed international border is not of the YRITWC's making, it plays a significant role in the day-to-day operations of the organization. It creates barriers to governance in the form of fiscal and subsidiarity relationships, with fiscal asymmetries between Canadian and American support. The uneven allocation of program funding across the watershed has, for example, resulted in certain programs being confined to the Alaskan portion of the watershed, and others (such as contaminants monitoring funded through Environment Canada) being confined to sites in Yukon. Indeed, YRITWC staff mentioned stable funding for programs as one of the greatest operational challenges for their organization. Small project-specific grants for water quality improvement do not provide for a sustainable program, and state, territorial, and provincial governments have different degrees of engagement and support.

With the adoption of the Yukon River Watershed Plan, the YRITWC has developed a tool to implement legally-binding standards for water quality within Indigenous lands in the watershed. The implementation of this plan will require both community engagement and engagement with other governance bodies throughout the entire watershed. How the various levels of government within the watershed interact and recognize Indigenous rights to implement water quality standards will continue to serve as an important case study in innovative forms of Indigenous governance in this multi-bordered region.

PART FIVE:

CONCLUSIONS

Chapter Twelve

Conclusions

Heather Nicol

The chapters in this volume achieve the goal of helping us to understand how borderlands in the Canadian, as well as in the international North, are facing significant pressures as climate change, resource extraction, and globalization reworks the relationships between North and South. While there is a relatively robust literature on borders in Southern Canada and the United States, little has been written about land or maritime boundaries in the Arctic. To address this deficit, each chapter in this book has examined borders and boundaries from various perspectives, and each has identified a particular issue in the ways that Northern borders have been defined, managed or modified over time. In so doing, each chapter reminds us that Northern borders and borderlands face both unique and not-so-unique challenges, but cannot be understood without reference to a framework of interconnectivity and international cooperation.

One particular challenges reflects how northern borders – whether maritime or land boundaries – have not been included in the normal calculation of border management policy and practice until recently. Border management has been generally established with reference to busy land –crossings in the highly urbanized and heavily trafficked mid-latitudes of North America. Here, trade and terrorism are of central concern. This is not as true in the North, where both a shared history and remote location have encouraged greater degrees of social and political interdependency. Some of the authors in this volume suggest that such cooperation is both innovative and unprecedented elsewhere on the continent –particularly with referee to Indigenous peoples' organizations and the involvement of sub-national actors in regional governance structures. Yet, as authors in this volume remind us, cross-border innovations in Northern governance and cooperation have occurred at all levels, from local communities to the Arctic Council and the international arena.

This interest in international cooperation, however, has not seen a corresponding spike in interest about cross-border initiatives at the local level –at the border posts and land crossing points in the North. Sovereignty and security may be important to a broader political and popular audience, but this has not yet translated into resourcing border management in regional borderlands where trucks, tourists and locals cross regularly. Similarly, the challenges posed to water quality and environment across the North American Northern borderlands, for which a seamless rather than divided management jurisdiction is required, have received little attention. And yet, as the case studies in this volume suggest, cross-border cooperation in this area is longstanding. Instead, academics more often note the ways in which climate change opens new opportunities for investment in resource management, and the unprecedented interest of people living outside the region in resource extraction, shipping, and tourism.

Indeed, several of the contributors to this volume note how narratives concerning melting ice and opportunities relating to tourism, shipping, and resource extraction have created a discourse of Arctic exceptionalism. This is undeniable. Climate change has transformed thinking about the region and its role in the broader world. Nevertheless, the chapters in this volume all suggest that while the North remains a unique and exceptional region in many respects, the challenges posed to border management and integrity are similar to those faced in other regions. As is the case elsewhere, there are significant flows of investment, people and goods across borders on land and sea. Each border and borderland has a long and storied history which dates back to the formal imposition of boundaries during the colonial era or later. As is also the case elsewhere, Indigenous peoples have had little real representation or accommodation where borders cross communities. This is particularly true in the establishment of maritime boundaries which federal governments have used to assert their sovereignty over offshore waters.

Cross-border relationships throughout the borderlands have been established on the strength of political, economic, cultural, historical and security ties. All of the contributors to this volume identify ways in which at least one of these variables have contributed to the strength of a unified borderlands, whether this be through migration of Inuit across the Canada-US border, cross-border trade and investment and the resulting development of investment protocols for regional development, international cooperation in the shape of the Arctic Council, cooperative military

engagement, bilateral agreements, or proactive environmental activism leading to bi-national management of water quality in regional watersheds.

Although the particular details of this history and borderlands are unique, they reveal how borders in the North have not evolved apart from or outside of the history of the southern borderlands, but as ancillary to this history. For example, the loss of the Franklin expedition and international interest in the 19th century led to Euro-Canadians to romanticize the North, conferring the region a unique position in the Canadian national identity. This, in turn, conditioned Canadians in southern Canada to see the Northwest Passage, the Arctic Archipelago, and other parts of the Arctic as under threat from external nations and geopolitical forces. Yet, as I have previously noted, the operationalization and management of security in Northern borderlands is complex (both on land and on the sea) and cannot ignore both national and international interests. This is as true for the Canada-US borderland as it is for Arctic Council cooperation. Indeed, the concept of sovereignty in the North is also understood in context of managing the continuing and generally cooperative binational relationship between Canada and the US.

Similarly, the perspective of international law, originally designed to address conflict in the southern oceans, has been particularly important in the North. States generally accept the UN Convention on the Law of the Sea as the most important legal instrument for the peaceful resolution of boundary disputes and the determination of the limits of the extended continental shelves in the region.

Overall, while there are legitimate reasons for wanting to reinforce borders and international maritime boundaries in the North, most authors in the volume suggest that cooperation among Northern, or indeed, circumpolar peoples and governments is even more important. The rational for this cooperation include various forces which create a 'networked' North—a north where it is quite difficult, even inadvisable, to impose borders and boundaries because of interdependencies and the importance of cooperative initiatives.

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THE NETWORKED NORTH

Borders and Borderlands in the Canadian Arctic Region

The Networked North identifies and addresses key lenses for understanding cross-border cooperation in the North American Arctic under conditions of globalization, climate change and changing international relations. Each chapter focuses upon a particular theme influencing cross border relationships, such as historical legacies, cultural relationships, cross-border flows of people and goods, security arrangements, governance practices and sustainability challenges. The authors recognize how the resulting borderlands can be understood in North American and international or global contexts. Twelve short chapters systematically define the ways in which Arctic and sub-Arctic borderlands are uniquely situated within processes of climate change, devolution, globalization, resurgent indigeneity, and neo-realist geopolitical processes. All authors acknowledge how the North has been reterritorialized by each of these processes in ways that encourage the networked nature of sovereignty and territoriality.

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