

On Shifting Roles and Responsibilities in Canadian Indigenous Community-Based
Language Research

by

Melissa K. Grimes
Honours B.A., University of Ottawa, 2007

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of the Requirements for the Degree of

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Abstract

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In the last 20 years, linguists and community members engaged in fieldwork with endangered languages have become increasingly aware of and vocal about the ethical dilemmas that potentially can, and often do, arise in work of this nature. One result of this can be seen in the reconceptualization of best practices and methodologies in linguistic fieldwork. There is a strong push towards collaborative, community-driven, and interdisciplinary forms of research, and a concomitant shift in the roles taken on by academic and community-based researchers. The shifts in roles in turn have led academics and community-members to rethink the responsibilities associated with these roles.

The purpose of this thesis is threefold: firstly, to provide a description of a highly collaborative, community-driven project involving, as one of its components, the documentation of language associated with Traditional Ecological Knowledge (TEK); secondly, to consider and illustrate how the relative roles of academics and community participants have shifted and thirdly, to discuss responsibilities associated with the protection of the TEK documented through this work – knowledge that would not have been documented to the same extent if the project had not been collaborative and community-driven. These topics evolved from the knowledge and guidance of K^wak^waka'wak^w Clan Chief K^waxistalla (Adam Dick), as well as the ethnoecological/linguistic projects that this thesis is centred on.

I propose that a) collaborative research that is community-steered can be supported by the Community-Based Language Research model developed by Czaykowska-Higgins (2009), b) within this emerging research framework unconventional research roles can be assumed by all participants, c) it is important to respect and protect the Traditional Ecological Knowledge recorded in research with Indigenous experts, and d) existing systems of Intellectual Property fall short in adequately protecting and respecting TEK.

I conclude this study by relating these issues to larger movements occurring within linguistics and social science and humanities research in general. I suggest a move away from subscribing to the Intellectual Property system, and towards approaching language research through a human rights framework. The result of this thesis is an analysis of collaborative community-based language research with and within an Indigenous community in Canada. It will contribute to the ongoing discussions and evaluations of changing roles and responsibilities in field research in linguistics.

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Dedication

This thesis is dedicated to the loving memory of my grandfather Patrick Grimes, who taught me that “success is the result of painstaking”; I miss you. I also dedicate this work to my island grandfather, clan chief K^waxistalla for welcoming me into his heart and home; I never could have done this without you.

PREFACE

This thesis has as its focus the description and discussion of a community-steered ethnoecological project within a K^wak^waka'wak^w community that I had the privilege to participate in as a team member and linguist. Entering into this team of diverse researchers and experts, each from varying backgrounds and heritages, created a unique research experience. This has given me the opportunity to deeply reflect on my roles and responsibilities as a linguist, graduate student, and team member.

I consider it important to begin this study by positioning myself within it. I was raised in Maniwaki, a small community in the province of Quebec. Situated on Algonquin territory, Maniwaki is home to several different Algonquin communities, and a large demographic of primarily Irish, French and other European settlers whose arrivals date back to the early 20th century. I mention this as I believe my proximity to and relationship with differing cultures and languages has had an effect on the ways in which I conduct myself as a researcher, and in my understanding of the intricacies and potential miscommunications that often occur between cultures.

In my youth, I experienced life on the periphery of an Indigenous cultural world, a strong Quebecois world, and my own slightly fragmented cultural world – fragmented in the sense that while my family maintained some of its Irish traditions, we also borrowed and experienced Quebecois and Algonquin culture. Within each of these worlds, I was occasionally welcomed, but also often excluded or mistrusted as I was deemed an outsider.

My lessons of how the Algonquin cultural world differed from my somewhat culturally ambiguous world began at an early age. I will take the time to recount one of these teachings, as it exemplifies a valuable lesson that through learning at an early age, has perhaps assisted me in my approach to research. I was young, perhaps 12, and had been invited to the Kitigan Zibi¹ pow-wow by my friends, all of whom were dancers. We sat in a tent as they prepared their regalia; each girl had painstakingly beaded shawls, moccasins, hair clips, sewn ribbons, braided leather. I sat and observed as they all seamlessly manoeuvred through the ceremony of getting dressed and prepared.

My friend was wearing a feather-adorned head piece; on it stood a beautiful tall eagle feather. Attached to the feather, I noticed what I thought was a piece of lint, and so I reached over and plucked it off. Her reaction will forever remain lodged in my memory. I did not understand what I had done, why she was reacting this way. I had only been trying to help. Through her tears, she explained that my generous action had in fact removed a small feather which symbolized her future children. With one swift motion, I had shattered something so important to her, something meaningful beyond my comprehension. I was told that I needed to tell the chief what I had done. With a heavy heart, I shamefully made my way from the tent, and approached the chief. With a voice barely above a whisper, I explained what I had done.

His face never lost its amiability; he smiled when I finished my confession. He said it was all right, that we all make mistakes. To show my regret and appreciation for the thing I had taken, he said I had to dance in the open circle dance, a dance in which all cultures were invited alongside the Algonquin dancers. He passed me his peace pipe, and

¹ Kitigan Zibi is an Algonquin community adjacent to Maniwaki.

I drew from it. With this, all was forgiven, although my friend made sure to steer clear of me whenever her regalia was near. Their kindness and understanding has never left me.

This taught me a valuable lesson in good intentions; that I had unknowingly made the same mistake that has consistently plagued cross-cultural communication. Though my intentions had been pure, I had projected my own concepts of assistance to an area I was not familiar with; in my eyes, that feather was a piece of fluff which should be removed, the reality proved to be quite the contrary. This teaching would assist me in my future endeavours with other cultures, especially with Indigenous cultures and customs. I would learn that sometimes the worst results come from the best intentions. This seemingly simple lesson has had measurable influence in the ways in which I have conducted myself as a researcher.

Since my arrival and the commencement of my graduate studies in Victoria, my entire view of linguistics and language research has changed dramatically. My earliest intentions had been to be involve myself in a language revitalization project, hopefully working with an Indigenous community. How I was to achieve this remained unclear, but my intentions were always to work in a community-based setting; that was the reason I wanted to study at the University of Victoria to begin with, given their impressive reputation of work with and within Indigenous communities. One month into my studies, I sat down in Dr. Nancy J. Turner's office; at the time I had no idea how this chance meeting would alter the direction of my graduate studies, and without seeming too dramatic, my life. She welcomed me on a field trip to Ahousaht, a remote Nuu-Chah-Nulth community off the coasts of Tofino, to attend a memorial potlatch and help out with one of her student's ethnoecological field study.

This trip would introduce me to a world I had not been exposed to before, having been trained in linguistics and Spanish in my undergraduate degree, and with zero background in sciences or ethnobotany/ecology. After an adventurous weekend complete with pitcooking on the beaches of Ahousaht, a potlatch that went deep into the night, and a harrowing boat trip through an incredible storm, we ended our journey with a special visit. On our way to Victoria, we stopped in Qualicum Bay to visit with two dear friends and collaborators of Nancy's: K^wak^waka'wak^w Clan Chief K^waxistalla (Adam Dick) and his partner ?Og^wilowǵ^wa (Kim Recalma-Clutesi). Nancy and her student Abe Lloyd had planned on meeting with them about Abe's upcoming projects; the ethnoecological restoration of K^waxistalla's family root garden up north in Kingcome Inlet. I listened carefully, as they shared stories and hatched plans for the upcoming months. Though I saw this as an incredible opportunity for a linguist to be involved, given that K^waxistalla's first language was K^wak'wala, an extremely endangered language, and that they wanted to document the language of the gardens (plant names, place names, etc), I remained quiet. I knew about the apprehensions held by many speakers of Indigenous languages about working with linguists, or outsiders in general, and it did not feel like the right time to express my desires to join their group. Something instinctively told me to wait until we had gotten to know each other better. Months later, and after numerous visits, I was welcomed into this unique and inspiring team of tireless researchers and activists, leading the way in collaborative, community-based research. This study is a reflection of my time as a researcher in this team, and one which draws on my life experiences outside of academia.

CHAPTER 1 - INTRODUCTION

1.1 Purpose of This Study

In the last 20 years especially, linguists and community members engaged in fieldwork with endangered languages have become increasingly aware of and vocal about the ethical dilemmas that potentially can, and often do, arise in community-based language research. One result of this can be seen in the reconceptualization of best practices and methodologies in linguistic fieldwork. There is a strong push towards collaborative, community-driven, and interdisciplinary forms of research, and a concomitant shift in the roles taken on by academic and community-based researchers. The shifts in roles in turn have led academics and community-members to rethink the responsibilities associated with these roles.

The purpose of this thesis is threefold: firstly, to provide a description of a highly collaborative, community-driven project involving, as one of its components, the documentation of language associated with Traditional Ecological Knowledge (TEK); secondly, to consider and illustrate how the relative roles of academics and community participants in community-driven research have shifted; thirdly, to discuss responsibilities associated with the protection of the TEK documented through this work – knowledge that would not have been documented to the same extent if the project had not been collaborative and community-driven. These areas revolve around K^waxistalla, Clan Chief Adam Dick's knowledge, and his role as our team's leader, as well as the ethnoecological projects that this thesis is centred on.

In this introductory Chapter, I situate my thesis by providing its purpose and relevance, describing terminologies used throughout, and offering an initial literature review. Following this is an introduction to the people and the Indigenous language involved in the research. Chapter 2 describes changes that have occurred within the Indigenous language research paradigm; firstly, I discuss the fragmentation of Indigenous languages, cultures and lands in a west coast Canadian context. I then describe the changes that have occurred within the Indigenous language research paradigm, particularly in North America, which shows an increasing trend towards collaborative, community-steered research models. This ultimately leads to the Community-Based Language Research (CBLR) framework, which is closely aligned to other participatory and empowering models of research in other fields.

Chapter 3 illustrates the shifting roles in Indigenous community-based language research, providing observations from the field. I discuss three separate projects that we undertook as a team, focusing on the unconventional (by academic standards) roles assumed by both the Indigenous experts and graduate students involved. The Chapter concludes by revisiting the CBLR framework and confirming it as an appropriate model through which to frame the research described.

Chapter 4 examines the changing responsibilities in Indigenous community-based language research, focusing on Traditional Ecological Knowledge and Intellectual Property. I begin by discussing TEK and the responsibilities around protection and ownership within an academic and Kwakwaka'wakw context.

One of the issues raised by including TEK in academic research, is that doing so leads to questions about the responsibilities associated with protecting this knowledge. Thus, I continue by considering that current practice in academic institutions is to treat such knowledge as if it were “intellectual property”, equivalent to the creations of innovations of the mind, typically assigned to one person. I describe and attempt to “unpack” the concepts of Intellectual Property (IP) and Intellectual Property Rights (IPRs), devoting a section to IP issues in linguistics and the economic nature of IP law, ultimately questioning the relevance and effectiveness of applying IPRs over language research that involves Traditional Ecological Knowledge. To conclude this Chapter, I suggest a move away from subscribing to the Intellectual Property system, and towards approaching language research involving TEK through a human rights framework.

Chapter 5 provides a recapitulation of the topics discussed, and offers further support towards continuing to question the laws in place to protect research and researchers.

1.2 Relevance of This Study

Discussions of the roles and responsibilities of people involved in Indigenous community-based research are prevalent in literature relating to ethics in linguistics fieldwork and community-based research methodologies. Lenore Grenoble (2009: 64) argues, “ethical linguistic research starts with community involvement” and further, “in order to be successful, a revitalization program must be driven by the community of people who do or will use the language”. In addressing ethical behaviour in the fieldwork context, Dwyer (2006: 32) asserts that “the ethics of field research entails indigenous people and field researchers mediating each other’s cultural imperatives” and

further that this can only happen “through productive mutual negotiation at a local level”. This negotiation, and the balancing of the different goals and aspirations that community and academic partners have when participating in a research project, are timely and delicate.

Cameron (1993), Czaykowska-Higgins (2009), Dwyer (2006), Grenoble (2009) Himmelman (2008), Rice (2006), and Yamada (2007) have all outlined often overlapping principles, codes of conduct, or best practices, in situations of linguistic fieldwork in Indigenous contexts. I support the view held in Czaykowska-Higgins (2009) and Rice (2006), that not only does a community-steered approach to research create equal opportunities for all stakeholders, academic and community-based, but further that the roles that are created in community-based work in an Indigenous context are likely to respect the cultural protocols that exist within the communities. For example, our research team was led by a Clan Chief who has authority and highly specialized cultural knowledge and training; in models of linguist-centred research, in which the research goals and methodologies are determined by the linguist, the Indigenous expert might not have been given the primacy of place that they deserve.

Within new collaborative forms of research there often comes a raised awareness about the forms of knowledge that are documented through language research, especially those related to the Traditional Knowledge of Elders. This knowledge often includes highly specialized ecological and cultural information, which is protected within the communities by cultural authorities and community-specific understandings of ownership. Within the academic context, research protocols also have specific implementations and understandings of ownership which can be seen as being

“protected” by the application of Intellectual Property Rights, which I discuss in greater detail in Chapter 4.

1.3 Terminology

The project that this thesis describes involved an ethnoecological restoration, and reflections on issues of ownership at both community and academic levels. Therefore the project’s scope spans several different disciplines. Before proceeding further, it is useful to offer definitions of some key terms used throughout this work.

Linguistic Terminology

Community-Based Language Research: Research on a language is conducted for, with and by the language-speaking community within which the research takes place and which it affects (Czaykowska-Higgins 2009: 24).

Language revitalization: the development of programs that results in re-establishing a language which has ceased being the language of communication in the speech community and bringing it back into full use in all walks of life; to a lesser extreme, turning around a decline in language that is slowly losing ground (Hale & Hinton 2001).

Language documentation: concerned with the methods, tools, and theoretical underpinnings for compiling a representative and lasting multipurpose record of a natural language or one of its varieties (Himmelman 2006).

Linguistic fieldwork: While there are several definitions of what constitutes linguistic fieldwork¹, in this thesis I am referring to language work that is literally conducted in the field, that is, with and within the language community; this research can include language documentation, and the results of linguistic fieldwork have the potential to support language revitalization, although this is not always the case.

Linguistic human rights (LHRs): also called language rights, or linguistic rights are human and civil rights associated with the individual and collective right to choose the language or languages that one wishes to use for communicating in a private or public atmosphere, regardless of ethnicity or nationality or the number of the speakers of a language in a given territory (Skutnabb-Kangas & Phillipson (2001); Universal Declaration of Linguistic Rights (1996). LHRs differ from language rights, which are more broader and also cover non-essential rights to languages, such as learning foreign languages. While all linguistic human rights are language rights, not all language rights are considered LHRs.

Ethnoecological Terminology

Biocultural diversity: diversity of life in all its manifestations — biological, cultural, and linguistic — which are interrelated within a complex socio-ecological adaptive system (Maffi 2001).

¹ See Newman & Ratliff (2001).

Ethnoecology: Refers to Indigenous perceptions of "natural" divisions in the biological world and plant-animal-human relationships within each division. These cognitively defined ecological categories do not exist in isolation; thus ethnoecology must also deal with the perceptions of inter-relatedness between natural divisions. (Posey et al. 1984).

Traditional Ecological Knowledge (TEK): is place-based knowledge in which people learn to adapt to their own environment through interactions, observations and experiences with their ecological system. It is established through years of living in an ecosystem, and is passed down from generation to generation (Berkes 1993).

Traditional Knowledge (TK): or Indigenous Knowledge (IK), is the matured long-standing traditions and practices of certain regional, indigenous, or local communities. Traditional knowledge also encompasses the wisdom, knowledge, and teachings of these communities. In many cases, traditional knowledge has been orally passed down for generations from person to person. Some forms of traditional knowledge are expressed through stories, legends, folklore, rituals, songs, and even laws (http://en.wikipedia.org/wiki/Traditional_knowledge#cite_note-0).

Intellectual Property (IP): Refers to creations of the mind: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce.
(WIPO: <http://www.wipo.int/about-ip/en/>)

Intellectual Property Rights: a bundle of exclusive rights over creations of the mind, both artistic and commercial, granted to authors of creative works. Artistic creations are covered by copyright laws, which protect creative works such as books, movies, music, paintings, photographs, and software, and give the copyright holder exclusive right to control reproduction or adaptation of such works for a certain period of time. The second category is collectively known as "industrial properties", as they are typically created and used for industrial or commercial purposes (WIPO: <http://www.wipo.int/about-ip/en/>)

Intangible Cultural Heritage (ICH): means the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity (UNESCO: <http://www.unesco.org/culture/ich/>)

1.4 Literature Review

The scope of this thesis has crossed into several disciplines, and as such the literature from which I have drawn is diverse. This is an initial review, and I provide more academic reviews throughout later chapters.

Whenever possible, I have relied on personal communications or documented citations from my K^wak^waka^w teachers and collaborators (see Deur 2007, Turner & Deur 2005, Turner et al 2000, Sewid-Smith 1997). In order to attempt to capture an alternative to a euro-centric approach to topics of ownership or protection of knowledge, I have also tried to include literature written from an Indigenous perspective and/or collaboration (Battiste & Youngblood 2000, Bell 2001, Sewid-Smith 1997). This literature supports collaborative research relationships, emphasizing the need for Indigenous-steered methodologies of fieldwork with and within Indigenous communities.

Regarding linguistic fieldwork and models of language research, I have focused primarily on North American literature explicitly regarding ethics, community-based fieldwork, language documentation and methodologies of working with and within Indigenous communities (Benedicto 2002, Czaykowska-Higgins 2009, Dorian 2002, Dwyer 2006, Florey & Himmelmann 2008, Gerdtz 1998, Grenoble 2009, Grinevald 2003,

Hale et al 1992; 2001, Hill 2002, Rice 2006, Shaw 2001, Skutnabb-Kangas & Phillipson 2001, Stebbins 2003, Thieberger & Musgrave 2007, Yamada 2007). This literature encourages linguists to reflect on their roles and responsibilities when working with and within Indigenous communities on language research, and to continue discussions of progressive and respectful approaches to field research.

As the research I have engaged in has crossed into different disciplines, my readings also include several articles and books on the subjects of Traditional Ecological Knowledge (Brown 2005, Coombe 2001; 2005, Posey 1996), ethnobotany (Turner et al 2000), anthropology and archaeology (Bush & Barkon 2002, Geertz 1968, Nicholas & Bannister 2005, Turner & Deur 2005). In exploring my topics from a broad, international scope, or what I call a canopy perspective², I also made significant use of literature concerning intellectual property, ownership and research policy (Brown 2003, Battiste & Henderson 2000, Coombe 2005, Posey 2002, Thom 2003, 2006).

This thesis is a contribution to several disciplines, as it combines issues and discussions from a linguistic perspective, but one which draws on issues already heavily debated in other areas of social sciences and humanities. It adds to the growing literature in linguistics on the ethics of linguistic fieldwork, and continues to challenge the roles and responsibilities held by participants in Indigenous community-based language research.

² I differentiate the canopy perspective from a localized or grassroots perspective, which I believe explores concepts and issues from a community-by-community, project-by-project approach.

1.5 *The People*

The following information comes from interviews and discussions between K^waxsistalla, ?Og^wilowǵ^wa, Ma^yanił, chief George Shaughnessy, Dr. Nancy Turner, Abe Lloyd and myself. I have been given expressed permission to use these names and discuss any biographical information. More details regarding the clans and ancestors can be found in Appendix 1 (pg. 110 of this thesis).

The head of our team is K^waxsistalla, Clan Chief Adam Dick. His mother ?anicca, a matriarch Clan Chief of the Qawadiliqalla, ties him to the D^zawada?ēnuǵ^w, or the people of Kingcome Inlet; she also held seats in the Ma?əmtagilla, Liǵ^wiłdaǵ^w, and the K^wagiul³. K^waxsistalla's father's clan was the čik^wk^waǵallis from Kingcome Inlet, with close ties to the Mamaliliqalla (Village Island), among others. K^waxsistalla is a holder of many cultural titles, a steward of vast amounts of Traditional Ecological Knowledge, a skilled fisherman and carver, and potlatch speaker. His cultural role was selected at an early age, and he was guided through a unique form of training, one which relied on the cultural knowledge of his ancestors and chiefs, and the dynamics of his surrounding natural environment.

K^waxsistalla spent most of his childhood with the “old people”, trained Clan Chiefs who were highly specialized in aspects of the natural and supernatural world. These traditionally trained chiefs were stewards to their culture, resources and traditional

³ I use the term K^wagiul to refer to the K^wagiul tribe, not to be confused with the incorrect designation held for centuries that K^wagiul referred to the entire K^wak^waka^w nation.

territories, and secluded and taught K^waxistalla, his obligations and his very specialized cultural roles such as potlatch speaker. This was Niñoḡad or “Knowledgeable Ones” – niñoḡad means well taught, and ni- signifies plural; this term was given to traditionally trained specialists in most aspects of culture and resource management. This form of mentorship and ‘knowing’ began for a Clan Chief at an early age. Not everyone was trained, as it required a certain right, based on family lineage. Also, the selected child had to demonstrate the ability to learn in a strenuous and appropriate manner.

