"HOW DO YOU MEASURE THE LOSS OF A LAKE?":
ASSESSING COMMUNITY RELEVANCE OF HEALTH IMPACT ASSESSMENT
FRAMEWORKS TO THE TL'AZT'EN NATION OF NORTHERN-INTERIOR
BRITISH COLUMBIA

by

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ABSTRACT

The purpose of this research was to critically engage a contemporary means by which impacts to Indigenous health are gauged during federal and/or provincial environmental assessments (EAs). Specifically, I was interested in the utility of health impact assessments (HIAs) conducted during environmental assessments, which concern the effects of mining on First Nations communities. For this research, I dialogued with participants from the Tl'azt'en nation in order to learn their opinions and concerns about the impact of industrial development on health from an Indigenous world-view perspective. An Indigenous methodological research design was followed and participants were recruited to share their perspectives on health impact assessments in a focus group setting. From stories and narratives gathered during these focus group sessions, themes emerged that I argue must form a foundation for future health impact assessments. If rooted within the context of the Indigenous nation, the health impact assessment might accurately and justly represent Indigenous health realities in terms of the negative change(s) that industrial development may create on unceded Indigenous lands.

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LIST of ACRONYMS

CEAA .... Canadian Environmental Assessment Agency

DFO .... Department of Fisheries and Oceans Canada

DIAND .... Department of Indian and Northern Affairs

DoH .... Determinants of Health

EA .... Environmental Assessment

EARP .... Environmental Assessment and Review Process

EAO .... Environmental Assessment Office

EIA .... Environmental Impact Assessment

EIS .... Environmental Impact Statement

FEARO .... Federal Assessment Review Office

HIA .... Health Impact Assessment

NAHO .... National Aboriginal Health Organization

NEPA .... *National Environmental Policy Act*

PHAC .... Public Health Agency of Canada

SDoH .... Social Determinants of Health

UNBC .... University of Northern British Columbia

VECs .... Valued Ecosystem Components

ACKNOWLEDGEMENT

PREFACE

I began this project in 2008. Since that time, mining and industrial disruption of First Nations' territories has become a pressing topic, and these issues are not likely to resolve themselves soon. In 2008, B.C. First Nations came to Prince George to attend a First Nations Mining Summit, where many hereditary chiefs spoke of how pressure from oil and gas development, as well as mining, continues. One such example is Enbridge Inc. (Enbridge), a Canadian pipeline company. For the past several years, Enbridge has been developing a plan to build a pipeline that would carry oil and bitumen from the "Oil Sands" mining sites in northern Alberta, across B.C., to a proposed terminus in Kitimat (Figure 1). Enbridge is preparing to enter into a federal environmental assessment (EA) process. First Nations in B.C., whose unceded and traditional territories are situated along the proposed route, stand in solidarity against Enbridge's pipeline entering their territories (Save the Fraser Gathering of Nations, 2010).

Many First Nations in northern B.C. are currently involved in, or have experienced, either a federal or provincial EA. In late 2010, two separate mine proposals, submitted by two different proponents (i.e. companies), awaited a final decision from the Federal Minister of the Environment regarding approval of applicable permits to extract copper-gold ore from land in British Columbia. In his announcement, the Minister approved one project, the Thompson Creek Metals gold-copper mine (Mt. Milligan) (Appendix F, H), located within the traditional territories of Nak'azdli peoples (Appendix G). In the same announcement, the Minister rejected a different mine proposal submitted by Taseko Mines Limited (Taseko), for a gold-copper open pit mine, located within the traditional territory of the Tsilhqot'in peoples (Appendix F).

**Enbridge
Proposed Pipeline Route**

Carrier Sekani Tribal Council

Figure 1: Proposed Enbridge Pipeline Route. The pipeline will cross through some of the Carrier-Sekani Tribal Council First Nations' territories en route to the terminus in Kitimat (CSTC, 2006).
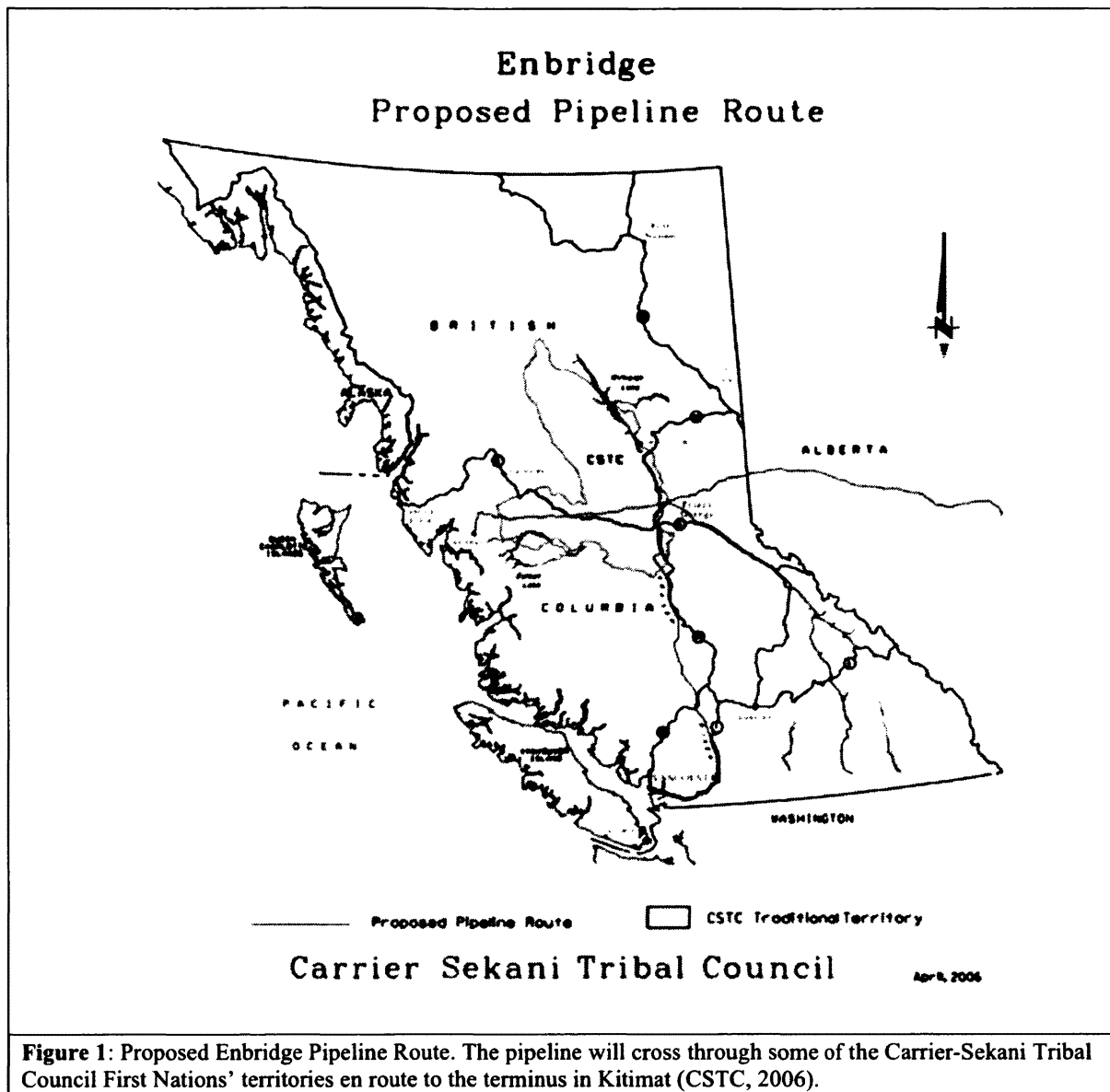
Both projects included an application to reclassify fish-bearing watershed and habitat into "tailings impoundment areas",[1] through a request to Fisheries and Oceans Canada (DFO). The leadership in both First Nations opposed and rejected both mining companies' requests

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[1] In 2002, the federal government introduced Schedule Two of the *Metal Mining Effluent Regulations* (*Fisheries Act*), which allowed for the reclassification of freshwater lakes and/or tributaries to tailings impoundment areas (Milewski, 2008). The significance is that this will affect lakes located within the territories of Indigenous peoples, whose land remains unceded to the Federal government. Tailings ponds are restricted areas and tend to be unusable by human or non-human species for maintaining life (i.e. drinking water, food sources).

2

for watershed reclassification. The rejection of Taseko mine's proposal was due to "significant adverse environmental effects of the project" (Environment Canada, 2010). In the Mt. Milligan mine proposal, a similar, smaller-scale watershed reclassification was approved. These two projects showed First Nations' opposition to the irreversible destruction of fish habitat in their territories.

Adding to the complexity is how Taseko received government approval in an earlier provincial EA, undertaken in March 2009 (Pearse, 2010). Taseko underwent a federal EA following the provincial approval, which led to the rejection of the project. Such divergent governmental agency decisions, following two EAs, illustrate the differences between federal and provincial EA processes. This has led some to question the objectivity and relevance of provincial EAs in British Columbia (Carrier Sekani Tribal Council, 2007; Pearse, 2010).

Large industrial projects, such as mines, will continue to disrupt the land, and therefore, to disrupt Indigenous nations and their access to the land. The relationship between Indigenous peoples' health and well-being, as tied to the land, may be negatively affected by industrial development. A fuller understanding of this connection is at the heart of the motivation behind my research. I hope to contribute to the growing body of literature that connects the physical and land-based impacts of industrial development with human health. I hope to contribute to these conversations and to support new ways of understanding, and then communicating and disseminating, how Indigenous peoples' health is affected by large-scale industrial projects that usurp areas claimed and lived upon by Indigenous nations. This project is about critically analyzing health impact assessments, a component of the EA process in B.C. today. I sincerely hope that my project will keep the lines of communication

open and thereby contribute to the health of both Indigenous peoples and those who arrived

on these lands in the recent past.

CHAPTER 1

Introduction and Rationale: How Do You Measure the Loss of a Lake?

The question I ask in the title of my thesis was inspired by the Tl'azt'en and

Nak'azdli peoples. A body of water known as Pinchi Lake (Appendix A), located in north

central British Columbia, remains polluted with methyl mercury, the result of mining and

processing operations in the 1940s (EVS et al., 1999). A multinational mining corporation

used Pinchi Lake as a depository for tailings created from the processing of cinnabar, the

common ore of mercury (Weech, Scheuhammer, Elliott, & Cheng, 2004) While the mine at

Pinchi Lake operated during World War II, and ceased operation once the price of mercury

dropped, there is to this day a restriction against the fishing and consumption of certain fish

from the lake. Larger piscivorous fish (i.e. fish that consume other species of fish) have been

found to contain higher levels of methyl mercury in their tissues, due to bioaccumulation)

(Weech et al., 2004). The impact to the local Indigenous peoples (families, communities),

and the relationships between and within the Indigenous nations affected by the loss of the

use of this lake, has yet to be fully understood.

I entered the Master's program in Community Health Science (UNBC) because I

found myself challenged by concepts like 'measurement' and 'quantification'. This was

curious given my undergraduate degree in the pure and applied sciences. On the one hand, I

had spent years developing my quantitative understandings in courses such as physics,

chemistry, biology and ecology. I gained an appreciation for the sciences and their attempt to

understand the natural world and its mechanisms. Scientific inquiry is a way of 'knowing'

that I came to respect. I appreciate how scientific perspectives can be useful, particularly as

they can show how human activities influence the environment, ecosystems, land, air, sea, and eventually humans and our communities.

There remained, however, something missing for me. At the same time as I began to question scientific ways of knowing and being, I also began to walk a path toward understanding my identity as a Yinka Dené woman. This research is one attempt at addressing questions that have become important to me. Specifically, this thesis is about one question that continues to drive and inspire me, as I began to fully understand my Indigenous responsibilities from within our culture whereby we are protectors of the land. That question has to do with the 'measurements' and 'assessments' used to inform decision-makers about projects, such as mines, that impact the Indigenous peoples who continue to live on and use the land in order to sustain life and identity.

My maternal family is the foundation and inspiration for this work. I spent many years sitting with family, listening to them speak. I also spent years asking them questions for which there were no easy answers. I have always been interested in the tensions between, on the one hand, wanting to protect our *Keyoh*[2] for the future generations, because it still provides food and medicine collected seasonally; and, on the other hand, the need for gainful employment in many of the industries that disrupt and disfigure the landscape. *Keyoh* as a concept is comparative to the terms 'house' or 'home'. *Keyoh* is the traditional territory of a family, headed by the matriarch of the family, and provides the necessary requirements for survival such as, previously mentioned, food and medicine. I dedicated the majority of such time listening to my mom, aunties, cousins, and of course my grandmother, who are all very different and unique. They are all artists and creative thinkers in their own right. They

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[2] The term, *Keyoh* is a Dakelh word and a concept belonging to the Yinka Dené peoples. I give a larger discussion of the concept of *Keyoh* in Chapter 4.

continually negotiate their place in contemporary society while remaining connected to the land. They also work toward maintaining the integrity of the land through art, education, language, politics, and research. My accountability to family and to future generations of Yinka Dené is inspired by my family. They influenced the work I undertook in the past, and will continue to influence and inspire my present and future engagements.

I have moved through the process of this research slowly, all the while questioning my motives, knowledge, abilities, modalities and ends. In this thesis, I attempted to address continuing issues about the evaluation of Indigenous health through an environmental assessment process (EA). While sorting these issues out, however, I have attempted to keep my research remain rooted within an Indigenous context. This is because my connection to family, clan and nation has given me both a responsibility and an authority to which I must maintain accountability, especially with regard to the values associated with the land. From these places came my three research questions:

1. Do current health impact assessments evaluate the impacts of industrial development upon the health of Indigenous peoples/communities effectively and respectfully?

2. If not, what, within current health impact assessment tools and frameworks, is not working or irrelevant?

3. What would a more appropriate or relevant/respectful health impact assessment tool look like, if it were to be made for use by Indigenous peoples?

This thesis was the path I walked in order to answer these questions, starting from community, moving to an academic space, and finally returning to the community.

In this thesis, I speak in the context of large-scale industrial mining projects and the means by which their effects are predicted and quantified. I discuss how health impact

assessments (HIAs) are used in the EA process in the context of mining. I present a critique of the biomedical model of health because, in the context of this thesis, such a critique is important for understanding the development of my research questions. I present the literature review for my thesis in Chapter 2. In this section I introduce the thesis topic, presenting some background on the research project as well as information on the EA process in Canada and B.C., followed by information regarding HIAs and determinants of health. In Chapter 3 I present the philosophical, theoretical and methodological considerations of my project, followed by the methods I employed in order to undertake the community-based research portion of the work. In Chapter 4 I present my research findings and the themes arising from my analysis of participants' words. I end this chapter by reflecting on the research questions that drove this project and offer some hypotheses based on the contributions made by community participants. In Chapter 5 I present my conclusions and outline some considerations for future research.

CHAPTER 2

Literature Review

I have drawn from various literatures during the construction of this thesis. These provide some historical background and put my research into context. I do not want to generalize about Indigenous peoples and their experiences with colonial projects and, consequently, I discuss the literature and research about how those of us involved in Indigenous research might avoid pan-Indigenizing or homogenizing groups who live across vast times and spaces. The concept of 'health,' particularly as it relates to Indigenous peoples in North America, and how the concept is used in my research is also explained. I discuss the biomedical model of health, principally through a critical lens, in order to further my analysis of health impact assessments (HIAs) as they are currently used in Indigenous communities. I introduce the concept of 'the land' and the important connection or relationship to it that Indigenous peoples have moving into discussions about the emerging concepts of 'determinants of health' (DoH) and 'social determinants of health' (SDoH), terms that are used in HIA processes. I introduce environmental assessments (EAs) in the Canadian context, both federally and provincially, and then contemplate HIAs and connect them back to EAs, one framework I suspect HIAs are conducted.

2.1: Background and Context

I begin this section of Chapter 2 with a brief introduction to the use of terms such as 'Indigenous', 'Aboriginal', 'Native', 'First Nation(s)', and 'Indian' (status and non-status). These terms appear throughout this thesis and are used a little differently depending on the context in which they appear. Alfred & Corntassel (2005) relate the term 'Indigenous' to "an

identity constructed, shaped and lived in the politicized context of contemporary colonialism" (p.597).[3] Shawn Wilson (2008) writes that 'Indigenous' is "inclusive of all first peoples – unique in our own cultures – but common in our experiences of colonialism and our understanding of the world" (p.16). These Indigenous scholars express the significance of the term in its political context; to be 'Indigenous' is to be the first peoples of the world. 'Indigenous' recognizes the diversity of peoples "in their cultures, political-economic situations, and in their relationships with colonizing Settler societies. [...] 'Indigenous' was created "in contrast to and in contention with the colonial societies and states that have spread out from Europe and other centres of Empire" (Alfred & Corntassel, 2005, p.597). 'Aboriginal' is a political-legal construction developed by the State during the repatriation of Canada's constitution from Britain in 1982. Under the 1982 *Constitution Act*, Canada recognized Aboriginal and treaty rights under S. 35. 'Aboriginal' refers to the collective of peoples in Canada who are Indigenous to these lands (Indian, Inuit, and Metis) but, as an umbrella term, it disregards respective and separate identities. 'First Nation', 'Native', or 'Indian' may also be used, where the latter is now recognized as a misnomer originating from early explorers' belief that they had arrived in India (Smylie, 2009). 'Indian' is still used at times in the context that it exists in the text of the *Indian Act* and when referring to some communities, who use it in the context of 'Indian band'. I use the term 'Indigenous' and recognize it to include Status and non-Status Indians, Métis, and Inuit peoples. In my thesis, I use Indigenous primarily as well as other terminologies in order that my research remains consistent with the work I cite.

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[3] Alfred & Corntassel (2005; pp.597-598) define 'contemporary colonialism' as "a form of post-modern imperialism in which domination is still the Settler imperative but where colonizers have designed and practise more subtle means (in contrast to the earlier forms of missionary and militaristic colonial enterprises) of accomplishing their objectives".

For Indigenous peoples, health has context and history; it is made up of collective experiences and is not solely anchored in the individual. These histories, contexts, and experiences all contribute to the epidemiological pathologies of Indigenous peoples' health reported within Canada (Adelson, 2005). Historical and contemporary colonial encounters continue to influence Indigenous peoples' health in North America and are as diverse as the Indigenous nations who continue to live and reside within their territories. There were, however, commonalities in the collective experiences of Indigenous peoples that led to the gradual subjugation of peoples under colonial rule (Alfred, 1999a; Clarkson, Morrissette, & Regallet, 1992). Colonialism thus pertains to health.

To discuss colonialism in a Euro-colonial context, the concepts of 'empire' and 'imperialism' must also be defined:

> 'Empire' is a relationship, formal or informal, in which one state controls the effective political sovereignty of another political sovereignty. It can be achieved by force, by political collaboration, by economic, social, or cultural dependence. Imperialism is simply the process or policy of establishing or maintaining an empire. (Doyle, 1986, cited in Said, 1993, p.9)

Imperialism is, then, "the practice, the theory, and the attitudes of a dominating metropolitan center ruling a distant territory" (Said, 1993, p.9). The term, imperialism, has been used to describe economic expansion, the subjugation of the 'other' through legislative means established by colonizing societies. 'Colonialism', as an expression of imperialism, is defined as:

> the processes of military economic, and cultural domination employed by a state to bring territory and people within its sphere of control. It involves the transfer of cultural and economic institutions from one society to another, and results in the appropriation of land and resources. (C. Harris, 2001, p.186)

Harris adds that colonialism "usually involved not only the capture of land and resources, but also the large-scale transfer of laws and legal institutions from the European state to the colonized territory" (C. Harris, 2001, p.189). Colonialism is "almost always a consequence of imperialism" and involves "the implanting of settlements on a distant territory" (Said, 1993, p.9). In Canada, part of the colonial process included impositions of multiple policies and laws directed at Indigenous peoples and continue to have tremendous influence today, that were sustained over time as the nation of Canada was gradually established.[4] One such legislation was the *Royal Proclamation of 1763* (the '*Royal Proclamation*'), which highly influenced the development of the *Indian Act of 1876*.

The *Royal Proclamation* was issued by King George III to establish a framework for relations with the Indigenous peoples in North America. In this framework was the official recognition of Indigenous peoples as distinct political units within the colonial system. This recognition of Indigenous peoples to unceded lands also indicated a means where the government (at the time) could purchase land for settlement but, as Neu & Therrien (2003, p.6) ask, "what, from the Native perspective, is a purchase?" The *Royal Proclamation* states,

> Whereas it is just and reasonable, and essential to our Interest, and the
> Security of our Colonies, that the several nations of Tribes of Indians with
> whom we are connected, and ***who live under our Protection***,[5] should not be
> molested or disturbed in the Possession of such Parts of Our Dominions and
> Territories as, not having been ceded to or purchased by US, are reserved to
> them, or any of them, as their Hunting grounds. (Anon, 1983 in Neu &
> Therrien, 2003, p.32)

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[4] Please see Mathias & Yabsley (1986) for a more detailed and organized reading of examples of early state-imposed legislation impacting Indigenous peoples in Canada.

[5] Emphasis is mine.

In this quote there the recognition of a nation-to-nation relationship between the Indigenous peoples and the Crown, yet at the same time there is a "unilateral declaration of the Crown's will in its provisions relating to First Nations" (Borrows, 1994). The history between this time and the creation of the *Indian Act of 1876* is complex, nuanced, and I could hardly do it justice detailing the transition as well as many other scholarly works.[6] The *Royal Proclamation* influences the wording that went into the *Indian Act*, which remains an influential piece of legislation to this day.

The *Indian Act of 1876* (the '*Indian Act*') is federal legislation that created segregated lands, called 'reserve lands', for Indigenous peoples, managed by the Government of Canada. The *Indian Act* made legal the removal of First Nations, Inuit, and Metis peoples and communities from their traditional territories and the relocation of them to the reserved land (Smylie, 2009). The *Indian Act* also imposed a foreign system of governance on the Indigenous peoples living on reserve. Governance of peoples residing on reserves was established and known as band councils. An election for one band chief and councillors occurs every two years. The creation of the chief and council was for administrative reasons. The Government of Canada, having assumed responsibility for First Nations peoples, needed a way to administer services to those who live on the reserves. There is one band chief and the number of councillors is determined by the number of band members (one councillor for every one hundred people). The band chief and council is not a traditional governance structure. The accountability of the band chief and council is to the federal government, who controls every aspect of it (Frideres & Gadacz, 2011). The structure of band council

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[6] Please see Borrows, 1997; C. Harris, 2002; Neu & Therrien, 2003 for further readings.

governance continues to disrupt Indigenous governance structures and communities (Alfred, 2005).

The *Indian Act* legislated state authority over the lives of Aboriginal peoples and established assimilating them into 'civilized' or mainstream culture as normative protocol (Neu & Therrien, 2006). The *Indian Act* continues to exist as the most obvious and visible form of the colonial project and continues to perpetuate the colonial relationship between the Canadian State and Indigenous peoples (Monture-Angus, 1999). Under the *Indian Act*, the federal government was able to enact policies of 'aggressive civilization' that resulted in the forcible education of Indian children at government-funded and Church-run residential schools (Neu & Therrien, 2006; Wade, 1995). Residential schools were a means by which the state imposed a civilizing agenda by isolating Indigenous children from their families and communities (Neu & Therrien, 2006). The intent of assimilation was not to kill a person outright. Instead, assimilationist policies were crafted with the indirect intent of 'killing the Indian within' (Crey & Fournier, 2006). Multiple and cumulative legislation erased Indigenous peoples' governance structures (including B.C. laws and protocols against the potlatch governance systems), land ownership, familial structures, and languages (Crey & Fournier, 2006; Elliott & Foster, 1995; Neu & Therrien, 2006; Wade, 1995). These were a direct assault on Indigenous peoples' identities.

