Ła Al’algyaga Laxyuuba Gitk̲'a'ata (The Territory of the Gitga'at Speaks): Place-Based Indigenous Knowledge in the Heart of Gitga'at Territory

by

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Abstract

Indigenous knowledge plays an increasingly vital role in academic scholarship, Canadian law and policy, and the promotion of environmental awareness. In the last three decades, the methods used to research Indigenous knowledge have become an important focus of inquiry in the social sciences. Researchers agree it is essential to incorporate the ontology and epistemology of the people being studied into these methodological frameworks. The most appropriate framework for understanding human-environmental relationships is one rooted within the culture of a community and its people, the land from which they come, and the language that is their own. Such research on people and place has implications far beyond the local level. This includes the protection of biocultural diversity, the revitalization of language and cultural connections, and Indigenous rights and title.

This dissertation compiles three interdisciplinary research papers to tell the story of relating to *place* in an Indigenous context. Using the knowledge of my own people, I illuminate the connections between place-based Indigenous knowledge, heritage preservation, language, identity, and environmental management. The research focuses on a sacred watershed of the Gitk̲'a'ata people, also known as the Gitga'at, a *Sm'algya̲x* speaking tribe of the Ts'msyen (Tsimshian) of the Northwest Coast of British Columbia. The watershed, named *Laxga̲lts'ap*, holds significant meaning to all Gitk̲'a'ata today, as it was their ancestral home for thousands of years and continues to act as a breadbasket for the people. Using an autoethnographic approach grounded in Indigenous methodologies, this dissertation tells the story of *Laxga̲lts'ap* through three thematic topics: ethnohistory; traditional ecological knowledge, stewardship, and harvesting; and *Sm'algya̲x* – the Indigenous language of the Gitk̲'a'ata people. While braiding Indigenous Knowledge with the academic disciplines of archaeology, resource and environmental management, and linguistics, this dissertation honours deep-time Indigenous knowledge systems while exploring what it means to understand humans and their relationship with *place* today.

Keywords: Indigenous Knowledge; Indigenous Stewardship; Indigenous Archaeology; Indigenous Place Names; Tsimshian; Gitga'at

Dedication

This research is dedicated to all who reside within Gitk̲'a'ata territories, human and non-human. May we continue to grow and learn how to relate with each other, *for all time*.

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First, I want to give my absolute thanks to my community, knowledge holders, and Elders - past and present. T'ooyax̲sut 'nüüsm. The gift you have given me is beyond description and I hope I can continue to honour the passing down of this knowledge to our people indefinitely.

I want to stress that the knowledge within this dissertation is not mine, but our community's. For the readers, it is important to understand how Gitk̲'a'ata knowledge should be seen as being held and practiced as a collective. This knowledge has been generously shared by Gitk̲'a'ata Elders and knowledge holders throughout my adult life and derives from our rich territories and the ancestors who chose to pass it on. I will forever be a student of my culture, continuously learning from our people and the places we inhabit.

To my immediate family:

To my mom, your determination and ability to navigate the world amazes me. I don't know if I will ever emulate the magic you bring into life, but I will try. You have supported me in every aspect of my life, giving any spare ounce of your being to me and my endeavors, even when your journey was tougher than anything I could ever handle. You amaze and inspire me.

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My grandfather, who modeled how to laugh, joke, sing, and tell stories on a daily basis.

My grandmother, who taught unconditional love, I wish you were here today so I could hug you and bring you freshly harvested food.

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Glossary: Sm’algya̲x Words

Adaawx	Oral Histories or oral narratives, particularly histories that are owned and of institutionalpo, litical, or legal importance. Translated as true tellings.
Ayaawx	Tsimshian law and legal orders.
G̲anhada	A matrilineal phratry of the Ts’msyen people, represented by the Raven crest.
Gispudwada	A matrilineal phratry of the Ts’msyen people, represented by the Killerwhale crest.
Gitga’at First Nation	The modern government body representing the Gitk̲’a’ata and all its citizens represented by an elected band council. This council works in collaboration with Gitk̲’a’ata traditional leadership and governance practices.
Gitk̲’a’ata	The Gitk̲’a’ata people, one of several tribes of the Tsimshian of the Pacific Northwest coast. Also referred to as the Gitga’at.
Gitxaała	A Tsimshian/Sm’algya̲x speaking tribe who neighbour the Gitk̲’a’ata.
Gugwilxya’ansk	A term to describe the institutional process of passing down owned items (tangible and intangible), knowledge, stewardship rights and responsibilities to way of life on to future generations. Translated as for all-time passing down.
Laxg̲a̲lts’ap	An ancestral home of the Gitk̲’a’ata people prior to colonization, currently hosting several house structures and utilized for summer and fall harvesting.
La̲xgyibuu	A matrilineal phratry of the Tsimshian people, represented by the Wolf crest.
La̲xsgyiik	A matrilineal phratry of the Tsimshian people, represented by the Eagle crest.
Luulgit	A feast or potlatch, instrumental in the institutional workings of the Tsimshian governance system.
Mati	The word for mountain goat in Sm’algya̲x.
Naxnox	A supernatural being or entity, or one’s supernatural power.
Pteex	The word for clan or phratry in Sm’algya̲x.

Lax̲ Kxeen	The island the modern-day city of Prince Rupert sits on, this term is also used to refer to the city itself. Sometimes Kxeen is used informally.
Sm'algyax̲	The language of the Tsimshian people.
Temlaxam	An ancient city on the upper Skeena River that many T'smsyen, Gitksan, and Nisga'a communities have ancestral ties to.
Tlingit	Northern neighbours of the Tsimshian people, of whom there is a rich shared history of origins and political relationships that include war and allyship.
Ts'msyen	The Sm'algyax̲ term for the Tsimshian people of the Pacific Northwest coast.
Txałgiiw	The place name for the modern-day village of Hartley Bay. Alternative spellings: *Txałgiw* and *Txałgiu*.
Txeemsm	A Tsimshian trickster or archetype for human lessons and history.
Waap	A local branch or subdivision of the phratry or clan. Often named after the head chief.
Wilksi'waatk	The paternal clan of a Ts'msyen person.

Chapter 1.

Introduction

In March of 2012 the Gitga'at First Nation was hosting a joint review panel for the Enbridge Northern Gateway Project in Hartley Bay, B.C. The project was a proposed oil pipeline and tanker route that would transport bitumen oil via tankers through the heart of Gitk̲'a'ata territory. Though I had presented at the joint review panel as a member of the Gitga'at First Nation a month earlier in Prince George, B.C., I was unsettled not being in my community. I was unable to travel from Prince George due to my on-going studies, but I hungered to sit amongst my people, defending our territories whose meaning to us is beyond words.

The night before the hearing in Hartley Bay I dreamt of a place we Gitk̲'a'ata call *Laxg̲a̲lts'ap*, a sacred watershed and the physical home for our people prior to reserve creation. In this dream all the animals of the watershed marched in unison up a mountain that overlooks the mouth of *Laxg̲a̲lts'ap's* riverine inlet, where it connects to the Douglas channel - the very channel the oil tankers would pass through. The animals were being led by the mountain goat (*mati*), drumming with their hooves, a song of defiance in-pace with every footstep. The message was clear to me: every non-human in the inlet was telling us to do everything we could to stop this development.

As with other Indigenous cultures (Brody, 1988), dreams are deeply important to Ts'msyen (Tsimshian) people (Guédon, 1984), are inherently tied to spirituality, and dabble in the grey area of how humans communicate with the non-human world. This dream had an array of meanings for me, however, the sentiment that relates to this dissertation has to do with how the land speaks to its occupants. In this context, the land was using an age-old vessel for the Gitk̲'a'ata - the dream world – to communicate how it did not approve of the proposed human-led industrial development. Yet the dream moves beyond that, it served as a personal reminder to the power of a place - *Laxg̲a̲lts'ap* - where so many human decisions have been based on eco-spiritual encounters that define our culture, laws, customs, and governance practices. My first visits to *Laxg̲a̲lts'ap* in

2011 are described below, however, it was about a year into my relationship with *Laxgalts'ap* when this dreamed happened and would open my mind to how our people learned to exist in this landscape under the authority and agency of the non-human ecological beings within it.

Not long after the events described above, the Gitga'at First Nation and many Gitk̲'a'ata Elders began asking me and several researchers to begin telling the story of *Laxgalts'ap*. As my relationship with *Laxgalts'ap* grew over the coming years, it became easier to understand how to tell this story. From the vantage point of the Western academy, which tends to silo knowledge, Indigenous knowledge encourages interdisciplinary thinking across disciplines (Lepofsky et al., 2017; Swiderska et al., 2022). Furthermore, because of its truly wholistic nature, Indigenous Knowledge can transcend from interdisciplinary to transdisciplinary, requiring multiple research lenses - this is no different for the Gitk̲'a'ata. In the chapters below, I aim to lay out three different ways of understanding the story of *Laxgalts'ap*. Each of these research lenses align with what Elders[1] had been teaching me about *Laxgalts'ap* and are the result of years of conversations with my relatives, community members and colleagues. Three thematic topics run through this dissertation: oral histories; traditional ecological knowledge and stewardship; and *Sm'algyax*, the language of our people. In this dissertation I weave Indigenous knowledge and academic research together to preserve and honour deep-time knowledge systems across these thematic topics, while highlighting what it means to understand humans and their relationship with place in a current context.

[1] Throughout this dissertation I will refer to *my Elders* regularly. I am referring to a mix of Gitk̲'a'ata Elders who have been dedicated to teaching me knowledge throughout my adult life. In alphabetical order these Elders are: Charlotte Anderson, Bossy Bolton, Matthew Bolton, Phyllis Bolton, Albert Clifton, Arnold Clifton, George Clifton, Helen Clifton, Henry Clifton, Ruby Clifton, Danny Danes, Mona Danes, Elizabeth Dundas, Isobel Eaton, Ernie Hill Jr., Theresa Lowther, John Pahl, Ronald Reece, Sarah Reece, Clyde Ridley, Fred, Ridley, Harvey Ridley, Allan Robinson, and Violet (Tina) Robinson. There are also knowledge holders, who are not considered Elders by age, though have contributed to my *Laxgalts'ap* learning journey immensely: Archie Dundas Jr., Cameron Hill, Eva Hill, Donald Reece, Marven Robinson, Nicole Robinson, Stan Robinson, and Walter Robinson.

1.1. Contextualizing the Research

My research is embedded within a community project led by the Gitg̲a'at First Nation entitled "Empowering a Nation: Reconnecting to 'Old Town' - The Ancestral Home of The Gitk̲'a'ata." This project was initiated by the Nation's concern of industrial development in the area as mentioned above, and carried out through research partnerships with Simon Fraser University, the University of Victoria, and the University of British Columbia. Here I share the portions of this project that I worked on directly.

The knowledge shared and learned throughout the *Laxg̲a̲lts'ap* research project is broad and beyond the scope of what can be shared here. The *Laxg̲a̲lts'ap* research team consisted of Dr. Dana Lepofsky, Dr. Bryn Letham, Gitga'at Guardians, Dr. Nancy Turner, Chris Picard, and myself. Our team sought to contribute to the stewardship of Gitk̲'a'ata knowledge via several processes. We have done this by: (a) creating a community-owned database that can store traditional knowledge and also support community education; (b) creating an engaging and informative interactive map-based website and mobile app allowing community members to move through the digital landscape of the watershed and interact with different types of knowledge; (c) hosting community meetings and providing updates to share project developments and findings; and (d) preserving knowledge in the most genuinely Ts'msyen way, passing it down to community members and youth in the field, with Elders, on the landscape of *Laxg̲a̲lts'ap*.

1.2. Introduction to the Gitk̲'a'ata

The Gitk̲'a'ata, also known as the Gitga'at[2] (anglicized), are a tribe of the *Sm'algya̲x* speaking Ts'msyen (Tsimshian) peoples who have resided on the outer waters,

[2] Throughout this dissertation I will use both Gitga'at First Nation and Gitk̲'a'ata to describe my people. For clarity, the name *Gitk̲'a'ata* is the *Sm'algya̲x* word for our collective nation or tribe within the Tsimshian. The "Gitga'at First Nation" refers to the modern government body and all its members represented by an elected band council who works in collaboration with traditional hereditary leadership. More recently, and as less fluent speakers exist in our communities, an anglicized version of our name has been commonly used: Gitga'at. The vast majority of fluent speakers emphasize the use of "*Gitk̲'a'ata*," though it is worth noting that I have heard some fluent speakers use "*Gitk̲'a'at*" when referring to one person as opposed to a collective.

inland rivers, and coastal mountain ranges of the Northwest Coast of British Columbia for millennia. Most Gitk̲'a'ata reside today in our ancestral village of *Txałgiiw* (Hartley Bay) and the nearest urban centre *Kxeen* (Prince Rupert). The traditional territories of the Gitk̲'a'ata people span this general area (Figure 1) and are overseen by our traditional hereditary governance system.

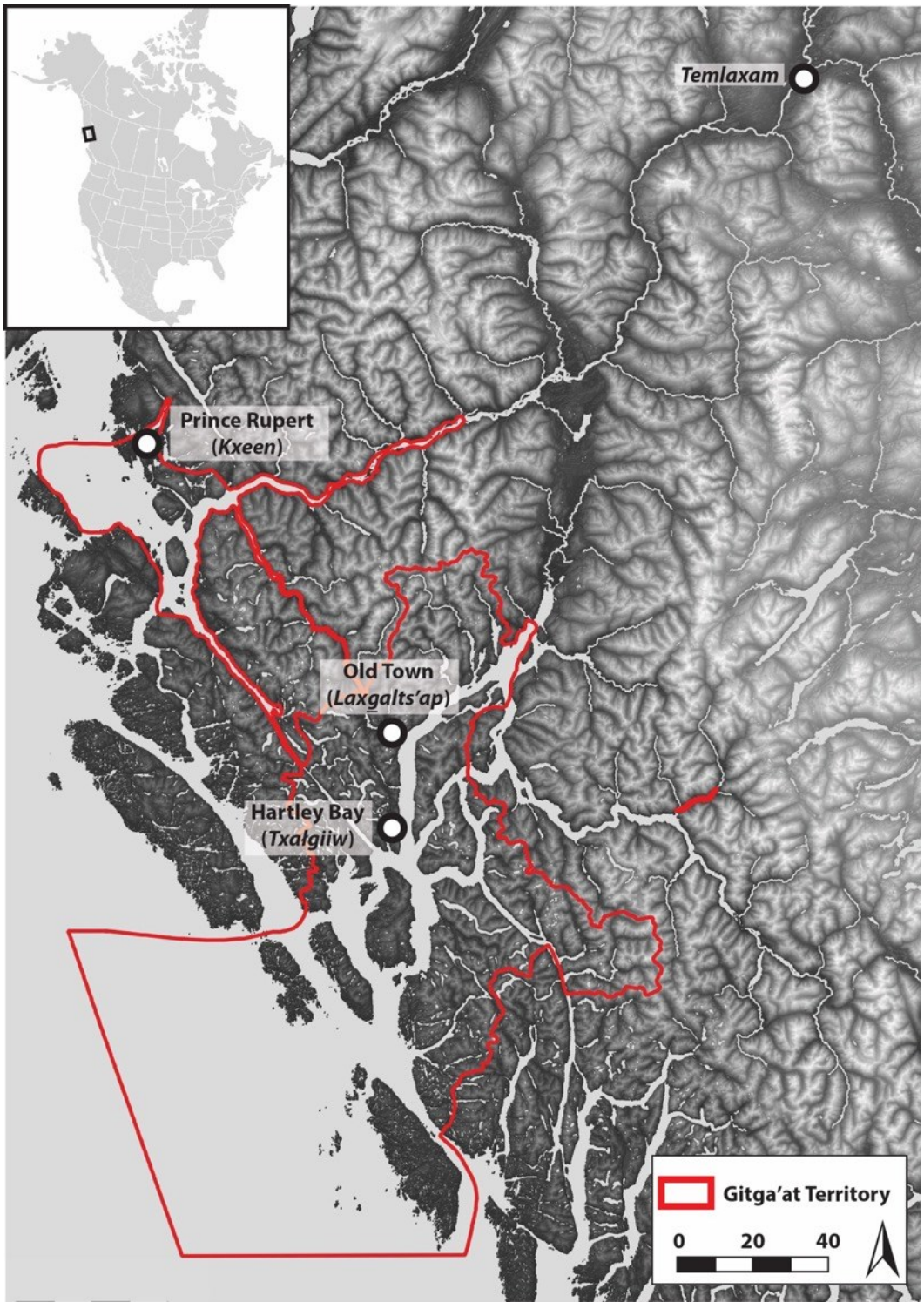

Figure 1. **The modern village of Hartley Bay (*Txałgiiw*), the nearest urban of Prince Rupert (*Kxeen*), and Douglas Channel (*Gisi Xamu*) connecting Old Town (*Laxgalts'ap*) to Hartley Bay- all situated within Gitga'at Territory. *Map courtesy of Bryn Letham.***

There are currently three clans amongst Gitk̲'a'ata: *Gispudwada* (represented by the killer whale crest), *G̲anhada* (represented by the raven crest), and *La̲xsgyiik* (represented by the eagle) crest; there were previously four; including the *La̲xgyibuu* (represented by the wolf crest) who were absorbed into the *Gispudwada* as a result of conflict (Beynon, 1953a; Campbell, 2011; Marsden, 2012). Each of these clans are further subdivided into local house groups or lineages, that have interwoven political ties, responsibilities, and rights to other villages and nations amongst the Ts'msyen and beyond (Greening, 2017). These collective ties make a complex web of socio-political relationships that have endured through millennia on the Northwest Coast.

1.3. Introduction to Laxg̲a̲lts'ap[3]

The name *Laxg̲a̲lts'ap* refers to two areas: the entire watershed flowing into the Kitkiata Inlet, and a settlement located at the mouth of the Kitkiata River, still used by Gitk̲'a'ata today and with significant archaeological remains indicating longstanding occupation. In both cases, the utterance of *Laxg̲a̲lts'ap* among the Gitk̲'a'ata triggers an essence of "being home", as exemplified in the translation of its name, *lax* meaning *'on,'* and *g̲a̲l=* *'*container for*'* and *ts'ap* 'tribe, community' (see chapter 4). The *Laxg̲a̲lts'ap* watershed contains many locations that are linked to oral traditions, reflecting the metaphysical connections the Gitk̲'a'ata have to this place. Oral narratives narrate how *Laxg̲a̲lts'ap* became the main home for the Gitk̲'a'ata after a prominent lineage of "newcomers," the *Gispudwada* of *Temlaxam* (an ancestral city on the upper Skeena River) migrated into the area after floods, landslides, starvation, and miniature ice ages forced them out of their longtime home on the *K̲'a̲la̲ Ksyen* (Skeena River) (Barbeau & Beynon, n.d.(a); Harris & Robinson, 1974; Wright, 2003). Over several millennia, the influence of this branch of *Gispudwada* led to the amalgamation of other clans already established in the general area, and their eventual amalgamation in *Laxg̲a̲lts'ap* (Barbeau & Beynon, n.d.(a); Campbell, 2011; Marsden, 2012). Proceeding this amalgamation (see

[3] This introduction is from the "Introduction to *Laxg̲a̲lts'ap*" *in chapter 2.*

chapter 2), this watershed became the home of the Gitk̲'a'ata and the cultural epicentre that it is still today.

Laxg̲alts'ap is a 26 km long watershed situated within a towering coastal mountain range whose waters flow into the Pacific Ocean. At its mouth is a dynamic estuarine landscape that has been central to the lives of the Gitk̲'a'ata for millennia (Letham et al., 2023). Within this watershed are three rivers, the *K̲'al̲a K'waal.* (Quaal River), *K̲'al̲a K̲'a'at* (Kitkiata River), and *Xaa 'g̲astaa* which in combination support all six species of Pacific salmon found on British Columbia's Coast: chinook, sockeye, pink, chum, coho, and steelhead. These rivers are the foundation for the ecosystems that have sustained all beings within this place for millennia. Located ~32 km north of the already remote village of Hartley Bay, the watershed is accessible only by boat or seaplane, and access is weather and tide dependent. The Gitk̲'a'ata maintain a deep physical, emotional, and spiritual connection to the *Laxg̲alts'ap* watershed, as it was their main village prior to the creation of Indian Reserves in Gitk̲'a'ata Territory in 1889. Many Gitk̲'a'ata Elders today were born and raised in *Laxg̲alts'ap,* spending their summers and falls harvesting from all three rivers within the watershed. Most of these Elders have passed on these traditions, allowing *Laxg̲alts'ap* to remain a cultural, spiritual, and emotional home to the Gitk̲'a'ata people (Lepofsky et al., 2017).

The long-term connections of the Gitk̲'a'ata to *Laxg̲alts'ap* are reflected in the archaeological record and harvesting locations throughout the watershed. At the river's mouth are hundreds of petroglyphs that frame both the entrance to the watershed and the intertidal flats rich with abundant sea life, and on which are the remains of ancient fish traps. The riverbanks host numerous ancient settlements, expansive Pacific crabapple orchards and berry patches, and extensive hunting and trapping grounds. The alpine environments overlooking the valleys support bountiful harvests while holding stories and spiritual sites. These geographies are bound together by the rich salmon bearing waterways that flow through them.

1.4. Situating Myself Within the Research

Although I have ties to several communities through my Ts'msyen matrilineal lineage (Greening, 2017), I formally identify as Gitk̲'a'ata. I am both a member of the Gitga'at First Nation and sit within the house of *Wii Hai Wass* (Great Southeast Wind) of the *Ganhada* clan. Within this house, I hold the name *La'goot* (Of the Heart; Of No Use Heart) and have held several roles including master of ceremonies, historian, and ceremonial steward.

While I have always known I was *Ts'msyen*, I did not grow up in my community. I grew up several hours inland from *Kxeen* in a rural village called Burns Lake in Wet'suwet'en territory. Working for both Lake Babine and Wet'suwet'en communities in the area, my mother facilitated connections with local Indigenous communities that have had an everlasting influence on my life. Throughout my early adolescence, I was privileged to learn from many Dakelh, Wet'suwet'en, Gitksan, and Cree knowledge holders. Yet it was a mix of cultural expression through music, political interest, and harvesting that sent me on a path with my own Elders in my adolescence. Ultimately, this reconnection with my people led me to be in the positions I am in today.

I have been conducting research both formally and informally within my community my entire adult life and at different times have served as a researcher, project manager, and elected councilor. These positions have facilitated privileged access to Elders and community members within my nation. In conducting research within my community, I have benefited from established, trusting relationships.

However, along with these privileges there is also a complexity and heaviness to conducting research within my own community. I feel a deeper sense of responsibility and accountability than I would as an outsider researcher (Fast & Kovach, 2019; Windchief & Cummins, 2022). Furthermore, we must navigate the complex social dynamics of our communities, which are diverse and always-changing (Windchief & San Pedro, 2019; Whyman et al., 2021).