This training required extensive travel across his family’s traditional territories and seasonal rounds, which included modifying and enhancing vast clam gardens (Turner & Deur 2005); and harvesting seaweed and eelgrass from the surrounding islands (see Cullis-Suzuki 2007). K^waxistalla began working in the salmon canneries when he was eight, was logging when he was 13, and spent decades working on various fishing boats. His work varied with the seasons, and granted him vast knowledge of the sea, and of the seasonal rounds. Trained as a potlatch speaker, he worked closely with chiefs in his and his family’s territories, including Chief James “Jimmy” Sewid. As such, K^waxistalla forged a close bond with Chief Sewid’s daughter Maḡaniḡ, Dr. Daisy Sewid-Smith; they have worked alongside each other in the potlatch world for 50 years. Maḡaniḡ is also a skilled linguist and cultural authority, and has worked for decades towards the preservation and revitalization of the K^wak’wala language. K^waxistalla’s partner ḡOḡwilowḡ^wa (Kim Recalma-Clutesi), daughter of Iwanuxsi (a K^waguḡ Clan Chief) and

herself a former elected chief, is a cultural steward, and is highly trained in ethnobotany and Indigenous food-gathering.

1.6 The Language

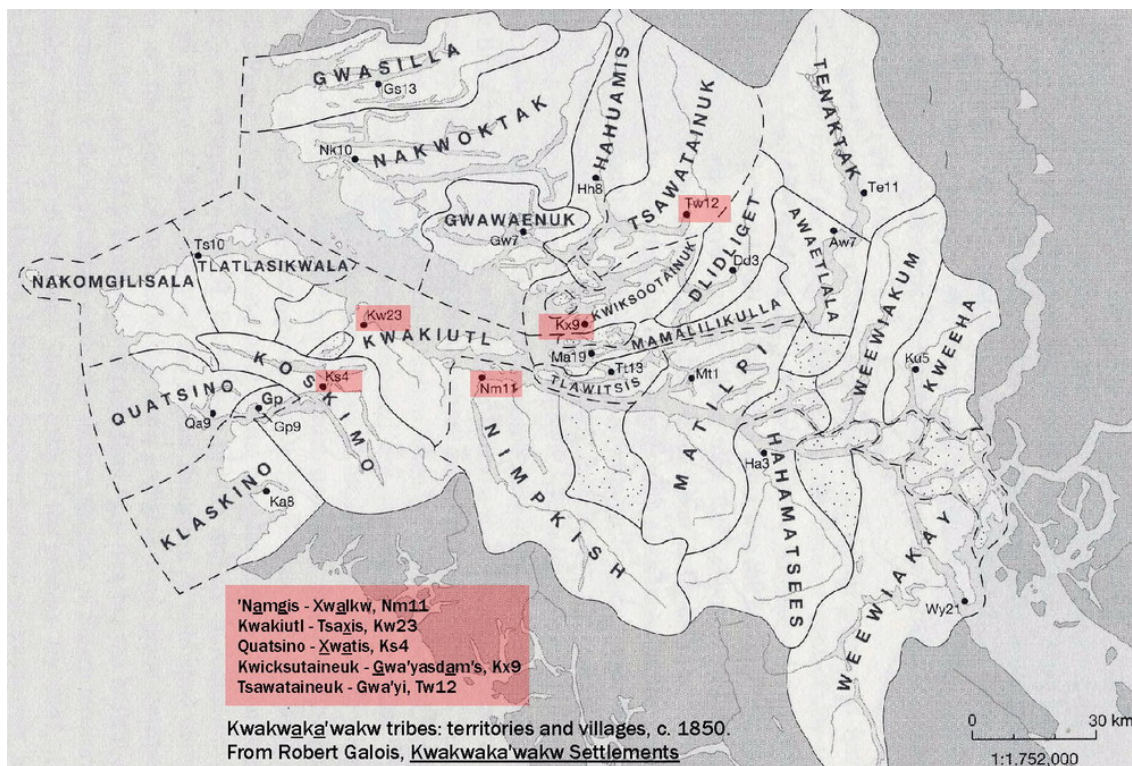
“I can still see the faces...of my teachers. I can still hear the echo of their voices”
(K^waxistalla, *pers. comm.*)

The K^wak’wala language is spoken across the central and eastern coast and northern tip of Vancouver Island, as well as in small communities off of the adjacent mainland of British Columbia’s Northwest coast. The K^wak^wak^w are comprised of approximately 30 autonomous groups speaking the K^wak’wala language. These include: Da’naxda’xw Awaetlala, Gwa’sala - ‘Nakwaxda’xw, Gwawaenuk, K’omoks, Kwakiutl, Kwiakah, Kwicksutaineuk Ah - Kwaw - Ah - Mish, Mamalilikulla Qwe’ Qwa’ Sot’ Em, ‘Namgis, Quatsino, Tlatlasikwala, Tlowitsis, Tsawataineuk, Wei Wai Kai, and Wei Wai Kum. Coalition groups include: Musgamagw Tsawataineuk Tribal Council; Hamatla Treaty Society; Kwakiutl District Council; and Winalagalis Treaty Group⁴.

The following figure displays the K^wak^wak^w village groupings circa 1850, credit Robert Galois.

⁴ This information can be found at (<http://www.firstnations.eu/fisheries/kwakwakawakw.htm>).

Figure 1 - Traditional Kwakwaka'wakw Villages



Typologically grouped into the Wakashan language family, Kwak'waka is a highly endangered language with an estimated 150-200 fluent speakers remaining, most of whom are Elders or mature speakers. There is extensive literature on the language, culture, land management and traditional practices of the Kwakwaka'wakw peoples (see for example Boas 1888; 1892; 1934, Boas & Hunt 1902; 1921, Berman 1994, Grubb 1976, Hunt et al 2005, McDougall 1970, Nicolson 2005, Sewid-Smith 1997, Wasdon 2005). Historically, the work of Franz Boas and George Hunt was instrumental in the documentation of both the language and culture of the Kwakwaka'wakw. Contemporary Kwakwaka'wakw experts are currently editing his vast volumes to ensure cohesion and

correctness in his transcriptions and descriptions⁵.

With nine dialects, four differing writing systems⁶ and orthographies, and significant geographical distances between linguistic communities, the revitalization of this language faces several challenges⁷. Despite this, there are many community efforts underway, especially in Port Hardy, Alert Bay⁸, Campbell River, and in Kingcome Inlet. There have also been international collaborations between activists, fluent speakers, linguists, and universities in the form of field schools on field linguistics and language documentation⁹.

⁵ Dr. Daisy Sewid-Smith has over the years been tirelessly revising Boas' work, poring over transcriptions and working closely with K^waxistalla to not only ensure accuracy, but also to help distinguish between the many dialects that have been grouped together.

⁶ The writing systems actively in use are categorized under Boas, Grubb, U'mista, and IPA or Americanist orthographies.

⁷ See Anonby (1999) for a discussion on the revitalization of K^wak'wala.

⁸ See the U'mista Cultural Society: <http://www.umista.org/>

⁹ For example, InField 2008 (InField was recently renamed CoLang), an institute on field linguistics and language documentation held in 2008 at the University of California in Santa Barbara brought several speakers and language learners from several K^wak^wak^w communities to not only participate but also to instruct the field portion of the curriculum. There was also a K^wak^wak^w course at the LSA at the University of Berkeley 2009.

CHAPTER TWO – CHANGES IN THE INDIGENOUS LANGUAGE RESEARCH PARADIGM

2.1 Introduction

This chapter describes interdisciplinary, community-steered research in a language-loss context, which highlights: 1) the shifts in fieldwork methodology that this research exemplifies and 2) the shifts in the roles of academic-based and community-based research team members. To provide the sociological, cultural, and historical context for this discussion, this chapter begins by devoting attention to the fragmentation of language and culture suffered by the Indigenous populations in Canada. Following scholars such as Battiste and Henderson (2000), this discussion acknowledges the importance of considering how Indigenous languages have become endangered in the first place. Thus, I provide an overview of many of the destructive forces that have contributed to the fragmentation of Indigenous languages, cultures and landscapes, and which have led linguists to work on and with Indigenous languages and communities. This fragmentation has contributed to an evolving counter-movement¹⁰ in which Indigenous and non-Indigenous communities, researchers, and activists are joining forces and working collaboratively to revitalize languages, cultures and landscapes and in the process are redefining traditional research roles and responsibilities.

Following this section on the historical and social context of language endangerment, I consider the history of linguistic research with and within Indigenous languages and communities, and demonstrate a trend, within North America at least, towards increasingly collaborative and reciprocally beneficial models and methodologies

¹⁰ A counter-movement against the endangered states of Indigenous languages and cultures.

of research. This ultimately leads to the research framework which I define and apply to my research experience: Czaykowska-Higgins' (2009) Community-Based Language Research (CBLR) model.

2.2 The Fragmentation of Indigenous Languages, Cultures and Lands

The evolution of the Indigenous language research paradigm is a response to historical, contemporary, and imminent conflicts and challenges that have faced and continue to face Indigenous communities. Myriad forces have led to, and continue to affect the fragmentation of culture, language, and land in Indigenous communities across North America, and throughout the world. This fragmentation, or breaking down the systems that were once in place within Indigenous communities, has directly led to losses of culture, language and land. When working on and with Indigenous languages and communities, it is crucial to keep this fragmentation in mind. Though to the outsider these conflicts and challenges may seem like issues from the past, they are still very much present, and continue to affect communities in many ways. An awareness and sensitivity to the outside forces that have led to the fragmentation of culture and language is crucial when participating in research with Indigenous languages and communities. The loss of language reflects the profound losses of many other invaluable components of Indigenous culture¹¹. This loss has also affected the expectations and assumptions of Indigenous community members and academics alike¹².

The current forms of exploitation of North American Indigenous peoples and land, in all capacities, began with European contact. The arrival of foreign colonizers

¹¹ See Battiste & Henderson (2000) for further discussion.

¹² See for example, Shaw (2001) for further discussion on this topic.

introduced diseases that quickly infiltrated and largely decimated Indigenous populations; on the coast of British Columbia, the Indigenous population was reduced by an estimated 75% (Turner 2009). This rapid population decline facilitated the European colonizers' goals of assimilation and cultural genocide, and allowed them to continue their unjust acquisition of rich and bountiful landscapes; landscapes that had been sustainably maintained and enhanced for centuries (Turner & Deur 2005). Vancouver Island's terrains, coastlines and waterways were extensively used by many Indigenous nations (Turner 2009). Moving throughout the resource rich areas by large sea canoes, many tribes followed the seasonal rounds to harvest and often trade many bountiful food resources; these included berries, crabapples, root vegetables, seaweed, and eelgrass, as well as fish and other game (Turner 2006).

Considered by European settlers as being primarily the terrain of "hunter-gatherer" societies, these lands were deemed as inefficiently used and thus ripe to be industrialized with European forms of agriculture (Turner & Jones 2000, Deur 2007). Studies have since established that in fact these terrains and waterways were not only thoroughly used, but were maintained, tended to, and enhanced by traditional forms of land management (Turner 2006, Turner & Jones 2000, Turner & Deur 2005, Williams 2006).

Along with sinister goals of cultural assimilation, the ignorance of traditional land management by European colonizers helped justify the Federal government's creation of reserves, sectioning off small areas of land which Indigenous nations were banished to. The forced relocation disrupted existing forms of trade and livelihood, fragmented societal structures, and separated communities from each other, and from their food

sources. This aggressive form of assimilation devastated Indigenous communities, stripping them of their autonomy and creating a forced dependence on European forms of land management, and, subsequently, religion, language and culture. Reserve lands also dislocated communities from culturally sacred sites, many linked to their creation stories (Thom 2003).

With this new structure of Eurocentric society came new forms of education. Children were taken forcibly from their homes and families and sent to residential schools. While there, they suffered innumerable physical and psychological abuses, including being forbidden to speak in their native tongues. This compulsory form of education, begun in 1863, persisted across Canada for well over a century; in British Columbia, the final residential school closed its doors in 1984 (Brasfield 2001). Many Indigenous peoples returned to their communities completely traumatized and disconnected, often feeling a sense of not belonging to their own society, or to the dominant society they were supposed to have been assimilated into, and also very often being unable to speak their own languages.

Another factor in the fragmentation of language and culture came with the Potlatch Ban, which made all potlatching practices illegal from 1885 until 1951. Over 60 years of repressed cultural and linguistic expression led to a loss of this traditional form of celebration and order, which included intricate systems such as the *p̓əssa*, an “investing society that handled the economy of the people, especially the mountain goat fur, which was the currency of the days”¹³.

¹³ See Appendix 1:117 of this thesis.

This history of violence, abuse, and attempts at assimilation has manifested itself in many psychological traumas which continue to affect generations of Indigenous peoples. Researchers in health services have referred to these residual effects as *historical unresolved guilt*, *historical trauma* (see Heart 1998), and *residential school syndrome* (Brasfield 2001). Indigenous populations worldwide with similar histories of colonization and assimilation have been shown to suffer similar posttraumatic stress behaviours (see Kirmayer 2003). This trauma is often passed on intergenerationally¹⁴ (Smith 2005), creating new generations that continue to suffer from these damaging effects.

2.3 *Changes in the Indigenous Language Research Paradigm*

The many factors discussed above, contributing to the persistent marginalization of Indigenous communities in Canada and worldwide, have led to many Indigenous languages to a state of critical or severe endangerment¹⁵. Of the estimated 50 languages in Canada, over half of which are in British Columbia, only three (Inuktitut, Cree and Ojibwa) are expected to survive. Almost all Indigenous languages in Canada are critically endangered, most spoken only by older generations, and with younger generations no longer learning them as their mother tongues. Preserving and revitalizing these languages is no small feat, particularly when coupled with the fact that most Indigenous communities are also pursuing incessant legal battles over their rights to their land, food sources, and self-determination, while often living in impoverished communities. There is also clearly a lack of access to funds that would support Indigenous forms of education

¹⁴ See intergenerational posttraumatic stress in Smith (2005).

¹⁵ Please see UNESCO's states of endangerment: <http://www.unesco.org/culture/en/endangeredlanguages>.

and language, as well as issues of substance abuse, and various health crises in many Indigenous communities nationally and worldwide.

Future challenges are also looming: the last speakers of a language passing away, the ongoing destruction of landscape and food sources due to pollution, climate change, and aggressive forms of fishing and agriculture; the booming birth rates in Indigenous communities that are already struggling with poverty¹⁶.

Despite these numerous challenges, many Indigenous communities are joining forces, fighting for themselves and others, devoted and steadfast in their determination to salvage their languages and cultures, regain access to their ancestral lands, steer the education of their youth, confront these daunting issues and resolve them in effective ways (see Fenelon 2008). This movement is at the heart of community-based research – communities organizing and mobilizing projects and seeking collaborative partnerships with universities and international organizations. This is also reflected in the methodologies of academic researchers working with and within Indigenous communities, who have adapted their goals and roles in language research to better suit and respond to the needs of the communities and the responsibilities that come with such research.

Linguists and community members engaged in fieldwork with endangered Indigenous languages have become increasingly aware of and vocal about the changes occurring and needing to occur within the Indigenous language research paradigm (see, for example, Benedicto et al 2002, Czaykowska-Higgins 2002, Castellano 2003, 2008; Dwyer 2006, Florey & Himmelmann 2008, Grenoble 2009, Grinevald 2003, Hale et al

¹⁶ See *Aboriginal Peoples in Canada in 2006: Inuit, Métis and First Nations, 2006 Census, Statistics Canada* (<http://www12.statcan.ca/census-recensement/2006>).

1992, Kirkness 1998, Norris 2007, Rice 2006, Shaw 2001, Yamada 2007). Previous models of language research that were driven primarily by the outsider linguist are, in a North American context, quickly shifting to models which respect, engage, and are steered by the speakers of Indigenous languages. As a result of discussions and reflection of the realities of community-based research – the roles and responsibilities of researchers and community members have been changing (see Czaykowska-Higgins 2009, Eira 2008, Rice 2006). These changes have also created new and complex issues relating specifically to the nature of collaborative, interdisciplinary and community-driven models of research (see Gerdts 1998, Grinevald 2003).

There have been several seminal articles in the linguistics literature addressing ethics in fieldwork with Indigenous languages and communities. Hale et al. (1992) was the first published account¹⁷ of the ethical obligations of researchers working on endangered languages, and the importance of maintaining linguistic diversity. Michael Krauss' address to the Linguistic Society of America (Hale et al. 1992 published version) delivered the daunting calculations of global language endangerment; a shocking 90% of the world's languages were rapidly losing their viability (*idem*). This volume was a call to arms for the documentation of dying languages, and caused an increase in the number of field linguists working in this field.

The push towards not only language documentation, and “salvage” linguistics¹⁸, but also towards reversing the diminishing numbers of languages was introduced to mainstream linguistics primarily by Hale and Hinton's significant publication, *The Green*

¹⁷ But see Himmelmann (2008) for discussions around the ethics of documenting minority languages in Europe that date back to the 1960s.

¹⁸ Salvage linguistics is the documentation of dying languages; see for example Himmelman (2008).

Book of Language Revitalization (2001), which was a reaction to UNESCO's *Red Book of the World's Endangered Languages* (1996). By offering examples of the revitalization of endangered languages such as Hawaiian and Maori, it was suggested that indeed language loss could be reversed, and that critically endangered languages could avoid extinction. Following the recommended methodologies, and exploring and expanding on them, researchers and community members began to engage more actively in language revitalization efforts, with varying levels of success and shortcomings (see Hale and Hinton 2001). At this time, within the linguistics community, language revitalization efforts took precedence over overt discussions in the literature about ethics and about language research models¹⁹.

In the years that have followed, however, articles began appearing that, while maintaining focus on reversing global language shift²⁰, also began discussions relating to *how* language fieldwork, often with the intention of revitalization and often with and within Indigenous communities, was being conducted. A distinction began to be made between language fieldwork and language revitalization; that the former can contribute to the latter, and that linguists can engage in one or the other, or both. Importantly, each has its own set of complex issues and methodologies. As predicted in Hale et al. (1992), the growing realization was that research on languages also included, influenced and affected the speakers of these languages. Previous models of conducting fieldwork, which prioritized the linguists' goals and viewed language speakers as the subjects of academic

¹⁹ Topics of ethics and community-based research have been frequent in areas such as anthropology, and literature around minority language issues, however.

²⁰ Language shift is described as the progressive process whereby a speech community of a language (typically a minority language) shifts to speaking another language (typically a majority language) – See Fishman (1991) for further discussion.

study – unaffected by and unengaged with the research – began to be replaced by more collaborative, community-focused methodologies.

In Cameron et al. (1993: 83), the authors describe three research models in linguistics, which Czaykowska-Higgins (2009) suggests can be viewed as points along a gradient scale of community-involvement and control (see also Czaykowska-Higgins 2002, Rice 2006). At the least collaborative and most linguist-focused end of the scale is what Cameron et al. (1993) call the Ethical Model of research; this model recognizes that research involves human beings and that therefore researchers must maintain basic ethical obligations – such as not causing intentional harm. However, the Ethical Model still considers research to be *on* the person or community involved, and thus maintains that the speakers involved in research are subjects to be studied. Moving across the scale and closer to collaboration is the Advocacy Model proposed in Cameron et al. (1993), which recognizes the shortcomings of the Ethical Model and integrates a component of “helping” the person or community involved in research. This framework is seen as “research *on* and *for* social subjects”, and while devoted to social advocacy, still positions the researcher as the one with the power to effect change, or to act on behalf of the people that are subjects of the research.

It was thus suggested by Cameron et al. (1993) that this model go further, to the point that the principal investigators would ensure that their partners in research be the ones with the knowledge and power to contribute to their own social advocacy. This led to the Empowerment Model, which is research *on, for* and *with* “social subjects”. This model advocates community involvement, but, according to Czaykowska-Higgins (2009), still maintains a distinction between researchers and researched, and still

considers the participant in research to be a ‘subject’. This is perhaps due to the fact that Cameron et al (1993) defined these models on the basis of sociolinguistic research and not with a specific Indigenous context in mind²¹. More appropriate to many Indigenous language revitalization or documentation situations is the model discussed in Czaykowska-Higgins (2009), offering a recent extension of the Empowerment Model: the Community-Based Language Research model, which is defined as:

Research that is *on a language*, and that is conducted *for, with,* and *by* the language-speaking community within which the research takes place and which it affects. This kind of research involves a collaborative relationship, a partnership, between researchers and (members of) the community within which the research takes place (Czaykowska-Higgins 2009: 24, emphasis added).