The assimilationist policies of Canada established relationships between the state and Indigenous peoples that affected, and continue to affect, health (Adelson, 2005; Gideon, Kmetic, & Reading, 2007; C. Harris, 2002; Nettleton, Porter, Stephens, & Willis, 2006; Neu & Therrien, 2006; Richmond & Ross, 2009). By the times of contact, large segments of Indigenous peoples' families, communities, clans and/or nations were already affected by,

and had succumbed to, epidemics that proceeded newcomers (Kelm, 1998). Diseases

endemic to Europe, such as smallpox, typhoid, measles and influenza, arrived with (or even

before) early colonists. Indigenous peoples' immune systems had no means of defense

against the invading microbial foreign bodies, with which Indigenous populations had no

prior experience, and so they were overcome (Acheson, 1995; Cook, 2006). Fragmentation,

resulting from deaths within families, clans and nations, interrupted the transmission of

knowledge from one generation to the next (Acheson, 1995). In B.C. alone, it is estimated

that cumulative epidemics led to approximately ninety percent of the territory's Indigenous

peoples being wiped out (D.C. Harris, 2001). The disruption caused by the cumulative loss of

knowledge holders within Indigenous family units is not quantifiable, but one can cogently

argue these disruptions on the ability of people to resist the new legislations prepared by the

state, which sought to disempower Indigenous peoples and subsequently divest them of their

lands.

Identity remains perhaps the most affected aspect of Indigenous peoples' sense of

self, yet there remains a challenge in measuring the depth of the effects of colonialism over

generations (Lawrence, 2002). Residential schools were an ideal means by which the state

could destroy Indigenous identity. Children are the centre, or heart, of the people (Anderson,

2001; Crey & Fournier, 2006; A.C.Wilson, 2004) and thus residential schools attacked the

heart of Indigenous identity. As Crey and Fournier (2006) write, "[t]he economic and social

survival of Indigenous societies depended on the transmission of a vast amount of spiritual

and practical knowledge from Elders to the young through an exclusively oral tradition"

(p.144). Knowledge of one's culture, obtained through education of one generation by an

Elder one, is part of the relationship Indigenous peoples have with each other and is rooted in

their relationship to the land. This, as my project demonstrates, is a key part of Indigenous peoples' health.

2.2: Health of Indigenous Peoples

The definition of 'health' for Indigenous peoples in Canada remains complicated. Indeed, conceptualizing 'Indigenous health' in a singular way involves perpetuating pan-Indigenous perspectives on what is an exceptionally complicated, heterogeneous reality. The very idea of health as a positive state of being also suggests that any deviation from this construct is a state of disease or of being unhealthy. In Canada, the biomedical model of health considers 'disease' as the absence of health (Adelson, 2005). Health disparities, defined as a relative burden of disease on a particular population (Adelson, 2005), are the focus of much research intended to address ill-health faced by Indigenous peoples in Canada and the world (Nettleton et al., 2006). Examples of reported health disparities, considered to be over-represented in the Aboriginal population in Canada, include chronic disease burdens such as diabetes, cancer, and cardiovascular disease (Elliott & Foster, 1995; Gideon et al., 2007). Two of these three examples are often referred to as 'lifestyle diseases' in Western society, because they are considered, to a certain extent, preventable.[7] At issue here is the way in which 'health' in Western societies has evolved to be in line with what Adelson (2000) calls a 'particular cultural ideal' that focuses on the physical attributes of the body, yet seemingly pays less attention to what could be included in other definitions. This is a fundamental point to which I will return in this research.

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[7] The term 'lifestyle' implies a choice that rarely reflects socio-economic inequities between Aboriginal and non-Aboriginal peoples (Marmot, 2004; Mihesuah, 2005).

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Health has come to be more about the physical aspects of a person, such as living a long life and being 'fit', or exhibiting the characteristics of youth. While not intending to discredit the importance of being fit (given the benefits that physical activity provides the body), Adelson (2000) queries the impact of cultural phenomena on health and the ways in which healthcare is planned and provided for in the Canadian population. 'Health' extends outwards from the individual into the family, community and spiritual worlds, where imbalance in one aspect of this relationship, as visualized in the Medicine Wheel (Figure 2), leads to poor or ill-health. In relation to my thesis project, how the health of Indigenous peoples is assessed and addressed by the Canadian State is an enduring concern.

The responsibility of health and matters of health for First Nations and Inuit health in Canada is complicated through the cumulative influences of colonialism and legislation. Currently, jurisdiction for First Nation (Status Indians registered under the *Indian Act*) and Inuit health is with the federal government. The federal government is responsible for the provision of health services to Status Indians who live on reserve. The province is responsible for providing all health care services to all residents of the province, including Status and non-Status Indians, Inuit, and Métis peoples who do not live on reserve (Vancouver Coastal Health, 2012). Services for status Indians and Inuit peoples who reside off reserve are provided by the province through various programs offered to all provincial residents. With respect to health, there is some debate about whose interests guide health policies (Gideon et al., 2007) when equitable access to healthcare services remains a common issue among Aboriginal peoples in B.C. (Adelson, 2005). When measured by indicators of health, or determinants of health, Indigenous peoples in Canada exhibit a disproportionate burden of poor health as compared to non-Indigenous Canadians. In

addition to inadequacies in service delivery and funding, the Canadian model of health is not

congruent with that of Indigenous peoples. Adelson (2005) adds that the definition of 'health'

has different contexts and world-views; therefore, while many attempts are being made to

ameliorate health disparities, inequities, and gaps in achievement of health potentials, the

root of the issue may lie not in a lack of funding but in a lack of acknowledgement of

colonial policies (Monture-Angus, 1999; Smylie, 2009). Developing policies to alleviate the

symptoms of ill-health does not necessarily result in a solution. Unless the physical and

political displacement of the Indigenous peoples of this country is addressed, these solutions

may eventually prove unsuccessful (Adelson, 2005; Monture-Angus, 1999; Richmond &

Ross, 2009).

In Indigenous communities, social, economic, political and cultural inequities

contribute to the overrepresentation of ill-health and burdens of disease (Adelson, 2005;

Elliott & Foster, 1995). There are a number of explanations for this state. Communities and

nations must cope with a myriad of realities such as poor mental health, suicide, and

addictions, as well as housing-related issues that include mould and over-crowding (Adelson,

2005). Additionally, a shift from a primarily land-based diet to one dependent upon Western,

store-bought foods is linked to the rapid rise in diabetes and cardiovascular ailments among

Indigenous populations (Hopkinson, Stephenson, & Turner, 1995; Kelm, 1998; Mihesuah,

2005). As a means to address and potentially reverse negative health issues, a return to a

land-based diet has been suggested (Mihesuah, 2005; Milburn, 2004). These and other

initiatives, however, often run in direct opposition to the attempts of resource-extraction

industries to gain access to above- and below-ground natural resources in Indigenous

territories.

Health and the achievement of good health by Indigenous peoples sometimes conflicts with perspectives found in literature about Canadian healthcare. Furthermore, the epidemiological evidence that Aboriginal people in Canada bear a disproportionate burden of ill-health, or disease, may contribute to negative perception and stigmatization (Gideon et al., 2007). The means by which these perceptions in the healthcare sector, in media, and in Canadian society are formed is rooted in the way that health is evaluated and assessed. This, in turn, is located within biomedical models of health.

Figure 2: The Medicine Wheel (Orchard, 2005, cited in Graham & Leeseberg-Stamler, 2010, p.10).
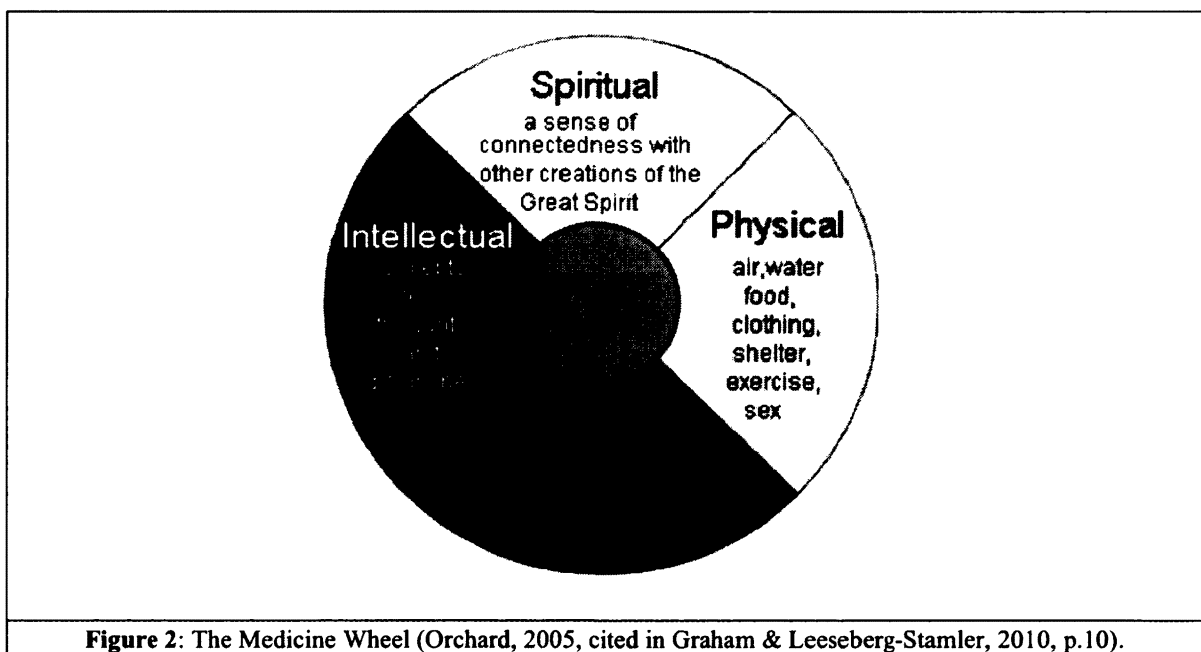
2.2.1: The Biomedical Model of Health

The biomedical model of health presents health as being free of illness or disease (Raphael, 2009a). Here the human body is thought of as a machine, and so treatment of illness is rooted in fixing the relevant 'part' through the healthcare system, which is made up

of medical service providers (Raphael, 2009a). The ultimate goal is to return the individual to

a healthy state (Adelson, 2005). The medical model and the 'lifestyle' model of health, where

"the causes of disease are to be found in individuals' 'unhealthy choices'" (Raphael, 2009a,

p.1), are the primary focus of government spending on health education (e.g. anti-smoking

ads, the Canada Food Guide, etc.) and other external means of making certain behaviours

more costly (e.g. tobacco tax) (Raphael, 2009b). There is a lack of evidence that models of

health that focus primarily on changing individuals' behaviours and their associated risk

factors (e.g. smoking), lead to good health (Raphael, 2009b).

In contrast to the medical or lifestyle model of health are Aboriginal wellness models.

Indigenous-centered frameworks, such as the Medicine Wheel (Figure 2) and the Total

Person Model (Figure 3), have values that acknowledge the physical, emotional, mental, and

Figure 3: Total Person Model. One of three concepts that make up the Cultural Framework. is used to guide the analysis and interpretation of data collected in the First Nations regional longitudinal health survey (RHS). It is similar to the Medicine Wheel model of health (Gideon et al., 2007).
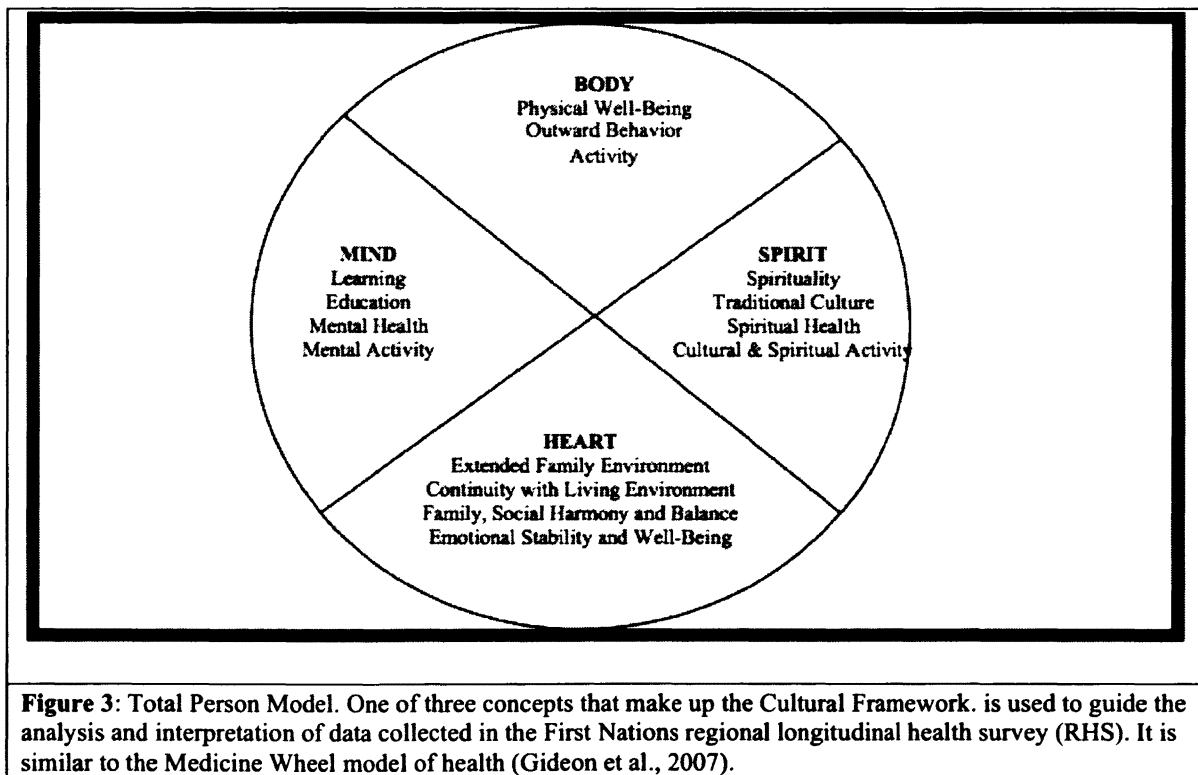
spiritual aspects of the individual. The Total Person Model is based on the Medicine Wheel, which is of Cree (Plains) origin (Graham & Leeseberg Stamler, 2010). Other health models may reflect these descriptions of wellness, making up a holistic perspective about how the health of Indigenous peoples is lived. Instead of existing in a hierarchy, each aspect (mind, body, spirit, and heart) contributes to a whole person, family, or community. This differs from the ways individuals are represented in the biomedical model. My research validates that members of the Tl'azt'en nation are individuals as well as members of a larger collective that includes family, clan and nation.

2.3: Land

"Take care of the land and it will take care of you" is a sentiment I often hear spoken by Elders I have had the pleasure of listening to over the years. Another permutation of this sentiment is, "[i]f the land is not healthy, then how can we be?" (Adelson, 2000, p.3). The former statement has been made by both my grandmother, Catherine Coldwell, a Nak'azdli Elder, and Sophie Thomas, a Saik'uz Elder and medicine woman. The latter statement comes from a Whapmagootsui Cree Elder. Articulations by Elders remind me of an Indigenous ethic underscoring the responsibility we have to respecting an interdependent relationship between the people and the land. These words, spoken by Elders from very different regions of northern North America, are part of the foundation of my research. In some ways, I believe these words are the core that informs the way we as Indigenous peoples conduct ourselves ethically.

'The land' is commonly used in conversations, writings, stories, and in our daily communications. I think of 'the land' as interdependent relationships that come from

generations of Indigenous peoples' experiences with a particular place (S. Wilson, 2008).

Lewis (in S. Wilson, 2008) defined land as "… another word for place, environment, your reality, [and] the space you're in" (p. 88). 'The land' may also be thought of symbolically as "a metaphor for social-ecological health or ecosystem health, and humans are integral components of these living and transforming landscapes" (Lemelin et al., 2010, p. 12). The relationship between Indigenous people and place and land therefore comes with responsibilities, something that is inherent in relationships:

> It is no longer a quaint thing to discuss the animism of our natural environment – it is a fact. The living relationships we have with our natural world are a fact that mediates how I see, how I experience, and how I understand. […] It is not an Indigenous idea to view ourselves separate from all things, nature, and each other. We are all parts of a whole. (Meyer, 2001, p.195)

The relationship between Indigenous peoples and the land remains a core aspect of identity in that it is a vital connection between two entities where one teaches the other in order that the latter may survive. Without trying to romanticize this union, I wish to convey that the reciprocal nature of the relationship occurs where people need to spend time out on the land in order to "reconnect with one's ancestral ways, to have access to good food, and just to be well" (Lemelin et al., 2010, p. 10). As the land changes over time, the time spent out on the land informs the person as to the changes which occur over a period of time. These observations and experiential interactions inform one's knowledge of the land so that when these environmental cues are passed on to subsequent generations, the knowledge is contemporary furthering the likelihood for one's future survival (Adelson, 2000; Alfred, 2005; Lemelin et al., 2010;).

The physical displacement of Indigenous peoples from their land-base to spaces

constructed by Canada is increasingly acknowledged within the realm of Indigenous health

research. Richmond and Ross (2009) critically examine the processes that underlie

inequalities in achievement of health potentials of Indigenous peoples, and seek to identify

determinants of health that reflect Indigenous contexts and perspectives. Most notable, they

conclude that 'land dispossession' is a key influence on health determinants for Indigenous

peoples. Dislocation from territory, combined with the potential impact of developments

(such as mines), must be considered if the health of Indigenous peoples is to be accurately

reflected upon or properly assessed.

2.4: Determinants of Health

The first reported use of the term 'determinants of health' was by Thomas McKeown,

who views population health as influenced by multiple factors (Glouberman & Millar, 2003).

'Determinants of health' in Canada are defined as,

> the range of personal, social, economic and environmental factors that determine
> the health status of individuals or populations (WHO, Health Promotion Glossary,
> 1998). The determinants of health can be grouped into seven broad categories:
> socio-economic; environment; physical environments; early childhood
> development; personal health practices; individual capacity and coping skills;
> biology and genetic endowment; and health services. (Public Health Agency of
> Canada, 2006, n.p.)

Using this definition, inequalities in health among Canadian populations include factors such

as socioeconomic status, Aboriginal heritage, gender, and geographic location, which are

listed among known 'Social Determinants of Health' (SDoH) (Table 2) (Raphael, 2009a).

The Public Health Agency of Canada (PHAC) (2006) reports that First Nations, Métis, and Inuit peoples have life expectancies of five to ten years less than their non-Indigenous counterparts. PHAC (2006, n.p.) goes further, stating that "[m]any of the consequences of these health inequalities are avoidable, including preventable early death, disease and disability, and are costly for the health system and society in general." Such a statement carries a specter of systemic marginalization, since the underlying tone may suggest a 'blame the victim' perspective (Glouberman & Millar, 2003; Raphael, 2009b). Further, it may reflect a lack of cultural consideration about the context of Indigenous health in Canada, specifically as it is informed by the colonial experience (Smylie, 2009). It risks absolving the state of accountability for its role in the perpetuation of inequities, which manifest in the inability to achieve one's health potential. In an effort to address this, my research acknowledges the historical and contemporary forms of colonial oppression that Indigenous peoples (whose nations reside within and across the physical boundaries of Canada) continue to endure. Determinants of health are quantitative measures of health that fail to provide a contextual picture of 'health' or 'well-being' (Lemelin, et al., 2010). The commitment to addressing the root causes of health inequalities, which are located within the social realm and therefore give rise to 'social determinants of health', is fundamental to my research.

The earliest reported discussions on what is now known as the 'social determinants of health' were described in the mid-1800s by the British political economist Friedrich Engels and German pathologist Dr. Rudolf Virchow. Engels connected deplorable living conditions in Britain (lack of adequate food, clothing, shelter, and sanitation) to infections, disease, and premature death. Virchow associated deplorable living conditions with legacies of feudalism

and unfair tax policies that together perpetuated a typhus epidemic (Raphael, 2009a). The determinants of health (Table 1) utilized by Health Canada employ a social context in recognition of the role that one's social environment plays in one's health outcomes. With respect to Indigenous peoples' health, these determinants of health remain rooted in a Western medical or lifestyle model of health (Raphael, 2009b). The primary focus is still on the individual's behaviour but as the wider social context is included into assessments of health, it may become clearer that behaviours are very much determined by social factors (Marmot, 2007).

While the PHAC list of determinants of health (Table 1) recognize a social influence on health, there remains no focus on the historical relationship between the Canadian state and Indigenous peoples. Taiaiake Alfred critiques contemporary approaches that attempt to address First Nations health issues. Alfred (2009) writes that, by "[p]roblematizing the people and not the state's behaviour, such approaches are not intended to alter the underlying colonial causes of unhealthy and destructive behaviours in First Nations communities" (p.45). Alfred's statement is justified where the underlying premise of "culture", one of the key determinants of health listed in Table 1, is determined by PHAC (2003) to be

> [s]ome persons or groups may face additional health risks due to a socio-economic environment, which is largely determined by dominant cultural values that contribute to the perpetuation of conditions such as marginalization, stigmatization, loss or devaluation of language and culture and lack of access to culturally appropriate health care and services". (PHAC, 2003)

This assertion may have implications for the health of Indigenous peoples whose health is measured in the same way as the non-Indigenous populations. By not assimilating into the status quo, or dominant Canadian culture, a person, or a people in this case, may be at risk of

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poor health. Combined with the lack of access to health care and services is the continuance

of placing health risk on the person, and away from the state. The state, who is responsible

for the health of Aboriginal peoples on reserve, absolves itself from playing a role in the poor

health of Indigenous peoples. By doing so, there may be interpretations of the health status of

Indigenous peoples that do not accurately reflect the root of one's health issue.

Table 1: Determinants of Health
Public Health Agency (PHAC) (2011)
Education and literacy Biological/physical health and genetic endowment Personal health practices and coping skills Physical environments Healthy child development Health services Social support networks Employment/working conditions Income and social status Social environments Gender Culture

The Whitehall study conducted in the Great Britain in the 1970's depicted the way in

which health follows a 'social gradient' (Marmot, 2006). The study followed a cohort of

British civil servants. The contribution of this study to perspectives of health was that it

dispelled two assumptions made about health: (1.) Coronary heart disease and cancer (the

number one killer) affected the most affluent; and, (2.) There are diseases of the rich and

diseases of the poor. The study followed civil servants of all employment grades and the

results showed an inverse relationship between employment grade and risk of death (those

servants of the lowest employment grade also had the highest risk of death). The "social

gradient of health" that came from this study showed where people of lower hierarchical

stature were at greater risk of poor health outcomes (Marmot, 2006, p.2). From here, the

examination of health and its relationship to socio-economic factors helped to establish a

better understanding of the determinants of health used in health policy.

Social determinants of health were first are defined as:

> the economic and social conditions that shape the health of individuals,
> communities, and jurisdictions as a whole. Social determinants of health are
> the primary determinants of whether individuals stay healthy or become ill.
> [They] also determine the extent to which a person possesses the physical,
> social, and personal resources to identify and achieve personal aspirations,
> satisfy needs, and cope with the environment. Social determinants of health
> are about the quantity and quality of a variety of resources that a society
> makes available to its members. (Raphael, 2009a, p.2)

Inequalities in health arise out of social and economic conditions which play a role in

determining the health of a person (Marmot, 2007). Indigenous peoples are the most

marginalized and oppressed peoples in the world having experienced dispossession of land,

children, and culture. These effects of disempowerment are seen today in Canada where

Aboriginal peoples have a life expectancy far less than their non-native counterparts. There

are twelve determinants of health identified so far in Canada (Table 2), some of which are

social determinants of health (Raphael, 2006). Behaviours are being found to have less of an

influence on the incidence of death and disease than socio-economic conditions, which have

a greater bearing on the access to the amenities needed to live (King, Smith, & Gracey 2009).