Indigenous research is now an established practice with well-developed methodologies in multiple disciplines. In my area of study this began with Indigenous researchers who influenced early North American Anthropology, like William Jones (Fox) and William Beynon (Ts'msyen). Jones and Beynon undoubtedly influenced research processes and methodologies in their time, while laying a progressive groundwork for current and future work with Indigenous communities. We can now extend this progression to Indigenous scholars who have directly taught us *how to research*, such as Vine Deloria Jr. (1969), Joe Couture (1989), Gregory Cajete (1994), Marie Battiste (1998, 2000), Linda Tuhiwai Smith (1999), Shawn Wilson (2001, 2008), Marlene Brant-Castellano (2004), Margaret Kovach (2005, 2021), Robin Wall-Kimmerer (2013), Leanne Betasamosake Simpson (2017), and Sweeney Windchief (2019, 2022). Each of these scholars have helped me understand Indigenous methodologies, and have identified and modelled Indigenous approaches to research for Indigenous people internationally.

Though Indigenous research has been expanding and gaining widespread recognition due to the many Indigenous scholars who have laid the groundwork, Indigenous research will always exist in a political playing field. From the Indigenous scholarship that paralleled the American Indian Movement (AIM) (Deloria, 1969; Cardinal 1969), to today, where Indigenous researchers still question whether Indigenous knowledge systems can exist within and alongside Western society (Coulthard, 2014; Atleo, 2015, Atleo & Boron, 2022): Indigenous people have always known research is not apolitical (Wilson 2001; Smith, 1999). To this extent, Indigenous research and writing can have an immense impact on influencing positive social change, while also creating a space of vulnerability. How research is used within and outside of one's community can be dangerous (Absolon & Willet, 2005), and research has been used by external parties in harmful ways against the community of which the research has derived (Martindale, 2014; Usher, 2000). Due to thoughtful mentors and strong community relationships, my experience with community research has been positive and indescribably rewarding thus far. The chapters below are my expression of reciprocal, just, and relational research within my community.

Throughout this dissertation, readers will find allusion to the personal complexities and questions I faced while writing each chapter; as one would find with all the scholars mentioned above. This is a result of being an active participant and practitioner of the cultures we study. For example, in chapter 2, I describe the tension in making Gitk̲'a'ata histories public and the general use of Western ethnographic sources. In Chapter 3, where I struggle with *how much* knowledge should be shared, or what is sacred and what information should be kept only amongst the practitioners, especially in spiritual and ceremonial contexts. Non-Indigenous ethnographers are unlikely to experience these tensions, yet Indigenous scholars feel this tension within our very being. The challenge of juggling two sometimes incompatible research ethics from two different cultures was never far from my thoughts.

1.5. Indigenous Theory, Methodologies, and Philosophies

Indigenous methodologies emerged in response to the deeply Eurocentric worldview of mainstream academia (Kovach, 2005; Smith, 1999; Wilson, 2008). A common theme amongst Indigenous theories, methodologies, and philosophies is their requirement of reflection of the self and one's relationship to the community being studied, enabling a co-construction of knowledge. As a result, Indigenous research is collaborative and should affirm community benefits and responsiveness to community priorities (Brant-Castellano, 2004; Kovach, 2021). Though Indigenous methodologies are as diverse as the cultures they come from, they all have shared histories of colonization and contemporary realities (Hayward et al., 2021; Little Bear, 2000). In response, they also strive to further the process of Indigenous self-determination and knowledge preservation.

Indigenous theory also converges on an understanding that *land*[4] *is pedagogy* (Simpson, 2017; Tuck and Yang, 2012), and how land-based theory re-centers ecologies

[4] Indigenous scholars often use the term "the Land" as an all-encompassing term for one's territory. The Land can include land, water, skies, incorporating a spiritually dynamic place. See Cajete, 1994; Lowan 2009. When referring to "the Land," Indigenous authors are capitalizing "Land" to emphasize how it is alive and animate in Indigenous cultures.

as a primary teacher of knowing how to exist in the world (Gaudet, 2019; Kovach, 2021). The ecological philosophies driving Indigenous relationships and pedagogy with land are derived out of respect for all living beings who provide life and share knowledge (Absolon, 2010). Upholding this respect, reciprocity, and responsibility to the land translates to an ethical and moral relationality with all non-human beings. This dissertation, and the larger *Laxgalts'ap* project, sets out to achieve this ethical and moral relationality through research accountability around the human-to-human aspects of the project (see Hart, 2010) as well as the human to non-human (see Simpson, 2017).

1.5.1. Gugwilxya'ansk

A foundational goal of my research process is derived from a philosophy shared by Weber-Pillwax (2001): Indigenous research methodologies are those that enable and permit Indigenous researchers to be who they are while being engaged as active research participants – the resulting research processes should create new knowledge and transform who they are and where they are. In keeping with this idea, the Indigenous philosophies I apply here embody the epistemological traditions of our people – a legal and pedagogical philosophy called "*gugwilxya'ansk"* (Greening, 2017).

In essence, *"gugwilxya'ansk"* is the process of passing our way of life on to future generations. This word is translated into English as "for all-time passing down" (TSLA, 2022a). This pedagogy is built into the language of our people and institutionalized in our governance system. We see our own pedagogical process as something that should always be engaged with - within all areas of learning - for the strength and continuity of our culture. In practice, this is the same process the Ts'msyen use to train their historians, legal advisors, knowledge holders and hereditary chiefs. It involves a triad of *becoming*, *living*, *and tending*, each of which I have learned through an on-going journey with my Elders. As described in chapter 3, *becoming*, *living*, *and tending* plays out on the landscape as the learner is trained in oral histories, laws, traditional knowledge, and governance of a place; actively practicing these teachings in said place; then continuing to tend this place through practice, ceremony, and

engagement with the non-human world, while passing on these traditions to the next generation.

The *gugwilxya'ansk* methodological process can be quite interdisciplinary and legitimizes daily facets of Indigenous pedagogy. There is a considerable amount of literature on the phenomenon of how Indigenous pedagogy has been incorporated into academic research and methodology. For example, methods such as storytelling (Archibald, 2008; Drawson et al., 2017), ceremony (Wilson, 2001; Atleo, 2004), visiting and conversation (Gaudet, 2019; Kovach, 2021), and engaging with the land (Kimmerer, 2013; Simpson 2017) are all recognized as key Indigenous methods today. Each of these methods are applicable in *gugwilxya'ansk* training, which is why it pairs so well with the nature of this dissertation. Each chapter below incorporates *gugwilxya'ansk* in its own way while ensuring it is also the foundational methodological theory and philosophy driving the research process.

1.5.2. The Transdisciplinary Nature of Indigenous Knowledge

Indigenous knowledge is wholistic and naturally incorporates many knowledge sets. At the core of Indigenous research, are cultural philosophies derived from specific ontologies (our way of viewing the world) and epistemologies (our way of understanding and making sense of the world) that force us to interpret our reality relationally based on our specific worldviews that have been in place for millennia. Thus, when engaging in research it becomes transdisciplinary as our inquiry is in the context of our relationship with all things (Wilson, 2008; See also Leighton-Stephens, 2022 for Ts'msyen conversation on this topic). The *theory, methodologies, and philosophies* used throughout my research integrate well with other knowledge sets in a collaborative framework. This integration of Indigenous ontologies and epistemologies calls for non-Indigenous methodologies to be flexible (Wilson, 2008). A prime example of this is in Chapter 2 – where we tie Western methods used in archaeology and geomorphology to our recounting of oral histories. Or, in Chapter 4, where we include linguistic analysis of *Sm'algyax* place names alongside a discussion of their cultural meanings and functions.

Ethnography and autoethnography have both been core research methods throughout this work. Like many Western disciplines, the anthropological origins of ethnography have a problematic history with Indigenous people. Historically self-serving and plagued with Eurocentric thought, ethnographic research has been used as a "Smash and grab" research culture (Martin & Frost, 1999, pp. 352) - a term that references extracting knowledge as quickly and efficiently as possible. It is now obvious how these methods fail to benefit communities being studied, as they neglected *relationality*, the obvious moral antidote to these issues (Cattelino & Simpson, 2022; Deloria 1969, Menzies & Butler, 2021; Nelson, 2021). However, as with many scholarly methods the outcome is user dependent, and ethnography allows for the translation of one's experience into text (LeCompte & Schensul, 2010). Pairing Indigenous methods with ethnography guides the intent behind the methods and protects culture and people from extractive ethnographic practices (Kovach, 2021).

To emphasize my relational and wholistic pedagogical experience, I have also used autoethnography. Autoethnography allows for personal experiences outside of formal research settings to be incorporated into research findings (Ellis, 2004). Outside of an Indigenous setting, not all contexts where I learn Indigenous knowledge, or obtain "data," reflect formal data collection processes within many disciplines of the social sciences (Ellis et al., 2011). As such, autoethnography is the only non-indigenous method that felt fully supportive of the educational contexts the vast majority of my learning took place: in Gitk̲'a'ata spaces and places. As an example, the vast majority of place name, stewardship, or oral historical knowledge happened outside of ethnographic interviews and in situations where I was either harvesting, processing, or sharing food with Elders. Because of this inherently wholistic approach to pedagogy, the reader will notice that for each chapter in this dissertation I stress the existence of multiple realities and ways of finding truth through the research process.

1.6. Aim and Scope of the Research

Outside of Gitk̲'a'ata traditions, the *Laxg̲alts'ap* watershed had not been studied in the detail it deserved. The watershed has been a focal point of an ethnobotanical

Master's thesis (Wyllie de Echeverria, 2013), referenced in historical reports (see Campbell, 2011; Marsden 2012), and discussed in traditional use and occupancy studies written for the Gitga'at First Nation (Inglis, 2014). It has also been the focus of some quick archaeological investigations by Philip Drucker (1943), Beth and Ray Hill (1974), Morley Eldridge (2001), and a detailed study of petroglyphs by Daniel Leen (1984). None of these projects encompassed the entire cultural phenomenon of *Laxg̲a̲lts'ap*. Notably, during the traditional use and occupancy studies led by Richard Inglis (circa 2013 and 2014), for which I was privileged to be an assistant researcher and editor of the report, the Elders interviewed spent hours focusing on *Laxg̲a̲lts'ap*. Their attention to *Laxg̲a̲lts'ap* spoke to how integrated that landscape is with core ways of Gitk̲'a'ata thinking and being.

As described above, the aim and scope of this study originated with a need to both tell and preserve the stories of *Laxg̲a̲lts'ap* in the face of proposed industrial development in the area. In addition to the colonial realities is the reality that our nation is losing many Gitk̲'a'ata Elders who intimately know this sacred watershed, and we feel an urgency to ensure that deep cultural connections to *Laxg̲a̲lts'ap* are maintained for future Gitk̲'a'ata. In response my Nation's request, the awareness of *Laxg̲a̲lts'ap*'s importance, and the lack of documented knowledge on the watershed, our team ensured that recorded knowledge would be preserved to facilitate *living* and education for future Gitk̲'a'ata.

To this end, we have incorporated the collected knowledge into an online georeferenced database that can be used both to store and maintain knowledge, and for passing this knowledge to the next generations. The database will allow community members, from elementary school students to Gitga'at Guardians, to access different knowledge sets like place names and related traditional ecological knowledge, before visiting and carrying out cultural activities in *Laxg̲a̲lts'ap*. The database itself can be incorporated into local school curriculum, paired with educational culture camps and harvests, while being accessible for community members and updatable by employees of the Gitga'at Oceans and Lands department. This georeferenced database allows us to continue to record knowledge and store it to be passed on and utilized in classrooms and on the territory.

In addition to the database, our team also recognized the deep importance of physically being on the landscape. We strove to interview Elders on the territories (see chapter 4), while facilitating community visits to place. We facilitated youth participation and capacity building in community as well as through field trips. Often these visits were in tandem with research field stints, as we were well aware how important it is to have knowledge holders conversing about sacred places in situ, while also facilitating and nurturing that connection with the next generation.

1.6.1. Thesis Outline

The dissertation is composed of five chapters; three of these represent different studies within the larger community research project and have been written with the intention of publication (Chapters 2, 3, and 4). I am the principal author of each of the chapters intended for publication, however, the research itself has been inherently collaborative and interdisciplinary; this is reflected in the multi-authorship of chapters 2 and 4. Each of the chapters intended for publication have not been modified from the original manuscripts that have been submitted to academic publication venues. Because of each chapter's intent for publication, there is repetition in this introductory section and later sections, including descriptions of the Gitk̲'a'ata, the physical location of the study area, and the methodologies. This chapter is an introduction to the research, including a description of the overarching methodology and methods that have been woven into this dissertation.

Chapter 2 introduces the reader to *Laxg̲a̲lts'ap* through a multi-authored collaboration with Drs. Bryn Letham and Dana Lepofsky. The chapter weaves archaeology and Gitk̲'a'ata oral histories to highlight the ethnohistory of the watershed, while analyzing the convergences and divergences of the two knowledge systems. We find that by combining these two knowledge sets, our team is able to discuss the rich history, knowledge, and lessons embedded in the landscape of *Laxg̲a̲lts'ap*. Field work, interpretation of data, and the conceptual framework of the archaeological research in *Laxg̲a̲lts'ap* were largely conducted and co-managed by Drs. Letham and Lepofsky, with guidance and oversight from the Gitga'at First Nation and the Gitk̲'a'ata people. While

participating in the archaeological field work and community oversight, I managed, interpreted, and conceptualized the oral historical, ethnographic, and autoethnographic research for this chapter.

In Chapter 3, I introduce stewardship in the context of the question "what does it take to live, or continue to live, in this ecosystem?" This chapter is a sole-authored autoethnographic discussion on Gitk̲'a'ata governance in *Laxg̲alts'ap*, and how politics, law, spirit, and harvesting are intimately intertwined on the ecological stewardship. Here I discuss the nuance of the Gitk̲'a'ata hereditary and traditional governance system, and how stewardship methodologies and pedagogy play out during a mountain goat harvest. It is my intention to portray how this harvest is a snapshot of one species in the watershed, and the morals, values, and stewardship practices associated with mountain goats can be just as in depth for many species in *Laxg̲alts'ap*.

Chapter 4 looks to *Sm'algyax*, the language of Gitk̲'a'ata people, and the place names within *Laxg̲alts'ap,* to emphasize how human connections and Indigenous knowledge embed themselves on the landscape through language. How we speak of a place holds an immense amount of meaning. As such, this chapter looks to how we speak to the land, or it speaks to us, via Gitk̲'a'ata place names in *Laxg̲alts'ap*. This chapter is multi-authored alongside Drs. Daisy Rosenblum and Dana Lepofsky. Dr. Rosenblum, a linguist, guided our documentation with Elders of place-based narratives and conversations within Sm'algyax, supported my analysis of the meanings within *Laxg̲alts'ap* place names, and guided our process of consultation with the Tsimshian *Sm'algyax* Language Authority. Throughout, Dr. Dana Lepofsky facilitated the conceptualization, editing, and on-going aspects of producing an academic manuscript that encompasses Indigenous knowledge and is produced through community-engaged collaborative processes. Fluent Elders of the Ts'msyen Sm'algyax̲ Language Authority (TSLA) provided the necessary support on the translation of *Laxg̲alts'ap* place names. Dr. Margaret Anderson, a *Sm'algyax* linguist and member of the TSLA, provided feedback and guidance on linguistic analysis throughout the writing of this paper.

Chapter 2.

Hunting for a Village Site: Blending Gitk̲’a’ata (Gitga’at) Oral History and Archaeology in Laxgalts’ap

Authors: Spencer Greening, Bryn Letham, and Dana Lepofsky

> *"Soon they began to hunt for a village site, with a river where they could catch salmon and where the climate was milder, as whenever the North Wind came to visit his sons, it was extremely cold.”*
>
> *– Gitk̲’a’ata oral history as told by Lucille Clifton and Annie Robinson*
>
> *(Barbeau & Beynon, n.d.(a), p.708)*

2.1. Introduction

In the Pacific Northwest, as in North American scholarship more broadly, there is a relatively long tradition of archaeologists weaving Indigenous oral histories into archaeological narratives (De Laguna, 1972; Gauvreau et al., 2023; Gottesfeld et al., 1991; Martindale et al., 2017; Martindale, 2006; Martindale & Marsden 2003; McKechnie 2015; McLaren 2003). While not without controversy (Henige, 2014; Mason, 2000), oral histories are often recognized for their rigor and ability to enhance archaeological science (Beck & Sommerville, 2005; Echo-Hawk, 2000; Ignace & Ignace, 2017; Kirch, 2018; Whiteley, 2002). However, their incorporation into western science can often be pulled into non-Indigenous paradigms (Martindale & Nicholas, 2014), restricting them to Western conversations and interpretations. This occurs because these discussions can lead to Indigenous oral histories being interpreted and presented through a Western lens that overlooks the limitations associated with binary black and white timelines (Atalay, 2008), or being utilized as a secondary-subservient historical source relative to the “hard science” of archaeology.

In contrast to western scientific approaches, Indigenous oral histories bring a polyphasic cultural view to understanding history (Atleo, 2006). They often rely on place and space as the centralizing force, rather than the Eurocentric focus on time (Little Bear,

2000; Ross, 2014, p.41). Thus, to integrate these two diverse ways of describing history in respectful and fulsome ways, the task of the archaeologist relies largely on finding the common ground (metaphorically and literally) between the two modes of inquiry (Martindale, 2006). Finding such a balance carries an inherent conundrum and discomfort, yet brings us closer to a more just, appropriate, and responsible way of weaving together archaeology and oral traditions (Moss & Wasson, 1998; Yellowhorn, 2006); this also means recognizing when the two ways of knowing do not comfortably blend (De Laguna, 1960; De Laguna et al., 1964).

Our narrative in this paper reflects the nuances of braiding the two knowledge systems of archaeological science and Indigenous oral traditions. Through a multidisciplinary collaboration between the first author Gitk̲'a'ata anthropologist Spencer Greening, and his two archaeological colleagues Dr. Dana Lepofsky and Dr. Bryn Letham, we focus on a community driven research project with the Gitk̲'a'ata (Gitga'at anglized), a Ts'msyen (Tsimshian) First Nation on the Pacific Northwest coast. Our work is situated within Indigenous and decolonial archaeologies (Hamilakis, 2016; Nicholas, 2016), in that we are guided by the Gitk̲'a'ata to pair archaeology and Indigenous histories to preserve Indigenous heritage and further self-determination. To this end, we share our journey of hunting for archaeological village sites with oral traditions at the helm. We situate ourselves physically in *Laxg̲alts'ap*, a sacred watershed for the the Gitk̲'a'ata and the setting of key oral histories that remain foundational to Gitk̲'a'ata culture (Lepofsky et al., 2017; Letham et al., 2023). Our exploration follows an ancient migration into *Laxg̲alts'ap* after a time of immense ecological change in Gitk̲'a'ata interior homelands. The archaeological component of the study shows the migration is nestled within at least 10,600 years of human occupancy in the watershed, and paleoenvironmental work demonstrates significant changes in sea level since deglaciation of the watershed over 14,500 years ago (Letham et al, 2021, 2023). In the oral historical case, we navigate teasing apart a deep time narrative that is sometimes difficult to bound within Western temporal or spatial terms; in the archaeological case, we have to grapple with how a complex geomorphic context influences our understanding of past lives lived. We end this paper by discussing the convergences and divergences of intertwining of the two knowledge sets. Despite the nuances, or perhaps because of them, our discourse adds

to our understanding of the deeply rich and complex Gitk̲'a'ata past in the *Laxg̲alts'ap* watershed.

2.2. The Adaawx: Ts'msyen Oral Narratives

Understanding the ethnohistory of *Laxg̲alts'ap*, requires understanding the socio-political importance of oral narratives amongst the Ts'msyen, referred to as the *adaawx*. *Adaawx*, defined as "true tellings," are a vessel for recording the vastness of Ts'msyen ethnohistory. The term *adaawx* can refer to the entire canon of Ts'msyen histories or to a single history held by a specific group of Ts'msyen people. These histories are guidelines for Ts'msyen law and order, resolutions of conflict and tragedy, and day to day morals and values (Leighton-Stephens, 2022). They often depict institutionalized laws or owned histories that determine governance, protocols, land stewardship, land rights, and tangible and intangible ownership of items, while cradling the essences of Ts'msyen culture that span the human and non-human world. The *adaawx* tell us why the Ts'msyen follow the socio-political customs they do and guide the decisions they make. The *adaawx* bind the Ts'msyen and their neighbours with a legal and political system comparable in complexity to that of any modern society. Decisions such as where to harvest; how to share, tax, or trade that harvest; how to navigate physical or spiritual place; which songs to sing; or what crests to display, are all derived from legal implications of these oral narratives.

The *adaawx* also record deep time environmental shifts and provide ecological context tied to human history, migration, and occupation. Ts'msyen oral narratives speak of the cohabitation of human and non-human species in a landscape that looked very different than today's. These non-human creatures, beings, and heroes often participated in the changing of the landscape while bringing lessons and reminders about the past, and how we are to live in this world today. For example, one of the most well-known narratives comes from a time of total darkness, where *Txeemsm,* a trickster archetype who takes the form of the Raven, brings light into the world by stealing it from the chief of the skies (Boas, 1916). Another is *masol*, the spirit bear, a black bear that Raven painted white that serves to remind us of when the earth was covered in snow and ice.

Yet another example describes great floods and changing sea levels affecting everyone on the Northwest Coast, forcing humans to flee to higher ground, while killer whales, sea lions, and giant fish, and amphibians swam along mountainsides (Barbeau & Beynon, n.d.(b), p. 278). Narratives emphasizing the transformation of the world and its environments serve as the beginning to many human histories and have been engrained into Ts'msyen psyche. This includes the migration *adaawx* of the Gitk̲'a'ata, which help us to understand human relationships to places like the *Laxg̲a̲lts'ap* watershed.

The *adaawx* also provide glimpses into metaphysical concepts, such as time and spirit. For example, many narratives speak to human and spiritual realities merging – where events that feel like days are actually years, or humans, animals, and spiritual beings hold conversations, marriages, and relationships fluidly on the same plane (Miller, 1997). Another example is tied directly to one's identity, where hereditary names are seen as an entity that live for millennia. This restricts a name's current physical user to only become that name for their lifetime, yet they "wear" an identity, and all histories associated with that identity, that spans generations (Roth, 2008). In these instances, when someone is mentioned in the *adaawx*, this can refer to one person's lifetime, or many generational experiences with a name, making *adaawx* difficult to fit into Western measurements of time.