The CBLR framework, with the preposition *on* referring to the *language* and not the ‘subject’, as in previous models, eliminates the notion that participants involved in the research are being studied (see also Grinevald 2003). Further, this framework approaches the participants engaged in the research as equals, referring to the ‘language-speaking community’ in lieu of the ‘social subject’. It also explicitly acknowledges that research is not static, and does not occur in a vacuum²²; it is a dynamic act that affects the place and people involved. The CBLR framework recognizes the importance of collaboration and relationships – elements that are essential when working with and within Indigenous communities.

CBLR follows the same principles that can be seen in research models used in health sciences, such as Participatory Research models, and especially Community-Based

²¹ Personal communication with Ewa Czaykowska-Higgins.

²² See Czaykowska-Higgins (2009).

Research models. The socially conscious elements of this research framework are similar to those that Indigenous scholars, such as Battiste and Henderson (2000), and Castellano (2004) propose should inform scholarship associated with Indigenous peoples:

Ethical research systems and practices should enable Indigenous nations, people, and communities to exercise control over information related to their knowledge and heritage and to themselves. These projects should be managed jointly with Indigenous peoples, and the communities being studied should benefit from training and employment opportunities generated by the research. Above all, it is vital that Indigenous peoples have direct input into developing and defining research practices and projects related to them. To act otherwise is to repeat that familiar pattern of decisions being made for Indigenous people by those who presume to know what is best for them. (Battiste & Henderson 2000: 132, quoted in Czaykowska-Higgins 2009:27).

And also:

Ethical regimes for Aboriginal research must therefore extend beyond current definitions of research involving human subjects to include research that affects Aboriginal well-being. This includes environmental research that will impact their physical environment or archival research that may perpetuate negative or inaccurate representations of Aboriginal Peoples (Castellano 2004: 104).

One of the most progressive components of the CBLR framework is its inclusiveness and flexibility, which allows for a diversity of roles and responsibilities assumed by Indigenous and non-Indigenous research partners; there is acceptance of variability from project to project, community to community, and person to person. This model reflects the idea that there is no one-size-fits-all approach to community-based research, amongst others. Czaykowska-Higgins (2009), Rice (2006), Stebbins (2003), and UNESCO's recent expert report on language endangerment and vitality all firmly state

the importance of building and maintaining relationships, as well as respect, reciprocity, and responsibility²³ between all those engaged in research.

The evolution in the paradigm of language research that I have just described relates strongly to several “radical” theories of the 1960s and 70s (cf. Czaykowska-Higgins 2009), including Marxist theory (O’Laughlin 1975), feminist theory (cf. Czaykowska-Higgins 2009), and anti-colonialist theory (Folan 1961). The monumental work of educator and theorist Paulo Freire, in particular his influential book *The Pedagogy of the Oppressed* (1972) led to a reconfiguration of the roles and responsibilities of educators and students in the field of education and beyond. By approaching education as an act of social justice, which holds the capacity to empower communities of oppressed people, Freire’s work has impacted areas surrounding minority language speakers, notably in the roles assumed by participants in a learning environment, and in approaching minority education as a form of empowerment and advocacy. The notion that minority language speakers could be empowered by education in their mother tongue resonated with speakers of Indigenous languages in Canada, who had also experienced centuries of oppression and linguistic assimilation by the “majority”; for example, by speakers of English and French.

Theories that acknowledge the value of incorporating social justice issues into research continue to influence the development of more recent theories such as decolonizing theory (Smith & Wobst 2005, Simpson 2005, Thaman 2003), linguistic human rights²⁴ (Musau 2003, Skutnabb-Kangas & Phillipson 2001, Wee 2007) and

²³ This is what Rice 2006 refers to as the 4 R’s to follow when conducting research with and within an Indigenous community.

²⁴ I will explore linguistic human rights again in Chapter 4.

language activism (Florey & Himmelmann 2008). In advancing the theory of language activism, Florey & Himmelmann (2008) describe the changing roles and responsibilities of linguists and community members in a community-based setting: including Indigenous language speakers as experts, activists and language teachers, with linguists assuming a more peripheral role in a given language revitalization effort. The ideal situation found in many efforts underway in Indonesia is for the outsider linguist to assist in the development and implementation of a project, eventually leaving the community to continue the efforts themselves (Florey & Himmelmann 2008).

A growing position, seen across disciplines such as linguistics, anthropology, and elsewhere in the social sciences and humanities, not only redefines the methodologies of conducting research with and within Indigenous communities, but views this process as a conduit for social justice, advocacy, empowerment, and mutually beneficial outcomes. This can be seen in the application of what is being labelled as the ‘new linguistics’, which Florey & Himmelmann (2008) describe as “a more participatory and politicized linguistics with language activism at its centre, and characterized by profound changes to ethics, methods and practice in the field”; it is also congruent with the emerging language research frameworks discussed in the previous sections of this thesis.

Drawing from the shifting language research paradigm I have discussed, and focusing primarily on the CBLR model, I now describe one example of how this framework has been instantiated in the field.

CHAPTER 3: SHIFTING ROLES IN INDIGENOUS COMMUNITY-BASED RESEARCH: OBSERVATIONS FROM THE FIELD

3.1 *Introduction*

British Columbia is a diverse province, supporting rich ecosystems and many Indigenous communities and languages, yet this diversity is largely threatened. Aggressive forms of agriculture and development, pollution, invasive species, and many forces leading to the loss of valuable traditional knowledge and languages, are but a few prevailing factors. As a reaction to this threatened diversity, many communities are restoring ecosystems by using their Traditional Ecological Knowledge (TEK); this not only raises awareness of our depleting diversity, but can also help to safeguard and revitalize Indigenous languages and cultures – which are both inextricably connected to their landscapes (see Nicholas & Bannister 2004, Berkes 1993, Cocks 2006, Dutfield 2000, Loh & Harmon 2005, Maffi 2005, Posey & Dutfield 1996, Skutnabb-Kangas 2000, Turner 2006).

The projects that our research team undertook were, both in their scope and in the methodologies, highly collaborative and included involvement from diverse specialties and disciplines. The roles assumed by all participants in our team were unconventional if compared to those described in many Western, Euro-centric approaches to fieldwork²⁵, but conversely these roles were found to be the norm the Indigenous-steered research methodologies found in the context of our research team. Early literature on field linguistics advised linguists to determine the study, location, people involved, and

²⁵ See Samarin (1967) for one often-cited example of linguist-focused fieldwork methodologies.

subsequent methodologies, and often advised researchers to remain unengaged with language speakers, while attempting to retrieve as much linguistic data as possible, and while using conventional Western approaches (see Ladefoged 1992, Samarin 1967).

Methodologies and fieldwork training in linguistics in North America have clearly moved away from linguist-centred frameworks; collaborative and community-driven approaches to fieldwork are increasing, and in places like British Columbia, the preferred approach is to follow community-based research methodologies. Linguists in this part of the world have been working alongside speakers of endangered languages for decades, often assuming conventional roles, but also unconventional roles by academic standards.

During these decades of fieldwork, linguists have been working steadfastly with dwindling numbers of speakers, and given the urgency of conducting this work, there has been a slight gap in the literature around discussing these experiences and relating them to academic and general audiences. This too is changing, as linguists are beginning to reflect on their years of work on and with endangered languages and speakers²⁶.

There continue to be advancements to ensure ethical conduct when working with and within First Nations communities, and this can be seen in the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans, a Policy adopted in 1998 and which acts as a living document that responds to emerging developments and/or gaps. In particular, Article 9.1 requires community engagement in Aboriginal Research, and Article 9.5 recognizes “complex authority structures” and seeks alternatives to “securing the agreement of formal leadership” (TCPS 2: 115)²⁷.

²⁶ See, for example, Czaykowska-Higgins (2009), Gerds (2010), Rice (2006), Dobrin (2006).

²⁷ See also Article 9.6, 9.12, and 9.14 in this document: <http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/chapter9-chapitre9/>.

As our team, “Adam’s School” consisted of Indigenous experts K^waxsistalla, ?Og^wilowǵ^wa, Maʔanił, and Chief George Shaughnessy, university Professors Dr. Nancy J. Turner (ethnobotany), Dr. Doug Deur (anthropology, ethnobiology), ethnoecology graduate students Abe Lloyd and Amy Deveau, environmental studies undergraduate students Victoria Wyllie de Echeverria and Leigh Joseph; filmmaker Richard Boyce, and additional participation by academic or community-based volunteers. Given our team “mosaic”, there was no obvious framework in which to situate or formulate our research; each discipline had its own unique methodologies and history of conducting field research. We followed the guidance of our team leader, K^waxsistalla, and cultural experts Maʔanił, ?Og^wilowǵ^wa, and Chief George Shaughnessy, along with seasoned field workers Dr. Nancy J. Turner and Dr. Doug Deur, to combine elements of all of our disciplines and K^wak^waka^w protocols.

As a linguistics graduate student, I was aware of the history of linguistic fieldwork and of the constantly evolving roles assumed by linguists in the field. It became clear to me during and after the fieldwork was complete and after I had spent quite some time discussing ethics and protocol, and contemplating our experiences, goals and expectations with the Indigenous experts in Adam’s School, that our approach to research should be discussed and added to the growing literature concerning linguistic fieldwork and community-based language research in particular. The linguistic research framework through which to relate these projects was difficult to choose, but with careful contemplation it became clear to me that our projects clearly followed the CBLR model.

This approach to research had helped guide my behaviour and research intentions before, during, and after our projects concluded. In the following section, I describe several of the projects we undertook as a team, highlighting the roles and responsibilities held by each partner.

In order to describe each project, I present them in Table 1 (in a format adapted from Yamada 2007). The first project discussed is the ethnoecological restoration of a traditional root garden in the estuaries of the Kingcome River. The second project, smaller in scope, is the development of a traditional fishery diorama, which we built for Kingcome Inlet's local elementary school. The third project I discuss is the harvesting of seaweed in the many islands surrounding Malcolm Island.

In describing these three projects, I focus on the varying roles of both the Indigenous experts and myself, a graduate student. Our research will be shown to be interdisciplinary, highly collaborative and community-driven, creating unconventional roles for all participants. In concentrating on my roles as a linguist, I will also show how this research instantiates the application of the CBLR framework.

Table 1 - Project Table of Roles (adapted from Yamada 2007)

Project	Indigenous Expert Roles	Linguistics Graduate Student Roles
Təkillak ^w Restoration	<ul style="list-style-type: none"> • Selection of field site (root garden) for ethnoecological restoration • Determining research team and establishing responsibilities • Use of Traditional Ecological Knowledge and land management 	<ul style="list-style-type: none"> • Restoration of root garden • Field assistant • Scribe
ᑭᑭᑭᑭᑭᑭ ^w Curriculum	<ul style="list-style-type: none"> • Curriculum development • Displaying traditional fishery • Establishing research scope 	<ul style="list-style-type: none"> • Curriculum development • Dissemination of project • Learning future roles
ᑭᑭᑭᑭᑭᑭ ^w Harvest	<ul style="list-style-type: none"> • Charting islands for seaweed harvest • Assigning teams to various projects • Obtaining digital film and audio footage for future projects 	<ul style="list-style-type: none"> • Harvesting seaweed • Surveying field sites • Assisting where needed • Scribe

3.2 *Təkillak^w Restoration*

The ethnoecological restoration²⁹ of the təkillak^w, or estuarine salt marsh root garden, and documentation of K^waxsistalla’s TEK and language of these gardens, was the impetus for a succession of expeditions that we undertook as a research team. The goal of this project was to reintroduce the knowledge and accessibility of the traditional root gardens, and to revitalize the language used to describe the gardens and ecosystems

²⁹ Ethnoecological restoration involves analyzing how Indigenous or local peoples affected the ecological structure and function of their resource communities; within an ethnoecological restoration, the cultural landscapes and land-based economic systems which serve to maintain them are explored (Beckwith 2005: 3).

surrounding them, to the people of Kingcome Inlet, or Dʷawadaʷənuχʷ. The restoration was initiated and steered by Kʷaxsistalla, who as a Clan Chief had long been a steward of this land; his knowledge of land management and of plant identification was crucial and essential throughout the duration of this study. The site was Kʷaxsistalla's family garden, found in the flat lands of the Kingcome Inlet; Kʷaxsistalla, Maʷaniɬ, and ʷOgʷilowǵʷa had previously conducted research in this area with Dr. Nancy J. Turner and Dr. Doug Deur (Turner & Deur 2005, Deur 2007).

In this area, a rich tidal flat in the mouth of an estuary, several edible roots are found: the λəksəm or Pacific Silverweed (*Potentilla pacifica*), the ʷəχʷsus or Springbank Clover (*Trifolium wormskioldii*); the qʷaniy or Nootka Lupine (*Lupinus nootkatensi*). Historically, these roots were efficiently maintained, and tended to in gardens; in Kʷakʷwala, these gardens are named ʷəkillakʷ which translates into “place of human-manufactured soil” (Deur 2007: 23) or “estuarine salt marsh root garden”²⁸. In fact, these habitats have been noted as being particularly “prized and cared fo-r” in the land management of Northwest Coast Indigenous peoples (Turner & Deur 2005). Kʷaxsistalla remembers going down to the flats to tend to his family's ʷəkillakʷ with his grandmother (Kʷaxsistalla 2008, *pers.comm*; see also Deur 2007).

²⁸ Please see Appendix 1, pg.110.

The knowledge of the gardens, and of plant identification, was passed on through inter-generational transmission, which therefore relied upon different generations living and working together. Responding to a question about identifying edible roots from the other roots that grow in the area, especially poisonous varieties, K^waxistalla explains:

That is exactly the way it is. That is the way it was with the...with the old people. The knowledge was known at the beginning of time and passed from generation to generation to know, what you have said, to know the edible roots (unpublished interview between K^waxistalla, Dr. Nancy J. Turner & Dr. Sewid-Smith 2009).

This identification was facilitated further by the cleaning and maintenance of the gardens:

You just...when you are digging for roots in your garden...you know...this is when you clean your garden, the same time you are digging for roots. Cleaning off the grass...so it does not continue to grow...This is when they would clean the garden when they were digging their...their...their root gardens” (unpublished interview between K^waxistalla, Dr. Nancy J. Turner & Dr. Sewid-Smith 2009).

The scientific methodologies of our restoration project included testing the nutritious values of the roots, and replicating the traditional methods of land management; both tests created the opportunity to validate Indigenous land use systems and traditional food consumption²⁹.

The restoration of the gardens has had a positive impact on the community. There has been a revitalization of traditional customs, including ceremonial feasts, and community participation in the harvesting, preparation and consumption of the roots. In the flatlands of Kingcome, there have been several student activities organized by community teachers in which the children were taken to the estuary, and harvested and consumed root vegetables, using traditional digging sticks. These outings also included providing names for the roots and other relevant place names in the Kwak'wala language.

Within these gardens, there exist specialized taxonomy, place names, given names, and songs; these were documented as part of our project by recording Kwaxistalla's seemingly infinite knowledge of the landscape. He provided hundreds of Kwak'wala names and descriptions; these have been documented³¹ and will hopefully reintegrate themselves into common use within the community.

²⁹ Please see (Lloyd 2011 in prep) for a detailed account of the scientific results and ethnoecological components of this project.

³¹ Please see glossary in Appendix 1, pp. 110 of this thesis.

Table 2 - K^wak'wala TEK Root Garden Terminology

The following root garden terms have been provided by K^waxistalla, and were transcribed and translated by Maḡaniḡ and K^waxistalla. These terms were collected with the assistance of ?Og^wilowḡ^wa, Chief George Shaughnessy, Dr. Nancy J. Turner, Abe Lloyd and myself. The terms reflect K^waxistalla's TEK and cannot be used for commercial purposes. Any replication of these terms, or the glossary in its entirety provided in Appendix 1, requires expressed permission by the authors and knowledge keepers:

<i>K^wak'wala names</i>	<i>Definitions and descriptions</i>
čussa	Digging for edible roots
kəllak ^w	Digging stick made out of yew wood
paḡ ^w siwēy	Sandbar that shows at low water, below where the root gardens grow like the Kingcome River estuary
xuk ^w k ^w əm	Northern rice root
ḡəd ^w damma	It is a place where you go to get rocks for pit cooking at Kingcome Inlet, near the creek on the east side
ləxsəḡ	Pacific Silverweed
ləksəḡ	Root of Pacific Silverweed
ḡuppək	Root of any plant or tree
ḡəḡ ^w sus	Springbank Clover rhizomes (roots)
q ^w aniy	Nootka Lupine

Already, there have been groups of local school children in Kingcome that have been learning specialized plant names in K^wak'wala as well as traditional land management through fieldtrips to the gardens. K^waxistalla continuously receives phone calls from students or other interested parties seeking his TEK and guidance. There are also plans for future summer programs which integrate linguistic, cultural and biological diversity through participating in food harvests, learning more about the seasonal rounds, and using the K^wak'wala language as often as possible. There are several programs underway at the local school; the children are regaining their language, and the knowledge of their natural environments alongside it.

As previously mentioned, some of the defining features of our research can be seen not just in the unconventional roles and responsibilities of each member of the team, but in the type of unconventional roles we each assumed.

It should also once again be stressed that although these roles can be considered unconventional by typical Western academic standards, following the leadership of a Clan Chief is more than conventional in an Indigenous setting; in the case of knowledge like that focussed on in our research, it was in fact a necessity. As such, the entire research focus, methodology, implementation, and overall decision-making throughout, was steered by K^waxistalla and his vast TEK and wisdom.

As a linguistics graduate student, my training in phonetics and transcription assisted me immensely. Followed K^waxistalla's guidance, I documented language at his pace – ranging from slow and meticulous, to rapid-fire depending on the context – and using different mediums. We recorded and documented words and songs anywhere from a speedboat racing down a river, to a kitchen table surrounded by friends and family late

into the evening, to sitting down in front of a video camera and asking predetermined questions.

We tried to digitally record as much information as possible, to capture K^waxistalla's words and also his voice and presence via tape and video recorder. Also, of course, digitally capturing this information avoids inaccurate transcriptions. On occasion this form of documentation was not possible, and in these cases we would write words down, to later be verified with K^waxistalla and Maḡanił. These words have been compiled and are being kept with K^waxistalla and ?Og^wilowǵ^wa to be archived and used in upcoming projects.

While functioning as a linguist, I also learned that all of the other roles I was assuming were ultimately leading me to understand TEK and its connection to language. More than acting as a scribe, I was acting as a witness to the knowledge and knowledge keepers, and learning how deeply connected language is to the cultural world and natural landscapes I was ushered into.

Figure 2 - Digging for Silverweed (Photo Credit Dr. Nancy J. Turner)

The following figure demonstrates a collaboration of graduate students and also roles in the field – myself, Kate Proctor, and Amy Deveau sift through and clean harvested Silverweed roots.



The shift towards unconventional roles in language research is suggested as one of the keystones of achieving successful and respectful community-based research (see Czaykowska-Higgins 2009, Rice 2006, Florey and Himmelmann 2008). Some of the roles for linguists suggested in recent linguistics literature include training community members in language documentation or basic linguistics, grant writing and other administrative functions, technical assistance with recording equipment, to name but a

few. The following table lists additional functions to the role of a linguist in the field; these roles are seen to complement the Indigenous expert roles in the project.

3.2.1 Indigenous Expert Roles and Graduate Student Roles

Table 3 - Revisiting roles in Təkillak^w Restoration Project

Project	Indigenous Expert Roles	Graduate Student Roles
Təkillak ^w Restoration	<ul style="list-style-type: none"> • Selection of field site (root garden) for ethnoecological restoration • Determining research team and establishing responsibilities • Use of traditional ecological knowledge and land management 	<ul style="list-style-type: none"> • Restoration of root garden • Field assistant • Scribe

Determining the field site for this project was arguably one of the most important stages of our research. The site selection was based on K^waxistalla's family lineage and his unique position as steward of the land. To better explain this, I will share an important element of K^waxistalla's life, shared with me by his family, and using K^wak'wala terms from the glossary we have compiled that is found in Appendix 1, and which is subject to the same privacy standards listed there.

K^waxistalla was born of a ?ollaḱalla miḱēy ya, or a prophetic dream³⁰. His mother ?anicca – herself a matriarch Clan Chief – dreamed of a massive flying bird that would arrive in Kingcome and change the course of the future of the K^wak^wak^w forever. It was clear to her that with these changes, the very foundation of the culture and

³⁰ Please see the documentary Smoke from His Fire for a detailed account of K^waxistalla's life: <http://www.smokefromhisfire.com/>.

society of their community would be threatened. It was decided that once K^waxsistalla was born, he would be protected from any outside forces, and trained from an early age to carry on the legacy of his ancestors. He thus grew up with the “old people”, Clan Chiefs who taught him the intricate systems of the culture of his people, and of the potlatch world which governed them. In fact his name, K^waxsistalla, translates as ‘smoke from his big house fire³¹. He was trained as a yaqəntʰaləlgəs, or potlatch speaker, and therefore a keeper of knowledge, customs, and a very formal potlatch vernacular of the K^wak’wala language, among many other culturally-invaluable wisdoms.