Also of note is the inclusion of Aboriginal status as a social determinant of health. In

this context,

> Aboriginal status is not explicitly explored in most conceptualizations of the
> social determinants of health. It represents the interaction of culture, public
> policy, and the mechanisms by which systematic exclusion from participation
> in Canadian life profoundly affects health. (Raphael, 2009a, p.7)

This designation, while not recognized by Health Canada, is relevant in the sense that

processes of European colonization, historical and contemporary, may act to influence health

status. There is a risk that marginalized people, and in the case of Indigenous peoples in

Canada, *oppressed* peoples, are understood as having a *choice* in determining their health

status. Yet there is little consideration about the impacts on health rooted in the colonial

Table 2: The Social Determinants of Health Framework
Outcome of the 2007 International Symposium on the Social Determinants of Indigenous Health as summarized by Raphael (2009a, p.7).
Aboriginal status Early life Education Employment and working conditions Food security Gender Health care services Housing Income and its distribution Social safety net Social exclusion Unemployment and employment security

legacy of the Canadian State. The 2007 International Symposium on the Social Determinants

of Indigenous Health gave rise to several key themes or areas for action. One such outcome

was how,

> [t]he colonization of Indigenous people was seen as a fundamental underlying
> health determinant. This process continues to impact health and well-being and
> must be remedied if the health disadvantages of Indigenous Peoples are to be
> overcome. One requirement for reversing colonization is self-determination, to
> help restore to Indigenous Peoples control over their lives and destinies.
> (Smylie, 2009, p.285)

Restitution (article 11.2) and self-determination (article 3) are identified action items within the United Nations' *Declaration on the Rights of Indigenous Peoples* (UNDRIP).[8] This document, despite Canada's endorsement after initially refusing to sign, is not binding. There are no repercussions if Canada or any other signatory violates any part of UNDRIP (article 46.1).

A body of evidence identifies socio-economic status as linked to health (Marmot, 2006). If this is true for developed economies, is it also so for developing economies (Birley, 2002). Frank and Mustard (1999) write, "health in human societies [...] is powerfully influenced by a nation's wealth creating capacity and the distribution of wealth much more than by the provision of medical care" (p.7). This ties in to my research; 'national wealth distribution' suggests the redistribution of wealth by the nation as a contributing factor to the health of its people. This supports efforts made by Indigenous peoples to regenerate and revitalize their cultures and local/traditional economies and also underscored that economic concerns of Indigenous peoples ought not to have been ignored. Such a perspective illuminates reasons why many First Nations already participate in natural resource extraction. Indigenous peoples may, however, require a means to address potential ecological fallout that may negatively and irreversibly impact the health of their people. In my project, I propose changes to the HIA process, changes that respect Indigenous peoples and their relationship to the land.

Determinants of health (DoH) (Table 1) are measurements that create a picture of where an individual or community is within a broader context of health. The National Aboriginal Health Organization (NAHO) (2007) describes these indicators as important tools

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[8] United Nations Declaration on the Rights of Indigenous Peoples, GA Res. 61/295, 13 Sept. 2007.

that "assist health planners and administrators to make decisions about what types of health services are needed the most" (p.5). As I have written thus far, DoHs used in current EA frameworks do not account for the socio-political context of an Indigenous perspective. In this research I attempted to draw upon voices from communities that are on the frontlines of industry intervention. My intent is then to identify determinants of health that might more specifically include, or address, Indigenous concerns about health and potential impacts upon it.

2.5: Environmental Assessments

Environmental assessments (EAs) have their origins in the United States *National Environmental Policy Act* (NEPA). They came into being during the 1970s (Noble, 2006)[9] because of increased public concern that industrial projects were negatively affecting ecosystems. Consequently, industries came to be required by law to show impacts of proposed development projects on the biophysical environment. Proposed large-scale industrial development projects that meet specified provincially- and federally-legislated impact criteria automatically trigger an EA review. In Canada, the first federal EA process was enacted in 1973 as a Guidelines Order called the 'environmental assessment and review process' (EARP). This process was entirely voluntary and not legally binding (Noble, 2006). The *Environmental Assessment Act* came into being in 1995, replacing the EARP. In 1994 the Canadian Environmental Assessment Agency (CEAA) was established to replace the Federal Assessment Review Office (FEARO), which was the agency set up to administer the EARP.

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[9] The terms 'environmental assessment' (EA) and Environmental Impact Assessment (EIA) are used interchangeably throughout this paper.

A federal EA is initiated by the actions of federal authorities (Minister of Justice,

1992). When a federal authority, acting as the proponent, introduces a proposed project, or if

the federal authority grants money or land[10] to a proponent for the purpose of realizing a

project, an EA is triggered. If a federal authority "exercises a regulatory function in relation

to a project (such as issuing a permit or license) in accordance with a provision of a statute or

regulation that is listed in the *Law List Regulations*" (Environmental Law Centre, 2010,

p.16), an EA is also triggered. The EA is "thought of as a *process* that systematically

examines the potential environmental implications of development actions prior to project

approval" (Noble, 2006, p.12). EAs follow a series of systematic steps, nonlinear stages of a

process rendered iterative by a requirement for consultations with public and other

stakeholders. Public input and discussions contribute to the planning process of the proposed

project (Noble, 2006).

The process starts with a 'project description' wherein the proponent articulates

aspects of a project, its actions, alternatives, and the necessary details for consideration of an

assessment. The second stage is the 'screening' stage where the described project is

evaluated to determine whether a federal or provincial EA is required, or triggered. For

example, threshold-based screening is a means to determine whether an EA is triggered. If a

project's categorical description of its size, levels of emissions, and other quantifiable aspects

exceed the threshold identified in EA legislation (federal and/or provincial), then an EA is

triggered. The type of project is also subject to evaluation because under Canadian law, some

projects require an assessment while other projects do not, with the determination depending

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[10] Land that is granted, sold, or leased by the federal authority for the explicit use by the proponent of a project.

on the significance of the proposed impact on the environment (Noble, 2006). Screening is also the phase where the type of EA is determined for a project subject to assessment.

Once a project has been determined to be subject to an EA review, it undergoes the 'scoping' phase, wherein the parameters and boundaries are set for the proponent's project and the EA review process. Scoping "identifies those components of the biophysical and human environment that may be affected by the project and for which there is public concern" (Noble, 2006, p.79). This is a key phase of the assessment process where input from public, industry, and various stakeholders is gathered. Scoping also includes a requirement that the proponent offer 'alternatives to the project' or 'alternative means' of carrying out the project. The potential flaw in the interpretation of 'alternative means of carrying out the project' is the possibly unintentional bias in favour of the proponent, where the proponent may propose as an alternative to the proposed project to be 'no project' at all. This alternative has specific economic implications that are not favourable to the State. Noble (2006) provides an interpretation of this scoping phase requirement placed on the proponent to provide an alternative means of carrying out the proposed project. The requirement is that the proponent provides alternatives to the project for the purpose of comparison, where the projects and their potential environmental, social and health outcomes may be evaluated. Justification for the preferred project must be transparent and clear (Noble, 2006).

'Impact Prediction and Evaluation' is the next phase, wherein predictions are made regarding potential changes in various indicators showing the state of the environment. This is done using indicators called 'valued ecosystem components' (VECs), identified during the scoping phase that detect changes in the environment. Baseline information is gathered during the scoping phase and changes are predicted, while the significance of such changes is

reported. 'Significance', which "reflects the degree of importance placed on the impact in question" (Noble, 2006, p.115), is a function of the characteristics of an impact. The value placed on a component, and the impact on said component, is a means of determining significance. Predicting impacts is challenging and complex, so much so that one study found,

> 60 percent of the time assessments are unsuccessful to only marginally successful in making precise, verifiable impact predictions and that 75 percent of the time assessments fail to indicate confidence levels of the data used for impact predictions. (Sadler, 1996, cited in Noble, 2006, pp.106-8)

Effects on human health and impacts on the human environment are difficult to predict due to the complexities and uncertainties inherent in both. Therefore, health in EAs is "rarely done well" (Noble, 2006, p.106). It is thus unclear how the health of Indigenous communities could undergo a respectful or appropriate assessment.

The next stage of an EA is 'impact management'. This is the phase where the negative impacts identified and/or predicted are accounted for. If negative impacts cannot be avoided or mitigated against, then environmental components are restored, rehabilitated, or reclaimed. However, if no alternative management option is appropriate, compensation is required, either financial or through recreating an environmental habitat that was lost due to the development project. Following the 'impact management' stage is the 'review and decision' stage, which constitutes another opportunity for public input. This involves a technical review of the final document, the 'Environmental Impact Statement' (EIS), as well as opportunities for members of the public and other stakeholders to review and submit comments. The 'implementation and follow-up' process occurs after a decision has been made with regard to a proposed project, wherein mitigation and data-collection begins for

monitoring purposes. Uncertainties previously identified can then be measured through tracking an identified variable and recording any changes associated with the project. Changes in the variable can be examined over a longer period of time and the magnitude of change evaluated. The follow-up and monitoring stage is likely the most important stage of the process because this is where a proponent is monitored for compliance with various environmental regulations.

The scope of the EA process grew in the 1980s. It moved from simply considering the physical characteristics of the environment to eventually including social, cultural, and health aspects (Noble, 2006). The relevance and/or appropriateness of an environmental impact assessment, and its relation to Indigenous peoples, is increasingly being questioned, given Indigenous views of their relationships with and responsibilities to the land (Bronson & Noble, 2006; Shapcott, 1989). The EA process has changed and evolved to meet criteria of sustainable development in Canada, as well as further minimizing and mitigating negative impacts to the environment (BC Environmental Assessment Office, 2010). If development can negatively affect health, then health must be taken into consideration in a manner that is rooted in local contexts, in order to ensure that the health system does not absorb the negative effects to health resulting from development (Bos, 2006).

The EA process also has issues. According to Beattie (1995), EAs are political, value-laden, and biased. While EAs are not science per se, they utilize many scientific tools and their results are anchored in the scientific method. Beattie (1995) describes EAs as

> valuable and necessary because they represent a public attempt to document
> and evaluate the environmental effects of projects and policies. The explicitness
> of EIAs, their ability, when done properly, to document both data and
> assumptions, and their systematic organization of pertinent information make
> them valuable additions to any decision-making process. They are necessary

because they are the best technique we have devised so far for acknowledging the inevitability of our impact on the environment and attempting to document in a way that adds valuable information to public discussions of specific proposals. (Beattie, 1995, p.112)

To an extent, opportunities made for public participation (input, feedback) and 'meaningful' consultation with affected communities during these public consultations, debate and critique of the proposed project can occur, and it is possible that biases, known or unknown, may come to light. EAs that follow the scientific method must account for biases or they will lack scientific rigour. For instance, since EAs contribute to the approval of proposed projects, there is the possibility that EA professionals may take sides in order to see a project proposal accepted or denied. Assumptions may not be explicit, which can lead to misinformation on potential impacts. EAs have the potential to be useful for planners of development projects, but this potential can be undermined if biases are not identified (Beattie, 1995).

A criticism of the EA process made by Indigenous peoples living in B.C. is a primary inspiration for my thesis topic. The criticism has to do with EAs and decision-making processes; specifically, legislation remains drafted and informed by non-Indigenous worldviews and perspectives (Usher, 2000). The final decision, which determines whether or not the project will be approved, is made by federal and/or provincial ministers (Noble, 2006) and not, notably, by Indigenous peoples. This, in my mind, is an example of contemporary colonialism and is in direct opposition to the goal of many Indigenous peoples vis-à-vis self-determination.

Self-determination means having decision-making authority over the self. For Indigenous peoples, this principle has been systematically disrupted by well- orchestrated legislation authored by non-Indigenous governments. My project explores an alternative

framework of health impact assessment (HIA) that, at present, exists within a legislated EA process. The process of the shift in authority over the land and decisions about what happens on the land is complex. In Canada, and specifically in British Columbia, it took place over several generations. Currently, in B.C., the majority of the land is unceded by First Nations to the Crown, yet the Crown has asserted its authority over it. In 1997, in an attempt to resolve questions over land 'ownership', the province of BC established the British Columbia Treaty Process. Currently, several First Nations are engaged in the negotiation of treaties with the Crown but there are multiple criticisms about the overall process by Indigenous peoples and academics (Alfred, 1999b). In EA processes, a place for discussion about 'the land question' between Indigenous peoples and the state does not exist. The mandate of EA is to assess the project and impacts on the land; the tacit assumption that the land belongs to the Crown (Alfred, 1999a) is not addressed in the process.

The distinction between land which is considered to be Treaty land (the Numbered Treaties, Nisga'a Treaty, Douglas Treaties) and land for which no Treaty has been negotiated, have certain implications regarding the way that an EA may occur and this is an important conversation. In this thesis, I recognize and acknowledge the importance of this discussion as well as the numerous and deep complexities of such matters, especially considering the ways in which each one of these Treaties was negotiated between the Crown and the different Indigenous nations and how Treaties are interpreted today. Adding to this complexity is how each province has drafted its own legislation regarding the EA process, although federal responsibilities remain consistent in all provinces. This discussion, as well as the consideration of the EA process for the northern territories of Canada (the jurisdiction of Indian and Northern Affairs Canada), requires a much greater timeframe allotted for the

completion of a Master's degree. The discussions are far too great for this thesis to do them any sense of justice. I, therefore, humbly leave these conversations for another time and focus on the matters of unceded Indigenous lands in B.C.

In BC, while the conversation about unceded lands and the Crown's assertion of authority over these lands are complex matters of legality, I am interested in the power relationships, for example regarding the Northgate Minerals expansion project of Kemess Mine. In the Kemess Mine project's EA, First Nations directly affected by the expansion of this mine site came together to simultaneously protest and participate in a Federal Joint Panel Review of the Kemess Mine Expansion's EA process. While my project looks at the way Indigenous peoples' health was and is assessed during these project assessments, the political realm is something I am unable to ignore. I believe it to be an integral part of community health.

2.5.1: Provincial Environmental Assessment

In B.C., there were four *ad hoc* processes established by different ministries to assess the impacts to the environment, which were caused by different industrial projects. The *Environmental Management Act*, established in 1981, required an environmental impact assessment of any detrimental impact made to the environment. The results were then communicated to the Ministry of Environment. The *Utilities Commission Act* of 1980 was specific to energy projects, which were required to identify and assess the biological, physical and social impacts of a proposed project, as well as the mitigation of any negative effects. In 1990, the *Mine Development Assessment Act* required new mines that proposed to produce 10,000 tonnes of ore per year to obtain a mine development certificate. The

proponent was also required to submit an environmental protection plan along with its

application to the Ministry of Energy and Mines and the Minister of Environment (ELC,

2010). In 1994, a consolidated process, now known as the *Environmental Assessment Act*,

was developed and authorized by the B.C. Legislature. Included within this legislation was

the creation of the Environmental Assessment Office (EAO), which utilized much of the

Mine Development Assessment Act. Impact thresholds were set according to the *Reviewable

Project Regulation* which, when exceeded, would trigger an EA for industrial activities such

as mining, energy, waste management, water management, tourism, transportation, and food

processing projects (ELC, 2010). With respect to First Nations, involvement in the EA

process included First Nations governments, as well as provincial, federal, municipal, and

regional representation on project committees. In 2002, the 1994 EA *Act* was repealed and

replaced by a version that was in line with the deregulation policies of the provincial Liberal

government (ELC, 2010). This resulted in the elimination of not only First Nations

governments in the project committees, but local non-First Nation governments as well.

While the 1994 *Act* included the assessment of the 'cultural' effects of a project, in 2002

'culture' was removed. Other changes that took place in 2002 highlighted the complex and

political nature of assessments.

2.6: Health Impact Assessments

Health impact assessments (HIA) occur concurrently with EAs to minimize the potential for

duplication of assessments. There is an effort to integrate a broad concept of health into all

aspects of the process (Health Canada, 1997). One definition of HIA is "an assessment of the

health effects, positive and negative, of a project, program, or policy" (Joffe & Mindell,

2003, p.107). Assessments utilize "a combination of procedures, methods and tools by which a policy, program or project may be judged with regard to its potential effects on the health of a population and the distribution of those effects within the population" (Bos, 2006, p.914). These effects include negative changes to the environment, health, community, socioeconomics, and safety. In order to measure such impacts, baseline data must be collected about health indicators or determinants of health (Health Canada, 1997). Specific or relevant determinants of health (Table 3) to be considered, measured, and assessed are identified during the 'scoping' stage of the EA process. Once the specific determinants of health are selected, impacts are predicted and plans to mitigate such predicted impacts are created or planned for.

Table 3: Health Determinants in Northern EA
Sourced in Bronson & Noble (2006, p.318).
Income and social status Education Physical health Personal health practices and coping skills Social support networks Working conditions Physical environments Healthy child development Health services

For example, the Kemess mine project required employees to fly-in/fly-out for work. One of the impacts found during this EA was how employees would be separated from their families or loved ones for weeks at a time. To address this, the company provided exercise facilities and counselling opportunities to support employees coping with prolonged absences (Northgate Minerals Corporation, 2005). Although any negative impression on health is cited as a main component of an EA (Noble, 2006), Indigenous peoples may be excluded because

sociocultural health impacts relevant to Indigenous health do not receive appropriate

consideration (Bronson & Noble, 2006; Shapcott, 1989). Questions also persist about how an

impact is determined to be 'significant' enough for there to be cause for concern within a

HIA. The use of the term 'significant' is subjective and often it is poorly defined or

ambiguous (Duinker & Beanlands, 1986).

My project is one attempt to address the dearth of research about EA and related

HIAs in First Nations' communities. This project is, more specifically, an investigation into

particular communities and nations in northern B.C. who face ongoing interference by

industry. Through this work, I hope to offer a means of supporting continuing efforts towards

Indigenous communities' self-determination and ultimately, the betterment of Indigenous

peoples' health. Indeed, many Indigenous and non-Indigenous peoples in B.C. are not

convinced that the EA process is the only way to account for negative changes to the

environment and/or health.[11] Generations have spoken out, and continue to speak out, against

large-scale developments, such as mines, that may irreversibly and negatively modify the

land and, consequently, human health. With this project I seek to contribute to the efforts of

Indigenous peoples and non-Indigenous allies who seek to re-legitimize knowledge about the

land and their relationship to the land. It is thus my intent that this project remains in

Indigenous peoples' hands, in order to retain relevance for the community or nation.

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[11] For example, the Tse Keh Nay (Takla First Nation, Kwadacha First Nation Tse Keh Dene) joined in solidarity to oppose the proposed Northgate Minerals' Kemess North Copper-Gold Mine in 2006. Their participation in the EA process (Federal Joint Panel review) was in protest. Also, the Carrier Sekani Tribal Council (2007) wrote a critique on the EA process published here: www.cstc.bc.ca/downloads/EAO%20Critique.pdf

CHAPTER 3

Theoretical Frameworks, Research Methodology, and Methods

One of my struggles, having entered the academy as a graduate student who wishes to conduct research inspired by the concerns of Indigenous peoples, is that the very institution that I enter is implicated in Indigenous struggles. Māori scholar Smith defines the term 'research' as one of many "dirty words" (Smith, 1999, p.1). Research on Indigenous peoples has almost exclusively occurred at the hand of imperial powers (Said, 1993; Smith, 1999). For example, information on Indigenous peoples gathered and/or collected during early and subsequent encounters by European ethnographers has been used by the state as a means to justify the displacement and subjugation of peoples, and economically benefit through gaining control over Indigenous lands (Smith, 1999; Stewart-Harawira, 2007). Academic institutions both past and present are implicated in this, given they are often the main spaces where (particularly in Canada) such research is undertaken. Furthermore, research in colonial lands takes place in structures situated upon Indigenous lands (Mihesuah & Wilson, 2004). The university also created itself as a space for privileged white men, a space in which, primarily, texts on or about history are created, written and published (Bishop, 2005). Many of these texts about Indigenous peoples are written within a context of privileged European white male perspectives and understandings of the world (Smith, 1999).

Given the academy's role in the colonization of peoples (Smith, 1999; Martin, 2003, cited in S.Wilson, 2008) I question whether I am also implicit in perpetuating this injustice simply by participating in academic research. I hope that by asking this and other such difficult questions, however, that I somehow manage to account for certain privileges that receiving a Master's degree will afford me.

In my attempts to answer such questions, and hopefully better understand what my role is as an academic researcher, I sought out others who faced such questions when doing academic research. Indigenous women and men build on the previous generations of Indigenous academics who have pushed back the walls of the institution to allow more people, like myself, to enter. With this privilege, though, come other responsibilities that I had not considered at the outset of my degree. First, I must acknowledge my obligation to repay those who supported my undergraduate degree, by conducting my research project with their community. Second, I must also account for my responsibility to my own family and extensions of it. Finally, I now recognize that my work must also contribute to expanding the space opened up by Indigenous women academics, and the work of our allies, who write from anti-racist, anti-colonial Indigenous feminist perspectives.

Choctaw scholar Mihesuah and Wahpetunwan Dakota scholar Waziyatawin have both written individually about their experiences as Indigenous women in the academy (Mihesuah & Wilson, 2004). While both women work within academic institutions, they remain "concerned about [their] places in academia" (Mihesuah & Wilson, 2004, p.xi). They are part of a group of "word warriors" that includes Lakota scholar Deloria Jr. and Kanien'keha scholar Alfred. From them, I have learned that one responsibility I have as a student and an Indigenous woman is that of engagement with the political aspect of being an Indigenous-European woman. My identity is defined in many ways, by me as well as by society and the state (e.g. Indigenous, Yinka Dené, Frog clan, woman, academic, bicyclist, etc.). I consider myself to be engaged with the political in my personal life and therefore I am also engaged with the political in my research project. It is difficult to separate myself from the political and I do not believe that this is necessarily a bad thing.

Engagement with the political is an everyday occurrence for me. The decision to not engage in the politics of health, for example, is in itself political (Adelson, 2000; Deloria Jr., 2004). When I first entered graduate school I had to make a choice whether or not I would be "apolitical" or "political" in my research. I knew then (as I know now) that I am unable to place or study the subject of Indigenous health within an apolitical or even de-politicized box. To do so would be, from my perspective, a denial and an insult to Indigenous peoples, to my family's community, and to others. I questioned myself throughout this process. Could my efforts potentially lead to the perpetuation of the colonizing efforts of the academy? To not engage the political aspect of health, especially Indigenous health, is to be uncritical of previous work (Gideon et al., 2007) that may attempt to be helpful to Indigenous peoples and their respective communities, but actually does harm.

The site of education is still a challenging space to put oneself in:

> [s]ites of education provide places where we all have the opportunity to live and become through working to decolonize our lives by recognizing (in the sense of coming to know again) what we consider our (hi)stories to be and what meanings we make of these assumptions. (Haig-Brown, 2008, p.255)

Given publications and research about Indigenous peoples, there is an opportunity to re-evaluate such works in order to (at the very least) provide some of the missing context. Haig-Brown (2008) suggests Western academics have compartmentalized Indigenous perspectives (e.g. traditional ecological knowledge) and realities using reductionist mechanisms. Our role as Indigenous academics, then, is to re-contextualize such knowledges in order to regenerate the interrelationships between different ways of knowing, that may include Western knowledges, to create a new understanding of each other.

Haig-Brown (2008) goes on to highlight previous discussions about how academic

institutions can act as a site where there exists a "third space", that is

> the specific site of emerging Indigenous knowledge… a place where
> contesting ontologies and epistemologies collide, interrupt, and transform one
> another in a way that has the potential to allow both to compete, flourish, and
> evolve always in new ways. Indeed they are bound together even as they
> coexist in direct competition. (Haig-Brown, 2008, p.260)

Indigenous knowledges present in academia, in disciplines like history, science, and political

science, are often built upon knowledge generated by non-Native academics. These works

often contain and perpetuate racist assumptions of Indigenous peoples and the knowledges

that they hold. Bishop (2005) writes about organisations and institutions, such as academia,

as powerful shapers of individuals (and thus entities) that affect changes in a person's

behaviour. She reflects on the work of other researchers, who have found that,

> [t]he ideology of the society or a particular institutional structure sets strong
> norms about who is valuable and who is not, what actions are out of bounds
> and who can punish those that cross the lines or do not have the right to be
> where they are. (Bishop, 2005, p.77)

These works reveal the power and influence an institution, such as academia, has on an

individual. While people are not inherently bad, much work that has been produced in

academia went on to inform and perpetuate oppressive legislation, beliefs, and prejudices

against Indigenous peoples. These particular academic contributions are challenged when

Indigenous peoples enter into the academy.