2.3. Laxg̲a̲lts'ap in the Ts'msyen World

2.3.1. Laxg̲a̲lts'ap in the Metaphysical World

All the *adaawx* discussed in this paper are tied to the Gitk̲'a'ata territory of *Laxg̲a̲lts'ap*. The name *Laxg̲a̲lts'ap* refers to two areas: the entire watershed flowing into the Kitkiata Inlet, and a settlement located at the mouth of the Kitkiata River, still used by Gitk̲'a'ata today and with significant archaeological remains indicating longstanding occupation (Figure 1). In both cases, the utterance of *Laxg̲a̲lts'ap* among the Gitk̲'a'ata triggers an essence of "being home", as exemplified in the translation of its name, *lax* meaning *'on,'* and *g̲a̲l=* 'container for*'* and *ts'ap* 'tribe, community' (See Supplementary Table #1.). The *Laxg̲a̲lts'ap* watershed contains many locations that are linked to oral

traditions, reflecting the metaphysical connections the Gitk̲'a'ata have to this place. Gitk̲'a'ata *adaawx* narrate how *Laxg̲alts'ap* became their main home after a prominent lineage of "newcomers," the *Gispudwada* (Killer Whale lineage) of *Temlaxam* (an ancestral city on the upper Skeena River) migrated into the area after floods, landslides, starvation and miniature ice ages forced them out of their longtime home on the *K̲'g̲alg̲ Ksyen* (Skeena River) (Barbeau & Beynon, n.d.(a); Harris & Robinson, 1974; Wright, 2003). This *Gispudwada* migration is not just important to *Laxg̲alts'ap,* but to the Ts'msyen as a whole. The *Gispudwada* of *Temlaxam* led many people out of the *K̲'g̲alg̲ Ksyen* in a migration that has connection to every current Ts'msyen village. As the people entered the coastal landscape, their resilience and savviness in trade, warfare, and alliances allowed them to not only join tribes already living in territories on the coast, but also to become the head lineage in many of these territories (Barbeau & Beynon, n.d.(a); Harris, 1974).

This amalgamation of newcomers is a common tenet of Ts'msyen history. In the case of the Gitk̲'a'ata, there are currently three clans: *Gispudwada*, *G̲anhada*, and *Lg̲axsgiik*; there were previously four; including the *Lg̲axgyibuu* who were absorbed into the *Gispudwada*. Each clan is subdivided into several lineages and house groups. At the time of the arrival of the *Gispudwada Temlaxam* newcomers, each clan has at least one house group that was already occupying different portions of Gitk̲'a'ata territory on the outer coast. These original occupiers had been moving around, living in, and governing the landscape since time immemorial (Beynon, 1953a; Campbell, 2011; Marsden 2012; Roth 2006). All of these groups are considered Gitk̲'a'ata today, and they continue to occupy, steward, and maintain many of the territorial rights they had before this amalgamation. As such, the *adaawx* associated with the *Temlaxam Gispudwada* are considered more recent, compared to those before them. Yet due to the influence of the people migrating out of *Temlaxam*, societal changes were massive and acted as a catalyst for a life of prosperity, wealth, and growth throughout Ts'msyen territory (Martindale & Marsden, 2003).

Within this major migration from *Temlaxam*, there are two notable settlement events in *Laxg̲alts'ap*. One involves an initial small-scale occupation by a royal chief, his

wife, and their daughter who migrate from *Temlaxam* to the mouth of the *K̲’a̲la̲ Ksyen*, up the *K̲’a̲la̲ Kstol* (Ecstall River), through a mountain pass and into the *Laxg̲a̲lts’ap* watershed. At the time, this watershed was only inhabited by supernatural beings – with whom the daughter marries and builds a community. The second migration refers specifically to the Gitk̲’a’ata *Gispudwada* of *Temlaxam* led by chief *Wahmoodmx*. This other group migrated out of the *K̲’a̲la̲ Ksyen* while continuing to live with ancestral relations en route to, and along, the coast (such as those in the Prince Rupert Harbour, Metlakatla Pass, Gitxaała). The *Wahmoodmx* group would continue their migration to establish several villages around the Douglas Channel and the outer islands of Gitk̲’a’ata territory, eventually settling in *Laxg̲a̲lts’ap* (Barbeau & Beynon, n.d.(a); Campbell, 2011; Marsden, 2012).

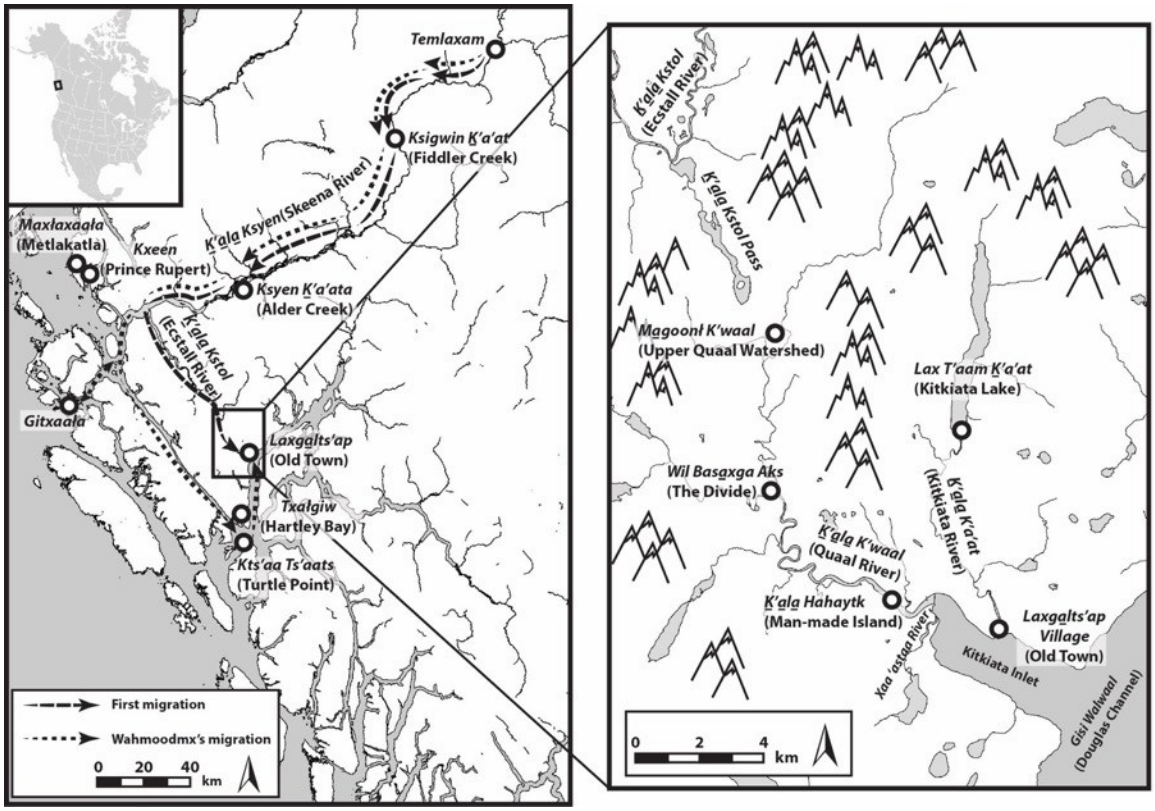

Figure 2. Gitk̲’a’ata migration into Laxg̲a̲lts’ap, with inset highlighting places in the Laxg̲a̲lts’ap watershed discussed below. *Map courtesy of Bryn Letham.*

Our brief presentation of these *adaawx* in no way encapsulates the length, complexity, and detail that is conveyed when told in a traditional format. For the purpose

of this paper, we highlight physical places within the narrative. These places provide an anchor for our targeted archaeological explorations of the watershed.

2.3.2. Laxgalts'ap in the Physical World

Laxgalts'ap is a 26 km long watershed situated within a towering coastal mountain range whose waters flow into the Pacific Ocean. At its mouth is a dynamic estuarine landscape that has been central to the lives of the Gitk̲'a'ata for millennia (Letham et al., 2023). Within this watershed are three rivers, the *K̲'al̲a K'waal.* (Quaal River), *K̲'al̲a K̲'a'at* (Kitkiata River), and *Xaa 'a̲staa*, which in combination support all six species of Pacific salmon found on British Columbia's Coast. These rivers are the foundation for the ecosystems that have sustained all beings within this place for millennia. Located ~32 km north of the already remote village of Hartley Bay, the watershed is accessible only by boat or seaplane, and access is weather and tide dependent. The Gitk̲'a'ata maintain a deep physical, emotional, and spiritual connection to the *Laxgalts'ap* watershed, as it was their main village prior to the creation of Indian Reserves in Gitk̲'a'ata Territory in 1889. Many Gitk̲'a'ata Elders today were born and raised in *Laxgalts'ap,* spending their summers and falls harvesting from all three rivers within the watershed. Most of these Elders have passed on these traditions, allowing *Laxgalts'ap* to remain a cultural, spiritual, and emotional home to the Gitk̲'a'ata people (Lepofsky et al., 2017).

The long-term connections of the Gitk̲'a'ata to *Laxgalts'ap* are reflected in the archaeological record and harvesting locations throughout the watershed. At the river's mouth are hundreds of petroglyphs that frame both the entrance to the watershed and the intertidal flats rich with abundant sea life, and on which are the remains of ancient fish traps. The riverbanks host numerous ancient settlements, expansive Pacific crabapple orchards and berry patches, and extensive hunting and trapping grounds. The alpine environments overlooking the valleys support bountiful harvests while holding stories and spiritual sites. These geographies are bound together by the rich salmon bearing waterways that flow through them.

As is common of estuaries, *Laxg̲a̲lts'ap* is a biodiverse landscape that has always been an attractive, yet geomorphologically active, place for human occupation (Letham et. al., 2023). At the time of deglaciation following the last Ice Age, relative sea level was at least 90 m higher, and the river valleys of today were marine channels and inlets (Letham et al., 2021). By 11,000-10,500 years ago, sea level dropped to between 10 and 15 m asl, and the earliest known archaeological evidence of occupation dates to this time, when up-valley areas had transformed to shallow inlets with productive estuaries (Letham et al., 2023). Despite the combination of erosion and deposition associated with dropping sea level and the creation of a river with a wide meandering course, the archaeological record demonstrates that people made *Laxg̲a̲lts'ap* their home, following the estuarine landscape as it prograded down the valleys (Letham et al., 2023).

2.4. Methods

This research is nested within a larger community project of the Gitk̲'a'ata people (Gitga'at First Nation) that revolves around documenting, preserving, and sharing traditional knowledge associated with *Laxg̲a̲lts'ap*. The theoretical approach and methods used are derived from the Gitk̲'a'ata community's interest in strengthening and passing down Indigenous Knowledge and revitalizing environmental stewardship, while documenting traditional Gitk̲'a'ata use, occupancy, rights, and title in their territory.

The narrative surrounding the deep-time history of *Laxg̲a̲lts'ap* presented here reflects the backgrounds, training, and worldviews of the three authors. The first author, Spencer Greening, is a Gitk̲'a'ata scholar who has worked personally and professionally within his nation for his entire adult life. He has spent countless days being mentored by his Elders and since 2011 is devoted to spending as much time as he can in *Laxg̲a̲lts'ap* (see list of knowledge holders below). The learned oral histories and Gitk̲'a'ata ways of being presented here are largely his voice. The other two authors are archaeologists who have spent considerable time in *Laxg̲a̲lts'ap* and working with Gitk̲'a'ata Elders and other community members. All authors are the principal coordinators of the *Laxg̲a̲lts'ap* project. The three authors bring their own experiences and perspectives to the conversation; they have spent much time together discussing how best to highlight the

intersections between Gitk̲'a'ata oral narratives and archaeology, pair Western and Indigenous knowledge systems respectfully, and to find common language to express these knowledges.

2.4.1. Community-Centered Research

This project began at the request of Gitk̲'a'ata Elders who were concerned about proposed industrial development in *Laxg̲alts'ap*. Under the direction of an array of Elders, the Gitk̲'a'ata Oceans and Lands Department (GOLD) spearheaded an interdisciplinary research project that would secure both traditional knowledge and ecological wellbeing in this sacred watershed. From the beginning of this project, there were several desired research outcomes that would make it a success for the community: 1) a research framework led by Gitk̲'a'ata worldview, desires, and needs; 2) research that acts as a catalyst for Gitk̲'a'ata self-determination, cultural preservation, and environmental protection; 3) research where the knowledge or data collected would be available to the community; and 4) research that upon completion, would lead to on-going community and academic partnerships.

By allowing the Gitk̲'a'ata to re-evaluate the goals, methods, and desired outcomes throughout this project, we shift power imbalances that have existed within academic research where Western narratives, thoughts, and goals are centred (Smith, 2000; Menzies & Butler 2021). Creating space for Indigenous paradigms to guide archaeological survey, methods, and ideas, allows archaeology to become a tool to further express Indigenous ways of seeing, being, and relating to the world (Martindale & Nicholas 2014; Menzies, 2010). The Gitk̲'a'ata people, and through extension the first author, communicated and understood that archaeology would be used as a tool in the greater vision of Gitk̲'a'ata sovereignty and well-being.

Throughout this collaboration, our field team consisted of at least 50% Gitk̲'a'ata members, who provided unique insights derived from their life experience on the lands and waters of their territory. Gitk̲'a'ata knowledge holders and Elders also played an important role as research team members, as many of them knew of archaeological remains and directed us to them. From the project's inception to final interpretations,

team members brought their own expertise, adding to the mosaic of methods and lenses that collectively help us understand the story of this landscape.

2.4.2. Oral Narratives

The oral narratives presented in this paper are snippets of a larger Gitk̲’a’ata *adaawx* that detail ancient migration and settlement. They derive from both traditional knowledge passed down orally to the first author and ethnographic material recorded in the early 1900’s. Any knowledge shared with the first author has been done so in a Gitk̲’a’ata setting by Gitk̲’a’ata knowledge holders. These settings range from time spent in the homes of Elders, on the territory harvesting, at formal and informal dinners, or during political meetings (such as potlatches or associated gatherings). These *adaawx* are passed down as a part of an institutionalized governance system and are inherently tied to *ayaawx* (governmental law). The mentoring of Spencer Greening by Gitk̲’a’ata Elders in Gitk̲’a’ata hereditary politics is representative of an Indigenous form of scholarship (see Cruikshank, 2005; Kii7iljuus & Harris, 2005), and a part of Ts’msyen historical processes.

Ethnographic materials presented in this paper were collected from archives, encompassing materials from the first anthropologists and ethnographers in the Pacific Northwest Coast. These historical scholars, such as Franz Boas (1916), Marius Barbeau (n.d. a,b,), and William Beynon (1953a) interviewed respected chiefs, matriarchs, and knowledge holders from each First Nations community they visited. Often, they reproduced oral histories from their informants transcribed verbatim in the Ts’msyen language of *Sm’algya̲x*. These works are invaluable to Ts’msyen communities and often complement the oral histories held by knowledge holders today. Emphasizing the continuity of oral historical knowledge is the fact that the same *adaawx* taught to Spencer today are often the ones recorded by the early ethnographers who interviewed Spencer’s great-great Grandparents, Heber and Lucille Clifton.

Colonial policies and histories have influenced the feasibility of transferring knowledge in Indigenous communities, and as such, the written ethnographies should be understood within the context of which the knowledge was garnered. Historical

ethnographic material represents amalgamations of knowledge that wouldn't necessarily be presented in the same way under Ts'msyen law. Prior to colonization, Ts'msyen knowledge was passed down according to protocols, in a specific context, for specific reasons, and to specific people based on their house, clan, or lineage groups. The learner and location both influenced the process; this is dramatically different than today where once sacred *adaawx* are widely available to the public via text. Publicizing these histories can remove them from the contexts and Ts'msyen institutions to which they belong, leaving them vulnerable to misinterpretation.

Spencer has struggled with how much of the *adaawx* he should share publicly. The Gitk̲'a'ata consider teachings as sacred, and many believe they should remain within the institutions and communities from where they are derived. Alongside the Gitk̲'a'ata, many Indigenous people consider it taboo to share sacred teachings publicly while maintaining strict protocols around how knowledge is transferred (Gone, 2017; Renken, 1995; Brown, 2001). For Spencer, the decision on what to share has been instinctual based on past conversations with Elders, while blending published works with his own personal knowledge of *adaawx*. In this paper, we strive for consistency in the concise retellings of the oral narratives, while also ensuring that details that may not have been intended to be public remain private and under the stewardship of Elders.

Due to the complexities of receiving *adaawx* in traditional settings while also studying written ethnographies, it is important to address how Spencer presents the oral traditions in this paper. Spencer notes that every living person who has taught him the *adaawx* shared the same general timeline and path of the migration and places presented below. Interestingly the only inconsistencies exist within the ethnographies, where, for example, some accounts aren't clear or contradict each other on the exact route or path taken when first migrating into the *Laxg̲alts'ap* watershed (Barbeau & Beynon, n.d.(a); Boas, 1916). As such, Spencer uses the *adaawx* traditionally passed down to him as the foundational arc for the story, while adding in details consistent with this arc that come from the ethnographic sources. It is worth noting the majority of these accounts are consistent and it is only small details in a fraction of the stories that have noticeable

deviation - as to be expected in any historical interpretation, be it Western history, archaeology, or *adaawx*.

In our retelling of the *adaawx*, we strive to place the segments of the narrative in a relative temporal sequence. In many cases, this is possible because the migrations described in the oral histories often follow a linear temporal sequence. However, there are also place-based *adaawx* that exist outside the migration stories; these can only be fit into a chronological timeline if linked to datable archaeological remains or are referred to relative to other chronological markers in the *adaawx*. In the case of *Laxg̲a̲lts'ap*, Spencer infers that these atemporal *adaawx* occurred after the migration into the watershed as they refer to a time of a well-established society in *Laxg̲a̲lts'ap*. In other instances, the lack of details make it is difficult to create a relative account of time. For example, the place-based *adaawx* for *La̲x T'aam K̲'a'at* (Kitkiata Lake) references specific hereditary names that can be easily placed within the migration lineage. In contrast, the *adaawx* for *K̲'ala Hahaytk* ("Manmade Island") lacks such specificity and thus requires making temporal inferences based other information (e.g., who, when, and where certain wars or conflicts occurred).[5]

Spencer openly recognizes the sometimes contradictory processes he has engaged with to obtain knowledge: western ethnographic training and study, and traditional Ts'msyen mentorship from his Elders. However, engaging in these worlds has enabled his role of preserving knowledge in his community, allowing Elders to mentor him due to his dedication to learning *adaawx* and Ts'msyen governance systems. Spencer's personalized approach to research has eased the removal of barriers of lineage-based protocol as many Elders have shifted their transmission lines to those who are eager to learn and accept the responsibility of that knowledge.

[5] Amongst the Ts'msyen, the prominent cases of historical wars are with the Tlingit and Haida. It was communicated to Spencer through his Elders, and well known in the *adaawx*, that the oldest intertribal wars were with the Tlingit, while wars with the Haida were more recent.

2.4.3. Archaeology

Our archaeological journey in *Laxg̲alts'ap* began in 2014 when Dana and ethnoecologist Nancy Turner were invited by the Gitk̲'a'ata to participate in a research forum that brought together the many researchers working alongside and under the guidance of the Gitk̲'a'ata in their territory. At that workshop, Dana expressed concerns that *K̲'ala Hahaytk* ("Manmade Island", see below) was going to be lost to river erosion. Given the immense cultural importance of *K̲'ala Hahaytk*, it was initially decided that some community-centered archaeological work would take place on the island. Dana was unaware of the threats to the watershed as a whole and the on-going concerns among the Gitk̲'a'ata leaders about its conservation. It was not until the community helped her to understand interconnectedness of all the cultural features in the *Laxg̲alts'ap* landscape – including the ancestral histories and memories, the many significant named places (see chapter 4), the berry and apple gardens (Wyllie de Echeverria, 2013), and the diverse archaeological record – that she recognized the extent to which the culturally appropriate level of exploration and discovery was the watershed, rather than an isolated spot within it.

Deciding to study the archaeological record at the level of the watershed had both advantages and disadvantages. For the Gitk̲'a'ata community, exploring at this holistic scale made sense culturally and from a conservation perspective. However, there are huge challenges in exploring ~100 km^2 of rugged, archaeologically unknown terrain, whose access is limited by tides and weather. The immensity of the task was compounded by the complex geomorphological setting. Given these complications, Bryn and Dana knew they would never find evidence of every archaeological site on the landscape, but rather, it was our job to shed light on a range of archaeological sites in diverse settings – as one way of knowing the fullness of the deep history of the interconnected landscape.

From the outset, the archaeological explorations were motivated and directed by community knowledge, desires, and love of *Laxg̲alts'ap*. Bryn remembers that it was both unusual in his experience, yet immensely beneficial, that the first day of fieldwork was entirely devoted to visiting community members to talk about *Laxg̲alts'ap* and our

work there. It was the community's wish that we focus the archaeological exploration on places and times that would complement the oral histories of *Laxg̲a̲lts'ap.* These wishes gave us very specific places on which to focus the archaeological work. Recognizing the seamlessness of the cultural landscape, it was also appropriate that we integrate the archaeological studies with the foundational ethnoecological explorations conducted by Nancy Turner and her students (Turner et al., 2012; Turner and Clifton, 2006; Turner and Thompson, 2006; Wyllie de Echeverria, 2013), including identifying culturally important plants and harvesting spots.

We used a multi-pronged approach to document the spatial and temporal breadth of archaeological sites in *Laxg̲a̲lts'ap.* To tackle the issue of working in such a vast and logistically challenging landscape, we considered a combination of community knowledge of ancient settlements and our understanding of how the landscape has changed when deciding where to focus our surveys. We highlighted for investigation locations with place names and locations the Git̲k̲'a'ata identified as being logical areas for living, fishing, or hunting.

Much of our initial explorations were focused on areas along the current shoreline. However, we also observed marine shells exposed in the riverbanks which we understood to be remaining from ancient times when sea level was higher than present. Our subsequent georeferencing and dating of these shell beds and other raised marine sediments revealed that relative sea levels in the watershed has been dropping from at least 90 m higher than present since the last Ice Age, and only reaching modern levels by ~1800 years ago (Letham et al., 2021). Thus, moving up the valley, the ancient shorelines where people were living are stranded above modern sea level at increasingly higher elevations with increasing age. Sites at the elevation of the current shoreline will post-date 1800 years ago. We utilized high resolution LiDAR digital models of the ground surface to predict locations of archaeological sites associated with the older, raised shoreline positions. We sought flat, stable landforms that had not been subsequently destroyed by fluvial erosion (Letham et al., 2023; see also Letham et al. 2018), and which also had analogues on the modern shoreline as locations that the Git̲k̲'a'ata considered ideal for occupation or harvesting.