When outsiders came to Kingcome village, K^waxsistalla was hidden away to prevent being forcibly taken and sent to residential school. He lived instead with his grandparents, learning from their traditional customs, and following the seasonal rounds to harvest foods from the land and sea.

Following decades of residential schooling, changes in lifestyle and customs, and with vast hectares of mineral rich lands either assigned as Crown Lands, or ‘protected’ by federal agencies, many of the traditional gardens of K^waxsistalla’s youth are no longer tended to or harvested from. Selecting the particular estuary in which our research was conducted was not arbitrary, nor was it selected merely on the basis of its ecosystem, which is described in ethnoecological literature as being a thriving ecosystem for the growth of many edible root vegetables (Turner 2006). The field site was selected because it was K^waxsistalla’s ancestral garden, and he had first-hand memories of following his grandmother there in the spring to tend to the soil, and in the fall to harvest the roots. Not only did he remember the site, but he taught us how the plots were divided between

³¹ Potlatches are held in Big Houses. For a discussion of the potlatch world, see Sewid-Smith (1997).

community members, how to sustainably harvest roots to ensure growth the following year. K^waxsistalla also holds many stories and songs that went along with the harvest and travelling the river to each of the gardens.

The second Indigenous expert role listed in Table 3, “determining research team and establishing responsibilities”, continued to evolve and adapt over our years of working together as a team. I was initially brought on after meeting Dr. Nancy J. Turner in the fall of 2007, who subsequently introduced me to her graduate student Abe Lloyd, and shortly thereafter, K^waxsistalla and his partner ʔOg^wilowǵ^wa. Through many visits to K^waxsistalla and ʔOg^wilowǵ^wa’s home in Qualicum Bay, we discussed who would be involved, and under what capacity. Although I had a keen interest in the language but also in learning about traditional foods and customs, it was not my place to ask to be part of the team. Instead, I waited until I was asked to join the team, and I eventually was. I believe my patience and willingness to go into this research without my own personal agenda assisted in this process. It was always very evident that the leader of the team was K^waxsistalla; in fact, we affectionately named our group: Adam’s School³².

Before we began our projects, which included heading up to D^zawadaʔēnuǵ^w (Kingcome Inlet) and starting the restoration, the field methodology was established. This leads to the third role in Table 3, in which the TEK held by K^waxsistalla determined the field methodology used in the study. The very area in which we were working had been discussed in previous studies conducted by two other members of “Adam’s School”, Turner and Deur (2005). While I have mentioned that the field methodology was

³² Keeping in mind that K^waxsistalla’s English name is Adam Dick.

established, I should make clear that it was by no means established in a traditional or conventional way. The methodologies of the ethnoecological restoration itself came with its own set of challenges and complexities, that as a linguist and humanities major I could barely grapple with³³. The methodologies that I was to follow were never quite clear to me, but were always collaboratively steered by K^waxistalla, myself, and my other team members.

The roles assumed by the graduate students throughout the restoration of the root garden varied. Abe Lloyd worked closely with K^waxistalla and together they conducted a field study spanning from the spring to the fall of 2008 in the estuaries of D^zawada?ēnu^xw, replicating the traditional land management techniques of K^waxistalla's past (see Lloyd 2011, *in prep*). I spent time in the gardens as Abe's field assistant, travelling with him by kayak to the different field sites and seeing the progress in the growth of the Silverweed roots in each plot.

Any time spent with K^waxistalla and the team required me to act as a scribe, recording and transcribing words for other members of the team, and sometimes writing them out for members of K^waxistalla's family in D^zawada?ēnu^xw. The language documentation and recording of TEK throughout this project has always been for and with K^waxistalla; there are many plans to use the data we have collected for future efforts, including multi-media resources for children, and an upcoming television series that is under production.

³³ See Lloyd (2011, *in press*) for a detailed account of his participation in this study.

While my roles were not always “typical” for a linguist, they enriched my experience and made me a better researcher due to the variety and adaptability that was always present and essential. We all had to wear different hats, and at a moment’s notice. Whereas some traditional roles for a linguist in this context could have included transcribing plant and place names then analyzing them for their linguistic structure our team was more concerned with recording our Indigenous experts as they engaged in the natural environments of their youth. We filmed our outings, and these recordings will offer documentation of not only the traditional knowledge and customs of these projects, but also the language used to describe them. This form of documentation can be formalized as ethnolinguistic documentation, with its roots in ethnography. This approach to documentation differs from traditional language documentation, which Himmelmann (2006: 1) describes as being “concerned with the methods, tools, and theoretical underpinnings for compiling a representative and lasting multipurpose record of a natural language or one of its varieties.” The final product of our research and time together has resulted in hours of raw footage and multi-media documentation, with the Indigenous community members involved deciding how the language is to be used, recorded, analyzed, archived, etc.

3.3 *Pəǵʷǵʷayuw Curriculum*

In the spring of 2008, as we were preparing for the restoration of the ʔəkkillakʷ, graduate students Abe Lloyd and Amy Deveau and I, were invited by Kʷaxsistalla and his family to assist in the creation of a diorama depicting traditional eulachon³⁴ fisheries for the local school in Dʷawadaʔēnuxʷ. The diorama, a three-dimensional model approximately 3' by 2.5' and enclosed in Plexiglas, depicted the yuwwis, a traditional Kʷakʷakʷa'wakʷ eulachon fishing weir³⁵. This project was initiated to thank the community for welcoming Abe Lloyd, myself and other students and professors into their territory and for showing us such kind and generous hospitality.

Eulachon fishing is a longstanding tradition in the community of Kingcome, and is an extremely important component of Kʷakʷakʷa'wakʷ diet and culture. The fish are eaten as a delicacy, and the grease obtained through boiling the fish is high in minerals and omega-3 (Phinney 2009). Beyond its nutritional value, eulachon grease is also considered an important cultural staple, being offered as a reverent treat to guests.

³⁴ Also called ooligan, or candlefish.

³⁵ A weir is an obstruction, a fence or gate-like structure, that is placed across tidal waters or river to hinder the passage of fish in order to trap them.

3.3.1 Indigenous Expert Roles and Graduate Student Roles

Table 4 - Revisiting roles in *Pəǵʷǵʷayuw Diorama* project

<i>Pəǵʷǵʷayuw Diorama</i>	<ul style="list-style-type: none"> • Creating school curriculum • Displaying traditional fishery • Establishing research scope 	<ul style="list-style-type: none"> • Curriculum development • Dissemination of project • Learning future roles
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K^waxistalla and ʔOg^wilowǵ^wa suggested that we create a diorama for the school children in Kingcome, as a means of displaying the traditional fishing techniques that sustained their ancestors for centuries. The graduate students in our team, Abe Lloyd, Amy Deveau, Victoria Wyllie de Echeverria and I, worked closely with K^waxistalla and ʔOg^wilowǵ^wa ensuring accuracy in the fishing tools and techniques, and over the course of a week created the following:

Figure 3 - Eulachon fishing weir photographed in Kingcome Inlet – Photo by author

This photo depicts the traditional eulachon fishing weir used by the K^wak^waka^wak^w people for centuries. This diorama now sits in the local school in Kingcome Inlet.





While one fisherman mans the boat, the other uses a $\text{p}^{\text{h}}\text{a}^{\text{g}}\text{w}^{\text{g}}\text{a}^{\text{y}}\text{u}^{\text{w}}$ (a dipping or brailing net) to trap the $\text{d}^{\text{z}}\text{a}^{\text{x}}\text{w}^{\text{a}}\text{n}$, or eulachons, which are guided there by the ‘obstruction’, a fence-like structure which crosses the river. The eulachons are placed inside a cedar box, which we can see sits in the middle of the boat. The fish are then brought to special huts built alongside the river, in which large pits are dug out, often called ‘rotting pits’. The fish sit in these pits for days, are then put into large barrels, where they are boiled in order to procure their valuable grease; the grease rises to the surface after boiling and is skimmed using a tool called $\text{?a}^{\text{w}}\text{a}^{\text{y}}\text{u}^{\text{w}}$.

The diorama enables the students to visualize how their ancestors used their knowledge of the fish, of the rivers, and of creating tools. The class, with students ranging from the ages of three to twelve, was learning about eulachon fishing in preparation for the bi-annual eulachon run – an activity that has sustained itself for centuries within the community. There are still many fishing huts along the riverbeds of Kingcome, as eulachons continue to be harvested extensively, albeit using different technologies. By freezing a moment in time, as we attempted to do with this diorama, it was possible to show two men working together, wearing traditional cedar bark clothing,

and fishing in a sustainable and effective way. The diorama acknowledges the innovation of their ancestors, supports sustainable methods of fishing, and creates the opportunity to weave these traditional methodologies into contemporary fisheries.

This diorama also creates a platform to revitalize the Kwak'wala vocabulary: many words would otherwise be lost with the loss of this form of fishing. The teacher was interested in including the Kwak'wala names for traditional fisheries, and was happy to include some of the basic terms used to describe the fishing weir alongside her lesson plans. The following table demonstrates the Kwak'wala vocabulary associated with the eulachons:

Table 5 - List of Eulachon terms

The following eulachon terms have been provided by Kwaxistalla, and were transcribed and translated by Mayanił and Kwaxistalla. These terms were collected with the assistance of ʔOgʷilowǵʷa, Chief George Shaughnessy, Dr. Nancy J. Turner, Abe Lloyd and myself. The terms reflect Kwaxistalla's TEK and cannot be used for commercial purposes. Any replication of these terms, or the glossary in its entirety provided in Appendix 1, requires expressed permission by the authors and knowledge keepers.

<i>Kwak'wala terms</i>	<i>Definitions and descriptions</i>
ʔawayuw	A skimming tool for eulachon oil out of the vat. It is carved out of alder wood and resembles a horse clam or the use the actual horse clam shell.
ʔaxʷamanəm	The first layer of the eulachon grease that is skimmed.
čəmçayuw	Eulachon sticks made from split cedar. The sticks are pushed through the mouths of the eulachon. When the stick is full it is hung up to dry in the smoke house.
dʔaxʷən	Eulachon
kaʔəciy	A tub used to pack the eulachons

ƙug ^w əm (1)	A board used to push the rendered eulachon grease to one side of the vat so that it can be scooped up.
ƙug ^w əm (2)	A board used to make a partition, e.g. eulachon pit
məʔtanēy	The largest eulachon male that goes up a river in a season.
ṗəḡ ^w ḡ ^w ayuw	A dipping or brailing net used for fishing eulachons
səlyaqqa	Grading the eulachons
səmkka	Making eulachon oil
taḡat	A fish trap for eulachons
ʔəlqiȳya	Female eulachon that has the eggs. She goes up the river first
yəkkəx̄lēy	The dregs of the eulachon grease
yuwwi	yuwwis is the name for the eulachon fishery. The yuwwis was earlier than the taḡat. When you yuwwis you fish for eulachon using a brailer.

My participation as a graduate student in this project included assisting in the creation of the diorama, transcribing and recording K^wak’wala terms, bringing the finished diorama from Qualicum Bay into D^zawada?ēnuḡ^w³⁶, and creating a PowerPoint presentation with Abe Lloyd that he delivered to the community. During this subproject I was also slowly integrating myself into the research team, and learning what I would be helping with in the future. The time we spent pounding cedar, painting miniature eulachons, and learning the many different knots and other intricacies of traditional fishing, also gave us the time needed to start building friendships and comfort together as

³⁶ It should be noted that balancing such a large object on the back of a riverboat came with a unique set of challenges!

a team. As the graduate students involved, such as myself, were actively participating in areas we were not necessarily skilled or knowledgeable at, we established a dedication to the project and to each other.

Throughout this time, K^waxistalla, ?Og^wilowǵ^wa, Maʔaniṯ, and Chief George Shaughnessy were also beginning to teach us about culturally sacred protocols and customs – preparing us for the time we would be spending up in Kingcome, and also providing us with the cultural sensitivity that is rarely found in academic teachings.

These teachings were often accomplished by trial and error. If someone spoke out of line or at the wrong time, rushed a story to get a piece of information, or asked questions in a way that can be considered rude or abrupt – these actions were immediately addressed, along with a brief lesson explaining why it is important to listen to the whole story, and to pay close attention to everything that is said. Sometimes the information that you are seeking can be found by relating it to other things, or other stories, for example. These blunders were not purposefully committed of course, as rarely do distinct cultures automatically communicate in an effortless, completely seamless way; over time and through these lessons, these miscommunications decreased.

Learning K^waxistalla's style of speech, and being able to transcribe in Maʔaniṯ's style of orthography was crucial. To enhance my skills as a linguist, in the summer of 2008, I participated in a field school on language documentation and field linguistics at the University of California, Santa Barbara³⁷. Following 10 days of discussions and workshops, including technical training, and courses on language revitalization, language activism, and life in the field, there were four weeks of "field training". This portion of

³⁷ Please see <http://www.linguistics.ucsb.edu/faculty/infield/> for more information about this field school.

the program, based on traditional doctoral courses in field methods, gathered small groups of professors, “linguistic consultants” (who were native speakers of the endangered languages in the program), graduate students and language activists. It was an intensive course, with multiple linguistic consultants per language, and the language materials from these sessions were recorded and archived using the University of Santa Barbara’s database.

The group I participated in was devoted to K^wak’wala, and I was fortunate enough to work with Maḃaniḃ, who had been flown down as a language instructor, or linguistic consultant. Although I was not able to complete the field training in its entirety, I did learn a great deal about the varying styles of orthography and spelling, as well as more theoretical rules and structures of the language.

This helped me immensely, as immediately following InField, I was hired by K^waxsistalla and his family to document a naming ceremony in Kingcome Inlet in Maḃaniḃ’s absence. This required working intensively with K^waxsistalla, Chief George Shaughnessy and ?Og^wilowḡ^wa, for a week straight, eliciting sacred names and transcribing them to be documented for the family. I was subsequently named in this ceremony; in order to work on K^waxsistalla’s ancestral root gardens without him in attendance, it was decided that I should be named at his son’s potlatch in order to be brought into the family, thus making me obliged to uphold the rules while also be afforded protection and unprecedented access to sacred knowledge³⁸.

³⁸ Please see Appendix 2 for more information about this process.

3.4 *łəqqstən Harvest*

The łəqqstən field trip was conducted in May 2009, and our team was made up of K^waxsistalla, May'anił, ʔOg^wilowǵ^{wa}, professors Nancy J. Turner and Dana Lepofsky, filmmaker Richard Boyce, graduate students Amy Deveau (and her partner/field assistant), Abe Lloyd, Victoria Wyllie de Echeverria, Leigh Joseph (her partner Lee Glazier), and myself. Our base was established at Malcolm Island, which is found in the scattering of islands that make up the Broughton Archipelago. We received permission from local Indigenous authorities to harvest seaweed here; May'anił's family, the Mamalilikalla clan, as well as K^waxsistalla's family, had traditionally harvested seaweed in the surrounding archipelago.

There were several different focuses to this project: Dr. Nancy J. Turner's graduate student Amy Deveau was studying the ethnoecology of seaweed. Archaeologist Dana Lepofsky joined the team to survey ancient clam gardens in the area for future work. There was also documenting, recording and filming the seaweed harvest – place names, plant names, etc; documentary filmmaker Richard Boyce provided his expertise, and his footage of this expedition will be used in a documentary that Adam's School is currently developing.

The ethnoecological component of this research identified and made use of “picking sites”, or known areas of fruitful gardens of seaweed. The results of the seaweed have also helped identify levels of pollutants in the water, and how the taste and quality of seaweed has changed over time³⁹. This was achieved through ‘taste tests’, in which

³⁹ Dr. Nancy J. Turner's graduate student in ethnoecology Amy Deveau's MSc thesis, forthcoming, offers an extensive account of this project, as well as all scientific findings.

Maʻyaniʻ and K^waxistalla would scout various islands that they harvested from in the past, as well as eating samples of seaweed from harvest sites, and commenting on any palpable changes from the seaweed of their youth that they observed.

3.4.1 Indigenous Expert Roles and Graduate Student Roles

<i>ʻakāstān</i> Harvest	<ul style="list-style-type: none"> • Charting islands for seaweed harvest • Assigning teams to various projects • Obtaining footage for future projects 	<ul style="list-style-type: none"> • Harvesting seaweed • Surveying field sites • Assisting • Scribe
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The Indigenous experts in our team, K^waxistalla and Maʻyaniʻ, charted the field locations that were to be used, relying on their knowledge and experiences harvesting in their youth. K^waxistalla contributed his TEK and his experiences as a steward to the land. There were many traditional methodologies employed throughout the harvest: we could not harvest if it was raining – the rain has an impact on the taste of the seaweed, and the sun is needed to dry out the weeds on the rocks that surface from the sea. There are very specific times of day and season to harvest; we began our fieldtrip in May 2009, coinciding with the season’s lowest tides, and heading out to the islands in the early mornings. The harvesting itself has specific methods – methods of picking, of slapping the excess water off the leaves, of drying the bundles in specific formations and of specific areas of the rock islands, and of storing the seaweed once it had dried. Some seaweed is eaten after it is sun-dried; others kept in bentwood boxes, giving it a fragrant, almost smoky taste.

We sat and ate lunch at the very campsite where K^waxistalla's grandparents hid him away from the authorities that were sending children to residential schools, and listened to his stories of how they built their shelters on this tiny island and how cold it was in the winter months with only a cedar bough mattress and fur blanket to cover him. Often, K^waxistalla would remember a song that he and his ancestors would sing in their canoes, on their way to harvest foods from the sea; he would smile and gaze into the horizon, singing in K^wak'wala and drumming his fingers and for a moment we would be transported to that time and place.

My roles on this fieldtrip were again quite varied: I harvested and dried seaweed, learning the traditional methods and seeing the many small islands scattered with seaweed that provide such a nutritious food source. Other days, I would stay behind and spend time with Ma^yanił, talking and sharing stories and laughs, but all the while I was learning valuable lessons and forging a friendship. This approach to fieldwork, that of taking the necessary time to build relationships and adapt to different contexts, is reflected in Rice (2006), who describes the "4 Rs" of conducting research with and within Indigenous communities: Relationship, Respect, Relevance and Reciprocity.

Everyone involved in the project did his or her part: graduate student, professor, or Clan Chief – everyone helped prepare food, shared small living quarters, and assisted with the harvest. In the evenings we would gather around and watch the filmed footage from the day; sharing smiles and snacking on freshly dried seaweed.

3.5 *Learning about TEK in language research*

Since the fall of 2007, our team has documented hundreds of hours of interviews and hundreds of pages of field notes. The interviews recorded K^waxsistalla's vast and highly specialized TEK and in the spirit of collaboration, which was at the heart of our research team, they were often conducted by Maḃaniḃ and Dr. Nancy J. Turner, or between Abe Lloyd and K^waxsistalla, and often with my involvement in transcribing key terms in K^wak'wala and assisting in any way necessary. Together, we have compiled an extensive glossary⁴¹ representing K^waxsistalla's TEK and fluency in K^wak'wala which can be seen in his diverse linguistic vocabulary used to describe not only plants and animals, but place names, ancestral names, methods of food gathering, fishing and hunting, and many other terms relating to the natural and supernatural world.

The glossary developed out of several different mediums: fieldnotes, interviews, word lists, audio recordings, and filmed footage. Some words were transcribed by the scientists in our team, and others by myself with a background in linguistics; in the end, they were all given to our language specialist Maḃaniḃ, who spent hours editing, verifying with K^waxsistalla, and transcribing in her preferred orthography.

⁴¹ Please see Appendix 1, pp. 110 of this thesis.

3.6 *Revisiting the CBLR Model*

While in the field, and also when I returned from my fieldwork, I was constantly reflecting upon my roles and responsibilities. It became clear to me that formally this project can be seen as following the CBLR framework (Czaykowska-Higgins 2009). In analyzing this framework, I realized that my roles, though unfamiliar, were still useful, and further, that my position on the periphery meant the nucleus, or the heart of the project, was being steered by the Indigenous experts in our team. I will now revisit the CBLR model proposed by Czaykowska-Higgins (2009), and discussed in Chapter 2, by identifying the key components of my research that reflect themselves in this framework:

Research that is on a language, and that is conducted for, with, and by the language-speaking community within which the research takes place and which it affects. This kind of research involves a collaborative relationship, a partnership, between researchers and (members of) the community within which the research takes place (Czaykowska-Higgins 2009: 24)

Research that is on a language, and that is conducted for, with, and by the language-speaking community...

The language component of this research was initiated by the language-speaking community; I was asked to join an existing project, and the research team already had Mayanił, a linguist and cultural specialist, working closely with them. My role was thus to learn from her, and through her guidance (and patience), I began to understand the linguistics of her language. The language data that we have collected has always been primarily for the speakers themselves and their communities; for example, I would transcribe words and phrases for community members, translated into Kwak'wala by

K^waxsistalla, and provide the community members with copies for future use. I often worked on ?Og^wilowǵ^wa's computer, leaving the data solely for their use, as it often contained culturally sensitive or sacred information. The TEK that the entire team has collected has been, and continues to be, transcribed and will eventually be placed in an archive or other format, as decided by experts in this field and the community-members themselves. In our research, the *community-based* meant more than research that occurred within a community; this research was driven by our community partners, which were the Indigenous experts in our team and their respective families.