Bishop writes "[p]ower and privilege obscure the view of those who benefit from

them" (2005, p.5). How do these external influences then shape how I think about my

project? To say that I am not influenced in some way would be irresponsible. I attempt to

reflect on and account for these influences throughout my work. Still, there remain

publications and concepts within the academy that go unchallenged (Kulchyski, 1993).

Newer Indigenous academics may not be present in certain academic departments, or when

present, are unable to challenge past works because of the effect this would have on their

own pursuit of tenure (De La Torre, 2004; Deloria Jr., 2004; Greenwood & deLeeuw, 2007;

Mihesuah & Wilson, 2004).

The late Lakota scholar, Vine Deloria, Jr., writes, "[i]n the moral universe all

activities, events, and entities are related, and consequently it does not matter what kind of

existence an entity enjoys, for the responsibility is always there for it to participate in the

continuing creation of reality" (1999, p.47). As a researcher, the work that I do has effects

that I have attempted to account for. Paradigms of research, which I will discuss in more

detail later in this chapter, exist in both Western and Indigenous contexts, are based upon

realities, and are interpreted through various perspectives. My own work is informed by

feminist, anti-colonial, anti-racist Indigenous perspectives which, according to Margaret

Kovach (2009), are relational as well and therefore complimentary with Indigenous

methodologies.

Deloria, Jr. (1999) writes, "[t]he real interest of the old Indians was not to discover

the abstract structure of physical reality but rather to find the proper road along which, for the

duration of a person's life, individuals were supposed to walk" (p.46). I hope that my

research is not only for my own direct benefit. In some ways it is, though I will earn a

Master's degree, and with that status I am afforded certain privileges. This journey through

academia that empowered me to work with my community on a project that is relevant to

Indigenous peoples in contemporary times has made clearer the road along which I must

walk. I know, even more so, how my research project must contribute in a way that respects the knowledge of my Elders, as well as those teachers who shared knowledge with me along my journey. My research project reflects on Indigenous relationships with the land that would be disrupted by large industrial developments. In reality, though, many of these relationships have already been disrupted. Indigenous peoples have been separated from our territories through various actions, resulting in the removal of sections of the land that are then ascribed a certain value in the Western market system (e.g. lumber, pharmaceutical, minerals) (Deloria Jr., 1999). My research is one attempt to regenerate relationships, although it is up to the people I work with to direct me.

Shawn Wilson, a Cree scholar and academic, offers his perspective on being Indigenous in the academy and how doing research is actually a form of ceremony (S. Wilson, 2008). Wilson draws upon experiences and perspectives shared with him from other Indigenous academics. Wilson identifies that relationships to land and environment, spirituality (cosmos), and to ideas, interconnect to root us in understanding our realities. 'Cora', one collaborator in Wilson's book, affirms, "we know what it is to self-sustain, to support our own well-being" (S. Wilson, 2008, p.109). Additionally, another collaborator, Waziyatawin describes the "return to Indigenous traditions as the potential basis for restoring health and dignity to Indigenous peoples" (A.C. Wilson, 2004, p.73). In my own understandings of what it means to be an Indigenous woman in the academy, I root myself in my understandings of *Keyoh*, a concept discuss in much greater detail in Chapter 4.[12] *Keyoh*,

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[12] Placing the discussion of *Keyoh* in a place other than the methodology section of my thesis is not without some thoughtful consideration. Ultimately, I feel that *Keyoh* belongs in Chapter 4 because that is also the location of participants' stories of which *Keyoh* is deeply implicated. Yes, *Keyoh* is the spiritual foundation from which I emerge. Yet, it is also the foundation of the participants. Thus, leave *Keyoh* in Chapter 4 with the people.

an Indigenous concept, forms the ontology from which research emerges with accountabilities and responsibilities because it has context (S. Wilson, 2008). This context connects us more closely to our identities as Indigenous people and ultimately influences our choice of how and why we think about the things we do.

3.1: Methodology

I was inspired by the concept of 'relational accountability' (S. Wilson, 2008) which can be described as pertaining to how "... the methodology [of a research project] needs to be based in a community context (be relational) and has to demonstrate respect, reciprocity, and responsibility" (2008, p.99). Indigenous ontologies (what is real?) and epistemologies (how do I know what is real?) are at the foundation of Indigenous methodology. As I sat and thought about this idea, I had to reflect on my history and experiences with the Yinka Dené communities and of the relationship(s) that emerged. Respect, reciprocity, and responsibility all form the space from which I chose to place myself. As a 'researcher' I chose to root my research in an Indigenous paradigm informed partly by recent literatures about conducting research with, by, and for Indigenous peoples (Smith, 1999; S. Wilson, 2008; Kovach, 2009) as well as my lived relationships with Indigenous peoples, Yinka Dené and elsewhere. My research lens' Here is where I began to discover the foundation and the ethics of conducting my research with Yinka Dené peoples.

In this project, I implement an Indigenous research ethic because of my devotion to social justice. Undertaking a critical methodology required locating my research in critical pedagogies and Indigenous thought. I understand the regeneration of Indigenous cultures and languages to be efforts towards self-determination. As a researcher in this project, then, I

wanted to contribute by positioning myself in an Indigenous pedagogical space. This project was about looking at HIAs through the eyes of the people that development, in my opinion, has the greatest potential to cause harm.

My research involved discussions with Indigenous peoples about health and the assessment of health. Before these discussions could take place, I needed to examine my own beliefs and the assumptions upon which this research was based. Some of the ways I thought about my research involved narrative inquiry and autoethnography. As I navigated my way, cautiously and respectfully, I hoped that these two research methods would complement each other. This thesis is a presentation of the lessons I have received from Indigenous peoples over the years: that the land still provides food and medicine, and that Indigenous peoples are struggling to restore and sustain intimate connections with land in the face of economically-driven industrial development. I therefore utilize an 'autoethnography' label to denote that I am a participant in the struggle, part of which is having been born to an Indigenous woman. My struggle is thus more than some, yet less than others; still, it is my own.

3.2: Autoethnography and Narrative

This is a qualitative research project undertaken using focus groups, which resulted in collecting the peoples' voices that I then had to analyze. I chose to not conduct interviews in this research project, which given the circumstances of the timing of my entrance into the Tl'azt'en communities to collect data, may have been better for the participants overall. Timing, double-booking, and life in general, led to several failed attempts at conducting focus groups in the communities, which I go into more detail later in this chapter. One critical observation made by someone who has worked with the communities is that 'research

fatigue' may have also set in. Something I did not even consider. I learned some valuable lessons in this experience that I will have with me forever.

The primary methods by which I undertook that analysis were autoethnography and critical narrative inquiry. For me, both methods are rooted within anti-racist and anti-colonial Indigenous feminist perspectives. I am an Indigenous woman with ancestral ties to Scotland. As Stewart-Harawira (2007), an Indigenous woman from Aoteoroa who is of Northern Scot descent describes, I too will "approach this [work] conscious of my dual heritage, yet positioning myself as neither hybrid nor of multiple subjectivities. I am simply both" (p.124). Concurrent with my efforts to regenerate my identity as a Yinka Dené woman, my perspective grew and changed constantly as I received teachings from my maternal family to move towards a better understanding of my responsibilities and my identity. My Indigenist-feminist perspective guided my decision-making throughout this project, including my choice to work with my family's community. The two philosophies guided and informed the methods by which I undertook the research, including the choice of using focus group sessions and employing autoethnography and narrative inquiry.

Narrative inquiry is "a particular type – a subtype– of qualitative inquiry" that is "retrospective meaning making– the shaping or ordering of past experience" (Chase, 2005, pp.651,656). Narrative inquiry is not objective. During my research, I received stories, thoughts, and opinions from community members rooted in a specific time, place, and context. I consider the stories 'gifts', a contribution to the relationship between the Yinka Dené peoples who participated in this research effort and me, as a Yinka Dené researcher. My use of narrative inquiry in this research is not to analyze the stories as told by participants, such as looking at the various details about how they spoke, or rhetoric they

used. Instead I bring together the discussions and attempt to present a narrative of the Indigenous peoples' perspectives of health in the face of development. There are stories within the conversations and I do my best to share what I heard in their stories.

Autoethnography is "a radical democratic politics [...] committed to creating space for dialogue that instigates and shapes social change" (Reinelt, 1998, cited in Jones, 2005, p.763). Autoethnography is also about,

> setting a scene, telling a story, weaving intricate connections among life and art, experience and theory, evocation and explanation... and then letting go, hoping for readers who will bring the same careful attention to your words in the context of their own lives. (Jones, 2005, p.765)

Autoethnography asks, "how does my own experience of this culture connect with and offer insights about this culture, situation, event and/or way of life[?]" (Patton, 2002, p.132). The personal nature of my research project fit well with the use of an autoethnographic lens. Autoethnography, like narrative inquiry, is also not objective. In this thesis, I present my experiences, data and findings, and then let it go back to the people who I believe co-own it. I hope that my work will be well-received and that the readers take something away that might change their perspective about Indigenous health and why Indigenous peoples have fought hard to maintain the integrity of our lands. The personal aspect of this work, however, came at a cost. There ultimately existed a great feeling of vulnerability as I placed myself within the research. Also, the people who set aside some time to participate made themselves vulnerable to me during the process. I attempted to make myself 'open' by the very nature of writing about my own experiences, in the hopes that this would place me, the researcher, on more equal footing with the participants.

Shawn Wilson raises an important point about relationships in the context of research, where one part of the process brings up the 'whys' and the 'hows' of relating to the topic being discussed (during a focus group) (S. Wilson, 2008):

> Relationships don't just shape Indigenous reality, they are our reality. Indigenous researchers develop relationships with ideas in order to achieve enlightenment in the ceremony that is Indigenous research. Indigenous research is the ceremony of maintaining accountability to these relationships. For researchers to be accountable to all our relationships, we must make careful choices in our selection of topics methods of data collection, forms of analysis, and finally in the way we present information. (S. Wilson, 2008, n.p.)

Relationships came up time and time again. From the time I decided to attend graduate school, to selecting a research topic, and to then request permission to work with the Tl'azt'en peoples, I negotiated various relationships. Participants' words are influenced by me in some way; they may either be more open or more censured, if they said anything at all (as not responding is powerful in and of itself). This project is the result of relationships I made with people of the Tl'azt'en nation, but because I feel that this project is part of my obligation to the Tl'azt'enne, it is also a contribution to a relationship with a community.

Clandinin and Connelly (2000) addressed the concept of 'relational responsibility' in qualitative research using narrative inquiry. I chose narrative inquiry because of its flexibility in communicating stories – stories that came from the research, from participants, but also the stories of the research itself. Narrative inquiry is still located "at the boundaries of reductionist and formalistic modes of inquiry" (Clandinin & Connelly, 2000, p.184), which are not spaces rooted in Indigenous ontologies. I believe it is important to comment or reflect, recognizing the dangerous line I could cross into these non-Indigenous modes of inquiry.

Together, narrative inquiry and autoethnography fit with where I was at the time, as a graduate student undertaking a research project within the territorial boundaries of my grandfather's nation. The need for reflexivity during the research process helped to digest the experiences I had during the research as well as those experiences prior to the research. Therefore, autoethnography provided a place in which I could process and reflect and write down my understandings of not just the stories of people who consented to participating in the research with me, but also to understand my own story.

3.3: Research Context and Methods

3.3.1: The Tl'azt'en Nation

The Tl'azt'en nation (Appendix A) is comprised of four communities: Taché, Binché, Dzitl'ainli (Middle River), and K'uzche. The first three communities are permanent communities and the last is a summer community formed during hunting and gathering seasons. There are 1,628 registered members of the Tl'azt'en nation, with just over 640 people living on a reserve (either their own or another) (Indian and Northern Affairs Canada, 2011). The closest town is Fort St. James, located 65 km south of Taché at the south end of Nak'albun (Stuart Lake), which is the territory of the Nak'azdli peoples. Fort St. James has services and facilities such as a hospital, physicians, dentists, and pharmacy, stores for food and amenities, and schools. There is one small convenience store in Binché, located partway between Taché and Fort St. James, but people normally obtain groceries and medicines from Fort St. James.

The Tl'azt'enne are Yinka Dené, or Carrier peoples, and speak the Athapaskan language of *Dakelh*. The name 'Tl'azt'en' means 'people by the edge of the bay' (Nepal,

2009). The Yinka Dené live in north central British Columbia in a region of transition between the subarctic of North America and the northern plateau known as the Subarctic Cordillera (Helm, 1981). The plateau regions of the Nechako and Fraser River systems are part of the Yinka Dené peoples' territory, which is bounded by the Coast Mountains to the west and the Rockies to the east. The climate of this region is continental, but it receives varying degrees of moisture from the coastal regions. The name 'Carrier' is said to mean "those who pack" (Hall, 1992). The name 'Carrier' is used in many publications and archival information, but Yinka Dené ('the people who cross water'), and *Dakelh* ('the people who speak *Dakelh*') are becoming more usual (Appendix B).

Hereditary chiefs of the Yinka Dené were, as described by Brown (2002), "... key land owners and natural resource managers on behalf of their respective clans, and they used *Bahlats* as a forum for settling disputes over trespass and/or use of resources" (p.29). Control over Tl'azt'en territory was through clans and *Bahlats* (potlatch). There are five clans that make up the Carrier Sekani people: Beaver (*Lhts'musyoo*); Bear (*Lojobou*); Frog/Grouse (*Lusilyoo*); Caribou (*Kwun Ba Whut'en*); and Wolf (*La 'Gh Jaboo*) (NES, 2001; Brown, 2002). Clans are exogamous, since marriage is only appropriate between two different groups; and also matrilineal, since children inherit the clan of their mother. Clan Elders and hereditary chiefs or leaders held knowledge about the boundaries of *Keyohs* (Appendix C) and the resources within those boundaries (Brown, 2002; CSTC, 2006). Yinka Dené governance structure is based on *Keyoh* and a *Bahlats* system (Brown, 2002; Hall, 1992). Although a contested term, *Keyoh* can be defined as the distinct traditional territory of clans, bounded often by mountains, creeks, lakes, and other landmarks (Brown, 2002). The *Bahlats* is synonymous with the term 'potlatch', a Chinook Jargon term describing the "legal

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repositories" of native culture (D.C. Harris, 2001). *Bahlats* is a community event "designed to reinforce social structure, settle disputes, re-distribute wealth [...] as well as [represent] a system of land tenure and resource management" (Brown, 2002, pp.28-29). *Bahlats* "is the central institution through which *Keyoh* are managed" (CSTC, 2006, p.13). *Bahlats* reinforced the governance system with clan Elders and hereditary chiefs acting as the central figures, enforcing and validating the boundaries of *Keyoh* (Brown, 2002; CSTC, 2006; Morris & Fondahl, 2002).

In 1884, amendments to the *Indian Act* included banning the 'potlatch'. It was thought that outlawing these traditional forms of Indigenous governance would increase the assimilation of Indigenous peoples into the Western market economy (D.C. Harris, 2001). The results from this shift in economic participation equated with a shift in the ways in which wealth was transferred in Indigenous nations. Banning transference of wealth from a person in a traditional leadership position to others, combined with the *Indian Act's* regulation of land, resulted in people no longer having a space in which governance discussions and negotiations could occur: "The authority of the potlatch diminished and Native peoples' ability to govern resource allocation declined, creating or accentuating divisions within Native society" (D.C. Harris, 2001, p.6). During the potlatch ban (repealed in 1951), access to land by non-Native newcomers increased. Another amendment to the *Indian Act*, passed in 1927, made the hiring of a lawyer for the purpose of land claims illegal (Mathias & Yabsley, 1986). Disrupted legal, political, economic, spiritual, and physical spaces caused sociocultural and economic conflicts of varying degrees and dispossessed the people of the forums in which such disputes would normally occur. The hereditary governance structures

of the Yinka Dené continue to function at the present time, today, as do the traditional forms of governance of other Indigenous nations.

Band councils and elected chiefs are the main points of reference when entering many First Nations communities. It is sometimes correct community protocol to approach the band chief and council to ask for permission to conduct business in the traditional territory (e.g. academic research), though this varies from nation to nation. I first presented my research project idea to the elected band council of the Tl'azt'en nation in Taché, B.C. in October 2008. During this meeting, the elected chief and council[13] asked me questions, offered suggestions, and then voted to accept my proposal. This granted me permission, by band council resolution (Appendix D), to conduct my research project within the boundaries of the Tl'azt'en nation (Appendix A). Following this, an employee of the Tl'azt'en band office asked me to provide a brief synopsis of my research project, to be published in the community's monthly paper, *The Dust 'lus*.

Health is a priority for the Tl'azt'en nation, particularly environmental health.[14] The cumulative impacts of various industrial developments within Tl'azt'en territory remain a cause for concern for the Tl'azt'en people. While forestry practices, past and present, continue to affect the integrity of the land that belongs to the Tl'azt'en, mining is a growing worry. Past experience with a mining company that located itself on Tl'azt'en fishing and hunting grounds resulted in multiple health concerns for the nation. Families who used to live at and use Pinchi Lake were relocated to Nak'albun (Stuart Lake), where the village of

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[13] In 2010, an entirely new Band chief and Council were elected.

[14] The World Health Organization (2011, n.p.) defines "environmental health" as "... all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviours. It encompasses the assessment and control of those environmental factors that can potentially affect health. It is targeted towards preventing disease and creating health-supportive environments."

Binché is currently located. Pinchi Creek, which flows out from Pinchi Lake, passes through the community of Binché and flows into Nak'albun. Health advisories against catching and consumption of lake trout from Pinchi Lake remain in place today (Ministry of Forest, Lands, & Natural Resource Operations, 2011). The renewed interest in mineral extraction by the province of B.C., in the face of declining forestry activities, suggests to me that the integrity of Indigenous lands will continue to be at risk. Thus, the health of the people who continue to use the land for food is therefore also at risk (First Nations Energy & Mining Council, 2009; Lemelin et al., 2010).

Part of my presentation to the Tl'azt'en band chief and council included my description of focus groups, which was the research methodology I had chosen. I described the sessions as one means of interviewing a small group of individuals, about six to ten people (Patton, 2002). During a focus group, participants can respond to semi-structured questions. Focus groups may also provide an opportunity for people to listen to others and respond to the perspectives of other participants. It is expected that people may agree or disagree; either way, the purpose is to promote discussion or conversations on a particular topic in a respectful, safe space. People can interact with each other and the researcher participates inasmuch as she is more a moderator and less an interviewer (Patton, 2002). Instead of interviews, for instance, I chose to conduct focus groups because I believed that the information presented in a moderated but open discussion would be richer. In a group setting, one person could speak to a topic and could inspire further discussion from other participants. This type of dialogue was less likely during one-on-one interviews.

3.3.2: Participant Selection and Recruitment

For several years prior to entering into the Master's program at the University of Northern British Columbia (UNBC), I worked for and with the Tl'azt'en nation, Nak'azdli Indian band, and Carrier-Sekani Tribal council on various projects. Through these experiences I built relationships with people from the Tl'azt'en communities. Some people also knew me through my family. These experiences were helpful for me in coming into the communities to dialogue with members because I felt relatively comfortable approaching people and speaking to them about my research idea.

When I first entered the Tl'azt'en community of Taché to recruit people for my focus groups,[15] I was told that there was nobody in a specific position at the band office to provide support or act as a liaison. There had been a research coordinator in the band office at one point, but nobody has been in that position for some time. Therefore, I approached the Executive Director of the Tl'azt'en nation for assistance in identifying potential participants. The community members identified at this time were those who were understood to possess an abundance of knowledge specific to my research. It was also suggested that I attend a *Keyoh* holders' meeting. These meetings occur monthly and are attended by Tl'azt'en *Keyoh* holders,[16] or the head persons of familial *Keyohs*. The Natural Resources manager at the band

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[15] I received approval from the Research Ethics Board at the University of Northern British Columbia (Appendix K) in October 2008.

[16] '*Keyoh* holder' is a commonly used term among Dakelh-speaking peoples of Tl'azt'en and Nak'azdli that refers to individuals belonging to a specific family *Keyoh* and are in a position of leadership. These individuals are communicators between the rest of their respective *Keyoh* and that of the Band Council, resource managers, or other *Keyoh* holders. In Tl'azt'en, there are *Keyoh* holders' meetings held monthly to present information regarding proposed forestry permits and cutblocks by local forest companies, along with other land use discussions.

office hosts these meetings as a way to communicate with families about proposed industry interest on the respective *Keyohs*.

I contacted as many of the individuals on my initial list (eight people) as I could. Most of the people lived and/or worked in the main Tl'azt'en community of Taché. From the people I was able to speak with directly, the feedback was positive. The people I contacted were interested in the project idea and most of them agreed to participate in a focus group session, while others did not have the time or could not commit, despite showing interest. In another attempt to recruit participants, I presented my project idea at a *Keyoh* holders' meeting. There was interest, and some of the *Keyoh* holders committed to attending a focus group session. In total, thirteen people agreed to participate in the first focus group session, scheduled for the following week.

The first focus group session was held at the Tl'azt'en nation band office in Taché in June 2009. Of the thirteen people who had agreed to participate in this focus group session, only two came. I attempted to contact those who agreed to participate. One person had changed her mind for personal reasons, not related to the project. I was unable to reach others by phone. Another potential participant had gone into town to run errands. In order to attempt to continue with the focus group session, I quickly went around the band office and asked people if they would care to participate. Two out of six people I attempted to recruit agreed to participate. In total, I had four participants for the first focus group.

My intention had been to recruit people of Tl'azt'enne descent. Of the four participants who were present, two were Tl'azt'enne and two were from different First Nation communities, but were employed by the Tl'azt'en nation band office. I was acquainted with all four of the participants to varying degrees. Two lived and worked in the

Tl'azt'en community of Taché, while the other two lived in nearby Fort St. James. Each person had relevant personal and professional experience and was able to relate to the project and discussion.

For the recruitment of participants for a second focus group session, in September 2009, I followed up with people who had expressed interest in the first session. My attempt at recruiting them for a second focus group was unsuccessful for various reasons unrelated to the research topic. There still appeared to be more interest from the community members I was in contact with, but most people did not have the time to participate. I went to different households on the Taché reserve and knocked on doors attempting to recruit people I had not previously contacted. I was assisted by the Education Director of the Tl'azt'en nation, someone well known in the communities. A few people eventually committed to participating in a focus group session. One family household took the time to listen to me describe the project, asked me a few questions, and afterwards agreed to participate. Overall, as a result of this effort, I confirmed eight people for a second focus group session to be held at the Tl'azt'en Education office.

On the day of the focus group, four people showed up. Some of the people who had committed to participate had not returned from a hunting trip by the time the session was scheduled to begin. Another participant changed her mind for personal reasons. I continued on with this second focus group, happy that four people had made it. I recognize that having four people for a focus group is not an ideal number. Two of the participants in this focus group were Tl'azt'en and two were, again, from different First Nations, who happened to work at the Tl'azt'en band office. The two Tl'azt'en participants lived on the reserve at Taché, while the other two participants lived in Fort St. James.

I attempted to recruit participants for a third focus group session in October 2009. I attended another *Keyoh* holders' meeting and was able to gain the interest of seven *Keyoh* holders in a third focus group session, to be held at the Elder's Centre in Taché. The day of this focus group session, two *Keyoh* holders from one of the three Tl'azt'en communities, Dzit'lain'li (Middle River) (Appendix A) were present. The other *Keyoh* holders were attending another workshop scheduled the same day as my focus group. Unfortunately, I had not been aware of this scheduling conflict at the time I attempted to recruit participants. The focus group session only lasted for about an hour and the participants did not speak much. Instead, they invited me to Middle River the following week to present to the community at Dzit'lain'li (Appendix A) and host a focus group session with them. I accepted their invitation and proceeded to make arrangements to travel up the logging road to the smaller community. The following week, the meeting had to be cancelled due to a death in the Nak'azdli community near Fort St. James. Offices in both communities (Taché and Middle River) were closed that day for the funeral, and I was unable to get in contact with the two individuals who had invited me for rescheduling.