Our surveys identified ancient villages and campsites, stone and wood fish traps, culturally modified trees, and stone tool scatters. These remains, in combination with the already well-known petroglyphs at the mouth of the *K̲’a̲la̲ K’waal*, speak to the breadth of use of the watersheds in the past. We radiocarbon dated as many archaeological sites as possible to document the time depth of human use and occupation (Letham et al. 2023). At both newly identified occupation sites and known historic settlements we conducted test excavations to recover samples of artifacts, zooarchaeological, and paleoethnobotanical remains (i.e., seeds, wood charcoal). Our analyses of these remains yielded information on the types of tools people used, season of harvest, what people ate, and what woods they used for fuel and construction materials. These data provide information on everyday life that can be woven with the information from the *adaawx.*

2.5. Results

We focus our oral historical and archaeological summaries on five locations in *Laxg̲alts’ap* (Figure 2). Each of these locations share three criteria: they are tied to prominent *Laxg̲alts’ap adaawx*; we conducted at least preliminary archaeological investigations in the area; and they are places that the Gitk̲’a’ata remain intimately connected to today. The first three locations we discuss are derived from a migration *adaawx* and thus have a relative chronology embedded in them. The final two locations are place-based *adaawx* that take place after the migration and settlement in the watershed. We begin in the upper watershed with *Mag̲oonł K’waal* (*mag̲oon-* ‘headwaters’-*ł* [connective] *kwaal* unknown), the headwaters of the *K̲’a̲la̲ K’waal* (*k̲’a̲la̲=* ‘upriver’ *kwaal* unknown; Quaal River) and the pass into *K̲’a̲la̲ Kstol* (*k̲’a̲la̲=* ‘upriver’ *kstol* unknown; Ecstall River), as it is the foundation of most *adaawx* within *Laxg̲alts’ap*. We then move down river discussing two other locations mentioned in this migration *adaawx*, *Wil Basa̲xga Aks* (*wil=* ‘where’ *basa̲xk* ‘divide’ *-a* [connective] *aks* ‘water’) and *Laxg̲alts’ap* Village, the current settlement at the mouth of the *K̲’a̲la̲ K̲’a’at* (*k̲’a̲la̲= ‘upriver,’ k̲’a’at ‘cane’*; Kitkiata River). We end with discussing two places that are associated with their own *adaawx*; one centering around an anthropogenic island called *K̲’a̲la̲ Hahaytk* (*k̲’a̲la̲=* ‘upriver’ *ha* ‘repeated action’ *haytk* ‘stand up’; Manmade Island) and another around the largest lake in the watershed, *La̲x T’aam K̲’a’at* (*lax=* ‘on’

t'aa 'lake' *-m* CN *k̲'a'at 'cane'*; Kitkiata Lake). For each, we present summaries of the *adaawx*, followed by the results of our archaeological explorations.

2.5.1. Mag̲oonł K'waal (Upper K̲'al̲a K'waal Watershed and K̲'al̲a Kstol Pass)

Figure 3. Mag̲oonł K'waal , the upper Quaal Watershed.
Photo credits: Mark Wunsch. Used with permission.

Mag̲oonł K'waal and *K̲'al̲a Kstol* Pass are at the forefront of Gitk̲'a'ata minds when reflecting on the oral history of *Laxg̲alts'ap*. The upper watershed provided an essential travel corridor for the migration out of *Temlaxam* while also being a conduit for socio-economic and political relationships throughout Gitk̲'a'ata history. The area is often referred to today by the Gitk̲'a'ata as the "grease trail," referencing the route's importance in trading the prized oil rendered from oolichan fish. Memories of old dugout canoes stored at the entrance and exit of the trail serve as reminders of the socio-political connections with the Ts'msyen tribes north of Hartley Bay, while representing the ancestors who migrated to their new saltwater homes after leaving their interior homelands of *Temlaxam*.

Mg̲oonł K'waal is presently comprised of kilometers of braided river sections, salmon spawning gravel beds, and towering old growth cedar forests encompassed by some of the largest mountains within the territory. Patches of flora more associated with the interior expose themselves through large cottonwood patches and wetlands filled with bog cranberry. Mammals such as grizzlies, black bear, deer, moose, wolves, and porcupine navigate the coastal bogs and thick salmonberry bushes. Wind moves swiftly through the valley due to the steep alpine terrain situated above the riparian zone, passing through the contrasting geographies that host physical and meta-physical beings deeply important to the Gitk̲'a'ata.

Adaawx

In this account, a Chief[6] and his wife were lone survivors of their tribe after leaving *Temlaxam* and passing through most of the *K̲'g̲alg̲ Ksyen*. They sought refuge by heading up the *K̲'g̲alg̲ Kstol* and set up a camp there with provisions from their previous winter settlement at *Ksyen K̲'a'ata* (*ksyen* 'Skeena.river' *k̲'a'at* 'cane' *-a* [derivational suffix]; Alder Creek). After a harsh winter, they gave birth to a healthy child who grew quickly. The headwaters of the *K̲'g̲alg̲ Kstol* sustained them with fish and mountain goat and with renewed inspiration, they continued exploring the mountain valley with a sense of security. During their explorations in the alpine, they noticed a large river valley and smoke moving throughout the air. The Chief and his wife went back to their camp, made a sled that would carry their personal belongings and food preserves, and headed with their daughter along a trail on the mountain side. As they moved towards this smoke, they began calling into the valley. They followed a stream that ran through a plain, which eventually turned into a river. Upon arriving at the river, they noticed several small men paddling towards them in a canoe. These men, drawn by the calling, greeted the family and invited them to their longhouse across the river. At the back of the longhouse was an

[6] In several accounts this chief is explicitly stated as *'Ntawiiwaap* (Beynon, 1953a; Campbell, 2011; Miller 1997). *'Ntawiiwaap* shares a common *Gispudwada* lineage from *Temlaxam* as the current Gitk̲'a'ata head chief *Wahmoodmx*. Both *Wahmoodmx*, and *'Ntawiiwaap's* original ancestor is *Gawo* deriving from the headwaters of the Nass and Skeena (Miller, 1997; Marsden, 2012), yet their migrations out of *Temlaxam* are associated with different timelines and routes.

elderly man who they learned was the father to the men in the canoe. The father stated he had been expecting the family and had been eagerly awaiting their arrival.

A feast for the Chief's family ensued where they were introduced to each of the host's family: the father was *Gisiyaask* (north wind), his oldest son was *Haywaas* (southeast wind), the middle son was *Gyelks* (west wind), and the youngest son was *Uks Baask* (offshore/east wind).[7] The chief and his wife realized they were in a house of *naxnox* (spiritual beings) who could shapeshift. Not only could they take the form of small humans, but could also transform into ducks when travelling, causing their respective wind direction to blow.

After letting the Chief's family rest, *Gisiyaask* proposed a marriage between their human daughter and his eldest son *Haywaas*. Following a long period of deliberation, the Chief and his wife agreed to the marriage, as they felt the union was necessary for their tribe to continue. While living amongst these spirits, the Chief and his wife passed away, and their daughter and *Haywaas* began having children. They had four children in quick succession and moved down river to live comfortably in a new settlement.

Archaeology

While powerfully beautiful, the upper watershed is daunting from an archaeological perspective. The landscape is vast, rugged, and difficult to access. Furthermore, colluviation and the braided river sections at the *K̲'a̲la̲ Kwaal* headwaters have eroded away many landforms in the valley bottom that would have had ancient occupation sites on them. However, our explorations in the Ecstall Pass upper watershed were limited to one short reconnaissance hike to the south end of Ecstall Lake with several field seasons of sea level and paleolandscape reconstructions in the back of our minds (Letham et. al, 2021, 2023), but no archaeological testing. While the valley bottom at the headwaters itself has low preservation potential for very old habitation sites, we

[7] In the Barbeau and Beynon ethnographies (n.d. (a)), *Haywaas* is translated as southwest wind. *Haywaas* in fact means southeast wind in the *Sm'algya̲x* language of the Ts'msyen. One account mentions four sons, one in each direction. However, it does not name the fourth son later in the *adaawx*. (Barbeau & Beynon, n.d.(a), p.707)

readily identified the ancient section of trail leading up to the pass, and to Ecstall Lake. The forested lake shore and the flat marsh and grasslands beyond (north) towards the Ecstall River are ideal places to look for archaeological sites; unfortunately, they were beyond the logistical means of our field work. As a result of these circumstances, our depauperate archaeological understanding of this region stands in sharp contrast to the ethnohistoric record – which offers detailed accounts of not only ancestral movements, but even emotions, as the ancestors traveled to and settled into their new home.

2.5.2. Wil Basa̲xga Aks (The Divide)

Figure 4. Wil Basa̲xga Aks also known as "The Divide."
Photo credits: Mark Wunsch. Used with permission.

Located at the most prominent fork in the *K̲'a̲la̲ Kwaal* (Quaal River) is *Wil Basa̲xga Aks,* which, roughly translates to, "where the water splits; the area is commonly known as "The Divide" amongst the Gitk̲'a'ata. *Wil Basa̲xga Aks* is recognized as the first true village site in the *Laxgalts'ap* migration; the village held the name *Ts'm Xaa Oo.* When Elder Helen Clifton (great aunt to first author), speaks of this first settlement after leaving the *K̲'a̲la̲ Kstol*, she recounts how her late husband, Chief Johnny Clifton, said, "you can tell where the village was, just look at the trees, they look different." When going to *Wil Basa̲xga Aks*, you can see how the old growth forests sitting on flat elevated

landforms, shaped by ancient riverine pathways, could support ancient settlements (Figure 4).

Wil Basg̲xga Aks sits amongst bogs, old growth cedar forests, and riverbanks lined with salmonberry bushes and game trails. The place's importance comes from its land and water features; on the land it is a settlement, campsite, harvesting area, and ceremonial ground; in the river there is a deep pool that is a refuge and home to countless salmonids, and a harvesting site and anchorage for the Gitk̲'a'ata. The depth of water can change dramatically with heavy rainfalls as well as with the tides: the location is tidally influenced, even though it is eleven kilometres up from the mouth of the river. Elders have noted that heavy rains can result in water levels changing over 3 meters overnight. From humans to bears, to birds, insects, seal, and fish, *Wil Basg̲xga Aks* is an ecologically rich place where life congregates.

Adaawx

From the *adaawx*, we learn that the Chief's daughter and *Haywaas* settled in *Wil Basg̲xga Aks* after continuing their travels from the headwaters. Noting the abundance of *Wil Basg̲xga Aks* during the salmon seasons, they settled and had children there. They had four children, and as these children grew, they had another four; this happened again, and again, with each set of offspring coming in groups of four. This birthing in fours happened because the *naxnox* father could take the form of a duck when travelling, and it is said that ducks lay eggs in clutches of four. Soon the population grew into a village. The spirit of *Haywaas'* father (i.e., *Gisiyaask*, the north wind) would often show up in *Wil Basg̲xga Aks* eager to visit his offspring. His visits made the river valley colder and more difficult to find food. In time, *Wil Basg̲xga Aks* did not meet the village's year-round needs and the people were eager to find another village location that was fruitful and with shorter winters. As described in the epigraph above, villagers left *Wil Basg̲xga Aks* and began to "hunt for a village site" in the watershed where they would not be as vulnerable to *Gisiyaask's* visits.

Archaeology

From an archaeological perspective, we have a somewhat better understanding of *Wil Basg̲axga Aks* than further upriver in the watershed. However, our sample remains inadequately small. Our investigation of the landscape was limited to two short excursions in the first years of the project. Based on the *adaawx*, we sought locations that had stable landforms that might be the remains of the settlement of the burgeoning ancestral family. We were buoyed by the fact that in our surveys and shovel tests we immediately found evidence of hearths 70 m away from the current riverbed and 5 m above it. Based on our then-incomplete understanding of local sea level histories, we assumed that the site would date to the early Holocene, only to find out that this location was in fact an encampment dating to the last 900 years. It was based on this surprising result that we came to understand the dramatic geomorphological dynamism of the riverine landscape and how our quest to find an early settlement would be made that much harder, if not impossible. This impression was supported by a chance find of an isolated California mussel shell fragment about 350 m upriver from the hearths, dating to approximately 400 years ago.

In the end, another chance find is our only evidence of early Holocene occupation in the upper watershed. While exploring the riverbanks for raised ancient intertidal deposits that could be used to reconstruct relative sea level curves, we happened on a cobble tool encrusted with bryozoans ectoprocts that were dated to ~10,600 years ago (Letham et al. 2023:14-17). During this time, relative sea level was 10-15 m higher, and *Wil Basg̲axga Aks* would have been the head of a shallow inlet. The encrustations on the stone tool indicate that it had to have been dropped by people in a marine or intertidal environment at least 10,600 years ago. Our imaginations immediately take us to *Haywaas* and his family. Did one of them drop this tool?

2.5.3. Laxgalts’ap, Gitk̲’a’ata (Laxgalts’ap Village, Old Town Proper)

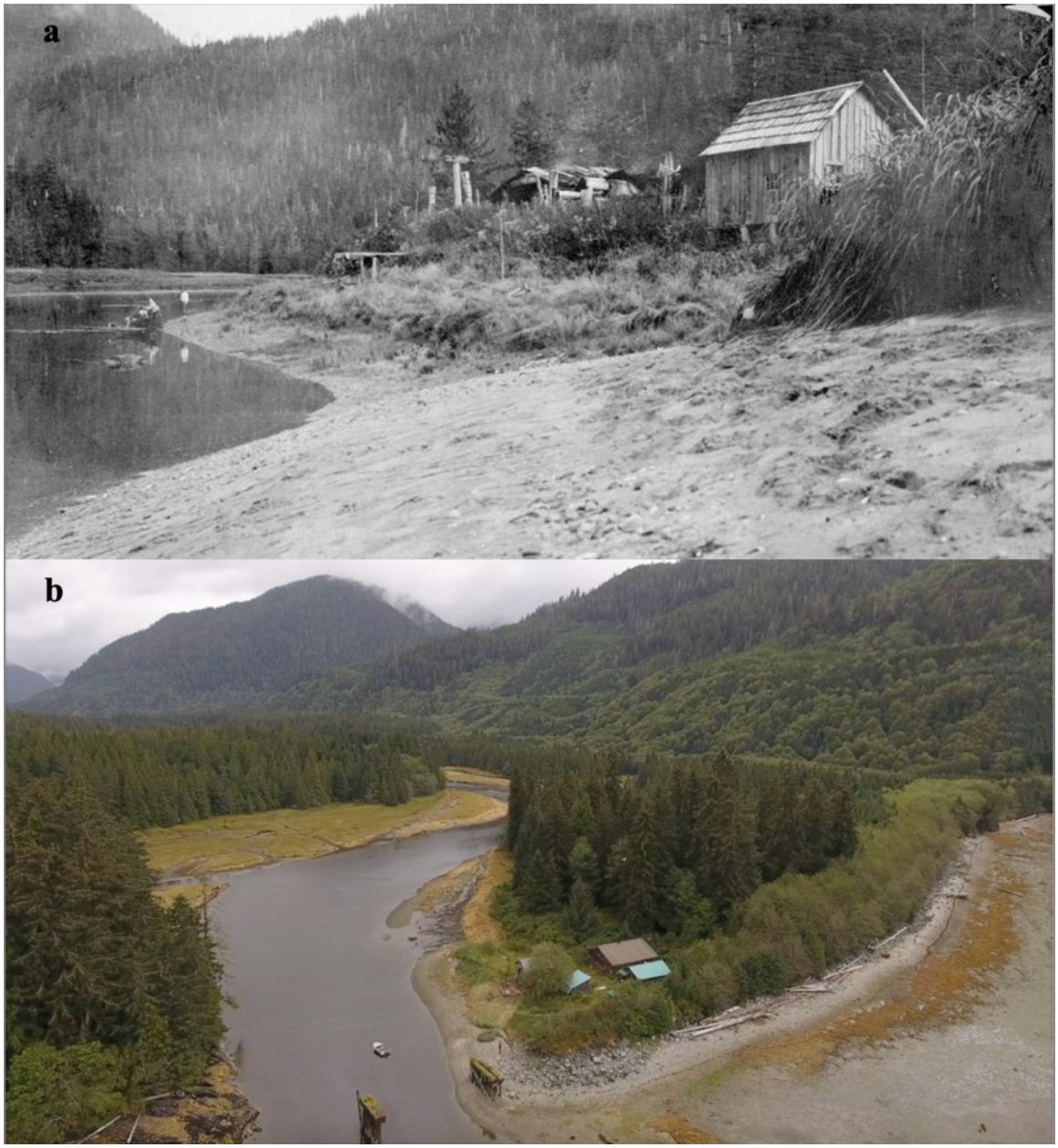

Figure 5. (a) *Laxgalts’ap* Village in the early 1900s and (b) 2018.
Photo credits:
(a) Image E-02960 from the Royal BC Museum. Used with permission.
(b) Taken by Mark Wunsch. Used with permission.

Laxgalts’ap Village is located at the mouth of the *K̲’a̲la̲ K̲’a’at*, where today there are several current seasonal Gitk̲’a’ata homes. Alongside these homes are the remnants of a village that endured the drastic changes of the colonial era from the first episode of

European contact to reserve creation. Today, the 19th and 20th century occupation of the village is evidenced by the now collapsed row of houses. On the ground are scattered items that speak to the arrival of the industrial world, including wooden corks for commercial fish nets and cast iron tools, pots, and pans. These homes are oriented towards the *K̲'a̲la̲ K̲'a'at*, clustered on a ~.30 ha area of an alluvial fan terrace.

According to oral traditions, these houses are the most recent in the longest, most consistently occupied village in the watershed. These same oral traditions state that *Laxg̲alts'ap* Village was the final place where people settled after leaving *Wil Bas̲a̲xga Aks*. Git̲k̲'a'ata ties to this place are profound due to the connections that extend from the deep past to today. Several mentors to the first author were born and raised here. These mentors came into this life in a way similar to their ancestors generations before them – within the cedar plank longhouses, amongst the sounds of family members speaking the *Sm'algya̲x* language, under ceilings with rafters lined with hard smoked salmon. These same Elders speak of the richness of the *Laxg̲alts'ap* Village setting, where they would harvest an array of berries, fruits, fish, waterfowl, and mammals using dugout cedar canoes for transportation.

When standing amongst the more recently built seasonal homes used today, one sees the richness spoken by the Elders. Looking out from the estuary are extensive intertidal beaches that are the home to Dungeness crab, clams, cockles, mussels, and an array of fish. Above these sandflats waterfowl swirl and fly from beach to beach to feed in the shallow eelgrass pools. In the distance is a direct view of Douglas Channel and the deep-water fishing grounds. In the estuary in front of the houses is a deep pool where fish school, and when the salmon run, the welcome sound of fish leaping in and out of the water is audible day and night. Within view upriver is a legacy crabapple (mo'olks) patch that was tended over generations, nestled amongst intermittent meadows of berries, roots, and shoots. These lowlands around *K̲'a̲la̲ K̲'a'at* serve as a highway for mammals in the watershed.

Adaawx

The migration *adaawx* tell us that the people continued downriver for a new village location (Barbeau & Beynon, n.d.(a)), ultimately finding one just beyond the *K̲’a̲la̲ Kwaal* at the mouth of the *K̲’a̲la̲ K̲’a’at* river where it meets the ocean. The weather in this spot was milder, less affected by the north wind, and also abundant in salmon. The people settled on the shores of the *K̲’a̲la̲ K̲’a’at*, establishing the village of the Gitk̲’a’ata.

> “this new place that had been selected as their new home…they made at the mouth of the [*K̲’a̲la̲ K̲’a’at*] river” (Beynon, 1953a, p. 10)

Following this event, the second branch of *Temlaxam Gispudwada* also arrived at this location via the coast. The group arriving from the ocean was led by a chief named *Wahmoodmx. Wahmoodmx* and his people had previously established themselves at several other coastal villages before arriving in *Laxg̲alts’ap*. Upon their arrival, *Wahmoodmx* recognized the richness of this watershed, reminding him of the inland riverine landscape of *Temlaxam*, but also the wealth of resources his tribe had come to know through their life on the outer waters. Here, *Wahmoodmx* planted his ceremonial cane with a crest he had carried from the upper Skeena, the *Haasm K̲’a’at* (fireweed cane), declaring the place as the final home for the Gitk̲’a’ata. The late chiefs Heber Clifton (*Wahmoodmx*) and Edmund Patelas add details in their accounts:

> “The other group went around by salt water… and joined the first to form the Gitk̲’a’ata village.” (Duff, n.d.)

> “He took the cane which he had brought from Temlaxam and planted it in his house, ‘Here will be the village of Gitk̲’a’ata,’ he said, and ‘My house I will call *Biyaalsm Walp*, Star-House.’ (Barbeau & Beynon, n.d.(a), p.711)

> “Now we will place this k̲’a’at (cane) here, and this will be our home which we will call Gitk̲’a’ata (People-of-the-Cane).” (Barbeau & Beynon, n.d.(a), p.701)

It is custom amongst the Ts’msyen to host a potlatch or feast during important times and political decisions. In addition to this, it is essential to have public and non-local recognition of the event under Ts’msyen law. As such, Heber Clifton goes on to describe the potlatch with the neighbouring nation Gitxaała – with whom the Gitk̲’a’ata

have close kinship ties – where the Gitk̲'a'ata officially establish their new home and adopt a new crest in tandem:

> At this time, he invited all of the Gitxaała [to a potlatch] and also adopted a crest which his [Gitxaała] brothers had wanted, the White [bear], which he had seen on…Princess Royal Island." (Barbeau & Beynon, n.d.(a), p.711).

Archaeology

Our archaeological explorations of *Laxg̲alts'ap* Village were encompassed within our survey and testing in and around the shores of Kitkiata Inlet, into which the *K̲'a̲la̲ Kwaal* and *K̲'a̲la̲ K̲'a'at* meet the ocean. While the complex geomorphological history of the rest of the watershed made finding archaeological sites quite difficult, the relatively young age of this portion of the landscape meant that sites were somewhat easier to find. That is, since relative sea level stabilized some 1800 years ago, the position of the estuary today roughly mimics that of the last two millennia (Letham et al. 2021). This means that shoreline sites less than 2000 years old will be located on the current shore's margins.

Our explorations at the mouth of *K̲'a̲la̲ K̲'a'at* revealed extensive remains beneath the modern cabins and the deteriorating houses from the 19th and 20th centuries. The area has been disturbed through a combination of logging activity in the 1980's and to a lesser extent, the more recent settlement. Shell midden deposits are rare and in most cases are shallow. This contrasts dramatically with the 1938 observations of archaeologist Philip Drucker (1943:80) who noted the shell midden was 1.2 m deep, and "long and sprawling". However, even at that time, Drucker was told by his local guides that "a good half of it has been washed away." Consistent with its location relative to the modern shoreline, our oldest radiocarbon dates from the current location of *Laxg̲alts'ap* Village are ~1200 years ago.