...within which the research takes place and which it affects.

It was made very clear to me before beginning to work on this project, that careful attention was to be made to not cross any cultural boundaries, or discuss sensitive or charged topics, related to language or otherwise. It was clear from the outset that the very topic of language opens up a history of emotion, including sadness, regret, guilt, and pain. There is nothing neutral about conducting language research in an Indigenous community grappling with language loss and reclamation, and as such it was always critical that topics were discussed before being recorded. This was to ensure respect cultural sensitivity, emotional impact, or appropriateness. For example, ?Og^wilowǵ^wa would verify that a given question was appropriate for a Clan Chief to answer. We were also careful to acknowledge the sensitivity around language loss in the communities we spent time in.

This kind of research involves a collaborative relationship, a partnership, between researchers and (members of) the community within which the research takes place

As described earlier, this research was extremely collaborative and reciprocal, with each member benefiting and contributing in many ways. We spent time getting to know each other, to trust one another. This is important when deciding to undertake research that relies on a strong partnership, often spending days and weeks together, working tirelessly, and in various climates and contexts⁴⁰. In our research, this required flexibility on behalf of everyone involved, particularly K^waxistalla, who suffered a minor heart attack during a fieldtrip and also battles other health issues, but continued to work steadfastly towards our many projects.

3.7 Conclusion

Balancing academic requirements and work with and within Indigenous communities is often challenging. I have seen that successfully working with and within a community requires patience, dedication, relationship building, and dialogue. Patience comes with learning about, from, and with each other. Dedication proves that you are willing to work hard and offer your time and energy towards not only the research, but towards the people involved. Building a relationship usually comes from this patience and dedication, and all three lead to creative dialogue; this dialogue determines what the research will be and what everyone hopes to achieve. All of these components are integral to a successful research relationship, and all are impossible to set deadlines to.

⁴⁰ See also Gerdts (2010) on the role of a linguist as being part of a team.

The entire first year of my partnership with K^waxsistalla, Maḃaniḃ and ʔOg^wilowǵ^wa was not conventional in a traditional academic sense, but was an expectation in the cultural world that I was welcomed into. Listening, participating in any way I was needed, and in trying to spend as much time with them as possible was an integral component of being part of Adam’s School. The time spent relationship-building is often at odds with the academic processes of fieldwork and/or research, which require deadlines, finished products, etc.

There was also the unfamiliar terrain that I felt from being a novice linguist, one working in an interdisciplinary, collaborative community-based project and being very much on the periphery of it. My involvement was so varied – the occasional “worker bee”, the occasional field assistant, the occasional linguist. I assisted in interviews, but never conducted my own. I recorded songs and conversations, but the recorder and recordings belonged to the K^wak^waka^w partners. Several of the interviews were conducted by Maḃaniḃ, with my responsibilities being limited to technical support. This led me to feel unsure about my role, as it didn’t coincide with many of the traditional roles assumed by linguists in the field.

Having the final products of our research – such as published academic works – include⁴¹ TEK was a delicate decision. Historically, TEK was a part of everyday life and was actively used and shared; this was due to entire communities of fluent speakers of the language, active customs of traditional food gathering, and several selected stewards of the lands ensuring the knowledge would be passed on to future generations. The

⁴¹ It should be noted that some sensitive information, or sacred words and knowledge were omitted from this or any published study.

stewardship of root gardens and other traditional land management was a common and crucial component of Indigenous communities all across the coast.

Over time, this TEK has become scarce, with only remaining Elders and Chiefs like K^waxsistalla who hold titles and stewardship over the land able to offer the world the knowledge and language of these complex systems. Knowledge that was once held sacred, or kept private between clans or families, has now been opened to not only the outside world, but to the world of academia. We have had many discussions about the dilemmas inherent in this work: there is a need to document K^waxsistalla's knowledge and wisdom, since he is one of the few remaining experts in these fascinating and integral components of culture, but also of the environment. There is obviously much to be taken from his knowledge of water systems, and various ecosystems; knowledge that could benefit and inform future efforts in restoration and land management.

The documentation of K^waxsistalla's and Mayanił's knowledge of the language is crucial when we consider that only 150 or so speakers of the language remain. Given these realities, Indigenous experts are crossing cultural boundaries in order to share their knowledge with academia⁴² and to use this as an avenue to restore and revitalize their customs and land (?Og^wilowǵ^wa 2009, *pers. comm.*).

The question then becomes: is academia equipped to respect and protect TEK and the language used to describe it? The very nature of our research has led us to bring the knowledge of a Clan Chief into a sea of issues that have been heavily contended in academia for years: how TEK is treated in academia, and intellectual property issues

⁴² See Sewid-Smith (1997) for an example of the difficulties and importance of crossing cultural boundaries to ensure accuracy and appropriate representation.

surrounding TEK. Our research helped me to be more mindful of a whole new set of responsibilities that I had not previously thoroughly considered: first and foremost, was the responsibility to understand the complexities of TEK in a local and academic setting; secondly was the responsibility of understanding the issue of Intellectual Property Rights as a form of protection over this knowledge. Chapter 4 has evolved from debates and discussions that our research team has grappled with throughout the process of documenting and writing about this knowledge.

CHAPTER 4: ON CHANGING RESPONSIBILITIES: TRADITIONAL ECOLOGICAL KNOWLEDGE AND INTELLECTUAL PROPERTY IN LANGUAGE RESEARCH

4.1 Introduction

Linguists have been conducting fieldwork on lesser-spoken languages for decades, and are increasingly pursuing highly collaborative, interdisciplinary, and community-driven work with Indigenous experts, as well as with academics from overlapping areas such as ethnobotany, anthropology, and education (see especially Boas & Hunt 1902, Hale et al 1992, Grinevald 2003, Shaw 2001, Turner et al 2000, Yamada 2007).

With these interdisciplinary research relationships, there are important responsibilities that need to be carefully considered; in the context of my research experience, the two main topics that were consistently raised involved adequately protecting TEK, and issues around Intellectual Property Rights (IPRs). TEK is defined as the “traditional knowledge, innovations, and practices...[that are] holistic, inherently dynamic, and constantly evolving through experimentation, innovation, fresh insight, and external stimuli” (Posey 2002: 209). Intellectual Property (IP) is a legal concept dealing with creations of human ingenuity codified at an international level through a series of legally binding treaties (WIPO, Hansen & Vanfleet 2003).

As spelled out in the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (Chapter 9)⁴³, academic institutions and funding agencies have guidelines for research with Aboriginal communities; these guidelines include Intellectual Property policies. However, we were working through two very different channels - the academic world and the K^wak^waka'wak^w cultural world. Not surprisingly, there was tension regarding how to adequately protect K^waxistalla's TEK and respect the cultural protocol surrounding it, while also making sense of the application of IPRs as it applied to this work.

Intellectual property issues in linguistic fieldwork remain under-discussed in the literature, but this is a topic that is increasingly generating interest and reflection in linguistics. Thieberger & Musgrave (2007) discuss IPRs in documentary linguistics, while Newman & Ratliff (2001) raise the question of Intellectual Property Rights (IPRs) in regard to texts, stories and songs, questioning how to decide who owns the rights – the creators and/or narrators. Czaykowska-Higgins (2009) raises several crucial questions about the application of IPRs in a community-based context, such as: who owns the documentation when the speaker is the researcher but the research is funded by an academic institution that the speaker does not “belong” to? What are the IPRs of the “community” partner versus the rights of the speaker(s) to the documentation versus the rights of a university researcher and a university?

⁴³ <http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/chapter9-chapitre9/>.

There are also broader questions, such as the definitions and implications behind the very terms *intellectual, property* and *rights*⁴⁴. It is clear that although, as Dwyer (2006: 46) concedes “intellectual property rights are not a pressing legal issue...they are generally still an underlying ethical issue” in linguistics, and should therefore be explored more thoroughly. This chapter therefore attempts to begin such an exploration by introducing some of the issues associated with IP into the context of a thesis in linguistics.

It should be made quite clear that I am not referring to copyright or patent protection issues in this thesis. I do, however, question the relevance of IP law to protect the TEK in language materials developed through collaborative linguistic fieldwork. But I am not suggesting that language materials be left “unprotected” when published in academia. There are certainly instances in which the assignment of IPRs might not be contentious, such as in assigning IPRs over the rights to a CD of songs belonging to an individual.

Yet when discussing TEK, IP policy seems incapable of offering an enduring and/or appropriate form of protection, or even being eligible for protection, as I will describe in further detail in this chapter. Instead I propose that we look elsewhere in the legal system for a law that is more representative of this form of sensitive knowledge. This chapter therefore problematizes some of the questions and tensions associated with protecting TEK in an academic and K^wak^waka^w context⁴⁵.

⁴⁴ See Dutfield (2006) for a pragmatic discussion of these terms.

⁴⁵ Bell 2005 discusses issues relating to the protection of K^wak^waka^w cultural property.

I conclude this Chapter by discussing the concept of linguistic human rights, suggesting that the human rights legal framework might be a more appropriate law through which to draft academic research policies for work involving sacred Traditional Ecological Knowledge that either cannot or should not be protected by IP. The connections between TEK, IPRs and human rights are discussed in much greater detail in other disciplines (such as Howell & Ripley 2009, Coombe 2009); my discussions of these topics are intended to provide a bridge from these related fields into linguistic scholarship.

4.2 Responsibilities Surrounding Traditional Ecological Knowledge

While linguists have been working alongside speakers of Indigenous languages, they have also – explicitly or circumstantially – often been conducting work with holders of Traditional Knowledge (TK), and Traditional Ecological Knowledge (TEK); also referred to in the literature as Traditional Ecological Knowledge and Wisdom (TEKW)⁴⁶, local knowledge⁴⁷, or Indigenous knowledge.

Although linguists have been collaborating with researchers in different fields of study and with Indigenous communities and members since the early 20th century, recently the literature surrounding broader issues of protecting knowledge and questioning the academic systems in place to protect the results of these research

⁴⁶ See Turner et al. (2000).

⁴⁷ My Indigenous collaborators were wary of grouping TK and TEK with local knowledge, as they held local knowledge as something many people in the community could hold versus Traditional Ecological Knowledge which was explicitly taught to people of specific cultural standing.

relationships has been growing. There is an urgent need to understand how TEK is viewed within Indigenous communities, and how this form of knowledge is approached from global, legal and academic perspectives.

Most fluent bilingual – or monolingual – Indigenous language speakers are Elders, and as such, they have often had firsthand experience in a cultural world that still actively maintained and extensively practiced and developed Traditional Ecological Knowledge. This is because they experienced a time where, though dealing with many of the fragmenting forces discussed in Chapter 2, traditional languages, foods and customs were essential to the livelihood of their communities.

With the numbers of Elders fading, so is the intergenerational transmission of traditional and cultural knowledge, and language. It only takes one generation for many of these knowledge systems to disappear forever. These losses are coupled with persistent environmental, political, and developmental damages to local ecosystems, leading to a rapid decline in the diversity of language, culture and land, or biocultural diversity⁴⁸. Primary research collaborator, teacher and TEK holder K^waxistalla often laments the loss of traditional knowledge within his community, stating that his “profession is finished” (K^waxistalla 2008, *pers. comm.*).

Scholars across disciplines, such as Darrel Posey, Nancy J. Turner, Louisa Maffi, Rosemary Coombe and Margaret Florey, support the view that traditional knowledge can be seen as inextricably linked to both cultural knowledge and language. Assuming this connection, it follows that the loss of traditional knowledge would lead to the loss of cultural and linguistic knowledge, and vice versa. Also following this connection,

⁴⁸ See Maffi (2001) for a detailed description of biocultural diversity.

revitalizing one form of knowledge could also invariably revitalize the other. As Coombe (2001) suggests:

Contemporary linguistic studies demonstrate that as languages disappear so does traditional knowledge, and that when traditional knowledge is supported, rewarded, and encouraged, we actually see a revitalization of local languages and an increase in biological diversity. These things are interrelated such that we can say there is a relationship between biological diversity and cultural diversity; maintenance of the former helps to preserve the latter and vice-versa (Coombe 2001: 279).

Acknowledging not only the connections between traditional knowledge systems, cultures and languages, but also the need to support and revitalize these systems when they are endangered has led to cross-disciplinary, often community-based, research efforts. Academics and researchers, both Indigenous and non-Indigenous, are increasingly working on interdisciplinary projects which combine language, culture and TEK (see Cocks 2006, Loh 2005, Maffi 2005, Nabhan et al. 2002).

Our research team had the opportunity of learning about and understanding TEK from a primary holder, and in doing so also understanding how it is safeguarded within K^wak^waka^w'wak^w society. The K^wak^waka^w'wak^w systems of ownership and protection of TEK differ from the ways in which academia views and protects this form of knowledge. One important distinction can be seen in academia's application of Intellectual Property Rights as a form of protection over published research; in the case of our research, this includes TEK. In a K^wak^waka^w'wak^w context, while there are strict rules relating to ownership and rights to knowledge, they are not achieved by the assignment of IPRs.

The importance of fully comprehending Intellectual Property law as it relates to materials developed or published through linguistic fieldwork was made evident to me when I began working with our community partners in Kingcome Inlet. We received a letter from the funder of our project⁴⁹, reminding us that “all intellectual property created and developed by members of the University in their University-related work and/or using University resources will be owned by the creator”⁵⁰. Through lengthy discussions with all members of our research team, many questions seemed incapable of being resolved. How did we distinguish what knowledge ‘belonged’ to the community versus the ‘innovations’ that we as graduate students were ‘creating’, especially given the sharing of knowledge, resources and skills that are integral to a community-based approach to research? Further, how would we protect the TEK of the Elders we worked with since their knowledge is sacred and ancient, without being clearly owned or created?

⁴⁹ Partial funding for our project was made possible by MITACS.

⁵⁰ Please visit http://www.uvic.ca/shared/shared_usec/docs/policies/GV0215_1180_.pdf for entire policy.

The motivations behind exploring questions of protection and ownership in this thesis were guided by a desire to honour and respect the knowledge and information that we were accumulating throughout our research relationship. The following sections discuss the difficulties of adequately protecting TEK in an academic context, while providing the Kwakwaka'wakw systems of ownership and protection of TEK to help explain this disparity.

4.2.1 Academic Literature and Traditional Ecological Knowledge

Discussions around the TEK of Indigenous peoples have been a fascinating yet contentious area in the literature in various fields of research for years. Nowhere is this more apparent than in the fields of ethnobiology and archaeology (see Posey 1990, 1996; Brown 2003, 2005; Nicholas & Bannister 2004, Coombe 2005). Especially relevant are questions of the misuse of this knowledge, or of its commodification, for the benefit of the researcher or institution and to the detriment of the “source” of the knowledge or of the community. Debates over ownership of traditional knowledge and TEK are also significant in areas such as biotechnology and in the development of pharmaceuticals; for decades Indigenous communities and scientists have struggled over matters of appropriation and exploitation of this knowledge, since it is often seen to economically benefit large-scale industry, often to the disadvantage of the Indigenous community (see Posey & Dutfield 1996, Coombe 2005).

4.2.2 Traditional Ecological Knowledge in Language Research

The complexities surrounding TEK in other academic fields, such as the sciences, are contentious for different reasons. Linguistic fieldwork is rarely profitable, but as Posey & Dutfield (1996:34) point out, “traditional knowledge produces more than commercial benefits...Academics and scientists rarely become rich by recording traditional knowledge, yet their academic careers may be enhanced considerably by doing such research in terms of improvements in both their status and their salaries”.

Academic researchers are encouraged, and expected, to publically publish their research; should this research include TEK, this knowledge then becomes a part of the public domain. This means that anyone can access it, including companies that, finding the information useful, have the potential to exploit it (Posey & Dutfield 1996). To illustrate an example of this, Posey & Dutfield (1996: 35) explain that “academic literature is commonly consulted by industry researchers, and valuable knowledge (such as ethnobotanical information) can quietly become part of the research and development efforts of commercial enterprises”.

Although issues of biopiracy may rarely arise from linguistic research, they should still be considered. For example, the documentation of plant names, along with detailed descriptions of medicinal uses, could in theory be used in the production of nutritional supplements and pharmaceutical drugs. Even if the knowledge does not lead to the development of a drug by a large-scale pharmaceutical industry, I suggest that the

systems currently in place within academia fall short in adequately protecting both the knowledge documented in research, as well as the rights of the holders of this knowledge.

In the following section I explore how TEK is safeguarded in a K^wak^waka^w context by describing how traditional root gardens and the knowledge of these gardens were ‘owned’, safeguarded and shared. These root gardens were the field site where as a research team we conducted an ethnoecological restoration and language documentation project (described in detail in Chapter 3 of this thesis). The information below was shared with me by K^waxsistalla and the rest of Adam’s School; some also came from relevant ethnobiological literature.

4.2.3 Traditional Ecological Knowledge in a K^wak^waka^w Context

Through K^waxsistalla’s teachings⁴⁹, it can be seen that notions of ownership and the safeguarding of TEK are not based on a clear concept of owning *per se*, but on a complex system of rights, stewardship, and ownership that relies on cultural protocols, family lineage, and extensive specialized training. Within this balance between ownership and stewardship, distinctions are also made between individual and communal ownership and stewardship. Further, the rights to the land and the responsibilities of safeguarding the land are by no means mutually exclusive. In older times, a person would have held symbolic ownership over a portion of land, and also have been in charge of taking care of it, through food harvesting (K^waxsistalla 2008, *pers. comm.*). Another family may have held ownership over a similar plot of land, yet have not been trained as stewards of this

⁴⁹ I have been granted permission by K^waxsistalla to discuss the concepts in this section.

land. While these distinctions may have been more pertinent in previous times, notions of shared and closed ownership still exist.

Our research in Kingcome Inlet offered many examples of Indigenous systems of ownership, particularly in regards to the ʔəkkillak^w, or root gardens. Every trip to the gardens was a learning experience for the selected stewards of the land. Working with the ʔəkkillak^w in his youth taught K^waxsistalla knowledge of the seasonal rounds of his territory, traditional land use management techniques, and important information about plant identification; this knowledge was relayed to him through hands-on experience, and hundreds of relevant terms, songs and place names were passed on to him in Kwak’wala by the Elders and Chiefs who trained him.

Thus the process of becoming a steward of the land and a holder of TEK required knowledge of language, culture and land, and also required following a complex process of ownership and stewardship based on sustainability and protocol. The following section describes how the ʔəkkillak^w were defined, maintained and enhanced.

4.3 Issues of Ownership: TEK in the root gardens

The root gardens were clearly defined, both by boundaries and by varying forms of ownership and stewardship. Boundaries were established by the use of markers such as sticks or logs, and also by large-scale markers such as mountaintops and tree species. The gardens, while owned by family or clan, were accessible to the entire community:

You just look at the top, look at the top of the mountains...also the...also the type of trees growing around that area...There was six hundred people in the village of Kingcome Inlet, and they all had root gardens”. (unpublished interview 2009 with K^waxsistalla, Dr. Nancy J. Turner and Dr. Sewid-Smith).

Root gardens as a form of land management has often been cited in the literature. Deur describes these gardens as “owned variously through kin-based systems of tenure or as village common property” with “plots’ boundaries...sometimes indicated with logs, ditches, or corner markers of wood or stone” (Deur 2007: 19).

Deur (2007: 20) also describes ownership of land in the form of garden sites:

According to numerous ethnographic accounts, all cultivated patches of these estuarine root foods were subject to some form of ownership. Clans or villages owned each large garden site, while smaller kin-based subunits of these clans or villages owned individual plots within the garden site.

Traditionally, digging sticks made from yew wood were used to not only dig the roots, but to demonstrate a position of ownership over a garden:

The digging sticks were made...by the owners...by the owners of the root gardens. Those that owned the root gardens...they all used digging sticks, made from yew wood (K^waxistalla interview Turner & Sewid-Smith 2009).

Traditional forms of land management and enhancement were not only effective, but followed a cyclical balance based on sustainability, or to achieve what K^waxistalla describes as “keeping it living”⁵¹:

They knew . . . the old people knew what they were doing. You would never . . . take them all . . . no . . . look at the . . . the . . . fish in the sea . . . you do not harvest them until they have spawned. That is the way the roots are cared for. You just take what you need, because of the grandfather root. It is the grandfather root that grows again” (K^waxistalla interview Turner & Sewid-Smith 2009).

⁵¹ Please see Turner & Deur (2007) for more on the concept of “keeping it living”.

This is much the same way that TEK is perceived and protected in a K^wak^wak^wak^w cultural world – to care for this knowledge and pass it on to selected individuals in order for future generations to benefit and learn from it. Ownership of this knowledge, though specialized and often kept guarded between certain families and clans, is not intended to restrict, but instead to help the prosperity of the community.