Recruitment for another focus group was based on the initial list of people recommended to me by the Executive Director of Tl'azt'en nation. I contacted these individuals and asked if they would be willing to participate. Of the people I contacted, I was able to recruit two individuals. Both participants lived in Fort St. James and could only participate if the session was held in town. The Nak'azdli Natural Resources office in Fort St. James granted me permission to use one of their meeting rooms to conduct a focus group for an afternoon. For this session, both people showed up and we were able to run the discussion for an hour.

I met many people in the nation who seemed to be genuinely interested in the research project and who agreed to participate, but the most common issue I experienced was that people did not have enough time. I understood this to be common, especially given the time of year when people are out hunting and berry picking whenever they have a spare moment. I managed to speak with and record the words or conversations of twelve participants, which is a low number, but these contributions were rich and took my research to a different place than I had predicted.

3.3.3: Setting the Context: A Discussion of Data Collection

The participants determined the length of each focus group session because they had other engagements and/or responsibilities. All of the participants specifically set aside some time in order to participate, and each person expressed support for the work I was doing. Focus Group One had four participants and it lasted for three hours and five minutes. Focus Group Two had four participants and it lasted for one hour and thirty-eight minutes. Focus Group Three had two participants and it lasted forty-eight minutes. Focus Group Four had two participants and it lasted for one hour and eight minutes. I provided coffee, tea, and food for the participants at each of the focus group sessions. Each individual received a thank-you card and small gift in appreciation of their time.

The age of the participants ranged from twenty-five to sixty-four. In Focus Group One, the age range of the participants was between twenty-five and forty-seven and there were two men and two women. In Focus Group Three, both participants were between fifty-five and sixty-four years old and both were men. In Focus Group Four, the age of participants ranged from twenty-seven and forty-five years and they were both men. I refer to each

participant by number (Participant #1 for example) in order to protect their identities but I do mention their gender. Because two of the participants in Focus Group Two did not sign consent forms, I have not included their personal information here.

Informed consent forms (Appendix I) were read and signed by all participants, with the exception of two persons in Focus Group Two whom I read out the informed consent forms and they did not sign. These two participants were familiar with the concept of informed consent. Their decision to not sign the consent form was based on their understanding that I was conducting a community health research project that needed to include the 'community'. We discussed this aspect of the project and I described my efforts and shortcomings in recruiting people. The participants understood but remained firm in the belief that one is not in a position to speak for the community. We did, however, continue with a discussion with four other people present. I have not used any words or conversations we engaged in at that meeting in this thesis. I am, however, speaking about the experience because it was a part of the process that needs to be respected. I also believe their not signing consent form was one of the more interesting learning experiences I had on this research journey. I was a bit disappointed but I appreciated the explanation and respected their position.

I chose focus groups as the primary means of data collection. I did not choose interviews because I anticipated that focus groups to be more relaxed with less pressure being placed on one person to answer questions, even though participants were not under any obligation to speak to me at all. Interviews ought to have been an option for individuals who prefer one-on-one settings who are either shy in larger groups, or perhaps didn't have the time to sit in a large group in order to share their perspectives. Informal interviews would

have worked well in this situation. As a budding and inexperienced researcher at the time, I did not opt to do this although in the future, I will provide an option to hold informal interviews.

3.4: Data Collection

Participation by Tl'azt'en community members was lower than expected. While there seemed to be interest from the political leadership and by members of the community, it was difficult finding a time to host a focus group session that would accommodate the greatest number of participants. June, July, August, and September are busy times of year where fishing, berry picking, and moose hunting take priority for Tl'azt'enne. Most people who committed to a morning or afternoon focus group ended up not being able to make either session.

At each focus group session I began by explaining who I was, why I was conducting this research project, and why I was interested in working with people from the Tl'azt'en nation. I described the purpose of the focus group, what an 'informed consent' form is, and why they are required when conducting research with the people of the nation. I explained that when a person agrees to participate in the focus group session, their signature is required to indicate their consent. I also explained how participation was voluntary and that they could terminate their participation at any time, without prejudice, and that any information they contributed would not be used in my analysis. I explained that everything they said would remain anonymous. Every participant, with the exception of two persons, read and signed the informed consent form (Appendix I).

At each focus group, I gave a presentation that included a description of the research project, the EA process and HIAs. My first focus group session revealed my lack of experience. I spent a lot (in fact, too much) time talking, partly due to my presentation being too long. At subsequent sessions, I modified the presentation. The participants at that first session were kind and supportive of the research project topic and provided me with gentle feedback for future presentations. Despite my inexperience, I considered the session a success. The discussions were informative, casual, and interactive. Some of the participants were more talkative than others yet all contributions to the conversation were valuable. As a moderator in the discussion, I attempted to bring one of the quieter participants, who also happened to be the youngest, into the discussion, but I think he felt overwhelmed by some of the topics. The other three participants spoke openly and an informative dialogue emerged over the course of the session. Participants were all interested in discussing the subject of health, environmental concerns, and industrial development. The main challenge was, as a moderator, to keep people on track.

The feedback I did receive from this first focus group made me re-evaluate how I present to community members. One participant noted that I spoke with academic jargon and suggested this would not help my future sessions with community members. I think I was nervous. I appreciated the comment as a reminder to focus on communicating in a more relevant way. Speaking about provincial legislation and the B.C. EA process is not that interesting to some people, but talking about health is. I altered the way I presented the topic in later sessions in order to focus on perspectives of health with less emphasis on EAs and law.

3.5: Data Interpretation

When I listened to the recordings and re-read my notes from the focus group sessions, common themes began to emerge. While there were not as many conversations to draw from as I had initially hoped, I heard discussions that revolved around community. These revealed frustrations based on personal experiences with or situations related to industrial development. In Chapter 4, I discuss these in greater detail and explain the themes that emerged from the words of the participants. Their input reflected a community's perspective, and maybe it was a valid small picture of what people were experiencing. These words were valuable and the opinions and perspectives needed to be reflected upon and shared. Hopefully, future research in this realm of inquiry will result in opportunities for community members to share their views and experiences.

Rather than other analytical approaches I used a mixed method of contextual interpretation and thematic analysis of data gathered during the focus group sessions (Kovach, 2009). This process is subjective and therefore likely to be irreproducible but it made sense as a means of interpretation, rather than analysis, because of research being rooted in an Indigenous methodology. While analytical methods are connected to other types of research (e.g. participatory action research or grounded theory analysis), "meaning making within Indigenous inquiry" (Kovach, 2009, p.133) is an uphill struggle. The research must meet validity and credibility in both Western academic institutions and Indigenous communities. Mihesuah and Wilson (2004) and Kovach (2009) comment on how the Indigenous academic research community is small and so evaluations of Indigenous inquiry by Indigenous academics can be difficult to access. The methods chosen for interpretation of the information shared with me by community participants was informed by my relationships

with each person, possible because of the modes of analysis I chose. I met passionate

individuals who do great work in the Yinka Dené communities and it is my intent to

accurately represent the meaning of what they shared with me. The themes that emerged

during each focus group session are referred to as patterns (Kovach, 2009) that are reflections

of the stories shared with me during the focus group sessions. These patterns represent

participants' observations about health, and impacts to health, in their own lived realities.

CHAPTER 4

Research and Research Findings

In the preceding chapter I argued that my place in this research project is an integral part of the work itself, contextualizing my connection with the Tl'azt'enne and discussing my relationship to the work. In this chapter there is thus an understanding that the development of concerns for health, as well as the pursuit for knowledge about the health of persons and the community as a whole, is a continuing struggle for the Tl'azt'enne – a struggle in which I am implicated. Recalling the three research questions that drove my work, this chapter might be fruitfully conceptualized as an interpretation of people's responses to the initial questions, namely:

1. Do current health impact assessments evaluate the impacts of industrial development upon the health of Indigenous peoples/communities effectively and respectfully?

2. If not, what, within current health impact assessment tools and frameworks, is not working or irrelevant?

3. What would a more appropriate or relevant/respectful health impact assessment tool look like, if it were to be made for use by Indigenous peoples?

Ultimately, I turned to members of the Tl'azt'en nation for assistance in finding answers to these questions. I questioned the health assessment framework utilized during the environmental assessment (EA) process and wanted to find out if it does not address health in a way that is relevant and respectful to, or reflective of, Indigenous peoples and their worldviews. By turning to an Indigenous nation, the Tl'azt'enne, I sought to find answers to my questions in order to support (or reject) my hypothesis. My research is located within the

territory of one Indigenous nation and, even further, focuses on a particular group of individuals from that nation.

From the beginning, I intended for this research to be a means of identifying Indigenous-specific determinants that could account for and predict negative changes to Indigenous peoples' health caused by or linked to large-scale development projects. I rooted myself in an Indigenous methodology. I elected to use a qualitative method of data collection. I conducted focus groups, to which members of the Tl'azt'en community of Taché were invited. I identified participants for focus groups through inquiry with people I knew in Taché to find out who in the community would be interested in speaking on this research topic. The purpose of the focus groups was to discuss how large-scale impacts to the land could affect individual community members' health or the health of the community as a whole. Based on the results of the focus groups, I hoped that Indigenous versions of determinants of health would be identified.

Analysis of community voices and perspectives, or the words of the people who participated in my focus groups and shared knowledge with me during each encounter, revealed a number of themes. I explored the four themes that became clear upon interpretation of transcripts from the focus group sessions. These themes are: 1) relationships, 2) responsibility, 3) leadership/governance, and 4) challenges associated with integrating the past into the present. The themes support the idea that current health assessment structures are not nimble or nuanced enough to capture cultural or community specificity. Before I discuss the thematic findings, however, I offer some preliminary discussion about a concept (*Keyoh*), an 'overarching and all-informing idea' that all the themes draw or touch upon. Because of its complexity, the concept requires a discussion unto itself. Little published

literature exists about this concept, yet its importance cannot be underestimated. Given my own limited understanding of *Keyoh*, I cannot claim to offer more than some broad contextual understandings about the idea, some of which come from my personal and familial connections with it. As I discuss, however, these too cannot be clearly separated from *Keyoh*. I attempted to reflect on the words of the participants from a place of understanding about myself and the complex idea of *Keyoh*, including how I both inform and understand the concept.

4.1: *Keyoh*

During each focus group session, I received from participants their shared experiences and knowledges. These individuals all belong to communities that, historically, large-scale industrial incursions have disrupted (e.g. Pinchi Lake) and that development could potentially affect in the future. Participants spoke consistently of *Keyoh*, which might, at its broadest, be some articulation of an interdependent relationship that family and land have, without providing a definitive description of what it means. While I do understand the term *Keyoh,* there are definitely gaps in my knowledge. I acknowledge that I do not understand *Keyoh* to the same degree, for instance, as my grandmother, mother, or other members of my family. Still, there exists within me something that might best be described as a gut feeling or an embodied and genealogical appreciation of what *Keyoh* means to the Yinka Dené, of whom I am a part. It is almost as though there is an emotional attachment when speaking the word '*Keyoh*'. It is important to convey my own perception that, for people who discuss or reference the land, there is emotion that comes through as one speaks

from the heart about something of such value, something to which one feels (and thus is) intrinsically and intimately linked.

Keyoh is a complex, deeply personal, shifting component of Tl'azt'en (and thus my own) identity. It represents a primary way of orienting oneself in the world. As a result, part of my findings reflects my own inability to extricate myself from the research. *Keyoh* is difficult for me to define, given my own limitations, understandings, and education. What I do know is that it resonates with ideas like 'house' or 'home'', descriptions that are often used interchangeably by English language speakers. These words are not *Dakelh* terms, though, and therefore the non-*Dakelh* identification contains its own complexities and limitations. English language words give rise to Eurocentric worldviews. With this in mind, I still attempt to provide some understandings about *Keyoh* by, in part, drawing on other written literatures that explain similar concepts and which, when combined, form some understanding of *Keyoh*. One definition is,

> the resource area or hinterland that belongs to a particular settlement or clan and that serves as the material, cultural, and spiritual basis for sustaining human life. The central institution through which Carriers owned, managed, and protected the *Keyoh* was the potlatch system, or *Bahlats*. Under the *Bahlats* system, Carrier society was divided into matrilineal clans [...] each of which was identified by an animal symbol that served as its coat of arms. The four clans were beaver, bear, frog and caribou [...]. Each clan owned and controlled its traditional territory, or *Keyoh*, that sustained the families belonging to that clan and its sub-clans. (Brown, 2002, p.28)

Keyoh, in this definition, directly links health (the concept of being sustained) to the political, economic, social, and environmental realities of the Yinka Dené. While the definition of 'health' in non-Indigenous terms has shifted to be more inclusive of external environmental influences on the individual (social, economic, political, and spiritual), many discussions

about health impacts still do not directly reference concepts inherent to an idea of *Keyoh*.

Keyoh is governed by the clans of the Yinka Dené (Brown, 2002). Clans own and manage the

land that falls within the territorial boundary of *Keyoh*, and *Keyoh* sustains life. *Keyoh* is also

a necessity for sovereign governance over the land through some grouping of people, namely

structural entities called *Bahlats* and organization through clans, which controlled the *Keyoh*

(Brown, 2002).

Another definition of *Keyoh*, alternatively called *Keyah*,[17] is "the area in which one

walks" (Larsen, 2006, p.316). Here the concept refers to the area that a family may use for

hunting or for situating their household. *Keyah* may be occupied by more than one family.

Larsen's term 'walks' comes from the words of Elders he spoke with during his ethnographic

work. The use of the term 'walks' depicts an action where people walked across the *Keyah* to

'spatialize memory', resulting in the creation of a 'memory-in-place'. Larsen (2006) explains

further that memory-in-place became the place where resources were gathered within the

boundary of the *Keyah*. Resources were remembered as such, thereby forging a space within

one's memory that could then be passed on to the next generation. Memories passed on from

one generation to the next reflected the ways in which land was used and occupied over time.

Called 'flexible stability' where, "an evolving time-place connection [...] enabled economic

production of resources for consumption and exchange" (Larsen, 2006, p.317), *Keyah*

represented the space within and upon which the *Dakelh*-speaking peoples based their

survival, including using them for food/nutrition, medicine, spirituality, politics, and

economics. My understanding of the concept is limited, but there is little question that *Keyoh*

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[17] *Keyah* is the same as *Keyoh* but in another dialect of the *Dakelh* language. In the Tl'azt'en and Nak'azdli nations the term '*Keyoh*' is used, while further northwest, closer to Lake Babine, they say '*Keyah*'.

is connected to questions of HIA and the ability to account for the health of Yinka Dené

peoples' and the health of their respective territories.

4.2: Thematic Interpretation and Discussion

As I discussed at the onset of this chapter, the focus groups revealed rich information

that, upon careful contextual interpretation, generated many findings. These findings can be

grouped into specific themes that offer answers to the questions driving this project. The

themes overlap and intermingle with each other, making them difficult to compartmentalize,

in part because all the themes are deeply imbued with the concept of *Keyoh*. I attempted,

when possible, to acknowledge and dissect these interconnections and, to respectfully place

them into some of the context to address the research questions. I laboured to effectively

communicate the contexts of these themes, though even these labours suggest that health and

health assessments might also be mired in complexity, and that failure to recognize

complexity will undermine the internal struggles of the Yinka Dené people.

Given that my research was conducted using a *Keyoh* lens, it makes sense that

interpretation revealed the four main themes of relationship, responsibility,

leadership/governance, and 'accounting for the past in the present'. Having said this, I begin

this analytical section with a vignette – a vignette that, like the concept of *Keyoh*, informs all

my research with the Tl'azt'en peoples. I think the story imbedded in this vignette touches on

the relationships between *Keyoh*, the social determinants of health, and the themes that

follow.

During one of the focus group sessions, which I was ultimately unable to use because

some of the participants elected to not sign consent forms, I was asked by a Tl'azt'en Elder

need to refrain from damaging the land. Unfortunately, much damage has occurred to his family's *Keyoh* and the integrity of the land has been compromised. This is hard for him and his family to accept. Although I am unable to use direct quotes from this session, the ideas that were gifted to me inform the ways in which I undertook a contextual interpretation of the other three focus groups. It is to them that I now (re)turn.

4.2.1: Responsibility

One participant, Participant #4, noted that in order to ensure that future generations are successful in living off and relating to the land, certain ceremonies must be passed on: "For me to not be able to take my 4 year old boy out to one area, it's just too hard to imagine… I can't imagine taking the kids to [my *Keyoh*] and saying 'oh this used to be a lake one time'. I just can't imagine" (Participant #4). Participant #4's words touch on the theme of 'responsibility.' It is Participant #4's responsibility, in his role as a father, to teach his son about the land, the complexities embedded in the land, and the history and representation of place. To alter the landscape, particularly the specifics of *Keyoh* (as industries propose to do when they work in an area and undertake an EA process) may disrupt Participant #4's responsibility to pass key components of identity along to his son – components that come from experiences and presence within their *Keyoh*. In addition to mining or another industries disrupting individual roles, there are layers of complexity that include individuals' responsibility to clan and then to nation. Is it possible for a standard health assessment survey to account for this? When Participant #4's words are set in dialogue with the parameters of HIAs, it seems that this tool might fail his and his children's needs.

One of the four themes, which came through in the focus group conversations, was that of 'responsibility'. As I reflected on this theme I asked myself, "what does it mean to have 'responsibility'?" Responsibility is, like so many other terms, comprised of myriad definitions. There is always a context to the meaning of concepts and 'responsibility' is no exception. Merriam-Webster (2010, n.p.) defines 'responsible' as "able to account for one's conduct and obligations". I looked to the literature and found an alternative description spoken in the context of Indigenous leadership. Kanien'keha scholar Alfred (1999) first described 'responsibility' as it pertains to the third of several stages in the Rotinohshonni Condolence ceremony, explaining that,

> The Condolence ceremony represents a way of bringing people back to the power of reason [in which particular stage] we say, alright, we're strong and we're proud, but let's also be realistic about our problems and the responsibility we have to address them. A big part of this is [...] 'Recognizing our responsibility to our ancestors'. This responsibility is incumbent not only on the leaders but on all of us. If we ever want to return to health as a community, we have to address these issues even though they are painful and cause sorrow. That's how you get ready to make change. (Alfred, 1999a, pp.xix-xx)

In the context of leadership, 'relationship' is "the simple (though crucial) requirement for universal inclusion and the maintenance of strong links between those charged with the responsibility of decision making and those who will to live with the consequences of their decisions" (Alfred, 1999a, p.91).

These conceptualizations of responsibility resonate with the contextual interpretation I have undertaken, an interpretation that accounts for definitions like the ones just outlined and acknowledge the different ways people live or embody their respective roles in the community. The theme of 'responsibility' touches upon reciprocal relationships between the

land and health, relationships that depend on people existing in a responsible feedback loop that informs the ways in which decisions are made about the land. If the land takes care of the person, the person must be *responsible* to take care of the land. Responsibility, then, is imbued with an implicit understanding that if land is treated in a manner that disrespects its integrity, then the land will reciprocate that disrespect, and communities and individuals will face the consequences of their actions. There are examples of people acting in ways that do not reflect teachings that are found within the oral histories and stories of Indigenous peoples (Adelson, 2000; Cruikshank, 2005; Nadasdy, 2003). Basso (1996) corroborates: "historical tales focused on persons who suffered misfortune as the consequence of actions that violated Apache standards for acceptable social behaviour" (p.51). Oral histories not only provide Indigenous peoples a means of managing the animal and plant populations on their territories, but also created the foundation for teachings about social behaviour, including embedding the importance of responsibility for the overall well-being of communities.

In Participant #4's conceptualization of responsibility, teaching a child the ways of the land, as well as the history of relationships that passed before him, inform the future relationships within and between families, clans, and nations. This relates to health: the formation of identity (whereby a person, through teachings from older generations, situates the self in relation to the land, as well as to other people from the same clan and nation) is well understood as an integral part of overall individual and collective health and well-being (Alfred, 1999a). A HIA tool must then be responsible to the people in a way that reflects the spaces occupied by their families, clans, and nations. For example, if an industrial project proposed to turn a freshwater, potentially fish-bearing lake into a tailings impoundment area, then people who used the lake for food (aquatic and terrestrial plants and animals) must have

the opportunity to communicate the ways in which a large-scale proposed change would be experienced and absorbed by their community.

According to participants, there are other ways that the responsibility of community members might be disrupted by industry in ways that are not accounted for, or only partially accounted for, in current and proposed HIAs. Tl'azt'enne peoples have been hired to work at remote sites for forestry and/or mining (agriculture and other resource-based industries), where:

> It's harder on the family because then there's just one parent. I know for a fact because that's what I had to go through when my husband had to leave for work for two weeks and I had to do everything for the family. I had to do all of the shopping and everything. I had to hire someone because I didn't know how to drive and I didn't have a driver's license. It was just really hard. He does the discipline. I can't do the discipline because my kids never listen to me. He's always done it and I have never done it before. So now when he's gone we're just kind of going crazy. I try and tell them but they won't listen. When he gets back for those two days, he straightens them out again and then he leaves and then it's back to the same thing again. (Participant #1)

Participant #1 is describing how both parents' roles and responsibilities are challenged when one parent leaves for extended periods of shift work. Her words reflect what many families may experience in this situation and highlight how, when one person of the household takes on the responsibility of providing for his or her family, there are shifts in responsibilities for the other family members. There was some agreement that having one parent employed was good, since some income is secured, but participants discussed how temporary one-parent households result in upsets and stress. Disruptions within the household intermittently shift the balance of parental responsibility and coping mechanisms. The determinants that reflecting more social aspects of health, such as 'social support networks' or 'coping skills', are relevant to the theme of 'responsibility'. Community is comprised of networks of social

support and when people are away from their families for extended periods of time, the networks are fragmented temporarily shifting responsibilities elsewhere. It is not that there is some sort of inability to adapt to changes such as these created by absences of family members but that without the support of those in communities who are involved in this economy, like there was in the past, the changes in family roles can be overly disruptive. This assertion is being reflected in a growing amount of literature (Bronson and Noble, 2006; Richmond and Ross, 2010) establishing that HIA tools must look at how "the impacts to spiritual, cultural, economic and social infrastructure are large compared to environmental impacts" (Bronson and Noble, 2006, p.320) in order to have relevance for Aboriginal people.

Responsibility relates also to education. Two participants engaged in a discussion where one expressed her personal frustrations about being part of the younger generation receiving a Western education:

> In my *Keyoh*, my uncles know every trail, every lake, every river, every stream, every fish, and every animal. I don't know that. I do know Western education and college diploma. But what good do these really do me? I don't know. To me I feel almost like I'm empty having Western education than I am having the other information. (Participant #2)

> I think the best is to find a way to marry those two together... (Participant #3)

> Yeah. How do you successfully balance that? (Participant #2)

> What you could probably do is sit down with the Elders and probably learn from them. And then... (Participant #3)

> But that's what I mean. That way is not validated in today's society. I can't sustain my way of life and go and learn about my tradition. I can't do that because in Western civilization that's not valid. It's not valid to go set net and smoke fish and gut a moose and use all the parts. I could never get paid to do something like that. Yeah, and maybe I should be out there learning that because that's what will save me in the end. (Participant #2)

Participant #2 seems to question her own place within or between two dominant knowledge systems and the responsibilities that come from both: education in the Yinka Dené sense (traditional) or education in academic institutions. Participant #2 works a full-time job that provides a means of living within the Western economic system. She suggests, however, that Yinka Dené teachings will provide, more importantly, a deeper understanding about ways to live off of the land. Her last statement, that knowing how to live off the land will be what will "save her in the end", speaks to the security that knowledge of the land could bring. While she has accepted the responsibilities that go along with participation in the Western market economy, the responsibility to provide food and shelter for self and family is supplemented by utilizing the land and its resources.