Just across the mouth of the *K̲'a̲la̲ K̲'a'at*, in what we have been told was also part of *Laxg̲alts'ap* Village, we found a series of terraces increasing in elevation that were formed during higher relative sea level positions during the Holocene; each terrace has archaeological material of increasing age with increasing elevation (Letham et al. 2023). While the lower terraces date to ~1800 years ago and ~3000 years ago, the uppermost returned radiocarbon dates of ~6500 and ~8500 years ago. Remains associated with the

older occupations include abundant lithics including quartz flake tools, and obsidian obtained from long-distance trade networks (Ilgachuz Peak and Anahim Peak in central BC). The mid-late Holocene features and remains include large structural post holes, smaller post holes for domestic activities, and locally available fish and mammal bones. Collectively, the archaeology suggests long-term persistent use of the mouth of *K̲'a̲la̲ K̲'a'at*, even as the location's landforms and shorelines physically transformed with dropping sea levels through the Holocene.

Elsewhere along the Kitkiata Inlet, we identified abundant archaeological sites and features contemporaneous with the later village occupations, including wooden and stone fish traps (~1900 and 285 years old), villages and camps (~1800 years old and younger), bark-stripped cedar trees (300 years old and younger), and an immense field of petroglyphs carved into boulders in the intertidal zone (undated). We also found additional habitation sites from on raised paleoshoreline terraces near the mouth of *K̲'a̲la̲ Kwaal* dating to 8200 years ago and thus corresponding in time to the earlier village occupations at the mouth of the *K̲'a̲la̲ K̲'a'at* (Letham et al. 2023). The quartz and quartz crystal flake industry is common in all sites dating through the early and middle Holocene, though seems to disappear by the late Holocene.

Thus, when we broaden our archaeological gaze beyond the boundaries of the current and historic settlement of *Laxg̲alts'ap* Village, including the estuary as it was pre-2000 years ago, we find evidence of on-going occupation, where people shifted their settlements seaward to follow dropping sea levels. In aggregate, we get glimpses of the homes of these ancestral peoples (via the posts, hearths), their participation in long-distance trade networks (via the obsidian), and how they harvested and managed terrestrial and marine resources (via the barked-stripped cedar, fish and mammal remains, and the fish traps). The investment in and connection to this landscape is also reflected in a slough channel at *K̲'a̲la̲ K̲'a'at* that was modified, presumably to redirect its flow. At this general level, the compiled archaeological findings parallel that of the oral traditions: *Laxg̲alts'ap* was and is a longstanding, significant settlement.

Considered together, and unlike the previous places discussed, we have meaningful details on the history of this location from both sources of knowledge. However, despite this, it is perhaps less straightforward to link the spatial and temporal specifics of the *adaawx* with the archaeological record. For instance, we wonder whether the early and mid-Holocene archaeological sites along the mouth of *K̲’a̲la̲ Kwaal* are encompassed within the retelling of the happenings “at the mouth” of the *K̲’a̲la̲ K̲’a’at*? Similarly, is the *adaawx* referencing a single arrival and subsequent amalgamation of two groups, or are a series of events compressed into the single retelling? From an archaeological lens, a tantalizing indication of the arrival of new peoples is the shift from quartz and quartz crystal flake industry in the late Holocene, but we lack the sample to interpret this shift fully. In addition to this, the increase in the number of sites around Kitkiata Inlet between 2000-1500 BP *could* also be indicative of an amalgamation of newcomers to the area, or it may just be an effect of preservation and survey biases associated with the fact that relative sea level stabilized around its current position at the same time.

2.5.4. K̲’a̲la̲ Hahaytk (Manmade Island)

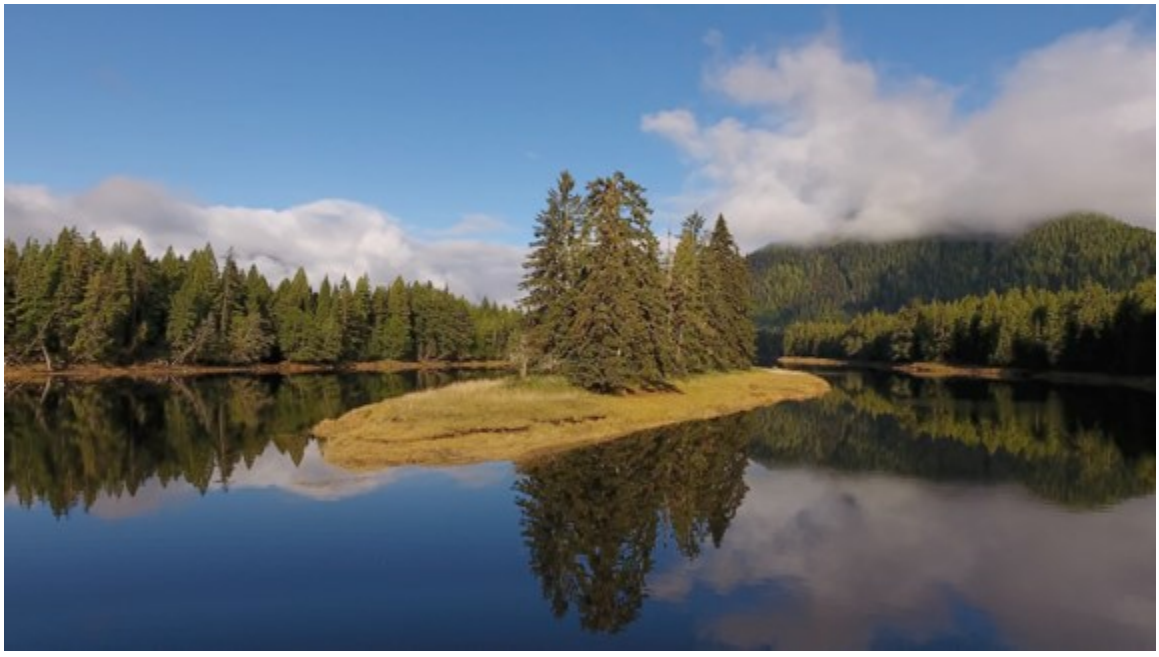

Figure 6. K̲’a̲la̲ Hahaytk, also known as “Manmade Island.”
Photo credits: Mark Wunsch. Used with Permission.

Following settlement at *Laxgalts'ap* Village, the Gitk̲'a'ata established a secondary settlement within the *K̲'a̲la̲ Kwaal* on a riverine island called *K̲'a̲la̲ Hahaytk*. *K̲'a̲la̲ Hahaytk* is situated 1.6 km up this river, out of sight from the estuary and framed by the commanding backdrop of the watershed's largest mountains. When travelling upriver toward *K̲'a̲la̲ Hahaytk,* there are several notable features. First, when entering the mouth of the river, one is greeted by a whirlwind of ducks and geese that make their homes in the numerous grassy flats along the riverbank. Situated on top of these grassy flats are several ancestrally managed crabapple orchards (Wyllie de Echeverria, 2013), whose fruits were easily harvested by occupants of *K̲'ala Hahaytk*. Woven throughout the orchards are the game trails of bear, deer, and moose that feed on the rich environment. Within the river itself are several boulder fields that serve as haul-outs and hunting grounds for harbour seals, and which also make the island hard to access by boat when the tides are low and add to the attraction of this spot as a defensive settlement.

While the perimeter of this 180 m x 50 m lenticular-shaped island can be inundated by the tides, the center of the island is mostly above the extreme tidal ranges. This is because the ancestral Gitk̲'a'ata created 10 raised earthen house platforms on which to live. Conspicuous paths wrap around each house mound on the island. Each mound is surrounded by a variety of edible plants –likely the remnants of the plants cultivated on the island when it was occupied.

Today, *K̲'a̲la̲ Hahaytk* continues to inspire and intrigue the Gitk̲'a'ata people by representing both the resiliency and dedication to defending the *Laxgalts'ap* landscape. Current Elders recount visits to honour this place, walking amongst the house posts and carvings that are being lost due to erosion and decay. As emphasized by Gitk̲'a'ata knowledge holders, *K̲'a̲la̲ Hahaytk* is emblematic of the complexity of preserving knowledge in the face of ancestral conflicts, changing ecosystems, and modern colonization.

Adaawx

Known informally in the community as "Manmade Island," Gitk̲'a'ata Elders recount how *K̲'a̲la̲ Hahaytk* was constructed as a defensive landform for times of war

after establishing themselves at *Laxgalts'ap* Village. The camp also doubles as an up-river camp for harvesting salmon during the summer (Drucker 1943). The time for fishing at *K'alaa Hahaytk* overlaps with what Ts'msyen oral histories call "the month of war," during what would now be called August (Wright, 2003), and the *adaawx* surrounding *K'alaa Hahaytk* largely involves war and massacre. Since the riverine corridor and large intertidal boulder field leading up to *K'alaa Hahaytk* made it difficult to navigate in large war canoes, the island's position helped the Gitk'a'ata successfully ward off raiders who would often find their canoes dried up, and their war party disoriented, and vulnerable to Gitk'a'ata attack.

The most commonly recounted *adaawx* associated with *K'alaa Hahaytk* refers to the last time the Haida raided the Gitk'a'ata. While men of the village were harvesting salmon upriver at *Wil Basaxga Aks*, they noticed large plumes of smoke and heard the distant sounds of dogs barking. They realized the Elders, women, and children on the island were under attack. The men then rushed back to the village finding it burnt to the ground and pillaged. They then loaded their fastest canoes knowing they could catch the war party, and when they did, they slaughtered all but one Haida[8]. Infuriated by the raid on the vulnerable community members, they strung the bodies on posts that displayed a coward's death and displayed them on a point near the boundaries of Gitk'a'ata territory, for all outsiders to see.

Archaeology

In 1938, ethnographer and archaeologist Philip Drucker visited *K'ala Hahaytk* as part of his archaeological survey of northern and central British Columbia (Drucker 1943). Though it is not certain who showed Drucker the site, local knowledge has alluded to it being Lucille Clifton. Lucille is the wife of Heber Clifton, whose description of the establishment of *Laxgalts'ap* Village is recounted above. Lucille, affectionately known in the community as *No'oh* (mother), was a matriarch and leader who consistently lived in *Laxgalts'ap* throughout summer and fall with her many grandchildren and other

[8] Some knowledge holders suggest the Gitk'a'ata slaughtered all but two Haida.

Gitk̲’a’ata families. She actively oversaw the governance and harvesting in the watershed while Heber was commercial fishing.

Drucker appears to have in some short unknown amount of time at the site, excavated one house almost in its entirety and dug two large trenches in another. Not surprisingly, these large excavations produced extensive structural elements, and a considerable number and range of artifacts and faunal remains – all of which have been recently repatriated to the Gitk̲’a’ata Nation. Artifacts include historic items such as pipes, glass beads, metal fragments, and a range of other items such as mats, basketry, and other woven fragments and a variety of bone and stone tools. Both local and non-local faunal remains are also abundant and represent a variety of fish, bird, and mammal species.

We had three goals for our exploration of *K̲’ala Hahaytk:* 1) to more fully contextualize Drucker’s field notes and recovered materials; 2) to determine the age of the site; and 3) to understand the developmental history of the island. The latter two goals were entirely driven by the community’s interest in the history of the island. To accomplish these goals, we excavated a profile into the bank of the island beyond the archaeological deposits, excavated a small test unit in a house mound at the south end of the site, and dug out one of Drucker’s excavation trenches in a house mound on the north end of the village.

During our excavations, we were keenly aware of the community’s expectations - based on oral historical knowledge - that the site would be old and that the island was entirely constructed (“Man-made”) by their ancestors. The results of our explorations aligned well with these expectations. In particular, we found that the initial use of the upriver end of the island was some 1000 years ago, when people lightly occupied the northern end of the already existing sand bar island. Prior to 1800 years ago the higher relative sea level meant that there would have been no sand bar here, and therefore no occupation of this location would have been possible. Since the island is eroding upriver and being redeposited on its downriver end, it may be that the southern end was not

formed at this time. At 1000 years ago and for the next 500 years, the occupation surfaces of the low-lying island were seasonally/periodically inundated between uses.

Based on our limited excavations, we surmise that at about 500 years ago, all of the island was occupied more intensely. At this time, massive wood and silt sub-floors were constructed in the houses to raise the surface of island. Although not visible in our specific excavations, we assume that it was at this time that the abundance of fire altered and other rock visible in the banks was transported on to the island to create house foundations that were above tidal action. Multiple living floors about these foundations suggest constant use of the houses, probably by the same family groups. Historic artifacts and a radiocarbon date of younger than 300 years ago from the upper deposits reflect the use of at least some of the houses into post-contact times. The extensive faunal remains found by Drucker and in our excavations, huge deposits of elderberry seeds indicating processing to make the berries edible (Losey et al. 2003), and other food and non-food plant remains, indicate a bustling settlement.

From an archaeological vantage point, *K̲'ala Hahaytk* was sizable enough to be a settlement for many families to have called home over at least the last 500 years. Rather than settle on either banks of the *K̲'al̲a Kwaal*, the occupants put substantial effort into augmenting the riverine island so they could live in a highly defensible location. This meant creating massive living surfaces above the high tide line and tending culturally valued plants so they would be easily accessible close to home. While the location of the site and the effort put into it is consistent with the adaawx, our limited excavations did not reveal any of the telltale archaeological signs of war: burned homes, weaponry, decapitated bodies, or abrupt site abandonment (Cybulski, 2014).

2.5.5. Lax T’aam K̲’a’at (Kitkiata Lake)

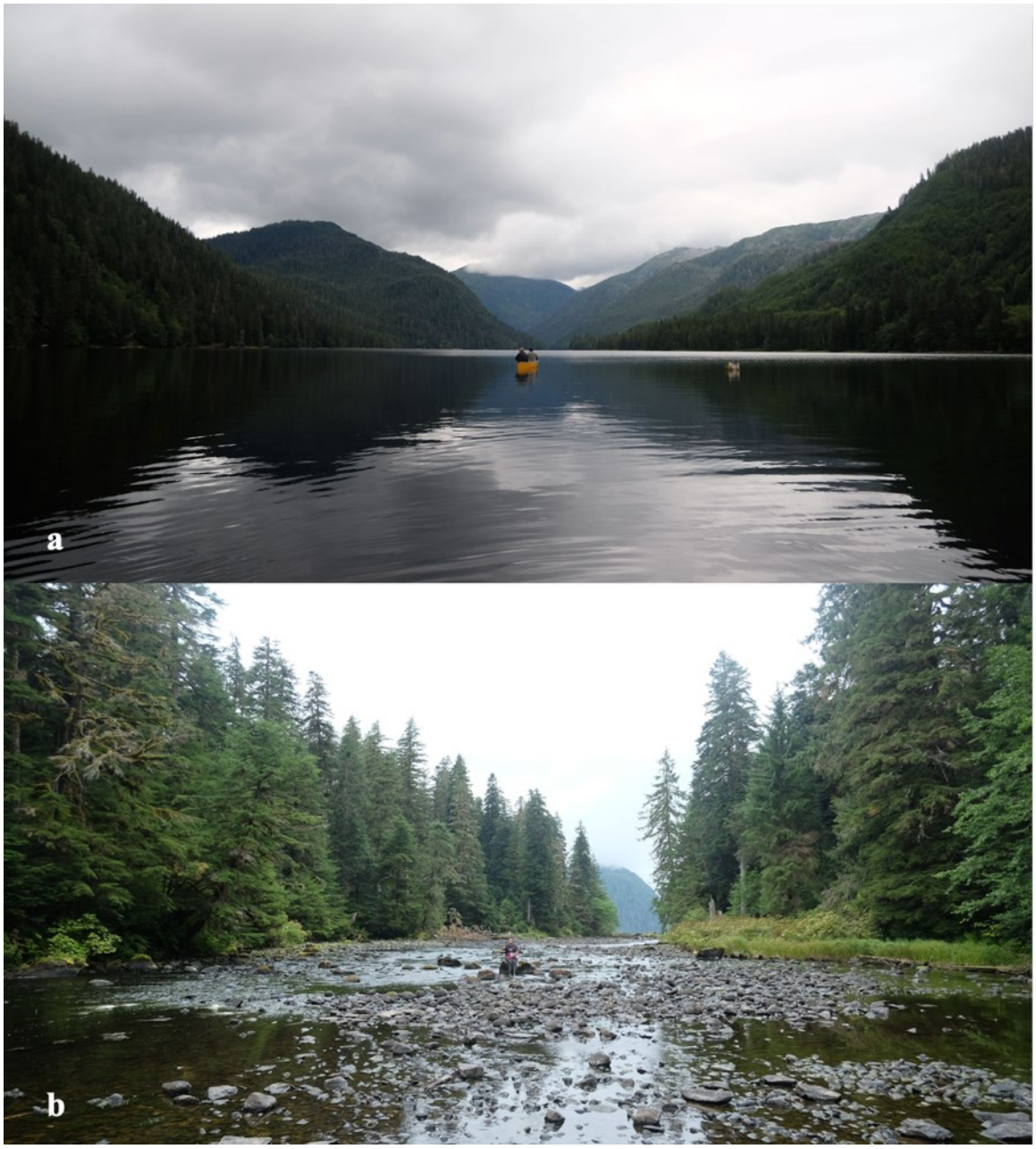

Figure 7. (a) Lax T’aam K̲’a’at or Kitkiata Lake, (b) and the remnants of a village site (grassy flats, right hand side) where its mouth flows into the K̲’a̲la̲ K̲’a’at river.
Photo credits: Jacob Earnshaw. Used with Permission.

Elders today speak of *Lax T’aam K̲’a’at* hosting two settlements sitting on the north and south banks of the lake. The settlement at the head of the lake sits beside the final stretch of salmon spawning beds in the *K̲’a̲la̲ K̲’a’at* system, cradled by the steep

alpine that supplies its lifeblood of freshwater. The other settlement sits on the southern lakeshore where *Lax T'aam K̲'a'at* flows into the *K̲'g̲alg̲ K̲'a'at* towards the ocean. This latter settlement feels like an homage to the ancestral home of *Temlaxam* in that it bridges the ways of the saltwater and with the inland history of the Gitk̲'a'ata. The lake's cedar-cottonwood riparian forest is rich in berries and ungulates, and the lake itself supports salmon and ecologically rare landlocked seals. Local knowledge holders variously recount that both settlements were at different times in the past either permanent or seasonal occupations, though the one at the mouth is said to have been more significant in size than the one further up the lake.

Like other places in *Laxg̲alts'ap*, the Gitk̲'a'ata have been drawn to this area of the watershed for hunting, trapping, and foraging. When utilized as a seasonal harvesting camp, the Gitk̲'a'ata would stay for an extended time in fall catching and processing the last of the salmon or solidifying the winter's meat supply. *Lax T'aam K̲'a'at* is particularly well known for its sockeye run, where the lake is said to turn red due to the colour of spawning salmon. Three Gitk̲'a'ata brothers, Clyde, Harvey, and Fred Ridley, remember following the fish up the *K̲'g̲alg̲ K̲'a'at* in their childhood and spoke of going to *Lax T'aam K̲'a'at* with their father, Herbert Ridley, to spear salmon. They reminisced about passing each pool in the river, listening to Herbert's stories of staying at these upper settlements, while watching him assess which school of salmon would be appropriate to harvest from.

Adaawx

The *Lax T'aam K̲'a'at adaawx* describes the lake's pivotal role in a political event that facilitated the amalgamation of two lineages from separate communities. The *adaawx* speaks to stewardship and alliance, as it tells of a group of relatives from Gitxaała (the same neighbours mentioned above) "leasing" the village site at the lake after fleeing their home due to a murder in their village (Anderson, 2016). Under Ts'msyen law, neighbours of a similar ancestor or phratry would often have an inherent alliance or responsibility to each other (Barbeau & Beynon, n.d.(a)); Greening, 2017; McDonald, 2016). Thus, this Gitxaała group – known as the *Gispudwada* house of *Dzoogali* – escaped to *Laxg̲alts'ap* with the understanding that the Gitk̲'a'ata

Gispudwada would help. As Violet Robinson shared (Anderson, 2016), "Escaping now, they knew they were all going to die. Then they went up to…[*Laxg̲alts'ap*]. That's where they went, that's where they ran away to."

The Gitk̲'a'ata chief *Wahmoodmx* allowed *Dzoogali* and his people to stay at the *Lax T'aam K̲'a'at* village until the controversy subsided. Meanwhile, *Dzoogali's* people paid taxes primarily of berries, but also of salmon and meat to the Gitk̲'a'ata who were living at *Laxg̲alts'ap* Village. Violet Robinson goes on to explain that,

> "[*Dzoogali*] put himself at the mercy…of this man, the chief [*Wahmoomdx*] up the inlet [*Laxg̲alts'ap*],and told what had happened to him. After they had finished feeding them, then they put their provisions into the canoe. Then [*Wahmoomdx*] took them up to the Lake of the *K̲'a'at*, this is where he put them, that's where he had them live… they gathered berries, and fish, dried them, and meat…and then transported it down to this chief, the one who took care of them."

To make peace with the Gitxaała's surrounding the murder controversy, *Wahmoodmx* adopted *Dzoogali* and his people into his own house group, solidifying them as Gitk̲'a'ata and absorbing their names and crests, while offering a key piece of his regalia to the Gitxaała chief to wear during his lifetime as compensation, the cloak of the white bear. Finally, Violet adds detail about the chief's prized regalia and associated crests,

> "That chief had a blanket, kermode bear, the blanket of this chief, white bear and it had all its claws, made into this coat, and it was very white, really attractive…Well, whenever he hosted a feast, then this is what he wore, and feasted the other villages. [The Gitxaała chief] said he would buy it, he did everything in his power to buy it. 'Well,' said the chief [*Wahmoodmx*], 'tell my brother I remember him with this gift,' he said. 'It will be a gift from my wife,' said *Wahmoodmx*."

Dzoogali maintains its importance among the Gitka'ata today as a name in the hereditary governance system.

Archaeology

Our survey of the south shore of *Lax T'aam K̲'a'at* was guided by the *adaawx* and directions from Elders who knew of the ancient settlement there. After some initial negative testing on the west side of the river outflow, we found the remains of a sizeable

settlement on flat landforms on the east side, bisected by a small tributary creek. We estimate the settlement to stretch at least 100 m north-south along the shores where the lake flows into the river, and within the riverbed itself we identified the remains of wooden stakes from fish weirs. The settlement area is characterized by several flat platforms parallel to the water, which are likely leveled areas where houses once stood. A small number of test excavations yielded stratified charcoal-rich deposits with preserved faunal remains and fire-cracked rocks, along with a small number of stone tools. Notable among the lithics is an abrading stone that has been stained with ochre. Animal bones recovered were dominated by unidentifiable mammal remains, but also included salmon and bird. Archaeological deposits are also visible in the banks at the waters' edge, where we observed lenses of thousands of preserved elderberry seeds, likely from similar processing as observed at *K̲'ala Hahaytk* (see also Martindale & Jurakic 2004).