The complexities of this type of ownership, with different levels of shared versus closed ownership, are carefully maintained throughout the K^wak^wak^wak^w culture – selected descendants are trained from an early age to protect this knowledge, in order to ensure its longevity within the culture and in pertinent ceremonies. The initiation and ownership of this knowledge is not for common consumption. The very knowledge of these customs is a right in itself, with rules attached to how it is used and who can hold it. As we will see below, this is at odds with the methods employed by academic institutions, which are obligated by larger international bodies, who view rights and ownership in a much different light.

4.3.1 Global Treatment of Traditional Ecological Knowledge

To contextualize the treatment of TEK from a global or canopy perspective, a relevant starting point would be the Convention on Biological Diversity (CBD), which was established in 1993. The objectives of the convention are focused on:

The conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding (<http://www.cbd.int>).

The CBD stipulates that all states that have ratified this convention, of which Canada is a member⁵², must “respect, preserve, and maintain knowledge, innovations, and practices of indigenous and local communities embodying traditional lifestyles”⁵³ (Coombe 2005: 275). The convention also “specifically acknowledges the importance of TK in biodiversity preservation and sustainable development” (Coombe 2005: 275). This can be seen in Article 8(j), which asserts that all contracting parties are:

Subject to national legislation, [to] respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge innovations and practices.

Article 8(j) has also led to the development of a special Indigenous caucus to work within the World Intellectual Property Organization (WIPO), in order to “make international intellectual property agreements supportive of CBD objectives” (Coombe 2005: 276).

These discussions, subsequent ratifications of conventions, and working groups representing the rights of Indigenous peoples, have led to a global response to the importance of maintaining diversity of language, culture and environment, all of which are currently endangered. This is also seen within academia, which acknowledges the need to respect and protect all participants involved in research. While there has been an increase in research that includes, validates and celebrates the TEK of Indigenous peoples

⁵² Please see <http://www.cbd.int/countries/?country=ca>.

⁵³ This language in this statement is slightly vague and could potentially raise questions about what constitutes a “traditional lifestyle” – one of my community partners voiced this concern to me, conveying the difficulties faced by determining how traditional certain activities such as food harvesting are, the danger being that once there has been a definition stamped on what constitutes traditional, certain practices that are based on tradition but are innovative could be considered less important or culturally relevant.

and communities, there are prevailing issues around the research process that affect all participants, especially in community-based research.

Of particular interest to me as a graduate student, anticipating the publication of certain elements of the research that I participated in, was the assignment of Intellectual Property Rights (IPRs)⁵⁴ to the published account of our work. Since Adam's School was working through an academic channel as well as a K^wak^waka'wak^w channel, there were careful considerations regarding Intellectual Property, which made me cautious about what to include in the body of this thesis.

Issues around IP in and outside of academia are often debated, sometimes ignored, but they undoubtedly provoke a delicate dialogue throughout the research experience. The following section is devoted to describing and attempting to unpack the concept and purpose of IPRs. I will suggest that in the context of our research, and by extension similar research involving TEK and Indigenous languages and knowledge, the IP system falls short in adequately protecting the knowledge involved. Further, I suggest that the overall concept of IP is disparate and inappropriate to be applied as a means of protection or ownership over at least some kinds of TEK.

⁵⁴ As seen on pg. 18, IPRs are defined as: a bundle of exclusive rights over creations of the mind, both artistic and commercial, granted to authors of creative works. Artistic creations are covered by copyright laws, which protect creative works such as books, movies, music, paintings, photographs, and software, and gives the copyright holder exclusive right to control reproduction or adaptation of such works for a certain period of time. The second category is collectively known as "industrial properties", as they are typically created and used for industrial or commercial purposes.

4.4 Responsibilities Surrounding Intellectual Property in Language Research

Current discussions across disciplines engaged in work with and within Indigenous communities are increasingly questioning the capacity of large, far-reaching, or what I call *canopy* organizations such as academic institutions, and international and national policy makers, to adapt to and respect Indigenous knowledge systems and cultural protocols (see Brown 2005, Posey 2002). Further, there are questions about how to reconcile the disparity that exists between large-scale organizations creating one-size-fits-all policies that people working on the ground in research relationships that differ from province to province, community to community, and language to language, must subscribe to (see Brown 2005, Posey and Dutfield 1996).

In the following section, I briefly define and contextualize ownership through the application of IP policy. In lieu of arguing for the adaptation of IP policy to better suit linguistic fieldwork with endangered languages⁵⁵, I suggest that IP law is not entirely appropriate to apply to this form of research. Acknowledging the need to protect scholarly and community-based research, I suggest a shift away from protecting TEK and the language used to describe it under the Intellectual Property system. I propose that TEK is better respected and protected using community-specific and culturally appropriate principles and protocols at a local level. From a canopy level, I follow scholars such as Tove Skutnabb-Kangas and Rosemary Coombe in support of language and TEK as falling under the protection of human rights and thus propose that research

⁵⁵ See for example, Newman (2006).

protocols shift towards this avenue to protect and assign “ownership” to the results of research.

4.4.1 Describing and Unpacking Intellectual Property

Intellectual Property (IP) is a legal concept dealing with creations of human ingenuity codified at an international level through a series of legally binding treaties (WIPO, Hansen & Vanfleet 2003). Hansen & Vanfleet (2003: 4) describe Intellectual Property Rights as “legal protections given to persons over their creative endeavors [*sic*]” which typically grant the “creator an exclusive right over the use of his/her creation or discovery for a certain period of time” (usually 20 years). Intellectually Property protections can include patents, copyrights, trademarks, and trade secrets (Hansen & Vanfleet 2003).

The notion of IP grew out of the desire to create patent and copyright protection in the context of post-Industrialist Europe; this was a time of rapid small-scale innovation and design which seemed to require a system of legal protection for the creators and their creations (Grimes 2006). Since the early 20th century, industry, and the very notion of ‘creation’, have changed dramatically: small-scale or individual innovations have given way to major industries and mass production. The patent industry has become increasingly exclusive and expensive. Global industry giants such as WIPO and the World Trade Organization (WTO) continue to grow and dominate markets, industries and establishments, which is increasingly affecting both canopy levels and grassroots levels of academic research.

Canada's relationship with WIPO has been ongoing since the early 20th century.

The following table describes Canada's signatory status with treaties specific to WIPO and the WTO in chronological order⁵⁶:

Table 6 – Canada's relationship with WIPO

Canada's membership	Date of establishment	Treaty name	Description
June 1925	March 1883	Paris Convention	Convention for the Protection of Industrial Property
April 1928	Sept 1886	Berne Convention	Convention for the Protection of Literary and Artistic Works
June 1970	July 1967	WIPO Convention	World Intellectual Property Organization
January 1990	June 1970	PCT	Patent Cooperation Treaty
January 1995	April 1994	TRIPs	Trade-Related Aspects of IPR

Of particular interest to academic researchers working in linguistics, and other disciplines that involve Indigenous knowledge, are the WIPO convention, the Patent Cooperation Treaty (PCT), and TRIPs – with these agreements, the process of conducting research changed significantly⁵⁷. These treaties opened research to the possibility of commercialization, while simultaneously creating massive restrictions: restrictions of adaptation, of accessibility, and of propriety (see Grimes 2006).

⁵⁶ All information provided by official websites of WIPO: <http://www.wipo.int> and WTO: <http://www.wto.org>.

⁵⁷ See Hansen & Vanfleet (2003) for a detailed description of the relationship between IP's legally binding treaties and traditional knowledge.

As the main concern of WIPO is to protect the commercial value of IP through the commodification of research and resources, then applying IPRs to research involving language, culture and systems of TEK should be carefully considered. As mentioned above, while there may be instances in which IPRs can be useful, such as assigning copyright to language materials or a CD of songs that the person or community wants published, it is important to consider the ways in which Intellectual Property as a system falls short in respecting certain elements of Indigenous languages and cultures, and systems of ownership.

Academic literature on the subject of IP and Indigenous knowledge questions the relevance of assigning these rights to research that is rarely profitable, and thus of including Indigenous knowledge in an international system of ownership and propriety whose concepts of protection and ownership vary so drastically from an Indigenous context⁵⁸.

The following section exposes one such discrepancy, by discussing the economies of IP. By viewing our society through the lenses of both market and community economies, I will show that the market economy is devoted to making a profit by the production of innovations, typically assigned to one person, whereas the community economy reflects the communal knowledge of a group, without the need for innovation and without the intention of building a profit. The discrepancy comes when IPRs, which are intended to support the market economy, dip into the community economy by being assigned over traditional languages, and cultural and sacred knowledge such as TEK.

⁵⁸ See especially Brown (2005), Posey (2002), Nicholas & Bannister (2004).

4.4.2 *The Economies of IP*

While the application of IPRs has the potential to be used to protect and compensate the innovations of communities, in practice IP policy is typically concerned less with the protection of a community, and more with the individual entitlements of the IPR holder. This can be explained by the nature of IP, which is rooted in the idea of an economic monopoly. To fully understand the implications of having IPRs applied to the results of language research with Indigenous communities, it seems important to understand the implications of assigning IPRs; how subscribing to one portion of them – that of protecting and remunerating individual innovations – invariably subscribes to an opposing area rife with restrictions and the potential of cultural monopolization.

Posey & Dutfield (1996) and Gudeman (1996) assert that, within a given Western societal construct, there are always two separate, yet intricately connected, economies: the market economy, and the community economy. Within this system, legal rights can be applied to, or can “buy into”, either economy. The *market* economy system is based on monetary competition, and is aimed towards increasing capital gain. Increase in capital is achieved by the creation of innovations; the creation of innovations leads to applying rights to these innovations, which can then be seen as “buying into”, or feeding, the market system economy. The rights that are applied to these creative innovations, innovations which buy into, or feed, the market system economy, are called Intellectual Property Rights. These IPRs then lead to entitlements to these innovations (Gudeman 1996: 103). Therefore, IPRs are put in place to both maintain and sustain the growing wealth within *market* economies (Gudeman 1996: 103).

The *community* economy behaves much differently. Within this form of economy, tangible as well as intangible heritage, such as sacred landmarks, land, water, spells, songs, myths, medicines, etc. are cultural properties that are the “product and property of a group” (Gudeman 1996: 103).

Within this economy, we can arguably find the language used to describe Traditional Ecological Knowledge, and the cultural elements of language research; my own research has often included recording communal songs, myths and stories passed on intergenerationally and knowledge about sacred landmarks and land.

The “products” of the community economy are seen as emerging not through individual innovation, but through communal practice. These forms of property can be considered The Commons; they are what a community holds and sustains.

An important distinction is made between these two economies: the production or protection of cultural properties in a *community* economy “is not a means to an end, but an end itself” (Gudeman 1996: 104); The Commons are considered valuable as they are, and not in their potential for growth or the possible exploitation that they possess. This contrasts markedly with the market economy which views its ‘property’ as having value only insofar as it is a means towards accumulating more wealth.

The results of linguistic fieldwork, as I noted above include and are included in the notion of intangible heritage. Following Gudeman (1996), I suggest that these results should be categorized as properties of the *community* economy or market, and are a part of The Commons, which as pointed out above, is clearly separate from the market economy. However, by extending and applying IPRs over language research (which belongs to the community economy), we are treating “creations” from the community

market as if they were creations of the market economy; as such they may be “used for individual gain” (Gudeman 1996: 112).

Simply put, by applying IPRs to the results of linguistic fieldwork, we are creating the potential for any aspect of a given language research project – such as language describing Traditional Ecological Knowledge – to be commercialized and thus commodified, while simultaneously being required to assign these rights to an individual. This contradicts the very nature of The Commons, and is at odds with the communal nature of traditional knowledge, language and culture.

It should be noted that language materials or songs that belong to or that are created by an individual are often commercialized and thus commodified, with the rights to the songs assigned to an individual. In these kinds of cases, the songs or materials that are commercialized are typically done so by or with the agreement of the singer/holder of the song or materials, and the act of commercialization is achieved by copyrighting the song or language material.

The ‘language’ that I discuss in this section refers to that which is found in communal songs, and which relates directly to the knowledge and language related to TEK; these songs and this knowledge are passed on through intergenerational transmission and emerge from communal practice. Therefore there is often no “holder” of the communal practice who could agree to commercialization or hold copyright. Nevertheless, some recent approaches to ownership have accorded communal rights over the research and results of the research to appointed groups within the community which the research takes place.

4.5 *International Reactions to IP and Traditional Knowledge*

While the domains to which the concept of IP is applied are growing, the limitations of this form of protection are becoming clearer. Brown (2003; 2005), Brush (1996), Coombe (2009), Howell & Ripley (2009), Posey (1990; 2002), Posey & Dutfield (1996), and Nicholas & Bannister (2004), and TCPS 2 expose the disparities that exist between IP policy and traditional knowledge of Indigenous peoples.

Simeone (2004) outlines three main areas whereby IPRs fall short of adequately providing protection to traditional knowledge. Firstly, TK itself does not satisfy the requirements of protection under the current IP laws; knowledge of this kind is transmitted intergenerationally, and is thus not considered to be ‘new’, or an innovation, which is what the application of IPRs protect. In most cases, traditional knowledge is centuries old, with ties to a spirit world – there are often no ways of identifying who ‘created’ the knowledge and when. Thus, even if attempts were made to include TK and TEK within the constructs of IP policy, this form of knowledge would not fall within the scope of the definitions. This is clear when reading this definition from WIPO:

...[C]reations, whether they be inventions, designs, trademarks or artistic works, such as music, books, films, dances, sculpture or photography are considered and protected as property for a certain period in time, provided that *the creators meet a certain criteria, for example, originality*, defined by the relevant laws⁵⁹

Secondly, the concept of IP does little to recognize the communal nature of TK and TEK, which is often shared between families or tribes. Assigning IPRs to an individual establishes the potential of individual gain; this is at odds with the communal nature of TEK, and with the traditional methods of safeguarding this knowledge which

⁵⁹ (http://www.wipo.int/about-ip/en/studies/publications/genetic_resources.htm).

include intricate systems of ownership and stewardship. The protection of TK and TEK in an Indigenous context is not established by signing a research contract⁶⁰.

The third issue raised is that of IP favouring “multinationals and other non-indigenous interests”, through expensive patent costs, helping corporate advancement while hindering communities that cannot afford to buy into the system. This third issue could arguably be applied to academic institutions and their university representatives, which are often multinational and non-Indigenous, and which are responsible for not only bringing IP policies into the Indigenous groups they work with, but of potentially pursuing patents or even future research⁶¹.

As discussed earlier, the emergence of biopiracy within the dialogue around TK and TEK has also led to a critical view of Intellectual Property, especially surrounding patent protection; this is seen in challenges against the corporate patenting of culturally sacred plants and seeds (Coombe 2005, Hansen & Vanfleet 2003). Similarly, the recognition of the inappropriateness and even potential danger in assigning IPRs over the TEK of Indigenous peoples has led to the re-evaluation of sweeping international policies protecting localized knowledge and resources.

In regards to traditional knowledge, while Posey & Dutfield (1996: 92) state that “IPR laws are generally inappropriate and inadequate for defending the rights and resources of local communities, [whose interests] are only partly economic and linked to self-determination”, they maintain that IPRs can be circumstantially beneficial in areas

⁶⁰ Though see Thom (2006) for discussions of alternatives that do acknowledge the complexities of TK and other forms of intangible cultural heritage.

⁶¹ I thank Dr. Ewa Czaykowska-Higgins for offering this insight into the possible parallel between multinational institutions and the university.

such as patents and trademarks⁶². Regardless of this potential, they advise their readers to seek other, more culturally appropriate and less commercialized means to protect their research, when possible.

According to Neoliberal economists⁶³ and their industry partners, “treating TK as intellectual property would create opportunities for local profit making, joint ventures with government and corporate actors, the negotiation of compensation, and a market mechanism to revitalize interest in local cultures and traditional practices of resource management” (Coombe 2005: 300). This has led to fervent discussions around the expansion of intellectual property rights “to recognize works of collective, intergenerational innovation” as well as community specific systems of innovation, and traditional technologies (Coombe 2005: 300).

According to Dwyer (2006: 43), “the western notion of property rights may well have no indigenous counterpart”. Granted, there has been a recent movement internationally, supported by WIPO and with pressure from the United Nations, towards a separate policy focusing specifically on the IPRs of Indigenous peoples: this is seen in the ongoing drafting of Indigenous Intellectual Property law. Yet as Posey & Dutfield (1996: 60) state, “ The assumption that there exists a generic form of non-Western, indigenous collective property rights ignores the complex nature of indigenous proprietary systems”. Therefore whether or not the concept of Indigenous Intellectual Property will truly lead to a sufficient “indigenous counterpart” is questionable. While WIPO may be acknowledging the disparate relationship between IP and TK, it is still recommending

⁶² See Posey & Dutfield (1996: 76-88) for further discussion.

⁶³ See Fenelon (2008) and Coombe (2005) for further discussion on neoliberal economists and Indigenous resistance to neoliberalism and globalization.

that TK be governed by a Western notion of intellectual property, just one that has been labelled Indigenous.

4.6 Summary

Dialogues across academic disciplines, coupled by a strong, global Indigenous rights-based movement, are increasingly rattling the monopolizing stronghold that the Intellectual Property regime has sought to maintain, and questioning the applicability and credibility of IPRs in an Indigenous context (Brown 2005, Coombe 2005, Posey & Dutfield 1996). Yet there is also an opposing view in many Indigenous communities that want researcher contracts, and are worried about researchers' control over copyright and potential royalties. Even though there may be a dissatisfaction with the IP regime, it seems at this point to be one of the only forms of legally binding protection offered to the traditional knowledge of the participants in research. While understanding the predicament that this creates, I now discuss some alternative forms of protection or rights over the results of this form of research including TEK.

4.7 Possible Alternatives

Within and outside of academia, there is an increasing desire to protect research and researchers, while both avoiding the application of Intellectual Property rights, and respecting the customs and protocols of Indigenous communities. For example, roundtable discussions including global Indigenous representation facilitated by UNESCO have pressured WIPO to acknowledge the disparity of institutional versus Indigenous concepts of property rights, suggesting *sui generis* amendments to existing policies. Universities are increasingly drafting principles and protocols that reflect the

desires of Indigenous communities engaged in research⁶⁴. Leading scholars Posey & Dutfield have recommended using customary or tribal laws as an alternative to sweeping international policies⁶⁵.

From a Canadian perspective, one of the most groundbreaking approaches as it relates to the issues I've raised in this thesis, is described in Thom (2006). Thom lays out the Hul'qumi'num Treaty Group (HTG) Memorandum of Understanding (MoU) with the University of Victoria. This model emerged from a collaborative, community-based language revitalization project between six First Nations communities of the HTG and the Linguistics Department of the University of Victoria that responds to the need to protect intangible cultural heritage (which includes forms of TEK) that is inherent in working with Indigenous communities.

This approach responds to many of the issues inherent in work with TEK and knowledge keepers, with categories devoted to collective rights, and how to respect and protect intangible heritage included in research, but isn't entirely applicable within the context of our research with a Clan Chief such as K^waxistalla. The HTG has proven to be very successful around Vancouver Island, and while there are areas which continue to be explored and worked upon, such as issues surrounding TEK and issues around Intellectual Property, it shows significant progress⁶⁶.

⁶⁴ The University of Victoria's Indigenous Governance program has drafted a recent Principles & Protocols for Research in Indigenous Communities.

⁶⁵ Although this in itself raises many further challenges when issues around codifying these laws and thus potentially making them stagnant become relevant.

⁶⁶ See also

This report offers an in-depth inventory of studies and reports gathered over the last 15 years addressing the protection of traditional cultural expressions in a Canadian First Nations context.

Another potential alternative is the aggregation of several Indigenous groups to form a juridical person, defined as “those groups or things which a particular legal system endows with legal personality and treats as being, in law, kinds of persons and, accordingly, being able to sustain legal rights and duties” (Posey & Dutfield 1996: 231). One successful example of this can be seen in the COICA, the Coordinadora de las Organizaciones Indigenas de la Cuenca Amazonia (Coordinator of the Indigenous Organizations of the Amazon Basin), which represents nine national Amazonian Indigenous organizations yet as a juridical person, has the legal protection and representation of an individual (Posey & Dutfield 1996).

In tandem with the changes occurring in how research is conducted, there is a growing body of literature which approaches the rights to language, culture and land as applications of human rights as opposed to property rights (Coombe 2005, Harbet et al 2009, Skutnabb-Kangas 1998). Along with viewing the rights to language, be it speaking your Indigenous tongue, or receiving an education in the language of your heritage, as human rights, comes the opportunity to approach the preservation and revitalization of language as an act of social justice. This brings about a focus on rectifying previous grievances against minority language speakers:

Human rights are about rectifying human wrongs. Language rights are needed to remedy language wrongs. Linguistic human rights are an essential dimension of human rights (Skutnabb-Kangas & Philipson 2001: 37).