Resource industries (such as mining and oil and gas) are increasing their presence in B.C. and, while they do provide an opportunity for employment, they are not permanent. For example, the Northgate Minerals Kemess Mine expansion project proposed that the mine would operate until 2020 (twelve years) (Canadian Environmental Assessment Agency, 2008). Employment can have positive effects to a community; according to participants, though, the change it brings when it eventually leaves has not yet been determined:

> There are the social impacts. If you have the whole influx of money coming in are the people going to go out to the land anymore? Are they going to go out there and harvest the berries and animals and stuff or are they going to go to [the grocery store]? Or go to town? The influence of money is going to buy vehicles so that will get them to town as opposed to now where there are some families who can't get to town so they go to the land. I can see that happening. (Participant #3)

> It's the change that money brings but also the velocity of how fast it comes. (Participant #2)

That's what usually takes people away from their traditional activities is that quick influx. It's easier to do things other than their traditional activities. (Participant #3)

Participants felt there were significant changes resulting from an influx of money to a community that has a history of high levels of unemployment. They observed that when industries came to town, the sudden surplus of cash resulted in changes to land-use. People purchased more food from stores rather than going out to the land to hunt, fish or pick berries. Employment opportunities from incoming businesses change the responsibilities of an individual in relation to family, community, and nation. Traditional activities that required one's presence on the land become less of a priority. This has implications for health, through shifts in diet and identity.

The influence of Euro-colonial civilization on the lives of Indigenous peoples varies, but that influence often touches upon issues of responsibility. Referring back to Participant #2's quote (p.74), she refers to the struggle in balancing the responsibilities toward a capitalist economy, the responsibilities to her family and her nation. For Yinka Dené there is tension between the responsibilities associated with the dominant Euro-colonial society and the inherited responsibilities of our ancestors. Our family and our ancestors taught respect for the land and that we need to take care of the land for future generations, while Euro-colonial society does not (Alfred, 1999a).

Indigenous people attempted to account for individual and collective responsibilities on and towards the land in the face of different perspectives and opinions about how the land ought to be used and for whose benefit. In this context, attempts to establish and sustain relationships between peoples with conflicting philosophies are often threatened by misunderstandings and misinformation. For instance, while HIAs list 'education' as an

important determinant of health. The question remains; what does education mean? Does is it mean earning a high school diploma or a college degree (Participant #2, p.74)? Does it mean having knowledge about the Indigenous community or nation with which industry must speak? There are quantifiable means of measuring educational achievement in certain individuals or communities, often non-Indigenous, but they are based upon the Euro-colonial education system. Health impact assessments have no means of assessing Indigenous systems of knowledge transferred from one generation to the next.

Focus group participants suggest that 'responsibility' for one's roles in the family, clan, and community would not be accounted for by HIAs. There is frustration regarding a lack of validation for activities in which families continue to participate. Participant #2, for instance, is unclear about how her own responsibilities to learn from her Elders will be protected when industry approaches a First Nation with what could be valid economic possibilities. Participants in these focus groups did not condemn employment or participation in the Canadian economy. They suggested, however, that the struggle to honour a life informed by Indigenous ways of knowing and being, along with a commitment to life on the land, is constant and hard. They conveyed that while they were trying to balance working in the Canadian economy with life as Yinka Dené peoples, they were experiencing a tension between the responsibility to teach their children the Yinka Dené ways of being and the means to live in both worlds.

4.2.2: Relationships

The concept of 'relationships' came up often during the focus group sessions. At a very personal/embodied level, the participants themselves are likely related to each other and

to me. These relationships are multi-faceted; some of them are co-workers or colleagues, past and present, and there may be a familial connection by blood, by marriage, or by clan. Although I do not know the intimate details of how all of them are connected, their relationships to each other and me do inform their discussions and contributions to the research project. Relation is "an aspect or quality (as resemblance) that connects two or more things or parts as being or belonging or working together or as being of the same kind", or "the state of being mutually or reciprocally interested (as in social or commercial matters)", or "a person connected by consanguinity or affinity" (Merriam-Webster, 2010, n.p.). In this section I discuss the various viewpoints that encapsulated or touched upon the theme of 'relationship,' a concept that arose directly or indirectly during the focus group discussions about the utility of HIAs. I suggest that the concept of relationship has importance in the context of community health and must be addressed with HIAs in order for them to make sense for Tl'azt'enne.

During the focus groups, the theme of 'relationship' often arose in conjunction with discussions of tension. That tension, in turn, was linked to worries about land and the health of a community, something participants felt current HIAs would have difficulty accounting for. Conflicts and inherited histories inform the actions and thoughts of people in the community, making it difficult for a HIA to capture any kind of consensus about health because it is likely that no such consensus exists:

> Well, today you can see families against families and it was never like that before. I'm telling you, if there were a chief and council election today there would be three families fighting. They will fight. Well, they're still fighting. That's affected our relationship with one another. (Participant #1)[20]

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[20] The year following my time in the community conducting focus groups, there was a band council election following a serious dispute and movement against the chief and council who were in charge at the time of this project's commencement.

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Relationships within this context must be understood as complex. The elected officials in the chief and council are given the task of making decisions about what happens within the boundaries of Tl'azt'en territory including environmental and HIAs. Resource development, forestry practices, or exploration of a territory – whatever it may be, there is a perceived issue with the shift in power, assumed in the chief and council, away from traditional governance structures. These tensions, which are often linked to land and resource availability, must not go unaccounted for when considering HIAs.

Relational conflict like this is not uncommon in First Nations communities. It is likely an outcome of the imposition of external bureaucracies on self-determining peoples, something one participant expanded upon:

> I remember a long time ago when I used to be able to go next door and be able to sit there and have a bannock and a tea and then go next door on my other side and ask for a cup of sugar or a cup of rice. And now both my neighbours next door, I don't even say 'hi' to them. So that's how [chief and council elections] affected our relationship. We don't even do that anymore. And before we used to go sit around at other peoples smoke houses and help them out and help them with their work. And if we had lots of work they would come and help us with ours. (Participant #1)

Participant #1's words speak to changes in the relationships between (and within) families, partly due to band council elections that are imposed via the *Indian Act*. These are very nuanced and localized, and thus likely impossible for a standardized HIA survey to grapple with. Given the administrative roles of the elected members of the chief and council, it is often people who work in various roles at the band offices who deal with matters concerning HIAs during an EA. It is impossible to generalize, or to say that one can understand fully the dynamics between and within families, but what is important is that one person's lived reality is always, through relationships, connected with others. If there is a change to relationships

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how, as a researcher, my research would "inform government."[18] This question was asked by more than one person, and at various stages of my research process, but when a well-respected Tl'azt'en Elder articulated it, I did my best to establish that I was not doing this research to inform colonial authorities or support their government's policies and/or legislation. My obligation, I explained, remained to the Tl'azt'en nation and to Tl'azt'en decision-making structures. At the very root of my response is my belief that this work is for the Tl'azt'en nation and it is up to the Tl'azt'enne people to decide how my work will be used.

My conversation with the Tl'azt'en Elder continued. When I explained my research goals,[19] he informed me that I was fifty years too late, later adding that my research project was still important. As he and the rest of the group continued to talk, the conversation moved on to the subject of education. Another focus group participant spoke about her own lack of education in the Western system and the fact that she was encouraging her children to graduate from high school. As we talked more, she spoke about how she was raised by her parents on their *Keyoh* and was educated there, out on the land, and taught how to live off the land.

One of my recollections of this focus group is the way in which an Elder spoke about the current state of the environment compared to several decades ago. He observed that there are animals missing and the water is polluted due to the activities from industry, especially forestry. He spoke of his past efforts to communicate to government and industry about the

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[18] The implicit query in questions about how my work informs government is a question about my collusion with federal and provincial authorities. This is not an innocent query. The participants' genuine worry is that my work will be used to support the interests of industry and the colonial government.

[19] My research goals have always been about supporting Tl'azt'en, and other Indigenous communities, in the ways in which health is addressed and assessed with respect to industrial development on their territories.

between individuals, there is likely a change to relationships between and within families all of which affects health. This is important when thinking about the viability of an HIA tool because of the role that social relationships play in the health of people. How, for instance, can a HIA tool address existing relationship structures that continue to be stressed by externally, colonizing legislation? In the case of Indigenous peoples, relationships were traditionally based on inter-dependency and reciprocity (Adelson, 2000) rather than individualistic modes of interaction. In contemporary times, these interactions have changed with the influence of the global market economy and its capitalist ideologies. Relationships have shifted.

Additionally, HIAs may not be able to account for the multiscalar nature of relationships, which unfold between families, individuals, clans, communities, and nations. The complexity of accounting for these relationships amplifies at different jurisdictions (primarily federal, provincial, band, and Indigenous/hereditary). For example, a proposed development project located within the traditional territorial boundary of the Tl'azt'en nation may be identified as affecting one family's *Keyoh* (as defined by *Keyoh* holders and clans). But how could a HIA also identify the way in which other clans experience the same project?

> See, the other thing about the way project works is since we are divided into clans and the clans are basically about land. So if the clan will lose about twenty-five square kilometres of land, are the members of the clan going to move and impact the other clans and how does that disrupt their whole social fabric? (Participant #4)

A *Keyoh* holder whose territory is directly affected by a development project may be able to negotiate some form of settlement with a company in exchange for the temporary or

permanent loss of access to the property.[21] How the *Keyoh* holder and the people of the

Keyoh will access land in the future is uncertain. Layers of governance within Indigenous

communities are complex. HIAs fail to account for the permanent loss of a land base for a

Keyoh holder and their family (immediate and extended) and, additionally, fail to assess the

way in which this loss interferes with the relationships of people who belong to that *Keyoh*,

as well as the clan to which those *Keyoh* holders belong.

Indigenous peoples in Canada experience various levels of control, enacted through

racist legislation (Alfred, 1999a; Adelson, 2000). Our relationships with each other and with

our lands are affected by these realities. Professionals who are mandated with the assessment

of health impacts to an Indigenous community may do so without any appreciation or

knowledge of the very specific cultural and historical contexts of that community (Adelson,

2000). Participant #2 touches on this source of tension, which might be understood to link

back to the theme of 'relationship':

> There is a lack of information about First Nations peoples in Western
> education. I don't need to go out and get a bottle of aspirin. I can go and take
> it from an aspen tree and chew on the cambium. But if industry doesn't
> understand that then how would they know what to mitigate for? And if
> they're not willing to come in and sit down and build on those meaningful
> relationships how *would* they understand that? How would they understand
> that right now, because the government assimilated all the First Nation people
> and threw them on these parcels of lands called reserves, that this affected our
> health? You know, for years, First Nations peoples were always slapped or
> scolded because they couldn't do what they were traditionally brought up to
> do, you know: harvest the land in an environmentally safe way. (Participant
> #2)

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[21] In Northgate Mineral's EIA, the Patrick family is identified as the registered trapline holders of the proposed impacted area. A compensation agreement for the original mine site was negotiated in 2001, and a compensation agreement for the proposed mine expansion was negotiated in 2005. Guide outfitters in the area were also acknowledged and one such permit holder was paid compensation by Northgate Minerals in 2001 (NMC, 2005).

In her observation, Participant #2 is asserting the relationship between an Indigenous person and the land. She described her experiences with certain misconceptions about Indigenous peoples generated within 'Western civilization'. Participant #2's prior attempts to accurately represent and convey to industry a way of life of the Tl'azt'en, a way of life that is dependent on maintaining relationships that are intimately connected to the land, were not well-received. HIAs, conducted by people without important contextual and cultural knowledge, may collect faulty data and subsequently misinterpret that data. This might, as Participant #2 seems to suggest, lead to misrepresentations when solutions are proposed and drafted. Most importantly, however, people may feel that their relationships with land are not accounted for.

The relationships between people of neighbouring *Keyohs* take work. If one *Keyoh* welcomed the development and operation of a non-renewable resource industry, such as a mine, its neighbours may or may not be supportive of this decision. Two participants spoke about the disruption that a large-scale mine might have on their interactions with the land and the ways in which different lives, and consequently relationships, could be altered:

> A mine on any person's Keyoh could alter migration patterns of animals. Moose, caribou... there are just a whole lot of things that go along with that. (Participant #5)

> Like family values too. You know, part of the family is trying to make ends meet and the other is, you know, doing fine living off the land. And then one will go and work for the mine and then there's conflict in the family. They're all arguing and butting heads. (Participant #2)

Mines disrupt land and consequently the relationships to the land as used by family members of a *Keyoh*. This disruption within the family can occur if a mine goes onto a *Keyoh* and

some members of the family support the mine while others do not. Relationships within those families are thus compromised. Another focus group participant saw this potential disruption:

> I always worry about... the way industry does things. And then, of course, industry will say something like, "... well, we're going to give your people 'this many' jobs and you'll have access to more services because there will be more people." And industry never looks at what they displace. Right now they're proposing a mine nearby. So, they will displace a hundred people. Now those one hundred people move to the boundary of their *Keyoh*, which then impacts the people who are already there. Then, those displaced people can't hunt on their *Keyoh* or where they've been relocated. It just creates a... it really affects the very fabric. (Participant #4)

The relationships of reciprocity and interdependency between family members within the *Keyoh* are challenged when development is proposed, and these challenges ripple. Within the *Keyoh*, there may be opposing opinions about whether or not to allow large disruptive development. Current HIAs neither recognize these important relationships nor account for them.

While the legacy of colonialism in Canada has not resulted in the extinguishment of Indigenous peoples, negative effects are very real and lived. Colonial dispossession and dislocation have altered the course of many people and their nations, including their relationships with and between each other:

> Our communities and our clans. We're always even... and there's respect. It's funny now that we've started working on the land even more, ... educating people on the use of the land. You see a lot more people saying, 'hey, how come you're hunting on my place?' And before, ten years ago, we'd been displaced in different areas and people just hunted all over the place. And now people are going, 'hey how come you're coming down this way?' (Participant #4)

People and nations are in varying stages of recovery efforts and Participant #4 highlights these efforts. Self-determination efforts exhibited by people returning to hunting, fishing, and

plant collecting are often in conflict with industrial development that seeks to extract non-renewable resources from the land. Health impact assessments fail to reflect these efforts, made by people attempting to reverse the cumulative effects of colonialism and regenerate relationships with the land that were disrupted. Relationships must be factored into processes – like development of industry on land that was not ceded by the Tl'azt'en people to the state – that are driving social change. Jurisdictions conflict with each other (hereditary, clan; state, and Crown) and these conflicts should not be ignored but acknowledged and accounted for. In sum, and based on participants' words, HIAs must account for all the complexities of relationships that exist in Indigenous communities.

4.2.3: Accounting for the Past in the Present

During the focus group sessions, participants would often say things like, "back in the days when...", "I remember when...", or "my grandmother used to say...". As each session unfolded, people opened up and reflected on teachings they had received from others. This is an important theme, one centred upon the 'then vs. now' aspect of the answers, or dialogues, and the tensions that exist between different periods in peoples' lives and histories. This section includes direct quotes from participants, but I will also refer back to previous quotes because they speak also to this particular theme.

Participant #2 spoke openly about a family divided along timelines. Other participants spoke of family divisions and brought up an example of a proposed mine in another community that is setting family and community in conflict. Participant #2 reflected on words spoken to her by her grandmother:

Growing up and listening to my grandma say, "fight for your land. Be proud of who you are and do your traditional things". And then you have 'western civilization' saying to us, "you Natives are a bunch of crazy kooks", and, "we're trying to make money and create jobs for you guys and so you should support us." And the whole time the First Nations people have never been supported in anything that they've done. (Participant #2)

The influence of the 'Western civilization' can appear to overrule the influence of our Elders' teachings. Being accountable to Elders' teachings includes having to balance dual perspectives; trying to live a life that is respectful of our ancestors, yet is also contemporary, is not a new concept. Choosing to live as an Indigenous person in the context of Euro-colonial hegemony presents serious challenges because certain aspects of it are in opposition to the teachings that we received from our ancestors.

Health impact assessments are challenged to grapple with what Participant #2 calls 'traditional things', or to account for the past, from which traditions emerge. Participant #2's statement was supported and echoed by other participants. They referred to participation in traditional activities, such as hunting or fishing, but also spoke of the changes being made by people taking part in traditional activities, changes which may have occurred for any number of reasons, and participation will vary from person to person and family to family. How HIAs account for land-use past, present and future is important to the health of families and communities.

Wealth within the Yinka Dené nations was distributed through a *Bahlats* ceremony. In contemporary times, there is another economy – the free-market economy – that influences our lives and requires constant re-negotiation of our individual and collective participation. We all engage with the Canadian economy, but remaining accountable to teachings from our ancestors is challenging:

Money is going to buy vehicles so that people can travel to town as opposed to now where there are some families who can't get to town so they go to the land. I can see that happening. It's already happening now with Western food and everyone has a fridge. (Participant #3)

Whereas before we never had a fridge. We just had a box outside and that's what kept our food cold whatever food we bought from the store. Everything else was either dried or half dried or canned. (Participant #1)

Participation in the Canadian economy meant a shift in the number of opportunities people had to access the land. Participation in informal economies, such as those that are primarily land-based, may be irreversibly disrupted and, as a consequence, catalyzes a shift towards more store-bought foods. As evidenced in the literature, this transition away from a diet of traditional foods may influence health, triggering diabetes and cardiovascular disease (Adelson, 2005; Hopkinson, Stephenson, & Turner, 1995; Kelm, 1998; Mihesuah, 2005). Competing perspectives and economies create tension between the past and the present, and food from the land forms part of the alternative economic exchange not accounted for in HIAs. The economy of food that exists on a *Keyoh* being unaccounted for in HIA may result in the disruption of parts, or all, of a *Keyoh*. An HIA tool will fail if it does not incorporate deeper accounts of how the past interfaces with the present. Respectful HIA would allow the community the time to process and plan for the future. Accounting for the past, acknowledging and including the ancestors' teachings, can bring context to the health of the community.

In a previous quote, on page 75, Participant #2 and #3 discuss the importance of education in the traditional sense. While I placed this particular discussion under the theme of 'responsibility', it is very much tied to the importance of accounting for the past in the present. Participant #2 speaks to her own lack of knowledge of her family's *Keyoh*, compared

to the knowledge that her family has ("...my uncles know every trail, every lake, every river, every stream, every fish, and every animal. I don't know that."). Participant #3 offers the perspective that while she has knowledge of the Western education system that she could still learn from her family about land. He further suggests speaking with Elders as a means to help bring both knowledge systems together. Participant #3's recognition of the necessity of learning from her ancestors through her family is apparent, but the way one can do this, bringing two different knowledge systems together, may not be so clear. Their conversation says to me that she knows what she doesn't know, which is something I can relate to with much certainty. The answer lies in her recognition that she has a responsibility to learn, which came from her statement, "... because it will be what saves me in the end." This statement alone carries so much depth. I have attempted to refrain from analyzing this alone except that it connects to Indigenous peoples' health spiritually, mentally, emotionally, and physically. Learning her *Keyoh* the way that her uncles know it may serve as a hedge against poor health outcomes.

Participant #2 again discusses the importance of accounting for the past in the present as a responsibility for settler Canadians whose general ignorance of the history between Indigenous peoples and the Canadian state relations impedes relationship building (Participant #2, p.82). Her words are echoed in the literature that urges for health research, policies and programs, which are specifically focused on Indigenous peoples' health, to contextualize the health of Indigenous peoples (Adelson, 2005).

Participant #4 (p.84) describes the efforts made by people to re-learn their territories and their boundaries. Hunting on ones *Keyoh* links people to their history. Re-learning relationships (the theme I originally placed Participant #4's quote under) to the land is

intrinsically tied to learning about the past. Knowledge past from previous generations informed ones behaviour out on the land, meaning the knowledge of where to hunt, when to hunt, and how to hunt, was tied to all that was learned in the past.

This theme, 'accounting for the past in the present', is present within many of the discussions. The themes, 'responsibility' and 'relationships', intersect with the 'past', which made teasing them apart difficult because I was not sure it would be appropriate to do so. The next theme, 'leadership/governance' is also related to the past, but I had to leave it on its own. Health and wellness as it relates to land is thus connected to the past be it past relationships or the responsibilities, which come from the teachings of our ancestors. The past informs our present and our health must be connected to the knowledge we hold of how our ancestors learned how to be in this world.

4.2.4: Leadership/Governance

While 'leadership and governance' can be found peppered throughout all of the previous themes, it merits mention as a theme unto itself because it remains a constant in the struggles of Indigenous peoples. As such, it was clearly linked by participants to questions about the effectiveness of HIA tools. This section will focus on leadership, or the way in which *Keyoh* is governed and, as noted at the end of the section, its important implications for understanding HIA tools.

Participant #4 recalls how he and his family discussed matters of land with industry and how that links to leadership and governance issues:

> I tell forestry what to do, where to go, and at what speed they should arrive at
> all of the time. I just do whatever I want. Same with these mining people.
> We've worked with them, and let them come on to our land and we've just

told them, 'unless you present to us a viable, environmentally safe way to do your business, don't even bother. You're wasting your money.' (Participant #4)

Participant #4's words express his assertion of rights to and ownership of territory, which is also linked to *Keyoh*. He indicates that development has to be conducted in a specific way before industry will be granted entry onto his *Keyoh*. Participant #4's words suggest that HIAs must account for the leadership and the respective governance structures of the Indigenous people affected by proposed development. Participant #4, like other Indigenous peoples, asserts his understanding about which family a particular territory or *Keyoh* belongs to. He has a responsibility to oversee what may or may not be permitted to occur on that territory, and wants development done in an ethical and responsible way. To be more precise, Participant #4 is asserting his self-determination and his authority over what happens on his family's *Keyoh*, expressing his sovereign right to govern and express leadership over land. These assertions are not measured or accounted for in current HIAs.

The loss of *Keyoh*, or at least a portion of *Keyoh*, is fraught with deep implications for health, particularly given that health is linked to sovereignty, governance, and leadership (see, for instance, Chandler and Lalonde, 1998). Participant #4 made reference to a scenario wherein a large development project negatively affected ones *Keyoh*, referring specifically to a mountain located on the *Keyoh* as a point of reference for the education of younger generations. If that mountain was removed, thereby permanently altering the landscape, he wondered where a family would go:

> [What if they want] to teach their kids about alpine hunting? .... Is there another place in their area? Or do they go to somebody else's place? We are bound. Everybody says 'you can move' but we can't. We're bound. (Participant #4)

When Participant #4 states that, "[w]e are bound", he reinforces his understanding of his place within the physical boundaries of his *Keyoh*. Moving elsewhere to hunt or gather is not necessarily an option when faced with the loss of part or all of one's *Keyoh*.

For instance, in Northgate Minerals' Kemess mine expansion plan (Kemess) (Appendix E), the company offered to replace the existing fishery thriving in Amazay (Duncan) Lake because it had proposed to turn the lake into a 'tailings impoundment area'. This proposal compensated for the Tse Keh Nay peoples' loss of Amazay Lake (Northgate Minerals, 2005). Unfortunately, the two replacement fish-bearing lakes were to be located further north. The failure of this proposed fishery relocation plan was how two new fish-bearing lakes would be built within the territorial boundary of another Indigenous nation. It would be inappropriate for the Tse Keh Nay peoples to enter into another Indigenous nation's territory without having gained the proper consent. The level of inappropriate mitigation, as seen as accommodation of Aboriginal rights and title was reflected in a 2010 B.C. Supreme Court decision, which found that "it is not an accommodation to say 'hunt elsewhere'" (*W. Moberly v. B.C.*, 2010 in ELC, 2010, p.73) – or in the case of the Tse Keh Nay, to fish elsewhere. Relocation of resource minerals is not possible, but neither is relocation of an ecological habitat that supports Indigenous peoples.