The *Lax T'aam K̲'a'at* settlement dates to the last millennia and a half, making it contemporaneous with many of the archaeological sites in Kitkiata Inlet and along the banks of *K̲'a̲la̲ Kwaal*.Two radiocarbon dates from the lower layers at this settlement site produced ages of ~1500 and ~1300 years ago, while deposits near the surface date to within the last 300 years (Letham et al. 2023). Furthermore, the southern end of the settlement area is clear of trees and covered in edible berry shrubs; several tree stumps are visible. This suggests that structures stood in this area as recently as the 20th century.

How might this archaeological record reflect the *adaawx* of *Dzoogali* and his people being granted refuge at *Lax T'aam K̲'a'at*? The location is certainly secluded: to access it one would have to pass the main *Laxgalts'ap* village of *Wahmoodmx* at the *K̲'a̲la̲ K̲'a'at* estuary, and paddle 6.5 km upriver through the narrow valley. People living at *Lax T'aam K̲'a'at* would not be visible or readily accessible from the Douglas Channel. The remains of a small village settlement indicate that a lineage group could have lived at this place, and they may have arrived between 1500 and 1300 years ago. Notably, this is at least several centuries after the main *Laxgalts'ap* village population had established itself around Kitkiata Inlet (indicated by radiocarbon dates associated with architectural features dating 2900-1800 BP at the village site, large wooden fish weir complexes in front of the village dating to 1900 years ago, and several other settlements

and camps around the Inlet that appear to have been occupied ~1700 BP; Letham et al. 2023). Therefore, the use of the *Lax T'aam K̲'a'at* settlement as a refuge for newcomers after the Gitk̲'a'ata led by *Wahmoodmx* were already established themselves in larger numbers throughout *Laxgalts'ap* is supported by the radiocarbon dating. The berry and animal food remains in the archaeological deposits are indicative of the types of resources offered as tribute to the Gitk̲'a'ata caretakers. The continued use of the area into recent times looks to have been at a smaller scale: the house platform terraces at the north end of the settlement have larger trees growing out of them; perhaps these began to grow after *Dzoogali*'s lineage had assumed it safe to come out of seclusion, but the Gitk̲'a'ata continued to use this rich and important area.

2.6. Discussion

As every historian knows, understandings of the past and the retelling of history are context dependent and influenced by the teller and the situation of the telling. Such is certainly the case with the retelling of history based on archaeological and oral historical records. Both sources have their distinct biases and orientations, and also unique strengths.

Such differences are evident in our oral historical and archaeological retelling of the history of five culturally significant places in *Laxg̲alts'ap*. In the case of the archaeologically derived histories, our retellings are of course limited to human activities that leave tangible remains. In many cases, those activities are temporally homogenized, so that discrete events, especially those enacted daily, can be difficult to tease apart among deposits from repeated activities in the same spaces. In contrast, the *adaawx* are transmitted through a rigorously defined set of cultural rules that ensure that retellings reflect the original narrative, but, extraordinary events related to the storyteller will tend to be highlighted, and daily activities such as cooking or tool making can be missing. Furthermore, unlike archaeological inferences, the events in oral traditions are linked together through an historical narrative that is part of a larger canon of knowledge. In contrast, continuity among archaeological records may be difficult to parse out.

We see several examples of the different emphases in the two historical records in *Laxgalts'ap.* For instance, at *K'alaa Hahaytk* the *adaawx* explicitly focuses on one dramatic event of conflict, and it is understood that this one event is connected to a larger history of war among various groups. The archaeological record, however, did not produce any telltale signs of war aside from the construction of the island itself. Rather, the extant record reflects an amalgamation of daily life, such as what foods were eaten or what people collected and valued. Without the *adaawx*, we might have missed the interpretation of the spot as a defensive location. Conversely, without the archaeological record, we would have missed subtle insights into the construction of the island and the daily life on *K'alaa Hahaytk* over several generations.

2.6.1. On Time

For archaeologists, a foundational goal is to determine the chronological sequence of events on absolute or relative time scales, and most ideally assign an accurate calendar age to these events. Several processes, however, impede our ability to achieve this goal. In addition to the post-depositional homogenization or removal of archaeological deposits is the inherent imprecision built into radiocarbon determinations. In some cases, temporal inferences are further complicated by a tenuous linking of datable material to the event of interest. In the case of the rock with bryozoan encrustations over top of flake scars at *Wil Basaxga Aks*, for instance, we can confidently assess when that bryozoan lived and died, and know that this occurred after it had been made into a tool by people, but such a determination only gives us a minimum date on the timing of when the tool was dropped.

In comparison, *adaawx* record relative time. Relative time is pieced together through a series of temporal rejoinders (i.e., "after this", "later"), but the time between events is not often described and can be unimportant to the narrative. In our summary of *K'alaa Hahaytk* above, we temporally associate certain "warring times" with different groups: older wars were associated with the Tlingit and more recent wars with the Haida. As such, when Spencer creates the relative temporal arc of *Laxgalts'ap*, places like *K'alaa Hahaytk* are regarded as being on the more recent end of the spectrum due to the

association with the Haida wars, while wars with the Tlingit were largely fought earlier, during the arrival of the *Temlaxam Gispudwada* and in other parts of the territory (Barbeau & Beynon, n.d.(a); Campbell 2011, Marsden 2012).

Discerning Western linear time in the *adaawx* can be complicated by the fact that *adaawx* reference Ts'msyen notions of time. Ts'msyen temporal systems are not necessarily bound in a rigid linearity but highlight other social dynamics. An example is how the hereditary legacy of Ts'msyen names are meant to emphasize deep-time social ties between chiefs, houses, clans, and neighbours, while tying those same names and lineages to place. Gitk̲'a'ata people know *adaawx* focusing on a specific chiefly name or title are not necessarily taking place over one lifetime even though the narration style of the *adaawx* may seem to tell it in this way. In *Laxg̲a̲lts'ap*, there is a culturally implicit understanding that there are large time gaps between the *adaawx* describing hereditary figures, like that of *Wahmoodmx*, and that each story may involve different successors of the name. Thus, there is potential for large gaps of time between events at the sites we studied even though the *adaawx* refer to persons with the same name. For example, the *Wahmoodmx* involved in the amalgamation into *Laxg̲a̲lts'ap* Village could be many generations apart from the *Wahmoodmx* who hosted *Dzoogali* on *Lax T'aam K̲'a'at*.

Despite the different ways of marking time, sometimes oral traditions and archaeology can be twined together to fill in temporal gaps. This twining is exemplified in *Laxg̲a̲lts'ap* Village where the *adaawx* recount the merging of people led by *Wahmoodmx* with the initial Gitk̲'a'ata occupying the inlet. On the archaeological side, we observe that the area around what would become *Laxg̲a̲lts'ap* Village was first occupied some 8000 years ago, though beginning around 2000 years ago there are a lot more sites in the area and *Laxgalts'ap* Village appears to increase in size. While this pattern could result from a bias of increased site visibility on the modern shorelines after relative sea level stabilization at the same time, it could also be attributable to the arrival of newcomers to the area.

The archaeological record in combination with the *adaawx* associated with the second migration led by *Wahmoodmx* help us narrow down a timeline for the settlement

of *Laxg̲alts'ap* Village. A period of migrations, increased tensions, and ultimately warfare with Tlingits from the north described in the *adaawx* is suggested to have occurred between ~3000 and 1000 years ago (in and around the Prince Rupert Harbour) based on archaeological evidence (Edinborough et al. 2017; Martindale et al. 2017a, 2017b; Martindale & Marsden 2003). Gitk̲'a'ata *adaawx* tell us that *Wahmoodmx* arrived to *Laxg̲alts'ap* during a time when there were many Tlingit in the lower Grenville channel and Hartley Bay area (Barbeau & Beynon, n.d.(a); Campbell, 2011; Duff, n.d.; Marsden, 2012). Therefore, it is reasonable to infer that the amalgamation of *Wahmoodmx's* lineage with the Gitk̲'a'ata already living at *Laxg̲alts'ap* occurred sometime between 3000 and 1000 years ago - and most likely by at least 2000 years ago - when we observe the increased abundance of archaeological sites around the inlet. The adaawx reference to the planting of a ceremonial cane specifically at the mouth of the *K̲'al̲a K̲'a'at* river may off an additional clue, as earlier than 2000 years ago higher sea level positions meant that the mouth of the river would have been further north of *Laxgalts'ap* Village.

2.6.2. On Space

Our explorations also highlight differences in how space is conceived from oral historical and archaeological perspectives. On the archaeological side of the equation, the focus on "sites" (locations where there are material remains of past human action) can introduce constraints on how cultural landscapes are perceived and may not mesh well with Indigenous views of the landscape (Lepofsky et al., 2020; Armstrong et al., 2023). In the case of the *adaawx*, when Gitk̲'a'ata Elders speak of places, they can be referring to specific spots, more general locations, or a mix of both. Being on the land and listening to Gitk̲'a'ata knowledge holders made it obvious that there was a nuance to these in-between spaces. That is, although there were many places throughout the watershed where physical remains of human activity can be recorded as polygons or points on a map, the space in between these points could not be ignored. As such, an on-going tenet of our research was to understand the *Laxg̲alts'ap* watershed as an entire cultural unit, as opposed to a vessel that contained many small sites that were not connected to the larger whole.

It became glaringly obvious that so much of the of Gitk̲'a'ata connection to *Laxg̲alts'ap* was how they expressed movement between and amongst the spaces that one would consider "archaeological." Ultimately, *Laxg̲alts'ap* holds an indefinite amount of cultural importance built up over millennia in spaces that cannot be expressed in archaeological terms, nor even in the *adaawx* at times. Rather, it can only be expressed in the lives lived on the landscape – be it ceremony or hunting and gathering. This becomes even more obvious when conducting archaeological research with Gitk̲'a'ata community members, as their attention is continually drawn to both the past and the present through an inherent pull to carry out cultural activities such as ritual or harvesting while in the field. Settling into this "all-encompassing" cultural context allows us to research beyond points on a map within the watershed and into a fuller understanding of a *cultural landscape*.

Underlying these different interpretations is the fact that many archaeologists and Indigenous people hold different concepts of space. That is, physical evidence is the core of archaeological practice, while in an Indigenous context, history can be linked to space, but it is often marked also by *living*; this *living* may or may not have physical presence, and may solely present itself as Indigenous knowledge only shown through the depth of the cultural connection. *Mg̲oonł K'waal* and *Wil Basg̲axga Aks* are prime examples where the shifting riverine landscape has removed immeasurable amounts of physical human evidence – thus limiting any archaeological inferences about those places. However, the absence of physical evidence of Gitka'ata history often has minimal influence on the place's current importance in Gitka'ata culture. *Mg̲oonł K'waal* and *Wil Basg̲axga Aks* maintain ample modern uses and references in the oral traditions and are at the foundation of the Gitk̲'a'ata's spatial connection to the watershed. Indeed, the *adaawx* may be an important line of evidence indicating the existence of an archaeological site that has now been washed away and would never have been known in their absence.

2.7. Final Thoughts

Projects that incorporate Indigenous oral traditions and archaeological science force us to become introspective of our respective practice. With a foundational

understanding that neither knowledge set should over-write the other and neither should be expected to provide a complete picture of the past, we acknowledge that a multi-lensed approach to history provides greater interpretive power (Colwell-Chanthaphonh & Ferguson, 2010; Watkins 2013). This paper highlights how oral traditions are a Ts'msyen socio-historical and institutional tool that provides information to archaeological interpretations. Conversely, the archaeological record can sometimes give details to help inform the *adaawx*. Taken together, partnering the two knowledge systems allowed us to understand Gitka'ata history more fully. Going forward, the *adaawx* will maintain their relevance on Ts'msyen socio-political stage while describing the extraordinary events occurring on the landscape over millennia, and archaeology will continue to allow us to indulge our questions and curiosities of knowing how and when humans lived on this landscape.

2.7.1. Gitk̲a'ata Knowledge Holders That Have Shared *Laxg̲alts'ap Adaawx* With the First Author

Knowledge Holders	**Relationship to First Author**
Bossy Bolton	Elder, Mentor
Matthew Bolton	Elder, Mentor
Phyllis Bolton	Elder, Mentor
Albert Clifton	Elder, Mentor, Relative, Clan Chief
Arnold Clifton	Elder, Mentor, Relative, Clan Chief
George Clifton	Elder, Mentor, Relative
Helen Clifton	Elder, Mentor, Great-Great Aunt
Henry Clifton	Elder, Mentor, Relative
Ruby Clifton	Elder, Mentor, Relative
Elizabeth Dundas	Elder, Mentor
Isobel Eaton	Elder, Mentor, Relative
Cameron Hill	Mentor, Relative
Ernie Hill (Jr.)	Elder, Mentor, Relative, Clan Chief
Eva Hill	Mentor, Relative
John Pahl	Elder, Mentor, Grandfather
Sarah Reece	Elder, Mentor
Ronald Reece	Elder, Mentor, Relative
Clyde Ridley	Elder, Mentor, Relative
Fred Ridley	Elder, Mentor, Relative
Harvey Ridley	Elder, Mentor, Relative
Allan Robinson	Elder, Mentor, Relative
Violet (Tina) Robinson	Elder, Mentor, Relative

Chapter 3.

Gugwilx'ya'ansk And Goats: Indigenous Perspectives On Governance, Stewardship, And Relationality In Mountain Goat (Mati) Hunting In Gitga'at Territory

3.1. Introduction

In the book *The North American Model of Wildlife Conservation* there is a simple yet profoundly instructive sentiment: "conservation is never complete. It is an ongoing problem requiring ongoing efforts that play out in a dynamic social reality" (Mahoney, Geist, & Krausman, 2019, pp. 4). This sentiment reminds us that in our relationship with the natural world, there is an inherent fluidity that demands ongoing analysis, inquiry, dedication, and humility. Humans aren't naturally conservationists, and it is damaging to assume or imagine us as such (Borrows, 2019a), yet what is natural, is our ability to build and maintain relationships with living things around us. At the core of ecological conservation, management, or stewardship, is using the human strength of relationship building to create a consciousness of how we fit into our ecologies relationally, while weaving this understanding into our culture's societal fabric. When human and non-human relationships are respected and honed over a deep-time connection to land, societies can create social, legal, spiritual, and political structures that honour both human needs and those of the natural world (Fowler & Lepofsky, 2011).

To shine a light on a relational approach to ecological stewardship ethics, this paper approaches the topic through an Indigenous lens. Indigenous concepts of conservation have been recognized as essential in modern ecological studies (D'Arcy, 2023; Fernández-Llamazares et al., 2021; Garnett et al., 2018; Nelson & Shilling, 2018). Indigenous cultures portray lessons for society today by embedding themselves within their ecosystems and maintaining longstanding goals of mutual reciprocity between human and non-human relationships. Many Indigenous "managers" do not see themselves as inherently separate from a managed system, while understanding that respect is due to all parts of that system regardless of its utilitarian value (Cruikshank,

1981; Lertzman, 2009; Turner & Berkes 2006). Deep time histories, dedication to place, and a lack of human exceptionalism help define the success of Indigenous management practices.

To illustrate this on-the-ground dynamic, I look to my own people, the Gitk̲'a'ata (Gitga'at First Nation), a Ts'msyen (Tsimshian) people of the Pacific Northwest Coast. Guided by the following research question: *How are Gitk̲'a'ata harvesting, governance, and pedagogical processes intertwined, and what can they teach us about ecological stewardship?* I discuss how a Ts'msyen legal and pedagogical philosophy engrains ecological stewardship into its practitioners by weaving identity, morals, values, spirituality, and laws into relationality and reciprocity on the landscape. The philosophy, called *gugwilx'ya'ansk*, grounds this discussion in Ts'msyen socio-politics while extending its lessons to the on-the-ground harvesting practices of my people. Through an autoethnographic and story-based lens, I tell my own journey of learning Ts'msyen harvesting practices, values, philosophies, and governance with Gitk̲'a'ata Elders who were born and raised in a culturally significant place in our territory called *Laxg̲alts'ap* (Lepofsky et al., 2017). Cultural aspects of hunting enshrine a moral code and engrain ecological stewardship into its practitioners (Reo & Whyte 2012), and by showcasing *mati* (Mountain Goats, *Oreamnos Americanus*), I take this conversation into both the ethical and metaphysical world by highlighting the importance of oral history, traditional ecological knowledge (TEK), and spirituality in Gitk̲'a'ata harvesting practices. I detail three methodological steps within *gugwilx'ya'ansk*; First, becoming a student and scholar of the Gitk̲'a'ata laws and histories in a specific geography. Second, living those laws to actively participate in the ecosystem and facilitate connection and balance to the place they derive from. And finally, tending this connection in a metaphysical way for moral grounding, communication with, and further insight into the ecosystem. These three steps give insight into the multi-faceted eco-centric governance systems of an Indigenous people on the Pacific Northwest Coast. Through these three steps my journey portrays how creating practitioners that are not passive occupants, but active participants of their ecosystems, builds a foundation for relationality and reciprocity with the non-human world.

3.2. The Gitk̲’a’ata and Laxg̲a̲lts’ap

The Gitk̲’a’ata are a nation and tribe within the larger Ts’msyen people who have resided in the lands and waters of the Pacific Northwest Coast since time immemorial. The Gitk̲’a’ata hold collective roots spanning the upper Skeena River to the outermost Islands of the southern portions of Ts’msyen territory. The coastal archipelago has shaped the language, politics, economy, spirituality, and arts of my people. Known for its biodiversity, this landscape supports an array of beings whose homes range from the ocean deep and intertidal beaches, to the riparian zones of salmon bearing rivers that flow alongside old growth cedar forests that extend to the rocky alpine. The beings who make up these ecosystems are interwoven in our culture and showcased in song, story, law, spirit, and food.

Ts’msyen society is grounded in our hereditary governance system. Access, ownership, and the stewardship of resources is inherited matrilineally, and specific territories are overseen by different clans (*pteex)* and subdivisions of houses within the clan called *waap*. The Gitk̲’a’ata are made up of three main *pteex* – the *Gispudwada* (Killerwhale)*, Ganhada* (Raven)*,* and *Laxskiik* (Eagle) - each with several *waap*. These matrilineal clans engage in the longstanding Ts’msyen political institution, the *luulgit*, known in English as the potlatch or feast. Today, the *luulgit* is still practiced by all Ts’msyen tribes and nations within the Ts’msyen people. The legal complexity of the *luulgit* rivals any modern governance system, though one could potentially analogize it as a “parliament,” where the formalization of political decisions surrounding resources, economy, and societal function are made (Beynon et al., 2000; McDonald, 1995; Napoleon, 2009; Seguin, 1984).

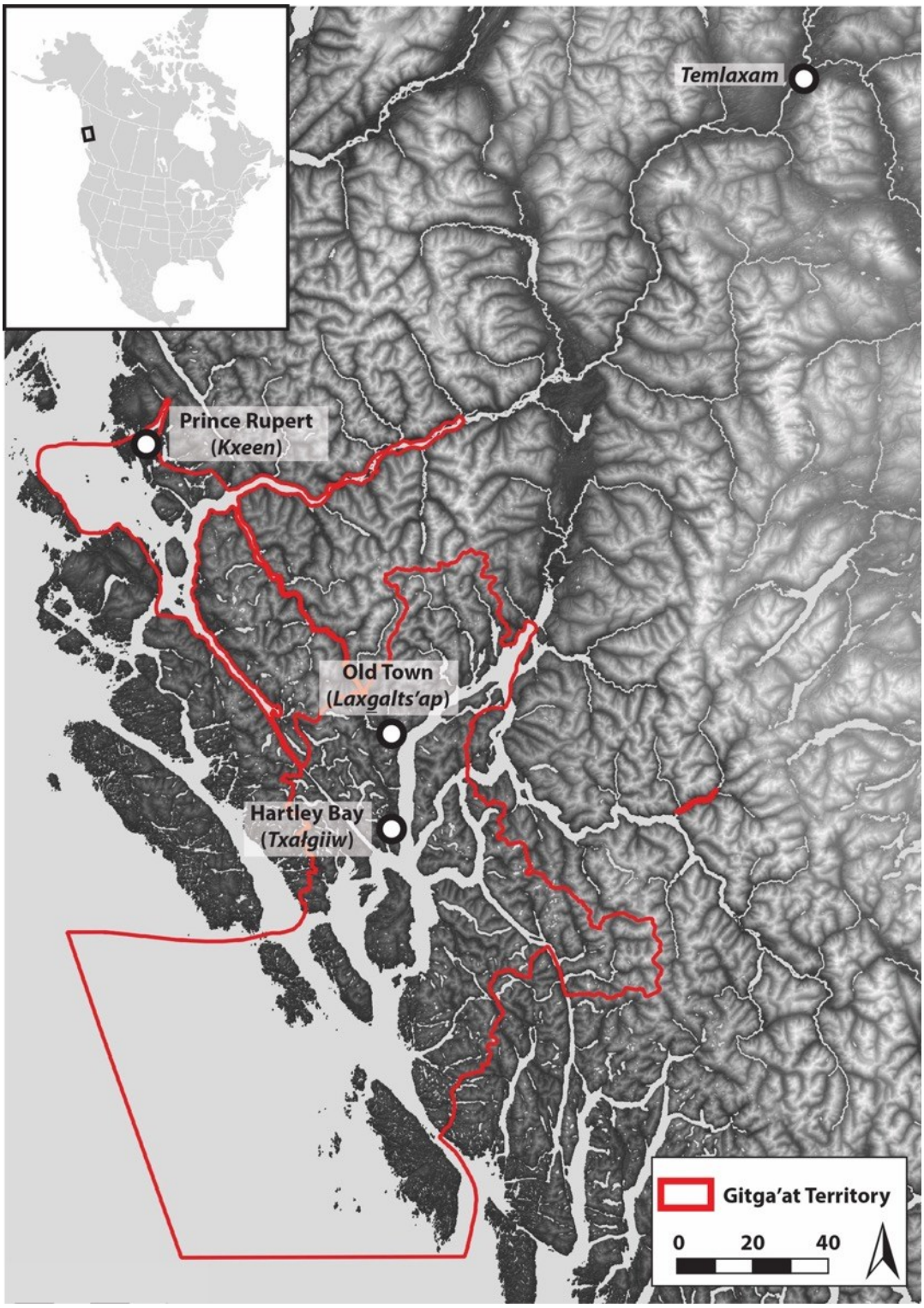

Figure 8. **The modern village of Hartley Bay (*Txałgiiw*), the nearest urban of Prince Rupert (*Kxeen*), and Douglas Channel (*Gisi Xamu*) connecting Old Town (*Laxgalts'ap*) to Hartley Bay- all situated within Gitga'at Territory. *Map courtesy of Bryn Letham.***

Most Gitk̲’a’ata members today reside in the current village of *Txałgiiw* (Hartley Bay) and the nearest urban centre of *Kxeen* (Prince Rupert). Gitk̲’a’ata territory is expansive with many ancestral village sites, each belonging to one of the three *pteex*. Situated amongst the many village sites in Gitk̲’a’ata territory is *Laxg̲a̲lts’ap*, commonly referred to as “Old Town,” the main wintering village of all Gitk̲’a’ata prior to colonization (Figure 8). *Laxg̲a̲lts’ap* refers to both the watershed and main village site, and is still viewed as “home” to our people (Greening et al., forthcoming; Lepofsky et al., 2017). It wasn’t until the creation of Indian Reserves in 1889 that our community was moved from *Laxg̲a̲lts’ap* to *Txałgiiw*. Yet throughout colonization our people have remained connected to places like *Laxg̲a̲lts’ap* by continuing to live off the same lands and waters that our ancestors did for millennia. Today, *Laxg̲a̲lts’ap* is seen as a breadbasket for our people and is still utilized as a seasonal village. Many of my Elders were born and raised there in the summer and fall months, the seasons where we harvest the highly prized salmon, alongside the many plants and mammals that are abundant in the watershed.