According to Coombe (2005), “the human-rights framework remains the only viable international political arena and discourse that commands sufficient legitimacy and respect to counter new liberal ideologies”. By doing so, we “shift the discourse from one

of trade and property to one of culture and impoverishment, and in so doing remind[ourselves] ... that intellectual property is a human right” (*ibid*).

Although the relationship between the Canadian Human Rights Council and the Indigenous peoples of Canada has been fraught with historical inequalities⁶⁷, I believe that exploring the capacity of Human Rights Laws as a potential area through which to develop systems of academic “protection” over sensitive research should be considered. Researchers in law, international policy making, and human rights scholars have been analyzing and implementing Human Rights Laws for decades; there are countless policies and existing publications and conventions devoted to human rights and their adaptation and enforcement. Having our research protocols held to human rights standards in lieu of opening them up to the World Intellectual Property regime, creates the opportunity for progressive, socially conscious and empowering relationships within scientific and Indigenous communities alike.

As the topic of protecting TEK in academic research grows in scope and crosses into more disciplines, many scholars are responding to the need to treat and protect this knowledge in unprecedented ways. One approach is to develop systems which respect the traditional customs of a given research site, using methodologies that recognize the diversity, cultural norms and that research involving TEK engenders. Turner and Jones (2000: 22) argue:

Traditional indigenous systems of ownership and stewardship together with aspects of culture and ethics concerning the natural world provide community based, socially controlled, alternative models that diverge from the long-distance, politically and industrially motivated resource management of the last century.

⁶⁷ Nowhere is this clearer than in the pre-existing Section 67 of the Canadian Human Rights Act, which violated the rights of First Nations women with Bill C-31, and which was only repealed in 2008.

This statement, describing community-based and socially driven models of land management, which respect the culture and ethics of the community and the natural world, can easily be adapted to include and influence how we approach linguistic fieldwork. The long-distance, politically and industrially motivated resource management is similar to long-distance, professionally and commercially motivated academic research policies. By adapting academic policies around language research to consider and synthesize Indigenous culture and specific Indigenous cultures, customs and systems of ownership and stewardship on a community-specific basis, there exists the opportunity for development of dynamic, ethical and appropriate research best practices.

CHAPTER 5: CONCLUSION

For the last two decades, there has been an increased awareness of and subsequent urgency around our endangered linguistic, cultural and biological diversity. In this age of rapid globalization and hyper-consumerism, much of our global diversity is homogenizing and diminishing at alarming rates. This realization has led to many important and unprecedented shifts in research involving Indigenous languages and culture, shifts both in methodology and in safeguarding of research.

Nowhere is this more apparent than in research with and within Indigenous communities. Shifts in this area include moving towards conducting fieldwork that is community-based and steered, often working with researchers in overlapping fields. With this new form of research, come new issues and challenges; in the context of my research, a linguist working alongside a Clan Chief, his family and community, and professors and students in environmental studies and sciences, these issues shaped not only my work, but my view of academic research in general. In contemporary times, the diminishing numbers of cultural authorities, or primary holders of TK and TEK, exacerbate the loss of understanding of Indigenous forms of ownership. K^waxistalla is arguably the last of his culture's specially-trained potlatch speakers and stewards of TEK. But while conducting community-based research within Indigenous communities on projects relating to land, language and culture, we are also ushering this knowledge into a different system of ownership, one which could potentially affect or disrupt the balance of pre-existing, and strictly ordered systems.

Language documentation in the framework of our research went beyond my comprehension of linguistic fieldwork, and delved into sacred knowledge and cultural protocols, creating the need to not only understand fieldwork in a new way, but to ensure that I was actively thinking about protecting the people and research involved.

Throughout this thesis, I have discussed some of these issues, but I realize that I have only scratched the surface. The complexities surrounding not only the ethics of linguistic fieldwork, but the deeper, broader issues of protecting Traditional Ecological Knowledge and what it means to subscribe to the Intellectual Property regime, are but a few areas that I believe warrant further investigation.

Many argue⁶⁸, and I agree, that the concept of Intellectual Property is based on an overly Western, hegemonic system intent on the advancement and capitalization of industry giants through the commodification and exploitation of culture and knowledge, often to the detriment of impoverished or marginalized communities. By transforming Traditional Ecological Knowledge – which is dynamic, ancient, and often shared in culturally complex ways – into an ‘innovation’ to be manipulated by the Intellectual Property system, we run the risk of inherently stripping it of its context, cultural value and longevity.

Despite international acknowledgement of the disparities that exists between Traditional Ecological Knowledge and Intellectual Property Rights, and efforts to “indigenize” these systems, invariably, Indigenous knowledge systems seem at odds within the monopolistic arena that Intellectual Property creates.

⁶⁸ See for example Coombe (2005), Posey (2002), Posey & Dutfield (1996), and Simeone (2004).

The questions I have explored in this thesis concerning ownership of research and knowledge, field methodology, and the many other intricacies and challenges inherent in research with and within Indigenous communities, will undoubtedly persist. These are more than topics, they involve the delicate dynamics that make us human; our differing interpretations, our perceptions of what is or is not wrong or appropriate.

The historical, colonial, socioeconomic and political damages endured by Indigenous peoples worldwide erase the opportunity of ever approaching these issues from a neutral position. Research concerning Indigenous languages and communities will most likely continue to be politicized. Further, there are differing goals and aspirations in every institution, community, or specific research project. These facts are not meant to discourage collaborative research, but instead suggest that a one-size-fits-all model of conducting or protecting research is simply not viable.

As researchers continue to progress and gain higher levels of consciousness and foresight in these areas of study, we are clearly learning from our successes and failures. The pursuit of knowledge, and the reflections of our experiences, will hopefully continue the struggle of balancing progress with equitable success and opportunity for all those involved.

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Appendices

Appendix 1.

The following glossary is a collection of terms that reflect the knowledge of the K^wak'wala language and the Traditional Ecological Knowledge of K^waxsistalla (Clan Chief Adam Dick). The words and phrases listed have been accumulated from 2007-2010 through a collaborative effort of “Adam’s School”. This documentation was worked on extensively by K^waxsistalla, ?Og^wilowǵ^wa (Kim Recalma-Clutesi), Maʔaniʔ (Dr. Daisy Sewid-Smith), Clan Chief George Shaughnessy, Dr. Nancy J. Turner, Abe Lloyd, and the author of this thesis. This is a working document that continues to be revised and expanded upon based upon consultation with the knowledge keepers. The information contained in this glossary cannot be used without contacting Lloyd, Turner, or the author of this thesis, who will in turn seek permission from K^waxsistalla. This information cannot be used for commercial purposes.

A	
?awayuw	A skimming tool for eulachon oil out of the vat. It is carved out of alder wood and resembles a horse clam or the use the actual horse clamshell.
?awinag ^w is	Land or territory.
?ax ^w amanəm	The first layer of the eulachon grease that is skimmed.
?aḥiḥi!	Interjection. It is an utterance of fear.
?Anicca	Adam Dick’s mother. Mary Dick nee Williams.
?aʔad ^z ēy	A tributary to the Kingcome River.
?awallaskənnis	Maternal grandfather of Adam Dick. He was Mary “?Anicca” father.
?awiḥbēy	A point of land.
?aʔʔaʔxuw	Wakeman Sound Village.
?aḥ ^w sulliy	Indian hellebore used for protection against sea monsters or evil spirits.
B	
bax ^w k ^w əm	Aboriginal person
Baʔəs	Village site at Blunden harbor.
C	
cəʔx ^w məs	Wild pacific crab apple tree
cəʔx ^w	Wild pacific crab apple
cəʔx ^w staʔak ^w	Wild crab apples in a water and grease mixture
cakgayuw	A chopping tool used for softening cedar bark before weaving

cəxcəʔəngʷis	A meadow where cranberries grow (a floating bog)
cəxʷxʷəlla	Waterfall that goes into the Kingcome River
cinnabut	To burn the fuzz off the wood on the bottom on a canoe
cəğətəs	Thimbleberry bush
cəğət	Thimbleberry
cakkus	Spiny wood fern root
caxxudēy	Where the currents come together in the river like a tongue
C	
čəmcayuw	Eulachon sticks made from split cedar. The sticks are pushed through the mouths of the eulachon. When the stick is full it is hung up to dry in the smoke house.
čəmdaq	Smoked dry. It must be completely dry before storing, that is why they are called hard smoked eulachons.
čəskinnaʔəs	A big meadow
čəxʷid	To cast away or throw away, to throw garbage away or cast a fishing net into the water
Cəqqamēy	The first ancestor of the three clans of the Qʷiqʷasutinuχʷ, the Wiʔumasgəm-mimawigən, Sisewagextux, and the Ninəlbēy Clans
čəwənχbaxʷid	Autumn, the third season of the year
čigʷannuw	Any type of egg
čilalla	Fire tongs
čəčəlkammas	A willow tree or shrub
čikʷkʷa	Seagull
čixxinna	Red Elderberry
Cowgʷallis	Mythological name of the beaver
čəmcəmxčənēy	Finger nail (plural: čičəmcəmxčənēy)
čəmcəmxsidʔēy	Toe nail (plural: čičəmcəmxsidʔēy)
čikʷkʷaxallis	The seagull clan of Kingcome Inlet. They joined the Dʔawadaʔənuχʷ Clan Alliance of Kingcome Inlet. Clan Chieftain was Tom Dawson.
čəkʷalləm	News or events reported
čəppa	To dip food e.g. fish, potatoes in eulachon oil
čəčəyəm	Eelgrass
čəsχawiqʷ	Sanderling Sandpiper
čəddiy	A beach with the big edible barnacles scattered on the beach
čəwiy	Beaver

ćussa	Digging for edible roots
ćicak ^w mut	Empty clam shells when you have steamed clams
D	
duk ^w ag ^w iš	Yellow pond lily
dəwiq	Sitka spruce branch
Dabənd	A boy from the Niñəlkinuḡ ^w clan or Mountain Goat Clan of Kingcome Inlet
dəlgəṃ	A sperm of a fish, frog, etc.
dəmsməs	The name of a small red cedar tree that you peel cedar bark from for weaving
dənnas	The stripped inner bark of a young red or yellow cedar tree that has been prepared and is now ready for weaving
dənnəṃ	Rope that was made out of cedar bark and stinging nettles. This is the name for modern rope
dəgid ^z as	To be buried in a graveyard
dəgəḡḡawēy	To be buried in branches of trees
dəgəy ^y a	To be buried in a cave or cavern in rocks
dusdək ^w k ^w a	Trailing blackberry
D^z	
d ^z ikdamis	A site where you dig for clams
d ^z ud ^z ad	A beach that has cockles
d ^z umigał	A pole made of western hemlock that is about 2 to 3 inches in diameter. It was used to push a canoe up the river
d ^z ik ^w k ^w is	Ratfish oil from the spotted ratfish
d ^z inummaḡa	Spotted ratfish
D ^z awada?ənuḡ ^w	Clan alliance name of the Kingcome River clans
d ^z ax ^w ?əṃ	Eulachon
d ^z id ^z əḡamalla	Half smoked butterfield fish also known as kulux ^w
d ^z ikgas	A place where you dig clams
d ^z awəṃ	Coho silver salmon
d ^z ənd ^z ənxłəṃ	Stinging nettles
d ^z olliy	Cockle
d ^z ux ^w em	Poles or logs from a young hemlock tree that is 6 to 8 inches in diameter. It was used for rafters or drying racks in smoke houses, and to build log houses
G	

Giḡamēy	Nobleman
gigiyacaḡa	Rat
gəngənnanəmmis	Small human beings
gəlla	Grizzly bear
gəldən	Dead fall trap made of heavy logs that were designed to fall and crush a passing animal
Gəgalis	The first ancestor who survived the flood
gəlsḡəlsəanna	Long arms
gəlsḡəlttaḡanak	Long branches
gəlsḡəmlitḡa	The different society groups shown when the curtain comes down four times at the beginning of the winter dance
Gəlsḡədulillas	An island outside of merry go round called white rock islands
gəḡ ^w x ^w a	Steelhead trout
gəllabiduw	Small grizzly bear
gawixmut	Clam shells that are empty
gagumas	Shadow. A reflected image
G^w	
G ^w awa?ənuḡ ^w	Hopetown Clan alliance name
G ^w ayi	Kingcome River. It means the second biggest river north of the biggest river the Fraser River
g ^w ig ^w ig ^w i	A bird called black oyster catcher
g ^w alisbaḡən	“Wiggle it down”. To wiggle a digging stick so that I can go further into the ground
ḡ	
ḡaḡḡayuw	Hook for berry branches
ḡaḡḡayuw	Instrument for hooking e. g. fish etc.
ḡiwas	Whitetail deer
ḡinēy	Fish eggs
ḡixustalla	Mythological name of the deer
ḡin	Sea lice or head lice
ḡaḡuq	Trumpeter swan
ḡulla	Trout (general)

ğoləm	Cutthroat
ğalludda	A mountain in the Kingcome Valley where the ancestor of the Cìkʷkʷaʰallis or bird clan landed after the flood waters receded. The Tom Dawson family came from this clan, and Tom Dawson is the Clan Chieftain.
ğadʰaq	Starfish
Gəyalla	An island in front of Gilford Island
ğəgəluləʰowyuw	A choker hook or throat gorge made of deer or beaver bone for fishing and duck hunting
ğaʔaʰstalla	Having breakfast
ğəgəmp	Grandfather. The bulb of a riceroor is also called ğəgəmp
ğəgəʔow	Chicken, The name derives from a rooster's call
ğaluqʷ	Clam adductor muscle
ğalutəʰstēy	A piece of wood that goes through the tail of a fish to hold it onto the drying rack
ğaləm	Rib
ğənnəm	Wife
Ĝʷ	
ğʷaliççl	Northern abalone
ğʷağʷəlɣilla	To chew pitch or tree resin or modern gum
ğʷaʰnis	Dog or Chum Salmon
ğʷadəm	Red Huckleberry
ğʷaʰməs	Red Huckleberry bush
ğʷaʰstatta	Vancouver, because the bay is facing north
ğʷawinna	Raven
gʔʷawoʔ	Old or ancient raven, one of the mythological names of the raven %umet
ğʷastta	Passing something over
ğʷayasdəms	Gilford Island Village
ğʷənna	To pay back a loan
ğʷiğʷəğʷənna	To call in a loan
ğʷəlɣik	Pitch/resin/modern gum
ğʷəlɣtə	Mythological name for fire
ğʷəğos	Male common merganser
Clan Chieftains	
Kingcome Inlet/Dʰawadaʔənuxʷ	
Clan Chieftain	Cì{kʷkʷaʰallis or Bird clan. Place of descent after the flood was

Tom Dawson	Galudda Mt. The first ancestor was named Qix̄allaʔallis
Clan Chieftain Dick “Kodiy” Webber	Lillawagilla or Raven clan. Place of descent after the flood was Həmsdamma Mt.
Clan Chieftain Adam Dick	Qawadiliqalla or Wolf clan. Place of descent after the flood was ʔug ^w x̄tollis Mt.
Clan Chieftain William Dawson	Ninəlkinuḫ ^w or Mountain Goat Clan. Place of descent after the flood was Ləḫlaq. Name of the first ancestor was Wiqəllasug ^w ilak ^w
Həlḫaboy (has no descendants)	The clan died away
Clan Chieftains	
Gilford Island/Q ^w iq ^w asuḫtinuḫ ^w	
Clan Chieftain Jimmy Sewid	Wiʔumasgəḡm/Mimawigəḡn Clan. Qulus clan or Bird Clan (like a gentle Thunderbird). Place of descent after the flood was Kəxədək ^w Mt. at Mitʔəp or Viner Sound
Clan Chieftain Ned Coon	Sisewageḫtuw clan. Qulus Clan (like a gentle Thunderbird) place of descent after the flood Kəxədək ^w Mt. at Mitʔəp or Viner Sound.
Clan Chieftain John Scow	Ninəlbēy Clan. Qulus Clan or Bird Clan (like a gentle Thunderbird) place of descent after the flood was Kəxədək ^w Mt. at Mitʔəp or Viner Sound.
Clan Chieftains	
Village Island/Mamaliliqalla	
Clan Chieftain Henry “Jumbo” Bell	Qaḡaḡiwēy Clan or Swan Clan. Place of descent was ʔIgisballis or Lizard Point on Malcolm Island
H	
Həmsdamma Mt.	A mountain in the Kingcome Valley where the ancestor of the Lillawagilla or Raven Clan landed after the floodwaters receded.
Hadda	A place called Bond Sound
had ^z ipamma	Common yarrow plant
Hax ^w ammis	Wakeman Sound Clan Alliance Name
Həmmaqçəca	Cannibal dance/dancer
hanun	Pink or Humpback Salmon
hacawwa	Small porpoise
hayamakolla	A shadow or mirage on the water
hilla	To hire
hillikallat	Healing dancer in the lassalla dance series. He is the first one to

	dance.
Hiĥtatussalla	The man that repaired everything that was wrong. Also known as Qaniqilak ^w
hudis	Dwarf, midget
hømsømt	Anyone of the Hømmaĉça masks
høyaĉiy	Berry collecting basket
hønλannuw	Modern cooking pot
hønq ^w əs	Hemlock elbow used for making spoons
høʔənχbanakølla	Spring, the first season of the year
Hømmaʔa	A very large lizard, like an alligator that went around devouring what it can, so he was called a devourer.
I	
ʔixp̄pa	Good, tasty
ʔixp̄alla	Good smell
ʔigis	Sand
ʔiyaxs	Good clam/healthy clam
ʔigisdʔag ^w is	A sandy beach or sandbar
ʔix ^w x ^w amanøm	The first layer of the eulachon oil that is skimmed after cooking
ʔicikøn	Matilpi village of the Maʔømtagilla
ʔigisballis	Lizard Point on Malcolm Island. Place of descent of the patriarch of the Qaqagiwēy Clan of the Mamaliliqølla Clan Alliance of Village Island
ʔikstawis	A sandy beach that is considered a good digging place
K	
kiχχatøn	To scrape a stick or log
kassa	To pound unprocessed cedar bark to soften it
kadʔayuw	Bark pounder to soften unprocessed cedar bark
kanēy	Bracket fungus
kaĉəs	A pinecone from hemlock, pine and fir trees
kotfalla	Tongue twister
kønna	To brail fish
kønnyuw	A tool used for brailing fish
kaĉønnaq	Spoon

k ^w kkayəm	Wooden spoon made from antlers
kəsɸuliy	Trailing Black Currant
kaxlənd	Fry in oil
kəlxʔid	To drive away
kəlxkəlxsisalla	A vehicle with wheels
kənxxa	A ring tossing game with eight spruce rings
K^w	
K ^w əliliy	The first ancestor of the Hax ^w x ^w amis of Wakeman Sound. He was the younger brother of Qawadiliqalla of Kingcome Inlet.
k ^w ənχχalis	When the clams are really stink. This happens when they are spawning.
k ^w əχχalas	Oval leaved Blueberry
k ^w axxa	Smoke/Smoking fish
k ^w əlxk ^w əlx ^w baxʔid	The tip end of a plant is starting to wilt, e.g. seaweed, flowers, house plants, etc.
k ^w ik ^w	Bald eagle
K	
kaχ ^w χ ^w atʔən	To plane wood to smooth the surface
kaʔadəm	Wooden spreaders for salmon for smoking and barbecuing, made out of Red Cedar
ƙadda	Starry flounder, or the large flounder
ƙapƙappəs	Mouse
ƙawas	Thinly sliced sun dried fish
ƙummaçiy	Barbecued dried clams
ƙəyuɪçolla	Taking clams out of the shell after it has been steam cooked or before it is cooked
ƙagiλλamas	Dune grass
ƙəllak ^w	Digging stick made out of yew wood
ƙəlpbayuw	Eel grass twisting stick made from a hemlock tree
Kəxxədək ^w Mt.	A mountain at Mitʔəp at Viner Sound where the Qulus
ƙuluŋta	Large porpoise
ƙətəlla	Fish trap made out of poles or logs
ƙuluk ^w	Half smoked salmon also called d ^ʔ id ^ʔ əŋamalla
ƙuk ^w ƙag ^w isnuk ^w	Deep Harbour in Fife Sound meaning “having flat upright rocks”

luḵ ^w kiya	A halibut hole or good place to catch halibut
loqqa	To collect hemlock cambium
ləḡək ^w	Layers of wet seaweed in a box with weight on it to weigh it down.
Liḡ ^w iḥdaḵ ^w	The Clan Alliance name for the two clans of Weqqēy, the Wiweqqēy of Cape Mudge and Wiweqqəm of Campbell River and their Alliances
luḵ ^w xiwēy	Clam garden
laḵḵow	A common cold
laḵḵuwk ^w alla	Tuberculosis
M	
mamaḥʔa	Whiteman. Acquired from the Nuu chah nulth of the West Coast, from their word for whiteman mamaḥnēy
māmīssa	Cougar
mamax ^w sammà	A rock throwing game played by any amount of people
māmōḡ ^w anna	A rock that children played with. When you smashed them together they spark
Maʔəmtagilla	The Clan that lived at Adams River, was also known as Matilpi. Half of this Clan joined the K#ago> Alliance of Fort Rupert.
məcca	Mink
maʔ ^w mkolla	More than one small island
Max ^w x ^w adʔiy	George Shaughnessy's Potlatch name or Gigax [^] [e~y (nobility name)
Māḥḥpinatus	The Evening and Morning Star. It appears twice and that is why it is called Māḥḥpinatus. It is also known as Venus.
Maḡaniḥ	Dr. Daisy Sewid-Smith's name
mayus	Raccoon
məssəlla	Covet what someone else has
Mitʔəp	The first village of the Q ^w q ^w asutinuḵ ^w after the flood
məḥḥtanēy	The largest eulachon male that goes up a river in a season.
maḵʔinuḵ ^w	Orca or Killer whale
məssiḡ ^w	Sea urchin
məkolla	Small islands like Alert Bay or smaller
miwella	Large islands like Vancouver Island
məḵḵuw	Mountain goat
Mamaliliqalla	The Clan Alliance name of Village Island
Mexmegaḵēy	Winter spring salmon. It does not spawn in any of the rivers. It

	is just passing through.
mig ^w ad	Harbour seal
Mimeqamak ^w	A mountain across from Kingcome Village behind X ^w əpəoy Mountain or Noisy Mountain that has a concave that causes an echo. There is a lake back there fed by a snowfield.
mixəddiy	Porcupine
mumtanēy	Medicine from Grand Fir, also known as Balsam medicine
mədəlx ^w ?id	When liquid boils
məlmadz ^w uw	Thinly sliced sun dried halibut
məlsǵəm (1)	A smoke house made of split spruce planks located on the Kingcome River. The planks have a whitish colour
məlsǵəm (2)	Any object that has the colour white on top, e.g. roof, head, etc.
mutəlla	A custom whereby the people attending a potlatch or feast are allowed to take food home to their families that are not in attendance.
mək ^w balla	A ball on the end of an object, like a halibut club, a baseball bat. It prevents the hand from slipping.
māmasəntallis	Island in a river
Phrases	
(1)	Ǵ ^w astta ləs sa wəp piǵ gaǵ xən wəǵǵa. “Pass me the water please.”
(2)	Kis sən ǵoǵəlla “I don’t know”
(3)	La muǵ hiǵ?uǵastta “It is now the right temperature”
(4)	Niǵ{iqəl “I think”
(5)	?ollaǵalla laǵ xis wat dəm məs. “What have you said is the truth”
(6)	Wiǵəgat d ^z os? “What did you say?”
N	