Within the Indigenous family and extended family structure, teachings passed from one generation to the next form the basis of future hereditary or traditional leadership and governance, and are rooted within the land. What happens when land is changed by industrial development? How, and to what extent, is leadership disrupted when the land becomes compromised and knowledge of how to use or govern that land is no longer relevant? What happens when there is no land left for the next generation to use or govern? Participant #4

drew a picture during our focus group that illustrated how land (one *Keyoh*), when altered by development, generated a ripple effect. A ripple, representing the family displaced as a result of the industrial development, moved outwards through the *Keyoh*, showing how the initial family affected moved into other families' spaces. Clans, who are the traditional means of governance of the land and *Keyoh*, are put into a position of reaction instead of having the opportunity to carefully, thoughtfully, and proactively consider a proposed project within the boundary of one's *Keyoh* utilizing Yinka Dené governance structures, wherein space can be renegotiated within and between families.

In the past, large-scale mining in B.C. was approved without any consultation with the Indigenous peoples who lived in and used the territory where the development occurred. Irreversible changes to *Keyoh* made by large-scale industrial developments, such as a large mine, may not deter the *Keyoh* holders from continuing to participate in traditional activities that connect them to that *Keyoh* (e.g. fishing, hunting, medicinal plant gathering):

> Even if they put that mine in there and it poisons the land, those families will still go out and try to make a living off of that *Keyoh*... Look at Cominco. People still fished out of Binché Creek.[22] People knew there was mercury. People couldn't go up to Middle River and go 'oh, we're going to fish here now'. You know, and people couldn't go to Babine. (Participant #4)

The importance of this statement lies in Participant #4 asserting how people will continue to use the resources from the land for food. Current EAs are intended to prevent the release of pollutants, such as mercury, being dumped into fish-bearing lakes and watersheds. 'Physical environments', one of the determinants of health used in EAs, "is the most frequently addressed health determinant and considered more often in the assessment process than all

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[22] Pinchi Lake is also known as Binché Lake, and Pinchi Creek, which flows into Stuart Lake, is also known as Binché Creek. The two names, Pinchi and Binché can be used interchangeably.

other determinants" (Bronson & Noble, 2006). There is much emphasis on the 'physical environment' in comparison to other determinants of health (Table 2) but the company's follow-up, as part of its commitment to the EA process, needs more consideration (Bronson & Noble, 2006).

While Participant #4 straightforwardly speaks about "make[ing] a living" he simultaneously refers to a family sustaining itself by fishing in a lake located within the *sovereign and traditional* boundaries of the *Keyoh*. He goes on to discuss that making a living through use of *Keyoh* is tied to much broader issues of leadership and governance, so that systematic dumping of industrial mine tailings into the waters of a lake effects local Indigenous leadership and governance. To this day, fish from the lake are restricted from being caught and used for human consumption – yet Participant #4 states how people continued to fish. Sustenance then extends beyond the materiality of food: it involves, instead, connection to culture and identity. The Indigenous peoples who resided at the lake, where their *Keyoh* was situated, would suffer from the loss of this food source. The diet of the people who fished here or the magnitude of the loss of the food sources provided by the lake had to their economy has yet to be accounted for or even acknowledged. Questions thus arise regarding how governance structures adapt to this change, especially into the future.

In Yinka Dené social structures, status is generated and maintained through use and distribution of resources obtained from one's land base, including the use of a lake for fish. The use of *Keyoh* to gain resources and the redistribution of resources at *Bahlats* ceremony is a way of maintaining one's social status (Brown, 2002; Fiske & Patrick, 2000). This is a status beyond an individual level, determined or maintained by how much wealth is shared with others. Redistribution of foods and other resources harvested from *Keyoh* is imbued

with meaning and responsibility, which together sustain and maintains one's social position. A person with higher status showed respect for the position in order to receive respect. Transparency (to use a Western term) to the clan or all of the clans, at *Bahlats*, was a crucial element. This is linked to health insofar as food was distributed to people who may have had a poor harvest or hunting season (e.g. a forest fire in their *Keyoh*), which contributed to sustaining social ties within and between families.

Traditional forms of government remain active in the lives of the Yinka Dené peoples and are based on "conscience and the authority of the good" (Alfred, 1999, p.25). The impact of band councils and the authority they carry are sites of tension and contribute to the fissures and cracks in the infrastructure of communities and nations. Band councils are sites of the colonial power that influences the lives of most Indigenous peoples in perverse ways. The band council system is not rooted in Indigenous knowledge or beliefs. The band council form of government organized around coercion and authoritarianism; it is not democratic. The authority is has is supplied by the state, through the *Indian Act*, and industry, through the state. The elected "chief" is a "chief administrator". Not a "chief" in the hereditary leadership understandings. The return of the authority of the hereditary and Indigenous forms of government is an imperative to our survival as Indigenous peoples. Especially in the face of increased development attempting to gain access to our inherited lands, land passed on from our ancestors. *Keyoh*, *Bahlats* and our histories are interwoven in our land and our language. There are several influencing factors that result in health and wellness and the past reflects one part of how one might understand the connection of Indigenous peoples to the land. The disruptions to our relationship to the land are multi-faceted and nuanced and very much underappreciated. It is my hope that the words shared with me by members of the Tl'azt'en

nation which I have now shared here can contribute to a better understanding of the context from which many Indigenous peoples speak from when reflecting on concepts of health and wellness.

4.3: Concluding Thoughts

Four themes emerged from the words and stories that participants shared with me during focus groups on Tl'azt'en territory. In important ways, these themes pushed my thinking about the questions driving this research. In this, the final and concluding, section of Chapter 4, I reflected on what I have learned, moving through it in a less structured way than I did with respect to the specific themes. It is important to note, most broadly, that while changes to the landscape are not uncommon for Yinka Dené peoples, these changes and related pressures placed on everyone by contemporary industry and the economic demands of the 21st century are likely cumulative. Repeated pressures have organized people into a state of reaction, wherein they are forced to adapt and absorb impositions made to governance structures, livelihood, identity, and on ones sense of well-being – all of which are intrinsic to health and therefore all of which deserve attention in the administration and consideration of HIAs.

While current HIA frameworks are the outcome of improvements over time, there remains a disproportionate focus on the physical environment (Bronson & Noble, 2006). While reporting, assessing, and predicting negative changes to the physical environment are a necessary part of EAs, these impacts need to be more deeply and subtly connected to human health, and more specifically when assessing industrial incursions on First Nations' land, to Indigenous peoples' health. The lack of knowledge or understanding about the contexts of

Indigenous community health can limit a health assessment, thus education of the community's perspective of health to the health assessors and how a proposed development project could affect Indigenous community goals is crucial to the HIA process (Bronson & Noble, 2006).

Results of thematic analysis of data gathered from the focus groups suggest that what is not working in HIA frameworks stems from the lack of acknowledgement of the historical context and current state of Indigenous community health. Participants consistently noted that they found day-to-day interactions with industry frustrating and disempowering. Ignorance of Tl'azt'en values, governance structures, and conceptualizations of health will result in HIAs that are not truly representative of how the community might be affected by a large-scale development project. Also, any efforts or solutions posed by industry to mitigate negative effects may be, from the perspective of people in the community, seriously misinformed. Resource distribution may thus be poorly focused or wasted entirely.

Relationships are crucial to health, the definition of which means more than merely the relationships we have with people. The relationships that we, as Indigenous peoples, need to have with the land inform our relationships with each other. Without such relationships, we would not have survived for as long as we have (Smith, 2009). In HIA, relationships between families, *Keyoh* holders, and leadership need to be reinforced through discussions about the multiple and cumulative impacts, both positive and negative, that development may bring. Relationships, from the perspective of some participants, changed when band councils were created in order to administer Indigenous peoples' lives on the reserve and yet it is band councils with whom industry relies upon in the administration of HIAs. With the potential for an increase in industrial development projects on the land, the result of such projects may

alter the use of the land by Indigenous peoples. Further dispossession of land may relocate Indigenous peoples into the territories of other families or clans resulting in potential conflicts. Negotiation of such potential predicted impacts would be complex. Avoiding negotiations of potential impacts will not make them any less complex. Industry must be aware of the complexities that their projects may disrupt or exacerbate. The loss of land has negatively affected Indigenous health. Future removal of land will continue to affect health.

Responsibilities of people who rely on the land are equally complex. The need to balance such responsibilities included thoughtful consideration of the use of the land because this act is essential for survival (Smith, 2009). The consequences of certain types of development are difficult to predict, despite industry's efforts to assess them. Indigenous peoples must be included in these conversations to relay the information about how they may experience the proposed development. This must be factored in as a means of transparency. Responsibilities of Indigenous peoples included thinking of subsequent generations and what they will inherit as a result of our decisions. Therefore, industrial development and the implications of development to the next generations of peoples ought to reflect Indigenous perspectives.

Our Indigenous leadership and governance structures have had multiple pressures to face for several generations. Band council leadership and hereditary leadership are both relevant in their own ways, and there is no simple answer when questions regarding development come to communities and are not agreed upon by both governance structures. Ultimately, it is up to the people of a nation to determine how leadership deals with proposed development projects. Whether band council or hereditary leadership assumes the role of interaction with industry, the interaction and negotiation must not only be rooted in respect,

there must be some means of accountability on the part of industry to the Indigenous people they negotiated with.

Relationships and responsibilities of First Nations communities like the Tl'azt'en nation were in the past and are today rooted in cumulative teachings and experiences passed down from our ancestors. Though these teachings were disrupted due to such events as infectious diseases and Residential Schools, the movement towards the regeneration of our teachings continues in many First Nation communities may lead to many positive results. These efforts and commitments made by Indigenous peoples must therefore be accounted for in the HIA process. We as Indigenous peoples account for the past in the present, but the settler population must also account for their past and the way in which it plays a significant role in the relationships in the present.

A more relevant and respectful HIA tool would come from – and by this I mean be developed from the bottom up by – the Tl'azt'en people themselves. A tool defined on their terms and which focuses on the goals of the people, be it using Health Canada's determinants of health framework or some other locally developed framework, may be more appropriate. Such a HIA tool would be guided by hereditary leadership – which would account for the thematic finding of 'leadership and governance' – that could speak to the ways that land-use must account for different clans and families, thus ensuring broad community relevance. The chief and council would still have an important role to play in an HIA process, but their roles would need to be redefined in order that hereditary leadership could be incorporated. Clearly defined roles for the different forms of leadership are imperative to the success of HIA tools.

CHAPTER 5

Conclusions, Recommendations, and Future Research Questions

I began this thesis with some deeply personal understandings about Indigenous peoples who reside within what is now known as the province of British Columbia. From personal, lived, and embodied knowledge, I knew many people were unhappy with the myriad ways that unceded land and environments are negatively altered by industrial development. I knew this through personal and work-related experiences, and via my conversations with Indigenous community members, friends, and family. I augmented these personal understanding with a growing body of published literature, and I expanded my efforts to be aware of local and global activism by Indigenous peoples and our allies through engaging with popular media and community movements. All of this informed how and what I learned about the three questions with which I began this research.

In order to answer my research questions, I began by conducting a literature review. From this review process, I developed a qualitative research project rooted in an Indigenous methodology. Part of this methodology resulted in me placing myself in the research as coming from an Indigenous, feminist, anti-racist, anti-colonial perspective. Throughout the project, I exercised self-reflection so that I could make meaning out of this experience. By doing so, by engaging in reflexivity, I hope to be better prepared for my future research endeavours. I attempted to address all of my privileges, biases, and be as transparent as possible all the while accepting that achieving these may not be possible[23].

I organized and conducted focus groups with members of both the Tl'azt'en nation and other First Nations people who worked for the Tl'azt'en band office. During the focus

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[23] The more I learn, the more I realize just how ignorant I am!

groups, I introduced (or reintroduced) participants to the health impact assessment process (HIAs) that are conducted as part of an environmental assessment (EA). During the focus groups I dialogued with participants about the challenges that remain in terms of HIAs being contextual, historical, culturally appropriate, and flexible. Each of these characteristics is vital if communities and people are going to be served by HIA processes (Bronson & Noble, 2006; Richmond & Ross, 2009; Shapcott, 1989). Indeed, health researchers speak to health research in Aboriginal contexts where,

> future health research on the determinants of health… cannot advance without blatant recognition of the complex historical, political, and social context that has shaped current patterns of health and social inequality and allowed them to grow to such appalling proportions. (Richmond & Ross, 2009, p.410).

It was my hope that in my own research, I have accomplished this.

The themes that arose from focus groups within the Tl'azt'en nation are worth considering when thinking about the ways that health impacts are assessed in conjunction with a growing understanding of the value of determinants of health framework. The themes of 'responsibility', 'relationships', 'leadership/governance', and 'accounting for the past in the present' summarize Tl'azt'en perspectives about what should be included in HIAs. Given the balancing of two worlds that many Tl'azt'en are engaged in at the moment, social determinants of health must also endeavour to account for multiple and complex ways of knowing and being.

My conclusions are anchored in the words of the participants who reflected on aspects of the health of the Tl'azt'en nation in ways not currently accounted for in HIAs. There are, admittedly, many views of the Tl'azt'enne that I was unable to capture in this project. From the perspectives I was able to listen to, HIAs must reflect the identity of the

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people in the immediate vicinity of a proposed development, what their plans for the future may be (i.e. the community plan), and how a development project may interfere with these plans in the future. Specifically, in this research I focused on the health of the Tl'azt'en nation. One of my most powerful findings is that, according to participants, their effort towards self-determination is negatively disrupted by industrial projects. This assertion demands that HIAs take into account the 'relationships' between peoples; the 'responsibilities' people have to each other, to community; and to the land; and the 'leadership or governance structures' of the people. Such an assertion also demands understanding of how Indigenous peoples account for the past as it relates to the present. Without embracing all of these issues, which were the themes brought forward during community focus groups, the health and wellbeing of a people will not be contextualized. This may result in community needs not being accounted for in HIAs.

New ways of thinking about HIAs are necessary in order that Canada commit to fully addressing the health disparities between Indigenous and non-Indigenous peoples. Contextualizing Indigenous health as an outcome of colonialism can offer an opportunity for the state to account for its complicity in the status of Indigenous peoples' health.

Part of my research was a critique of biomedical models of health. I focused instead on people who have experienced a large scale industrial imposition on their territories, who may indeed have to face developments of that scale again in the future, and whose health is, consequently, socially determined. By examining HIAs in the EA process, it became apparent that HIAs are based upon a biomedical model that privileges an understanding that ignores the socially determined nature of health. HIAs are likely not yet flexible enough to fully address the specifics of Indigenous peoples' health.

Initially, my research goal was to create an alternative HIA framework for an Indigenous community to use for their own decision-making purposes vis-à-vis industrial development. This was supported by the chief and council when they approved my topic. During the research process I learned I would need to delve deeper into the issue of Indigenous health contexts before the development of any such HIA framework could be initiated. This study is, therefore, a starting point. Given the community's exposure to industrial developments and limited experience with HIAs in the EA process, this thesis needed to be open and flexible to the needs of the community.

A focus on traditional or hereditary governance structures and leadership, when examining the health of an Indigenous community or nation, is essential. Tl'azt'en hereditary governance, as well as other Yinka Dené nations' governance structures, continue to function. This was evidenced by recognition and use of the term *Keyoh* throughout our discussions in the focus groups, as well as casual conversations out in the communities and with family. Hereditary leadership is responsible for *Keyoh*, as I mentioned previously in Chapter 3. Band council leadership, privileged under the *Indian Act*, remains a constant in the lives of many Indigenous peoples in Canada and therefore it may have an important role to play. These elected officials are the administrators of health services to the people within their jurisdiction, thus negotiation between hereditary and elected governance structures will be important. HIAs have to be creative and nuanced in order to truly capture the ways that the health of a people could potentially be negatively affected by a large development project, such as a mine. Assessing a community's health is not easy, given the necessity of context.

This research suggests that responsibility, relationships, and accounting for the past in the present are all important aspects of assessing health impacts. These weave into the leadership and/or governance structures that form the social fabric of the Yinka Dené. HIAs need to be accountable when an industrial project is predicted to deleteriously affect a First Nation. Responsibility would see participation of the community in the early planning stages of a project, allowing time to confirm or establish appropriate definitions of 'responsibility' and other aspects of health. Also, the responsibilities that leadership has to its people would be respected, and adequate time for leaders to meet the needs of the people would be accounted for.

Relationships remain crucial to the health of the Tl'azt'en and Indigenous peoples. Relationships within the Tl'azt'en nation between individuals and families have been disrupted by colonialism, the extent of which is difficult to quantify. Yet the road to health is dependent on the various relationships in the communities, between and within families, as well as to the land. Richmond (2007) identified social support as one determinant of Indigenous health and delved into the ways in which social embeddedness in families and communities influence health. The relationships in communities are affected when an industrial project is introduced which could bring employment opportunities. A project may also have negative effects, and the balancing of positive and negative impacts is a source of tension, which HIAs must measure, and account for. The responsibility of leadership to the people of an Indigenous nation requires that those leaders be held accountable, and this inter-dependency requires time and negotiation. The rate at which development occurs does not necessarily allow for such meaningful conversations between leadership and community to

happen. Resulting conflicts disrupt the social fabric of the community, which in turn disrupt good health.

The future of HIA in the EA process is difficult to predict. One such criticism regarding recent changes to the EA legislation reflects no future opportunity for Indigenous peoples to participate meaningfully (Pearse, 2010), if they choose to do so, in an EA. This project reflects the perspectives and opinions of people who are aware of the increased development possibilities in their territories. This thesis project is timely as communities of Indigenous peoples are faced with important decisions regarding their lands. The way in which the Nation might use this work to support their decision-making processes is dependent partly on me going back to the Nation and presenting this work to them. To express my thanks and gratitude, I will provide a feast for the Nation when I present this project back to the people who worked with me. I believe this to be part of being relationally accountable. My presenting this project as well as giving thanks through a feast will inform how this work can be used in the future. There can be engagement with the work and its utility can be determined.

The future of research with Indigenous peoples, in reducing the inequities of health in this context, must continue to reflect and acknowledge the "blatant recognition of the complex historical, political and social context that shaped current patterns of health and social inequality and allowed them to grow to such appalling proportions" (Richmond & Ross, 2009, p.410). While I intended for this research project to result in a tool that could be used by the Tl'azt'en nation, and perhaps by other Indigenous communities facing large industrial projects on their territories, I learned to step a bit closer into a specific context of the Tl'azt'en nation. I learned to see that people knew their land, but did not necessarily

know EA legislation. In some ways, their lack of acknowledgement of federal or provincial legislation on unceded Tl'azt'en territory represents the ultimate form of denial of the state's authority and legitimacy. This may ultimately be a significant place of strength from which to demand changes to HIAs.

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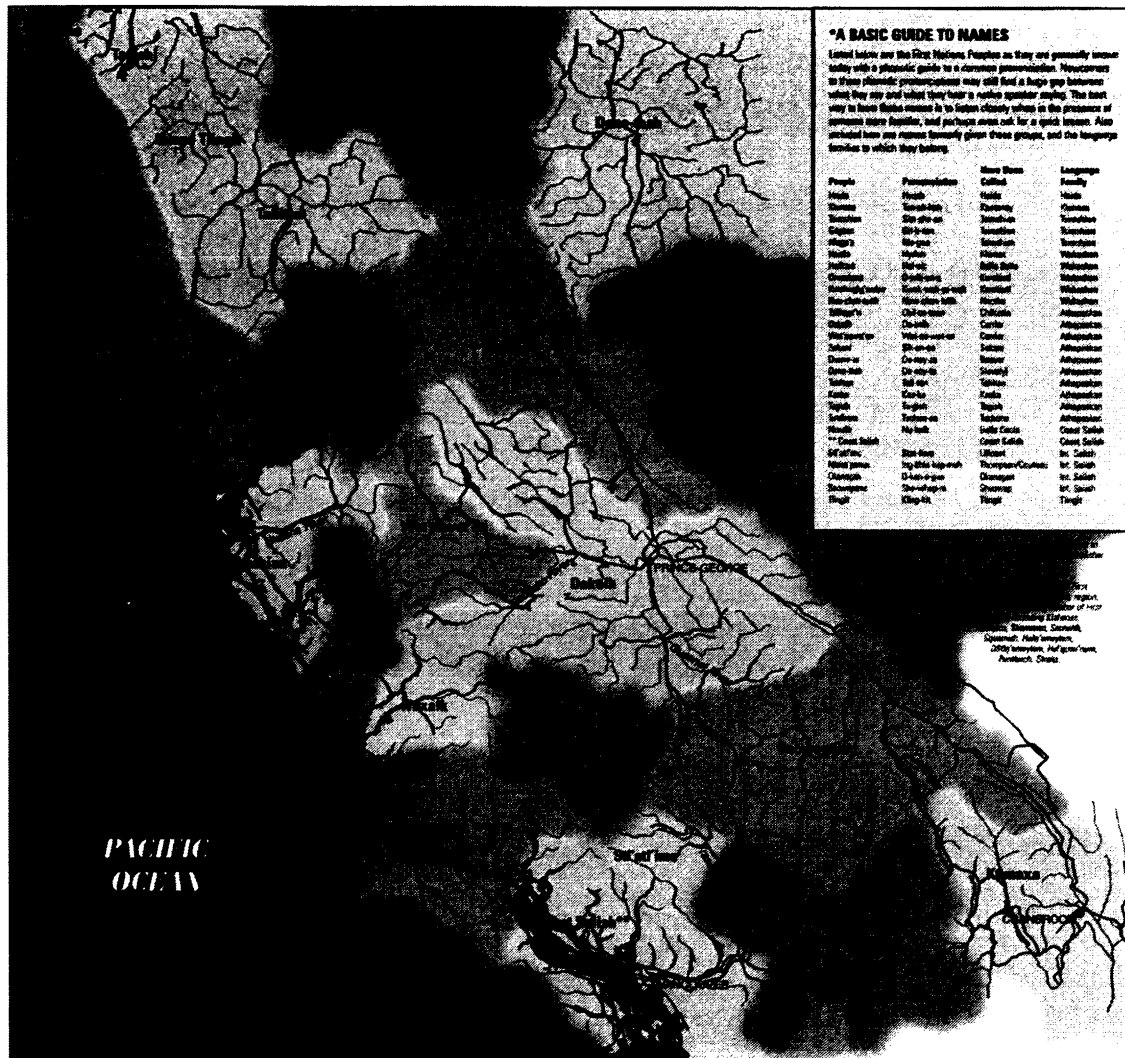
APPENDIX A