Upon visiting the Gitk̲’a’ata people, one quickly learns the importance of our connection to harvesting, ultimately placing the richness of *Laxg̲a̲lts’ap*’s ecology at the forefront of the Gitk̲’a’ata mind. Because of this richness, an abundance of Gitk̲a'ata stories, teachings, laws, and protocols address how to harvest all of the species who share *Laxg̲a̲lts’ap* with us. We human Gitk̲’a’ata belong to this ecosystem, and our history, knowledge, and spirit are embedded within the landscape.

3.3. Methodologies and Theory

For decades, Indigenous scholars have used Indigenous methodologies and theory to properly represent Indigenous knowledges within academia (Kovach, 2021; Smith, 1999; Wilson, 2008). Indigenous methodologies enable researchers to uphold and maintain Indigenous processes for obtaining and sharing knowledge (Weber-Pillwax, 2001), while affirming community benefits and responsiveness to community priorities (Brant-Castellano, 2004; Kovach, 2021). Though these methodologies stem from diverse

cultures, they are rooted in a shared history of colonization and our contemporary realities as Indigenous peoples (Hayward et al., 2021; Little Bear, 2000).

Woven throughout this paper are expressions of how Indigenous methodologies use Indigenous Science (Cajete, 2018; Cohen, 2023). Indigenous science and theory converge on an understanding that our relationship with the Land[9], and the systematic study of that Land, is at the crux of understanding how we fit into the natural world. Indigenous authors have shown how *Land is pedagogy* (Simpson, 2017; Tuck and Yang, 2012), and how land-based theory re-centers ecologies as our primary teacher (Gaudet, 2019; Kovach, 2021). In keeping with these traditions, the Indigenous methodologies I apply embody the epistemologies of our people – a legal and pedagogical philosophy called "*gugwilx'ya'ansk*." Below, this *gugwilx'ya'ansk* methodology is further broken down into three on-the-ground methods utilized by my Elders - *becoming*, *living*, *and tending*.

In addition to Indigenous methodologies, I use autoethnography and take an autobiographical approach to this paper. In my experience, knowledge transfer most efficiently happens in situations where I was either harvesting, processing, or sharing food with Elders. Autoethnography allows for personal experiences outside of formal research settings to be incorporated into research findings (Ellis, 2004). Not all contexts where I learn Indigenous knowledge, or obtain "data," reflect formal data collection processes within the disciplines of ecological study. For example, methods such as storytelling (Archibald, 2008; Drawson et al., 2017), ceremony (Wilson, 2001; Atleo, 2004), visiting and conversation (Gaudet, 2019; Kovach, 2021), and engaging with the land (Kimmerer, 2013; Simpson 2017) are all methods I use in traditional contexts, but can also be utilized under autoethnography. As such, autoethnography is a non-Indigenous method that feels authentic to the processes needed to answer my initial

[9] Indigenous scholars often use the term "the Land" as an all-encompassing term for one's territory. The Land can include land, water, skies, incorporating a spiritually dynamic place. See Cajete, 1994; Lowan 2009. When referring to "the Land," Indigenous authors are capitalizing "Land" to emphasize how it is alive and animate in Indigenous cultures.

research question, while honouring the educational context in which the majority of my learning took place: as a Gitk̲’a’ata person in Gitk̲’a’ata spaces and places.

3.4. Gugwilx’ya’ansk: A Ts’msyen Methodology

Gugwilx’ya’ansk is a philosophical term amongst the Ts’msyen that bleeds into all aspects of ecological governance, law, and personal identity. This term is often heard while attending the *luulgit* of any tribe. Within the *luulgit,* the legal aspects of *gugwilx’ya’ansk* are imposed upon an individual when they publicly receive a traditional name or title from their *pteex*, ultimately bringing new political responsibilities. *Gugwilx’ya’ansk* is roughly translated to “for all-time passing down,” and at a *luulgit*, masters of ceremony and Elders will speak to the metaphor of *gugwilx’ya’ansk* and how a person’s name or title ties them to the indefinite responsibility of stewarding people and place. Often articulated collectively during public speeches, the words *adaawx* (histories), *ayaawx* (law), and *gugwilx’ya’ansk* regularly permeate the halls of the *luulgit*, used in a triad to emphasize good governance and societal order. *Gugwilx’ya’ansk* is a metaphor and philosophy that binds history and law while expressing a dedication to Ts’msyen ways of being and place for *all-time*.

The meaning behind g*ugwilx’ya’ansk* becomes more impactful when one understands the importance of hereditary names within Ts’msyen society. Ts’msyen names are social and spiritual vessels that are passed down for millennia through specific protocol. They incarnate specific people for their lifetime, yet continue for *all-time*, from past ancestors through the present moment, to through future successors (Roth, 2008). These names themselves index hereditary rights and responsibility to physical and spiritual places, and regularly refer to ecological phenomena in those places (Campbell, 2011, pp. 15; Roth, 2001). In contrast to Western practices where places are often named after people, the names of Ts’msyen people are derived from the environment. In fact, rather than Ts'msyen people imposing their names on a landscape, the landscapes are imposed on us through these names which represent the geographic area their stewardship responsibilities are tied to. Many cases of hereditary names referring to places of ecological and economic importance in my community - ranging from berry

bushes to traplines within a *pteex's* territory. Through the act of naming people, ecological identity is intertwined with a legal responsibility and connectedness to place (for more details see chapter 4). This simple, yet profound, eponymous dynamic ties humans to the non-human world in a way that deeply contrasts with a Western concept of naming and ownership: we belong to the name, and the name belongs to a territory, and we become the current incarnation or vessel acting on behalf of that territory during our physical lifetime. As such, it becomes engrained in Ts'msyen law that the hereditary name, regardless of who it incarnates, will continue to enable stewardship of a place for *all-time*. In essence, we have a governance system where it is legal process to train leaders and decision makers in what it means to hold ecological relationships and responsibilities to a specific place.

The Ts'msyen act of naming its citizens embeds the natural world into one's identity, allowing *gugwilx'ya'ansk* to erode a human-centric notion of governance. This eco-centric dynamic is not uncommon across Indigenous North America and is modeled in TEK (Berkes, 2008; McGregor, 2004a; Menzies, 2006; Nelson & Shilling, 2018). Many Indigenous oral histories and laws that incorporate TEK give the original instructions on how to be in agreement, care, relate, and exist with specific geographies and its beings (Cajete, 2018). Ts'msyen law does this by seeing each species as a legitimate political entity within our governance systems (Miller, 1997). Because we recognize that each species has its own society with its own respective governance order, our law emphasizes the importance of engaging in the needs of each of these non-human societies. Throughout our time in our respective territories, we have had the responsibility to create amicable agreements with other species and beings, sometimes similar to what one would today call a treaty. From plants and animals to spiritual beings that live under the water, navigating the world of the Ts'msyen entails a legal and moral kinship with all non-human species (Barbeau & Beynon, n.d.(a) ; Marsden, 2002).

3.4.1. Methods: Becoming, Living, Tending

Gugwilx'ya'ansk entails a triad of *becoming*, *living*, *and tending*, each of which I have learned through an on-going journey of learning from my Elders. This education

became more comprehensive when I received my Ts'msyen name *La'goot*. Upon receiving this name and assuming a more formal role in our governance system, several Gitk̲'a'ata Elders began passing down knowledge and associated stewardship practices to me throughout our territory, but specifically focused on *Laxg̲alts'ap*. My mentoring followed traditional Gitk̲'a'ata gender roles, where male Elders of my paternal lineage (*wilksi'waatk*) teach me hunting, trapping, and fishing skills.[10] There are many ecological management practices associated with women within and beyond my community, and highly ranked women at are the forefront of certain governance, stewardship, and harvesting (McGregor, 2013; Turner et al., 2012). However, I received less mentorship from women in *Laxg̲alts'ap* due to cultural circumstance. Below, I discuss each step of *becoming*, *living*, and *tending* separately in the order I was taught by the of my *wilksi'waatk*. Though the three steps were taught separately at times, it is essential to recognize that they are seamlessly interconnected, and to learn one without the others would make the process incomplete.

Step One: Becoming a Scholar

> *"I went to college in Laxg̲alts'ap"*
>
> - Gamgagol, Matthew Bolton, Gitk̲'a'ata Elder
> (personal communication to author, 2016)

As alluded to in its translation "for all-time passing down," *gugwilx'ya'ansk* necessitates both physical and intellectual succession of knowledge and responsibility. In my time with my Elders, it was emphasized how much of this succession takes place on the lands and waters by passing down the stories, laws, protocols, and practices can be passed down in the landscape from which they derive. The significance of land-based[11]

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[10] Elders of my *wilksi'waatk* have been, and continue to be, dedicated to this traditional mentorship role. When I speak of harvesting and *mati* in this chapter, key members of my *wilksi'waatk* who have taught me this knowledge are: John Pahl (grandfather), Clyde Ridley (relative), Matthew Bolton (mentor), Harvey Ridley (relative), Allan Robinson (relative), Fred Ridley (relative), George Clifton (relative).

[11] Indigenous scholars often use the term "the Land" as an all-encompassing term for one's territory. The Land can include land, water, skies, incorporating a spiritually dynamic place. See Cajete, 1994; Lowan 2009. When referring to "the Land," Indigenous authors are capitalizing "Land" to emphasize how it is alive and animate in Indigenous cultures.

knowledge transfer is echoed by other Indigenous scholars (Adelson, 2000; McCoy et al., 2017), as it is well understood that the acquisition of knowledge and incorporation of it into societal functions derive from a connection to an ecological system (Battiste & Henderson, 2000). As the above quote from my Elder Matthew Bolton suggests, the place to become a scholar of *Laxg̲alts'ap*, was clearly in *Laxg̲alts'ap*. While being there with him, I witnessed Matthew accessing a metaphorical land-based library and archive, enabling him to teach what had been taught to him. We walked through this archive together in a way that groomed me into being able to access it on my own, into the future, as long as I maintained my relationship with it. It was also clear that the more I participated within the archive, the more in-depth it became. This was extremely meaningful on a personal level, as both my research and my personal Gitk̲'a'ata responsibilities were able to sit together in one space. While being on the Land, both Matthew and I were continuing the pedagogical processes our ancestors had set in place *for all-time*.

Step Two: On Living It

> *" 'What is the point of prayer and meditation?*
> *'...To bring you closer to the Great Mystery.*
> *'So I can understand it?*
> *'...No. So you can participate in it' "*
>
> Richard Wagamese (2016, pp. 75)

The excerpt above emphasizes a fundamental lesson in understanding relationship with the non-human world – that we must be an active participant, as opposed to a passive learner. While Wagamase is speaking to a spiritual context by referencing *the Great Mystery*[12] or the spirit world, I extend this analogy to also include our relationship with the natural world. Disassociation within non-Indigenous society has led to a commonly held mainstream misconception that humans are separate from the non-human world, and as a result, modern society lives a self-fulfilling belief of having an inherently negative influence on the landscape. Throughout my time in academia, I have noticed a

[12] A term commonly used by many Indigenous people across North America to refer to the spirit world.

drastic difference between academic and community-based Indigenous approaches to ecological study. At the core of this dichotomy are academic peers striving to *observe* and *understand* an ecosystem, where community-based Indigenous approaches strive to *participate* within it. Ts'msyen culture revolves around an active kinship with the natural world, which guides *Gugwilx'ya'ansk* and its practitioners to build interdependent relationships with a place while existing within it. As with many species we harvest, each of them have told us that we are allowed to harvest them and how to do it. As such, animals are not asking us to *understand* them as a bystander, but to *participate* in the ecosystem with them.

Step Three: Tending the Metaphysical Connection

> *"For the traditional Tsimshian Indian, animals and spirits are part of a continuum; man is the one who has to bridge the gap"*
>
> Marie-Françoise Guédon, (1984, pp. 140)

For the Ts'msyen, the politics of being human is understood as innately tied to spiritual and non-human worlds, and a major expression of this happens through metaphysical means. The establishment of each species' rights, or general communication within the species who have these rights, is done through the *naxnox*. *Naxnox* is a term used to describe both one's spiritual power, and the spiritual beings who deliver that power and communicate through it (Miller, 1984). Navigating the world of harvesting involves navigating the world of the *naxnox* (Guédon, 1984), as it is the channel where humans and non-humans communicate. On-going conversations and feedback from the *naxnox* dictate our human societal practice, which in-turn become formally recognized, acknowledged, and adopted within our governance structures.

Spiritual eco-centric management systems are not only common among the Ts'msyen, but many Indigenous peoples across North America (Anderson, 1996; Anderson & Pierotti, 2022). In the eyes of Nuu-chah-nulth Hereditary Chief *Umeek,* spirit is as necessary to the management of the physical reality, as science is today, yet both can exist compatibly in a Nuu-Chah-Nulth Worldview (2004). The late Sioux anthropologist Vine Deloria Jr. states, "our ancestors invoked the assistance of higher spiritual entities to solve pressing practical problems," listing the many ways this was the

case – from theoretical and governmental to practical and mundane (2006, pp. 7). Non-Indigenous anthropologists studying in North America have long referenced the phenomena of Indigenous peoples "discovering knowledge" via spiritual dream realms, from Diamond Jenness amongst the Inuit (1922) to Hugh Brody amongst the Dane-zaa (previously referred to as the Beaver Indians) (1988).

Spiritual practices have been an analytical, forward thinking, and inquisitive method to address curiosities and tribulations for as long as our cultures have existed. Just as a curious historian may go to the archive, or the curious archaeologist to the dirt, we Ts'msyen naturally turn to spirit and the *naxnox*. Spirituality, ritual, and ceremony have been the language that has unlocked countless societal laws and functions that have allowed us to thrive in specific places for millennia.

3.5. Mati Case Study

Nestled amongst the steep mountains of our coastal alpine fjords are the avalanche chutes, rocky crags, and cedar bluffs where the *mati* make their home. Harvested by Ts'msyen people for millennia, they hold deep spiritual and cultural value to our people. In story and song, *mati* are often tied to shamanism and the spirit world and their presence is seen as enigmatic amongst many coastal Indigenous peoples (Samuel, 1982). Due to the inherent mountaineering risks, harvesting *mati* is seen as one of the most noble and dangerous hunts (Boas 1916, pp. 402-406). Accompanying the intensity of the hunt and their spiritual presence is the reasoning behind their name. As described by my colleague Charles Menzies, a fellow *mati* enthusiast and scholar from our neighbouring community of *Gitxaała*, the word *mati*[13] is derived from the intense stare they give when face to face with them.

The meat and fat are highly prized and many stories tell of renowned hunters being celebrated for the skills associated with the *mati* harvest (Barbeau, n.d.(a); Boas,

[13] The author presumes this is an ancient term, as he was unable to find the linguistic breakdown of this word through conversations with Elders and consulting the *Sm'algyax* dictionary (TSLA, 2022a).

1916). Their fat is treasured and regularly used in spiritual offerings, seen as a delicacy by both humans and non-humans alike. In one instance, the ability to host a *luulgit* of *mati* fat was considered "'the greatest contest ever known" (Barbeau & Beynon, n.d. (a), "Blood Revenge"). Specific parts of the animal are used for key ceremonial items. Horns are used for elaborate ceremonial spoons and as essential pieces of a shaman's headdress, carved in detail, they can represent one's lineage and invoke spiritual power or guidance (Figure 9a). Their hide and fur have several clothing and regalia related uses, the most prominent being the chilkat blanket, or *Gwishalaayt* "shamans robe" (Figure. 9b). For the *gwishalaayt*, the wool down is turned into beautiful strands, woven into yarn and formed into a dancing robe that should only be worn by accomplished shamans or those of high chiefly rank. When danced, the oscillating fringed wool on this blanket invokes spirits, uniting the human, *mati*, and spiritual world all in one instance.

Mati are represented in both tangible and intangible ownership. They are shown in crests, regalia, and carvings, while some lineages own specific rights to stories and songs about them. The *Niistaxo'ok* and *Niis Haiwaas* lineage of the Kitselas tribe are prime examples of this, who amongst the Ts'msyen own the rights to the crest, songs, regalia, and dances of the one horned goat - a key player in the most well-known *mati adaawx* (Wright, 2003). Ultimately *mati* have been braided into Ts'msyen life politically, economically, spiritually, and ecologically for millennia.

Figure 9. (a) Goat horn spoon from Hartley Bay, owned by Cameron Hill, passed down by his great-grandfather Ambrose Robinson; (b) Ts'msyen (Tsimshian) Chilkat robe made of dyed Goat wool and woven cedar bark.

Photo credits:
(a) Taken by Author
(b) Artifact VII-C-2153 from the Canadian Museum of History. Used with permission.

3.5.1. Step One: Becoming a Mountain Goat Scholar

When becoming scholar of any species you must become cultured in three areas of study: history, ceremony, and traditional ecological knowledge (TEK). My Elders first introduced me to the *mati* through the oral histories that come from a time when a branch of the Gitk̲'a'ata lived in the upper Skeena River millennia ago. Known in English as *The Downfall of Temlaxam, the Feast of the Goats,* or *The Retaliation of the Goats*, this account is well known and recorded amongst the Ts'msyen, Gitksan, and Nisga'a peoples of the Pacific Northwest Coast (Barbeau & Beynon, n.d.(a); Barbeau & Beynon 1915-1957; Boas, 1916; Harris, 74). The history describes the historical settlement of *Temlaxam*, an ancient village that all Ts'msyen communities have ties to today. The people of *Temlaxam* lived in excess and had lost their humility. Even when they didn't need food they would hunt for sport and entertainment. After a kill, people would make jokes and speak thoughtlessly around the body of the dead animals, while leaving pieces

of carcasses on the mountains they hunted as waste. This was a sign of true disrespect to all animals, and the *mati* especially. It sent a message to the spirits of skies and mountains that their bones, meat, or hides, aren't worth the effort of carrying home. The story has many details leading up to a climax of human disregard for *mati*. They begin capturing the *mati* for fun and bringing one young *mati* into the village to keep as a pet, where children learn the carelessness from their parents first-hand and make games out of tormenting the young *mati*. The story goes on to tell how strange men wearing white cloaks came into the village, inviting the people of *Temlaxam* to a *luulgit* in the mountains. Impressed by these men, the royalty, their delegates, and noblemen of *Temlaxam* accept the offer and begin making the trek to a longhouse in the highest peaks of a mountain named *Stekyawden*. After an intricate performance involving dancing and songs, the hosts of the *luulgit* in the mountain dramatically turn into *mati* and dance and stomp on the floor so hard the longhouse collapses. Crumbling mountain tops send the visiting humans falling to their deaths in the steep crags and taluses of *Stekyawden*. Following this, the *mati* communicate to a lone survivor that humans may harvest them, but there must be laws, ceremonies, and rituals accompanying the harvest. The human survivor is sent off to tell the people remaining in *Temlaxam*. The protocols for the hunt shared by *mati* long ago are still practiced today, and the *mati's* ability to heed warning echoes across the Ts'msyen landscape.

Following the stories of the *mati* came teachings for the rituals associated with the hunt. Complex multi-day rituals involve fasting, visioning or dreaming, and ingesting medicinal plant mixtures – these serve both as spiritual cleansing, physical training, and a communication pathway with the *mati*. Alongside these rituals the hunter engages in cold water spiritual bathing at specific sources, most often freshwater pools, rivers, or waterfalls, that have been identified for their spiritual significance. Finally, one is also taught how and when to give offerings and call upon guides and ancestors during the hunt, and the appropriate prayers and chants post-harvest. An example of this is a learning the specific chant and offering to the *mati* and the mountain it resides on, to ensure we don't repeat the disrespect inflicted when we left carcasses on the mountains of *Temlaxam*. Each of these ritual steps have different meaning and purpose making the intricacy of a *mati* hunt run deep.

Preparation for the hunt spans many locations across the watershed, incorporating a diverse set of ecological knowledges. I was first taught how TEK is inherently incorporated into the Ts'msyen world of ritual through medicines and plants, and second, how and when to hunt *mati*, and why. Each larger ritual has its own processes that incorporate specific medicines and plants. Each of these medicines and plants come with their own rituals, rules, and reasons for harvest. For example, harvesting plants may involve prayer, song, or offerings, accompanied by rules on how many and at which location to harvest to ensure one doesn't offend or overuse the plant. Also, one must know the seasonality of when to harvest the plant to ensure its medicinal power is appropriate, and how much one should ingest or use of each medicine so they aren't lethal. Some plants used in my *mati* hunts are devils club (*wooms; Oplopanax horridus)*, hemlock (*gyiik*; *Tsuga heterophylla*), cedar (*amg̲a̲n*; *Thuja plicata*), licorice fern root (*tsik'a'aam; Polypodium glycyrrhiza)*, false hellebore (*huułens; Veratrum)*, red alder (*luwi; Alnus rubra*), lungwort (*na̲'a̲ g̲a̲naaw; Lobaria pulmonaria*), and yew (*sahakwdak; Taxus brevifolia*), among others.

For *mati*, I was shown how the harvest usually happens during two seasons, early fall and late winter. In the early fall their fat content is in its prime as they have not gone through their November mating season. Their wool is also at its best form for making the yarn and materials of the *gwis halaayt*, as winter guard hairs have not overly disturbed the valuable wool layer. In the late winter, coastal *mati* stick to predictable winter routes in a terrain of old growth cedar and lower elevations due to a deep snowpack. *Mati* meat was especially valuable at this time as winter was often associated with food scarcity. Winter hunts would happen prior or during the annual oolichan (*'ẅg̲a̲h; Thaleichthys pacificus*) harvest and represent the first fresh game meat of the incoming year[14].