Nallaḡstalla	Port McNeil, because the bay is facing south
Nəmḡis	Clan Alliance name of the Nəmḡis people who lived at the Nəmḡis River. Their village is now at Alert Bay
naqqačiy	Enamel pail
Nawalak ^w g ^w iḡbēy	Health Bay Point on Gilford Island. It means “supernatural point”
Nawalak ^w	A supernatural spirit that our ancestors called to for guidance and help
ninḡ ^w solla	Name of a slough at the upper log jam on the Kingcome River where the wild crab apple orchards are
nəmsawitḡalla	Paddling across the river
ḡək ^w ət	Salal berry
ḡəḡ ^w ḡ ^w əskən	Soapberry
ḡux ^w x ^w a	Alaska blueberry. It grows at the foot of mountains. The blueberries are similar to those we buy at the store
ḡəḡaq	Canada Goose
ḡəḡḡək ^w	Eclipse. The Old People used to say that a big bird swallowed the moon. They would stay up late singing so that it would be regurgitated.
ḡiḡiḡi	Earthquake
ḡiḡiḡigəmt	Earthquake face mask
Niḡoḡad	Knowledgeable Ones
Nəḡətuw	Name of the main river in Kingcome Inlet
nəlxella	Going up a river

Nənwaqqawēy	One of the mythological names of the Raven
nuyəm	Mythical Stories
O	
?ollaƙalla miχēy ya	Prophetic dream
?Og ^w ilowǵ ^w a	Kim Recalma Clutesi
P	
pəlpəlq	Hammer made out of rock
puyas	Labrador tea
pəlqolla	Reef that is seen at zero tide
paʔis	Small flounders
papuq ^w q ^w aniy	Bull kelp used for grease containers for storage
paçça	Splitting, like splitting cedar bark or splitting the pith from stinging nettle fibre
paχ ^w siwēy	Sandbar that shows at low water, below where the root gardens grow like the Kingcome River estuary
pəkkuw	Basket for jewellery that has a lid or cover
pəlnak ^w k ^w alla	River rises because of the tide and seasonal flooding
P	
pəǵ ^w ǵ ^w ayuw	A dipping or brailing net used for fishing eulachons
pəssa	Investing society that handled the economy of the people, especially the mountain goat fur, which was the currency of the day
pəpaλammałgiłballa	A duck

q̇uq̇əẏuw	Smoked salmon bones. After smoking they were soaked, boiled and eaten
q̇utustollayuw	Stick used to get dried salmon down from the smoke house rafters
q̇abillis	Broken or crushed clam shells
q̇əlcəm	Sinker or anchor
q̇uḥtustolla	Water or hot spring coming up from the earth
Qiẋallaḥallis	The first ancestor of the Ciḱ ^w aḥallis or Bird Clan that joined the D ^z awada?ēnuḥ ^w Clan Alliance
Qaḡagiwēy	The Swan Clan. Place of descent was ?Igisballis or Lizard Point on Malcolm Island. They joined the Mamaliligəlla Clan Alliance
q̇əmd ^z ək ^w	Salmonberry
q̇isinna	Stink currant
Qəḥttalik ^w	Name of the first village at Kingcome Inlet. The village was across the river from the present day church.
Qaḥballis Mt.	The mountain behind the Kingcome Inlet village
Qənd ^z oy yas səns nallaḥ	Milky Way
Qədis	Dixon Island
Qaniqilak ^w	Also known as Hiḥtatusalla which means “the man who repaired everything that was wrong”
q̇annas	Black Katy chiton
Q^w	
Q ^w əḡəḥstēy	Dolly Vardon trout
Q ^w anniy	Nootka lupine root

Q ^w aniq ^w ənḫēy	Halibut bones
Q ^w ədʒamaḥa	Clove hitch or leaf knot
Q ^w aḥəmdʒalla	Mayors Creek. A tributary to the Kingcome River
q ^w iḥa	To crush or grind, e.g. seaweed when it is dry. The same word is used when you grind canned salmon in a modern day grinder.
q ^w ittanna	A knife made from the shin bone from the front leg of a deer
S	
səlyaqqa	Grading the eulachons
səmkka	Making eulachon oil
Səbəlḫit	Name of Adam Dick's maternal grandmother
sagustud	To vote by the show of hands
sappa	To skin an animal
sasella	To hold the canoe so it will not go too fast on a sharp turn
saççəm	Spring salmon
siwayuw	A canoe paddle
siyyia sa wawiddiy	The hair of the kelp. The fronds on a kelp plant
siyya sa papuq ^w q ^w aniy	The hair of the bull kelp
Sewageḫtuwēy	Tracey Island
səkgayuw	Spear from yew wood/harpoon
Səkkəmmaʔəs	Kranmer Island
səllayuw	Hand drill made with a bone bit. The bit was made out of a beaver rib bone.

siḵ ^w ḵ ^w a	To travel in a vessel, e.g. a canoe, boat, car
səŋqqa	To look for cedar bark
saḵ ^w ?id	Cutting up seal
sax ^w k ^w is	Seal oil
T	
təḵḵəm	Long cedar branch or with used for weaving
taḡat	A fish trap for eulachons
Təmminassustolagilak ^w	Mythological name of the squirrel
təmminas	Squirrel
tayaq ^w allas	Squid
təq ^w q ^w a	Pacific Giant squid
T{	
ḵəḵ ^w sus	Springbank Clover rhizomes (roots)
ḵəlqiy ^y a	Female eulachon that has the eggs. She goes up the river first
Tuq ^w q ^w ow	Arrow Pass
Tuḵəpstolla	A duck with a white spot under the eye called Surf Scooter
ḵəqqa	Sun dried berry cakes
ḵəqḡad ^z uw	Split cedar rack for drying berries
Tiḵḵəyəm	Haddington Island
ḵəkillak ^w	Estuarine salt marsh root garden
ḵəppəy ^y əciy	Flea, a jumping insect that feeds on blood

X	
xiḡot	Ugly or ancient steam boat
xəllaçiy	Smoke house
Xidʒənsallas	A good halibut spot near Hopetown
xəmmayuw	A snare for goose, ducks, eagles, etc.
xuk ^w k ^w əm	Northern rice root
X ^w	
X ^w əpçow Mt.	Noisy Mountain in Kingcome Inlet. The refers to the shape of the mountain “x ^w əpçow” or hollow, and it resounds with echoes, giving it the English name Noisy Mountain.
X	
Xaludʒayuw	A stick that was used for scooping. It looks like a miniature hockey stick. The net mesh is made from stinging nettle and the long handle is made from a willow branch. It was used to scoop out the hot rocks from the bentwood box cooker when the water boils and to scoop hot rocks into the bentwood box cooker when required.
ḡamumuwigēy	Spine
ḡəccəm	Bentwood box made of cedar
ḡ ^w aλλayuw	A bent knife for filleting fish. Historically made out of a clam shell
ḡallaʔēs	A horse clam shell or any other shells on the beach
ḡammalla	Commoner. You have no noble blood, therefore you have no position or standing
Xawages	Simoon Sound

yəkkəxlēy	The dregs of the eulachon grease
yo!	Hello!
yolla	Wind
yullala	To paddle down river
yuwwis	The name for the eulachon fishery. The yuwwis was earlier than the taḡaḷ. When you yuwwis you fish for eulachon using a brailer
yagoḷ	Old and ugly
U	
?umeḷ	One of the mythological manes of the raven
?ug ^w eḡtollis Mt.	Mt. Silverthorne. The place of the descent of Qawadiliqəlla, the patriarch of the Wolf Clan. He was Adam Dick's first ancestor.
?uḡ ^w amēy	Clan Chieftain
?ux ^w siwēy	The mouth of the river
?uk ^w annalis	The name of the Kingcome Inlet village
?uk ^w exxēy	Knee
?uḡ ^w ḡikalla	Bag pack. To pack on one's back?
W	
wəlswəlkka	A wood ring made out of a spruce branch for the fish trap
wannēy	Pacific herring
wəḷp̄pa	No flavour
Wagittamēy	Name for the Fraser River. It means the largest river
wəḷḷollas	"A place where deer antlers fall off". There is a bluff near ḡəskinna?əs, the cranberry field at Kingcome Inlet where the deer

	take off their antlers
wəłłaq	Deer antler when it is still on the deer
wəłłəm	When a deer antler is on the ground. It is no longer on the deer.
wállá	Stop
wallasxey	Saber toothed tiger
wassa	When herring spawn
Wassillas	A bay in the inlet of Kingcome
watta	Pulling a canoe up the shore
wayułtən	Half smoked eulachons
wáwáddiy	Kelp
winna (1)	To challenge another group of people or an individual as in war or battle
winna (2)	Courting a potential bride to win favour from her clan and family. The groom's clan has a mock battle against the bride's clan, and the bride's family and clan give her to the groom as a peace bride at the end of the battle.
winnanəm	A term used for a bride that has gone through a mock battle. It means "was won in battle".
Wippallasug ^w ilak ^w	Name of the first ancestor of the ńińəlkinuk ^w or Mountain Goat Clan. He was the father of Dabənd.
Wənnáłdəms	Mainland of British Columbia
wəlk ^w	Large cedar tree
wissəm	Male that puts sperm on the eggs
wixtułəxs	A wedge with a hook that is used for splitting blocks out of a

	canoe
weq̄q̄es (1)	Pacific tree frog
weq̄q̄es (2)	Western toad
Wottuw	Thompson Sound
wayadallaḡas	Bluff at Pearce Peninsula in Fife sound
wallas w̄iwa	The big rivers
†	
łək̄wimas	Strong e.g. body, drink, coffee
łəq̄q̄stən	Seaweed
łax̄w̄p̄pa	Bitter
łətdayuw	To stir the eulachon and break their carcasses apart
łəttə	To split e.g. board or plank
łətdayuw	A froe like tool used for splitting wood
łək̄w̄k̄wey	Liquorice tasting fern
łənc	Stackhouse Island
ə	
ʔəliwas	Sitka spruce
ʔəllas	Seacucumber
ʔəluɖʔoy and k̄wamma	A star constellation that is monitored during clam digging season from October to April.. When the two constellations come together in April, it is time to move inland to prepare for the eulachon season

ʔəʔənt	Herring spawn
ʔəʔəlla	Dentalium shell. Name means “the string of shells is easy to break”
ᐱ	
ᐱəmgayuw	Wedge
ᐱəldʔa	Rainbow trout
ᐱəssəlla	Down feather dance
ᐱ	
ᐱəncəmhəmmaçça	Bear blanket
ᐱənak	A knot in a piece of wood
ᐱəsᐱənk ^w	Rock weed (seaweed)
ᐱissallagilak ^w	Main character in the mink story
ᐱuppək	Root of any plant or tree
ᐱaq ^w stuw	“colour of red”. This is the name for brown sugar
ᐱəmqqayuw	Female common merganser
ᐱəğissa	Long lining for ducks or flounder
ᐱak ^w k ^w ałła	Leaning on ones elbows
ᐱawəls	Elk/moose
ᐱammaʔis	A beach
ᐱak ^w k ^w aniy	Elbow
ᐱaq ^w məs	Red alder tree
ᐱak ^w atta	To kneel

λaq ^w mad ^z isballis	Willow point outside Campbell River. It means “having alder trees on the point”.
λēy	Black bear
λəmǫǫa	Yew wood (pacific)
λəmǫǫa labəm	Yew wood peg or nail
λinna	Eulachon oil
λinnagilla (1)	Making eulachon oil
λinnagilla (2)	A potlatch where you give away eulachon oil
λinnaǰək ^w	“bannock” made with eulachon oil and deep fried in eulachon oil
λaǫ ^w səm	Red snapper
λupbək ^w	Barbequed fish
λabat	Basket for female personal items
λupsayuw	Barbecue stick
λəmatax ^w	Campbell River
λaq ^w q ^w anolla	Small island near Gilford Island village in the mid channel. Chief Adam Dick wished he could build a house there.
λ	
λαχ [?] ənēy	Standing on a log
λαχbēy	Standing on the end of a log, a wharf, a platform etc.
λαχ ^w xiwēy	Standing on a bluff
λοχ ^w lēy	Standing on the stern of a boat
λαлуǰēy	Standing between something

laḵʷlanallis	Standing on a log on the beach
lawis	Standing on a beach
laḵʷḵʷəḵsalla	Standing on a boat
lodʷoy	Standing on something flat e.g. board, sheet of ice
laḵʷsamallis	Standing on a rock
laḵʷḵʷagiwēy	Standing on the bow of a boat
laxλos (1)	Two or more people standing outside
laxλos (2)	Two or more standing trees
λos (1)	One person standing outside
λos (2)	A standing tree
ləwəllaḵḵa	Feather down dance
laxxaḥa	Steering a canoe/boat/car or any type of vessel
laḵlalla	Name of a dipper or ladle with a long handle used to transfer liquids
laḵlalladʷiy	Big dipper (a group of stars)
laḵlallabiduw	Little dipper (a group of stars)
luḡʷəmxʷid	When you turn a canoe around while travelling
ləksəm	Root of the pacific silverweed
laḵʷḵʷēy	A seat or position in the investing society called p̄əssa
ləxsəm	Pacific silverweed
ləp̄bəm	Nails, originally the name for spruce pegs
lawwayuw	An Indigenous weir that is used for catching eulachons

Appendix 2. Letter of Support

To the attention of the Human Research Ethics Board,

I am very pleased to provide this letter in support of the Master's research and thesis of linguistics graduate student Melissa K. Grimes. My name is Ogwilowgwa, Kim Recalma-Clutesi; I am a documentary filmmaker and a member of the Ninogad Collective. The Collective was formed in the late 1980 by knowledge holders, Kwaxistalla, Clan Chief Adam Dick and Mayanilth, Dr. Daisy Sewid-Smith to mentor Chief George Shaughnessy and myself on gender specific roles and practices on every aspect of the potlatch, ceremonial and natural worlds of the Kwakwaka'wakw people. Kwaxistalla, Clan Chief Adam Dick is the last traditionally trained Clan Chief and Potlatch Speaker of the Kwakwaka'wakw. He was secluded as a child by the traditional Clan Chiefs in order for him to avoid residential school and to begin at the age of 4 intensive training in his Clan Chief stewardship obligations and all aspects of the potlatch and ritual world. He does not read or write and has only learned to speak English in his 60s. We have both served as primary source informants to several Professors and graduate students, some of which have graduated from UVic.

We met Melissa back in the fall of 2007; we had been organizing a series of projects with Dr. Nancy J. Turner, and were about to welcome her graduate student Abe Lloyd to work under the guidance of the head of our team, Clan Chief Kwaxistalla, Adam Dick. The project would involve the ethnoecological restoration of a traditional root garden in Kwaxistalla's community, Kingcome Inlet. Dr. Turner, along with Dr. Doug Deur, had worked with Kwaxistalla on several projects in the area, dating back to the early 1990s.

Melissa joined our team after much consideration, discussion, and time. We saw in her that she was careful not to try rushing the process, and waited until we asked her to collaborate with us. We recognized from her knowledge of her own tribal background that she would respect our laws and was keen to understand the parameters of the world the knowledge holders were willing to allow her to participate in. We knew that she was interested in language, culture and traditional foods, and she seemed eager to work in the direction that we had planned. She was to work closely with Mayanilth, Dr. Daisy Sewid-Smith, who given her vast knowledge of the Kwak'wala language and linguistics, would mentor Melissa. Mostly, Melissa was to work alongside Kwaxistalla, listening to his words, and helping Abe by writing the language down in phonetic form. It was a nice fit to have both a scientist and a linguist working with our Clan Chief .

Throughout our research, we started thinking and talking about how we would go about our projects, and how we would represent this work once it was done. We were also planning our methodologies from many different disciplines, and that required a lot of communication and compromise from everyone. We always had collaboration, both

academically and with the traditional knowledge holders (ninogad) as the core of our interaction, documentation and teaching moments. It was vital that the values, rules and practices of our customary laws were understood and adhered to. It was also as vital for us to commit to correcting rather than punishing if these areas were breached, which is contrary to our customary laws. Melissa displayed an endless thirst for knowledge, but more importantly displayed very early into our relationship a gift for collaboration, acting as a bridge between the 2 worlds (academic and cultural) and soon became a trusted insider. In order for Melissa to work on Kwaxsistalla's ancestral root gardens without him in attendance, it was decided to name her at his son's potlatch in order to bring her into the family so to speak, thus making her obliged to uphold the rules while be afforded protection and unprecedented access. Few grad students have been invited into Kwaxsistalla's inner circle in this manner.

It was very important to us that Kwaxsistalla's knowledge was represented in an appropriate way, and we also wanted to make sure that by publishing it we wouldn't be losing any control over the results of our collaboration. The Traditional Ecological Knowledge that Kwaxsistalla and I were discussing with Melissa and Abe is knowledge that was once closed to general consumption. Only certain people, connected by blood or marriage that would be privy to inherit and in turn be invited to learn specific aspects of that realm. Given the times we live in, with cultural authorities rapidly diminishing, we felt it necessary to cross the boundaries upheld in our culture since time immemorial, by opening up to people outside of our community and culture. This is because we believe it is necessary to properly document the knowledge of our Clan Chiefs who have received extensive and specialized training from our ancestors. It is also important for new researchers to respect our protocols and ways of conducting research. Our cultural world has many rules and complex systems that are sometimes not recognized or discussed in university courses preparing graduate students to work in the "field". With this, we are required to train the students that we work with to respect our ways of transmitting knowledge, and protecting it as well. Working with Melissa, we encouraged her to discuss some of these issues, as they are important and reflect some of the realities of doing research with a Clan Chief and holder of Traditional Ecological Knowledge, and in a community setting.

To conclude, we wish to again express our support of Melissa, and affirm that she has the permission to discuss and describe both the projects that she was invited to join, as well as the resulting issues that her thesis raises. Her study supports a methodological framework based on community-steered and controlled research, which reflects the nature of our research team.

Please feel free to contact me with any questions or concerns you may have. Both Kwaxsistalla and I would be very pleased to meet in person if that is needed.
Respectfully,

Ogwilowgwa, Kim Recalma-Clutesi
Kwaxsistalla, Clan Chief Adam Dick
Mayanilth, Dr. Daisy Sewid-Smith

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