Territorial Boundary of the Tl'azt'en Nation
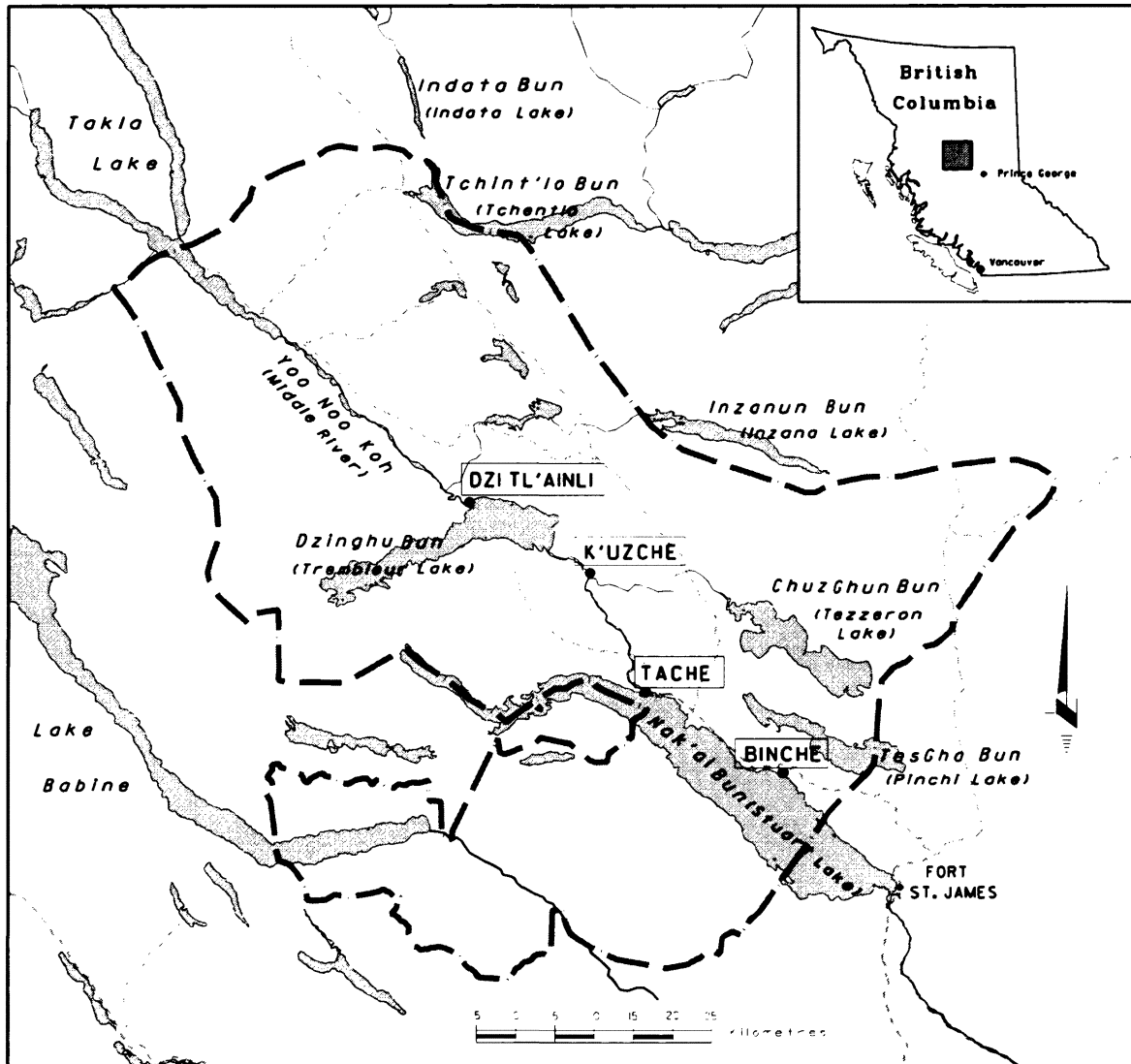
Overview Map
Tl'azt'en Territory

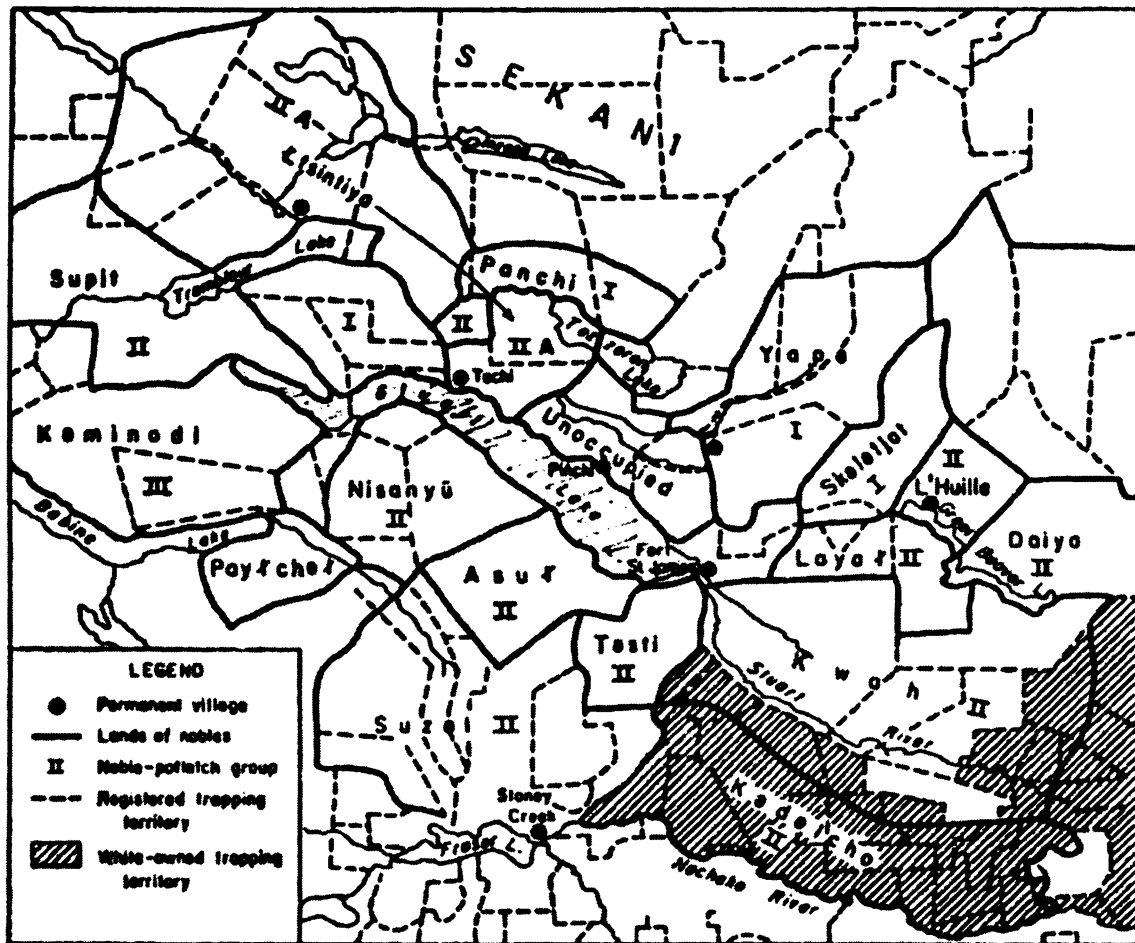Map drawn by Michelle Lochead for Jennifer Mackie (August 2011).

APPENDIX B

Provincial Map of First Nations languages.

Keyoh Landscape

Carrier Territories

Figure from Brown (2002, p.29).

APPENDIX D

Tl'azt'en Nation Band Council Resolution

TL'AZT'EN NATION

P.O. Box 670, Fort St. James, B.C. V0J 1P0 • Phone: 250-648-3212 • Fax: 250-648-3250 • E-mail: tlazten@tlazten.bc.ca

CHIEF AND COUNCIL RESOLUTION

The council of the *TL'AZT'EN NATION*	Date of Duly Convened Meeting		
Ndiz un'a nets'oninai:	B.C.R. #	DAY	MONTH	YEAR
De Hereby Resolve:				

That Tl'azt'en Nation Chief & Council authorize Jennifer Mackie to do her research in Tl'azt'en Nation so that she can fulfill her obligation to the University of Northern B.C. and present a Master's thesis

Attachments

Quorum ( )

Chief

Councillor   Councillor   Councillor

Councillor   Councillor   Councillor

Councillor

121

APPENDIX E

Northgate Minerals' Kemess Property
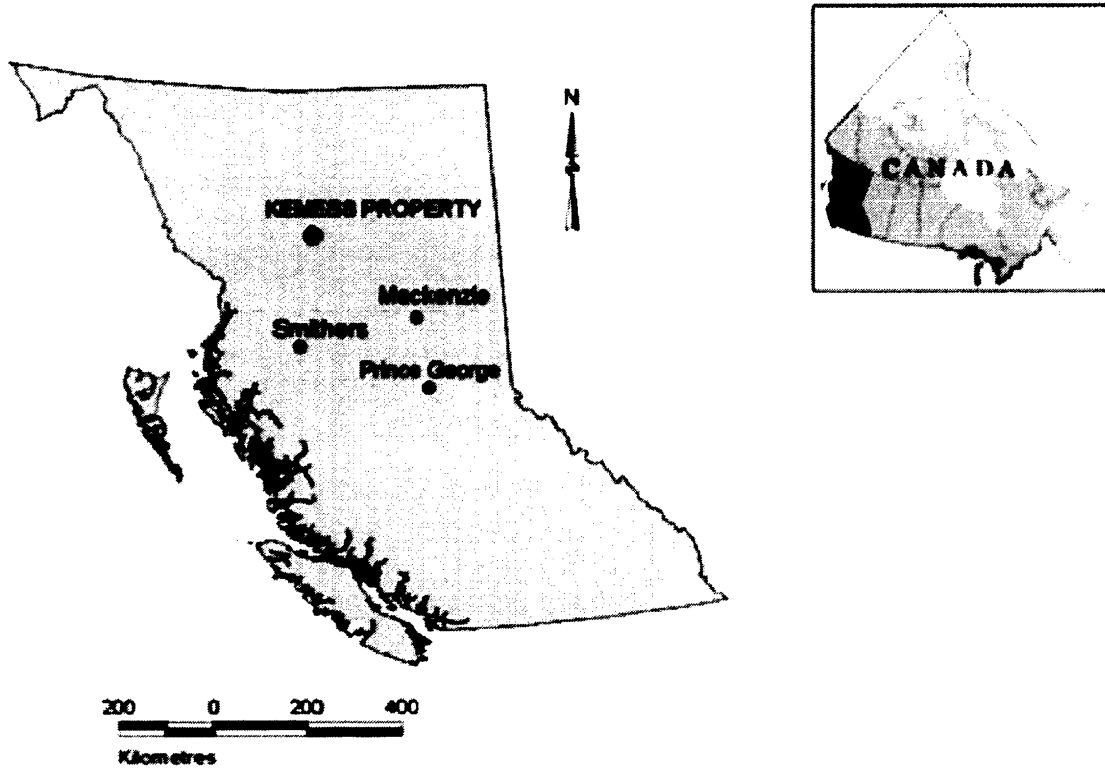
Map adapted by Place & Hanlon (2011, p.166).

APPENDIX F

Map showing Taseko Prosperity Mine and Mt. Milligan Mine

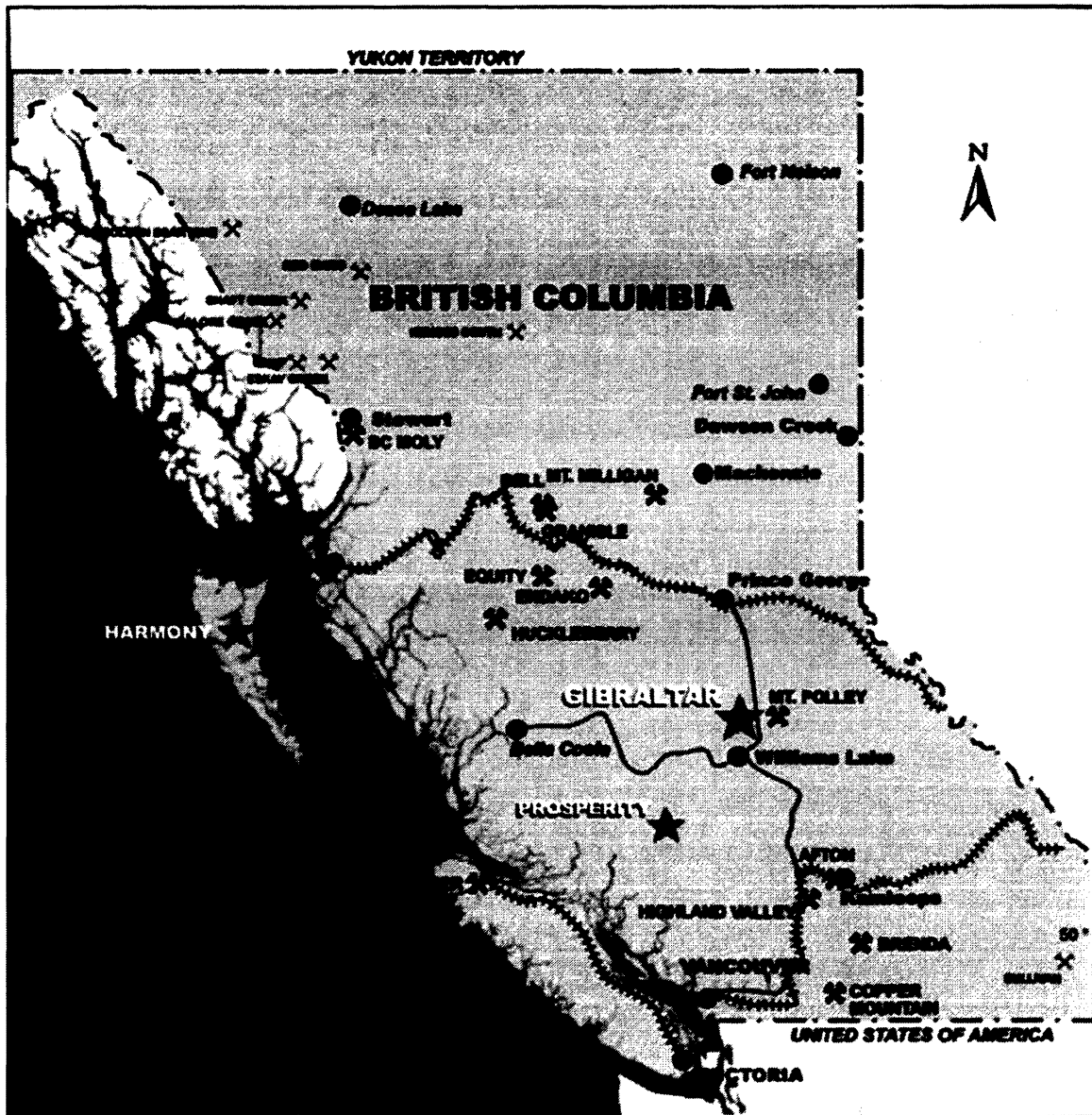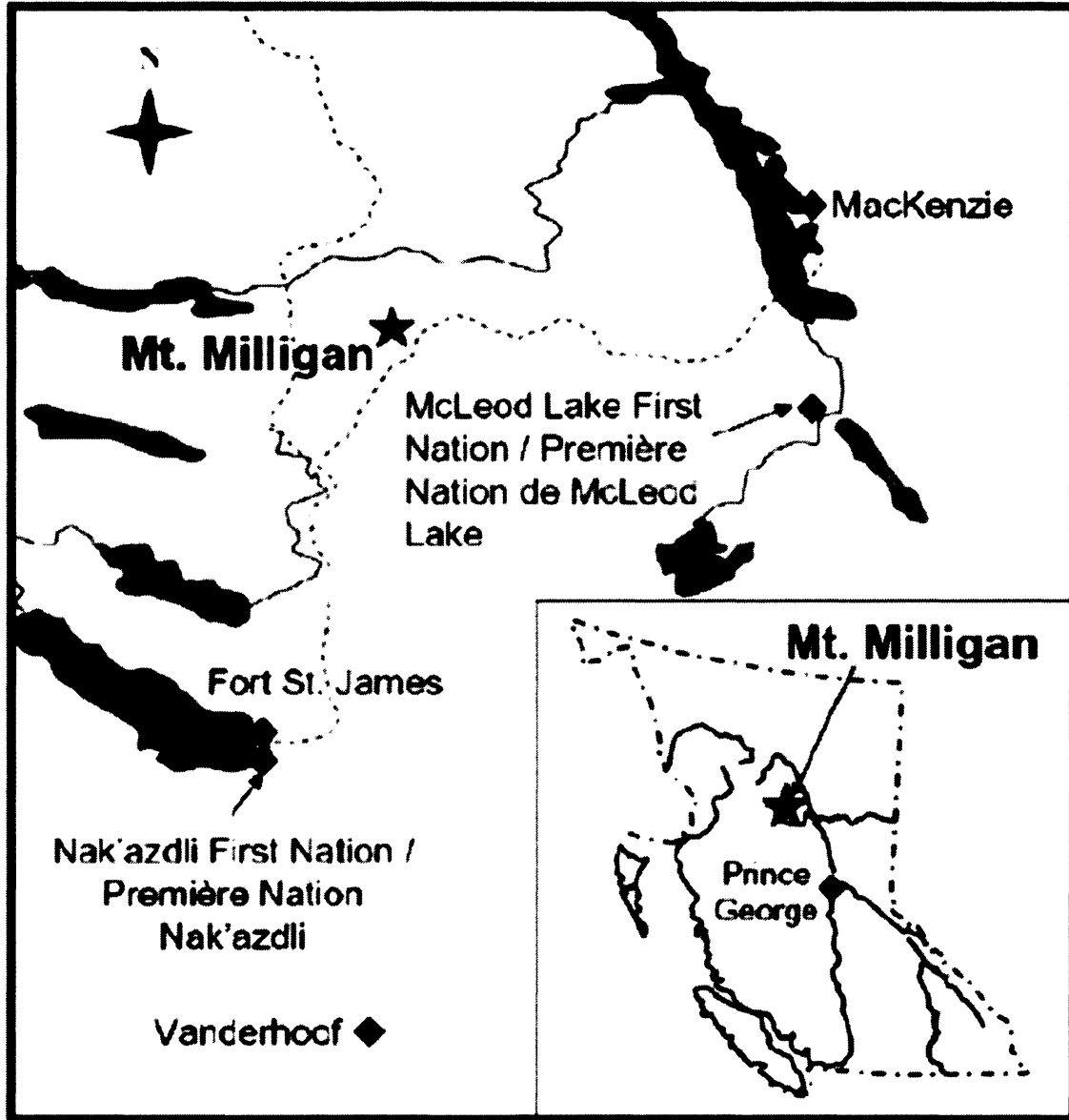

Figure from Edgar Online (n.d.).

APPENDIX G

Map showing Nak'azdli Band Traditional Territory

Map from CSTC (2011).

APPENDIX H

Map showing Mt. Milligan Mine located within Nak'azdli territory

Map from Canada Gazette (2010).

APPENDIX I
Research Description and Consent Form:

Indigenous Health Impact Assessment: A Framework For Indigenous Communities

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Principal Investigator: Jennifer Mackie, Masters Candidate, University of Northern British Columbia (UNBC) Community Health Program

Supervisor: Dr. Sarah deLeeuw, Northern Medical Program and Dr. Henry Harder, Community Health Science Program

Responsible Institution: University of Northern British Columbia, Prince George, BC

Funding Organizations: NEAR BC

Purpose of Research: The purpose of this research study is to improve how Indigenous health is assessed in the Environmental Assessment Process. The research will result in both a master's thesis and the offering of a template for Indigenous communities that will suggest how health could be assessed in order to reduce potential impacts to Indigenous health by large-scale industrial development. Data collection will involve focus group discussions.

How Participants Were Chosen: You were chosen by a Tl'azt'en research liaison, Elders and/or Chief and Council to participate because you are a resident and/or member of the Tl'azt'en Nation and you have experience in health as it relates to industrial development in your respective territory.

Voluntary Participation: Your participation in this research project is voluntary. If you participate, you only answer questions that you feel comfortable with and you can end your participation at any time.

Anonymity and Confidentiality: The focus-group sessions will be tape-recorded and transcribed. Comments or ideas expressed in the focus groups will be used for analysis but will be kept anonymous. The only persons who will have access to the respondents' responses will be the researcher (Jennifer Mackie) and her supervisors (Dr. Sarah deLeeuw and Dr. Henry Harder). Participants will not be required to identify themselves during the recorded sessions but due to the nature of focus group sessions, anonymity cannot be guaranteed.

All records will be kept in a locked cabinet located in the office of my supervisor, Dr. Sarah deLeeuw, located in Northern Medical Program building at UNBC until the final report of this project is complete. All original documents and audiotapes related to the project will be held for 5 years, after which they will be destroyed. You will be informed if there are any changes made to this study or new information becomes available.

Potential Risks and Benefits: This project will be a means for you to express how health should be assessed in regard to large-scale development proposals. There is no known harm, injuries, discomforts or inconvenience associated with participation in this study.

Research Results: A copy of the final report will be mailed to each participant. In addition, a workshop will be held to report the results back to the community. If you have any questions about this project, or wish to inquire about obtaining a copy of the study results, please do not hesitate to contact Jennifer Mackie, Master's Candidate, UNBC Community Health Program by email at mackiej@unbc.ca. Once I have been placed in an office, a phone number will be provided. Until then, please contact me via email.

Complaints: If you have any complaints about this project they should be directed to Sarah deLeeuw at 250-960- or by email at deleeuws@unbc.ca, Henry Harder at 250-960- or harderh@unbc.ca **or** UNBC's Office of Research at 250-960-5820 or by email at officeofresearch@unbc.ca.

CONSENT FORM – PARTICIPATION

By signing this form, I agree that:

- The study has been explained to me.   Yes □ No □

- All my questions were answered.   Yes □ No □

- Possible harm and discomforts and possible benefits
  (if any) of this study have been explained to me.   Yes □ No □

- I understand that I have the right not to participate
  and the right to stop at any time.   Yes □ No □

- I have a choice of not answering any specific questions.   Yes □ No □

- I am free now, and in the future, to ask any questions
  about the study.   Yes □ No □

- I have been told that my personal information will be
  kept confidential.   Yes □ No □

- I understand that no information that would identify me
  will be released or printed without asking me first.   Yes □ No □

- I understand that the nature of the focus group cannot
  guarantee anonymity   Yes □ No □

- I understand that the research being done is for a thesis   Yes □ No □

- I understand that I will receive a signed copy of this
  consent form.   Yes □ No □

I hereby consent to participate.

_____   _____   _____
Signature of Participant   Date   Printed Name of Participant

_____   _____   _____
Signature of Witness   Date   Printed Name of Witness

This Study was explained to me by: _____

<div align="center">Print Name</div>

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

_____   _____

Signature of Investigator   Date

Consent Form For Audio Taping

In participating in this study I agree to answer questions about my perspectives and experiences related to health: Yes □ No □

I understand that the information I provide will be audio taped: Yes □ No □

The written or recorded material will help the author in her analysis and *may be quoted with my permission*. My name can be withheld if I so request:

        Yes (withhold my name) □   No (do not withhold my name) □

Participants Name   _____

Participants Signature_____

Date _____   Researcher _____

Available Counseling Services

Tache

Tl'azt'en Nation Health Services
40 Tachie Reserve Rd.
250-648-3350

Fort St. James

Nak'azdli Health Centre
284 Kwah Rd.
250-996-7400

Prince George

Mental Health and Addictions Services
1705 – 3rd Ave.
Prince George, BC
250-565-2668
1-800-565-2966 (toll free)

Registered Clinical Counselors of B.C.

1-800-909-6303
BC Association of Clinical Counselors

APPENDIX J

Focus Group Questions

Indigenous Health Impact Assessment *2009*

Focus Group Questions

U/VBC

Community Health Sciences
University of Northern British Columbia
3333 University Way
Prince George, (BC) V2N 4Z9
Tel. (250) 960-5555

Completion Date: ____/____/____   Time: ____/____
                        m   d   t   h   m

General Questions

FG_A_Q1: What is your experience regarding the 'environmental assessment process'?

FG_A_Q2: What is your experience regarding 'health impact assessment'?

FG_A_Q3: What is your experience regarding 'determinants of health'?

FG_A_Q4: There are several definitions of health. What does health mean to you and the community?

Human Health Assessment

FG_B_Q1: Do you think the health models I have presented to you represent your or your community's health effectively?

Why or why not?

What would you change?

Is there anything missing you would like to see represented?

FG_B_Q2: The phrase 'determinants of health' is used as a ways to describe and quantify health. What is another way to describe or define 'determinants of health' that can be used for your community?

FG_B_Q3: Are there 'determinants of health' that you would like to include in your own health model?

FG_B_Q4: In the Environmental Assessment process, there are 'determinants of health' that are identified for assessment in order for the proponent to provide solutions to mitigate potential impacts. From a list (that will be provided to the participants) can you identify any that do not reflect health from your perspective and why?

What determinants of health are missing that should be addressed during the environmental assessment process?

Concluding Questions

FG_C_Q1: Is there anything you would like to add that that we have not already discussed?

End