Under Gitk̲'a'ata law it is encouraged to only harvest males, as females are necessary for future populations and don't necessarily give birth each year. During both early fall and late winter, it is common for the males and females to live separately,

[14] The arrival of the oolichan was often considered the new year, signifying the end of food scarcity and a closeness to spring. The arrival of the oolichan is still celebrated today in a time known as *Hobiyee*.

making it easier to differentiate the sexes and conduct a sex-selective harvest. Today we use rifles or archery, and historically different close-quarters methods were used to aid a selective harvest. These methods included snares, deadfall traps, spearing, and pushing off cliffs. In each of these techniques, countless hours are dedicated to learning *mati* biology and terrain, and regardless of the tool, we carry longstanding morals, values, and lessons into the harvest. It is also emphasized by our Elders to keep the teachings and lessons associated with the *mati* in the back of our minds when not actively hunting them but engaging in activities like watching, feasting on, or talking about them. Practicing on-going humility and respect towards the *mati* is essential in being a *mati* harvester. From the ritual water sources and medicinal harvests, to navigating the mountain and harvesting the goat itself, the process of hunting *mati* is embedded within knowledge that holds an academic rigour.

3.5.2. Step Two: Living It

Living it revolves around becoming a part of the landscape through the roles of steward and harvester as guided by *gugwilx'ya'ansk*. Though it may seem contradictory to the non-hunter, humans participating in the ecosystem also bring security for the *mati*. By welcoming humans into their eco-system, they are welcoming stakeholders invested in their survival and place (McQuaid, 2022). Human participation as a stakeholder comes with an array of actions that benefit the *mati*, from habitat improvement to predator management (Housty et al., 2014; Mahoney & Geist, 2019). As shown in our oral histories, the *mati* just needed to show us how to be in relationship with them. Taking on these stakeholder roles are a part of honouring this relationship.

Honoring this relationship begins with consistently being on the lands and waters. A lot of my time in *Laxgalts'ap* was consumed by learning how to fit in and survive in the watershed. Often in my visits where harvesting was a focus, we packed few provisions to force *participation* on the landscape by living off the Land. In some instances during these trips, I would be in isolation for as long as two weeks. There are many intricacies of participating in place. They range in complexity from tasks as simple as knowing the best water supply alongside three to four back up water supplies, to

watching and knowing game trails where you can identify specific animals' patterns months or years before harvesting it. Because I strive to be a part of this ecosystem, I should strive to function within it as well as my neighbours: the birds, the wolves, the bears, the weasels, and of course, the *mati*. Though this goal may be unattainable, simply striving to know them leads to situating yourself within the system, rather than separate from it. Eco-centric decisions can then flow from that place.

Another aspect of *living it* is the direct co-relation between harvesting and Gitk̲'a'ata governance. Because different Nations, *pteex*, and *waap* have access to different territories and resources, the *luulgit* facilitates a sharing, or at times a taxation, of specialty resources that come out of unique areas – such as *mati*. As the political institution, the *luulgit* provides a space for wealth to be dispersed amongst Nations, clans, houses, and lineages. Each harvest comes with specific laws on distribution often reflecting a gift economy (Eisenstein, 2011; Kimmerer, 2013; Kuokkanen, 2007), where the more you disperse and care for your citizens, the wealthier you are. My Elders often remind me that "The richest chief's house is always empty," referring to the continuous distribution of one's goods. Yet in this dynamic, the social relationships built through the gift economy ensure that chief is also very well taken care of, and it doesn't take long for their house to become *full*. Regardless, one's stewardship of place directly relates to how well they can take care of their own people, which in turn reflects their societal standing.

For the Gitk̲'a'ata, a communal approach to ecological stewardship and monitoring is understood as essential. Though I may be one of few *mati* hunters in my community, I am one of many holding a role within our traditional governance system engaging in *gugwilx'ya'ansk*. Any citizens that engage in *gugwilx'ya'ansk* also have eyes on-the-ground, while actively harvesting in their own specialized areas. Each person contributes to the detailed insight we get on the Land, and as a collective, we are simultaneously tending to and harvesting from the landscape while managing it. When I am not on the *mati* grounds, many community members update me on sightings, numbers, or any on-going ecological phenomenon, allowing me to continue to hold my role and responsibility to my community and the *mati*.

3.5.3. Step Three: Tending the Metaphysical Connection

To balance the scientific/analytical aspects of participating within an ecosystem, I look to the spiritual world and the nuances of navigating our spiritual laws. Spiritual messages from the world of the *naxnox* can range from large political decisions, to where and when to harvest something. In the context of hunting, there is a theme shared to me by my Elders on how animals have agency to approve or disapprove of hunting. Often, their approval comes in the form of giving themselves up to a hunter, in our language we call this, *lip gils k'yilams*, roughly translating to English as "to give their own". We believe animals offer themselves by judging both their own species' current condition and whether the legal, physical, spiritual, mental, and emotional actions of a hunter are in alignment. A story that resonates with this comes from the Nuu-chah-nulth whale hunt, where a hunt wouldn't begin until one received messages from the spirit world and knew they had acquired the power to have the animal give itself up (Atleo, 2004). In other words, if the animal doesn't actively choose the hunter, the hunter isn't ready to go hunting.

For the Gitk̲'a'ata, much of the animal's judgement of the hunter is dependent on the hunter's *naxnox* power and how well they use that power in pre-established rituals. Thus, my own journey involved learning what it takes to navigate the world of the *naxnox* to get an animal to give itself up. Once in the world of the *naxnox*, a door opens for on-going communication with the spirit world about when or how to harvest. Navigating the ritual process feels like a metaphorical courtship of the animal. For weeks leading up to a hunt, one uses spiritual guidance and cultural teachings to both lure and prove to the animal it is worth giving themselves up. If you are a dedicated hunter, you often find yourself in this continual *courtship* for many species throughout the year - leading to a life of deep spiritual introspection, restraint, and ecological study.

In the case of the *mati*, the *courtship* is a drawn-out dance to align oneself in the world of the *naxnox* and the *mati*. It begins with different offerings of valuables, foods, or songs, while collecting the necessary medicines that are used prior to or during fasting and cleansing. It then turns to fasting for vision or dream and insight into the *naxnox*. I

am hesitant to explain these ceremonies in detail, as it is seen as taboo and irresponsible to publicize them, a common theme for Indigenous peoples (Brown, 2001; Gone, 2017). Instead, I will share a few broad ceremonial outcomes to demonstrate how spiritual knowledge is incorporated into the success of a properly conducted hunt. In my experience, outcomes often include dreams or visions of *mati* that speak to herd health and location. For example, herds showing themselves in location and in large numbers - indicating healthy populations that are worthy of hunting; images of *mati* herds showing a struggling population – indicating we should think twice about hunting the area; or a specific animal giving you its location and the method for hunting it. Accompanied by this can be details such as songs, specified offerings, rites, or directions specific to the hunter that are not publicized. After receiving this knowledge, the days leading up to one's departure for the hunt are spent at sacred sites in cold water bathing ceremonies that continue to improve the physical and mental character of a hunter.

The ceremonial process continues through the journey to the hunting site. For instance, there are culturally significant places enroute, that hold both *naxnox* and ancestors, where we offer pieces of *mati* fat into the ocean. Upon arriving at the mountain, and throughout the hunt, we observe and reflect on all the intricate teachings from our ancestors and their stories, while doing our best to maintain the spiritual courtship and dance that is at play.

Each spiritual practice strengthens our mind, body, and spirit, and teaches us how to be a more thoughtful, careful, and patient person. As recorded in one Ts'msyen oral history "the man who does not seek restraint, shall never know endurance and fortitude; he shall never have visions of the spirit world, never grasp the dictates of unseen wisdom" (Barbeau & Beynon n.d.(a), pp. 34). The more a hunter can grasp the "unseen wisdom," of the *naxnox*, the more solutions and clarity they find as a steward, while maintaining the communication paths between humans and animals.

3.6. Discussion

The three ways of knowing described in this paper, *becoming*, *living, tending*, are common amongst traditional land-based cultures globally (Atleo, 2004; Balee, 1985; Brody, 1988; Rydving, 2010; Thornton, 2008; Welch, 2014). Much more is written on these perspectives and there are many insights to glean from each culture who is willing to share these ways of being. The essence of relationship, story, spirit, and governance are commonly woven throughout Indigenous hunting cultures (Nadasdy, 2003). However, this stands in stark contrast from people who have been removed from the Land, who perhaps need these lessons the most. Today, there is a complexity of to what extent Indigenous peoples can engage in their harvesting systems. Colonization has physically removed many people from the Land, and when it has not, it has attempted to destroy Indigenous knowledge and language systems (Robin, Burnett, Parker, & Skinner, 2021). Alongside ongoing urban sprawl and industrial development, there are misinformed ideas by non-Indigenous people on what it means to participate with an ecosystem. For example, "loving nature death" through the slow degradation of a landscape via superficial protectionism and outdoor enthusiasm (Smith et al., 2023), Indigenous food cultures are at the whim of the Western world's dichotomies with nature. Though these dichotomies highlight disconnection, there is always opportunity for reconnection. Below I offer some personal reflections on *becoming*, *living*, and *tending*, and how their lessons may help all people relate better to the Land.

3.6.1. Reflections on Becoming a Scholar

At the forefront of Indigenous hunting is education deriving from a traditional moral code (Reo & Whyte, 2012). The Ts'msyen *mati* hunt is strict and guided by protocol. It has been my experience the *mati* hunt is reserved for people who have trained and proven their mental, physical, and spiritual strength. Hunter education is one of the foremost attributes of being a harvester and it encompasses a wholistic way of understanding the *mati's* place in this world. The privilege of hunting *mati* is awarded to those who understand and live the ceremonies, stories, and TEK associated with that animal. One's competency is the decisive factor around "who should hunt," as ensuring

hunters have the confidence of the community to make knowledgeable decisions is of utmost importance. The cultural emphasis on moral education and training recalls Robin Wall-Kimmerer's description of the *honourable harvest*: "know the ways of the ones who take care of you, so you can take care of them" (2013, pp. 183) – a lesson that has been long described by Indigenous people.

The knowledge associated with these pedagogies has always been land-based, and as a result, the way we teach them must be land-based to continue these knowledge systems. Removing ourselves from ecosystems to teach ecology has never been a part of *gugwilx'ya'ansk*. In reference to the Anishinaabe teacher/trickster archetype *Nanabush*, Michi Saagiig Nishnaabeg author Leanne Betasamosake Simpson sums up her critique of modern models of education in the following way: "I imagine myself talking about postsecondary education with *Nanabush* right now, and he immediately ask[s] me why I think spending sixty hours a week indoors in a classroom or on a computer is Indigenous education at all." (Simpson, 2017, pp. 164). Indigenous pedagogy, including storytelling and oral transmission, has long been tied to the Land (Archibald, 2008).

Protecting landscapes that host Indigenous knowledge systems like those described in this paper are essential to improving mainstream society's relationship with nature. Indigenous ways of education are becoming empowered and as a result are influencing mainstream narratives of pedagogy (Cote-Meek & Moeke-Pickering, 2020). This is despite the fact that access to Indigenous knowledge is complicated in a colonial context due to ageing Elders, the impacts of the Indian residential school system, and forced removal of Indigenous peoples from their territories (Fernández-Llamazares et al., 2021). A necessity of re-educating industrial society is defending land-based cultures and the governance systems that have upheld the environment they have resided within for millennia.

3.6.2. Reflections on Living It

Living with and learning from the land requires being immersed in its daily lessons and teachings. A fundamental issue in Western ontologies and modern society is that we allow ourselves to live like we are separate from nature's ecosystems, when we

know we are not. Human relationships with biological worlds shift when we see nature as something to actively *participate* in (Kimmerer, 2013), as opposed to a space to passively study, watch, understand, and extract from. If we instead approach scientific inquiry as a vehicle for discovering how to cultivate and kindle moral relationships between all biological beings (Whyte et al., 2016), we can then understand how to look at human flaws and shortcomings with our relationships with the natural world and address them as such. Such a paradigmatic for non-Indigenous people and their management systems can yield the reciprocity and relationality with nature we see in many Indigenous communities (Lertzman, 2009).

Through *living* with an ecosystem, human ingenuity can thrive and find ways to bring reciprocity to the non-human world. Western science increasingly recognizes how many Indigenous harvesting practices do this by managing ecosystems, encouraging biodiversity, and proliferating species' numbers through human participation. Academics have identified several culturally significant species on the Pacific Northwest Coast, that I personally harvest within Ts'msyen territory (Figure 10): pacific crabapple (Armstrong et al,. 2023; Wyllie de Echeverria, 2013), roots and chutes (Turner et al., 2021), seaweed (Turner and Clifton, 2006), salmon (Atlas et al., 2021; Menzies & Butler, 2007), halibut (Malindine, 2017; Stewart et al., 2021) shellfish (Lepofsky et al., 2021; Thompson et al., 2020; Toniello et al., 2019) – among many other species yet to be studied in detail. Humans have the ingenuity, heart, and spirit to build similar relationships with their non-human neighbours if they adopt a non-exceptionist dedication to place.

A relationship with land is not just an idea, it is a practice that involves a bundle of relationships (Borrows, 2019b). To honour this bundle of relationships, we should strive to incorporate ourselves into the Land, give thanks to, and participate in the ecosystem we reside within as much as possible. For most, this can simply look like leaning into your own "backyard" to meet a myriad of human needs. I hope more people can become practitioners of ecology in some way – whether it is urban gardening or alpine hunting.

Figure 10. Author harvesting in Gitga'at territory: (a) mati (mountain goat); (b) txaw (halibut); (c) ła'ask (seaweed).

Photo credits:
(a) Taken by Gary McQuaid. Used with permission.
(b) and (c) Taken by Natalie Ban. Used with permission.

3.6.3. Reflections on Tending the Metaphysical Connection

My culture would be quick to point out that our numeration and scientific inquiry was always inseparable from spirit. We believe a wholistic approach to knowledge is a given and makes inquiry more rigorous. The combination of ecological knowledge and spiritual communication has provided us with many methods of harvesting that put

reciprocity and relationality at the forefront of our land-based activities. In many instances our instructions are explicitly given from the spirit world. For example, how the sculpin taught humans to build an oolichan net that allows for sustainable harvest (TSLA, 2019); or how the halibut hook was given to a shaman from the spirit world, allowing us to practice selective ground fishing (Smythe, 2018); and similarly, how the salmon pulled a boy under the water to teach humans the protocols associated with their harvest (Miller, 1997). The crux of these stories is that spirit is embedded in Gitk̲'a'ata science and education – as shown through TEK.

Another essential aspect of spirituality in our culture is how spirit manages our moral code. Often, managing an ecosystem is about managing how people relate to and engage with that ecosystem (Anderson, 1996). Beyond direct communication with the *naxnox*, our spiritual practices act as reminders for the hunter to be humble and inquisitive, while engraining morality and an eco-centric ethic.

Adding a spiritual and moral ethic to our relationship with nature is especially important due to nature's many unknowns. Today, we humans have endless inquiries about the natural world. Spirituality allows us to name the unknown, while diving into it and exploring it further. In addition to this, naming it encourages us to extend morality to it. When left unnamed, unaddressed, or dismissed, we limit our ability to discuss, understand, and be in a moral relationship with aspects of the world we don't understand. Thus, I have faith in the wholistic ways of finding wisdom, knowledge, relationship, and insight into ecology. For me, this conversation undoubtedly involves spirit.

3.7. Final Thought

Anishinaabe legal scholar John Borrows has stated "the earth is alive. It has a culture and we can learn from her" (2019b, pp. 150). This paper is one story of what my people have learned from the earth's culture, and how I have incorporated it into understanding and practicing ecological stewardship. The focus of this paper has been on hunting as a specific activity and *mati* as a specific species, but the lessons can translate into all the ways humans take resources from an ecosystem. When incorporating these

Gitk̲’a’ata ways of being, what one might consider “taking” becomes more of an exchange. The Gitk̲’a’ata have established agreements with each species where there is a metaphysical, and at times scientifically tangible, mutually beneficial exchange. Species-specific protocols, processes, and histories define this exchange, and we continue to honour them because both parties are indebted to this relationship.

When participating in an ecosystem in a reciprocal way, we provide for many beings in that landscape. This is in stark contrast to a harvester who is not connected to a specific place, where there is no exchange between harvester and harvested, and where the goal of the harvest is to “take” a resource to fuel a life lived elsewhere. This is how *becoming*, *living*, *tending*, has laid the foundation for reciprocity. By participating in the ecosystems of my territory physically and spiritually, I become a hunter, steward, partner, and kin, deeply invested in the well-being of each species I rely on. Each successful hunt is an exchange of life - from the micronutrients that seep into the earth after each harvest, to the offerings given to the *naxnox* who oversee aspects of the natural world we don’t understand. Meanwhile, providing physical sustenance for myself, and other Gitk̲’a’ata citizens, is supporting the governmental mechanisms that solidify an ecological and conservationist morale on the landscape. This weddedness of human to ecosystem brings out the ingenuity of Indigenous harvesting, and is what allows entire communities, nations, and civilizations to achieve relationality and reciprocity with the non-human world, *for all-time*.

Chapter 4.

Ła Al’algyaga Laxyuuba Gitk̲'a'ata (The Territory of the Gitga'at Speaks): Gitga’at Knowledge as Expressed Through Indigenous Place Names

Authors: Spencer Greening, Daisy Rosenblum, and Dana Lepofsky

4.1. Introduction

Indigenous knowledge has persisted for millennia due to its undeniable relevance to humans’ ability to thrive in the ecosystems they inhabit (Fowler & Lepofsky, 2011; McGregor, 2004a; Nelson & Shilling, 2018). Indigenous languages, and the place names in those languages, embody connections among land, history, and people. Place names have arisen over multiple generations of people experiencing and learning from and with the land and sea (Thornton, 2011; Turner et al., 2000) and index how they found physical, spiritual, and cultural sustenance in their territories (Basso, 1988; Shaw, 2001; Thornton, 2011). Documenting and interpreting Indigenous place names and place-based narratives strengthens an awareness of integral connections among beings and place and also honors and supports Indigenous sovereignty (Basso, 1988; Heikkilä & Fondahl, 2010).

When we take time to listen closely to Indigenous languages and their ways of talking about place, we are given underlying messages, guidelines, and insights into how to live well within those places. Place names constitute a road map, an encyclopedia, and an archive of identity within a specific geography, and they must be understood alongside the experience of a life lived on that land. The best way to develop an understanding of these place names is to learn directly from the knowledge holders who have lived on the Land, ideally on the Land where the names and teachings are from. In essence, place names are an extension of an ecosystem and the humans within it.

My people,[15] the Gitk̲'a'ata, also known in Canada as the Gitga'at First Nation, are Ts'msyen (a.k.a. Tsimshian), a group of *Sm'algyax* speaking First Nations who span the outer waters, inland rivers, and coastal mountain ranges of the Northwest Coast of British Columbia. For the Gitk̲'a'ata, our place names are a mnemonic tool for navigating the social and physical spaces of our territory (Figure 11). The way we navigate these land and seascapes blends the natural world and human experience with deep spiritual and legal ties to the territory's diverse ecosystems (Seguin, 1984; Miller, 1997).

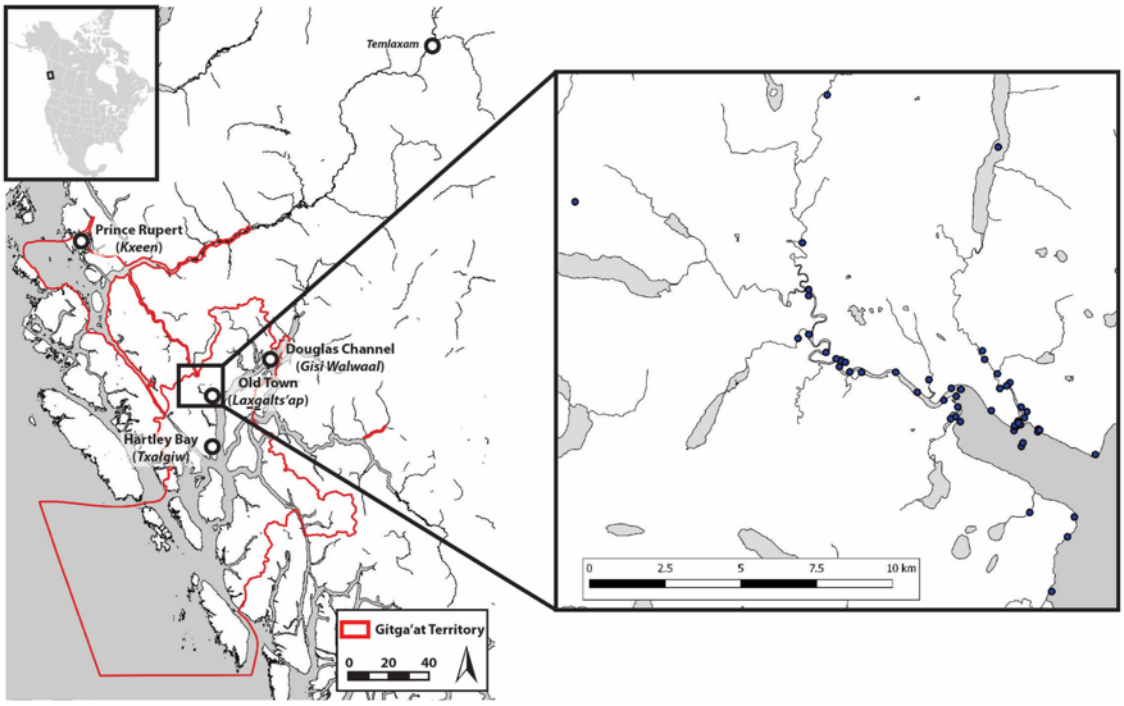

Figure 11. Notable sites in and surrounding Gitga'at Territory mentioned in the text, shown in English with Sm'algyax in parenthesis. Inset represents place names situated within Laxgalts'ap watershed. ***Map courtesy of Bryn Letham*****.**

Knowing how place names fit into a broader framework of ancestral knowledge is crucial to a Gitk̲'a'ata sense of belonging to, and in, our territory. By engaging with *Sm'algyax* place names in Gitk̲'a'ata territories, we reiterate how to exist on and with the

[15] Text written in the first person is that of the first author, *Spencer Greening/La'goot***.** The knowledge presented in this paper reflects the knowledge of many, in particular the Gitk̲'a'ata who have maintained in-depth relationships with their ecosystems for millennia and have chosen to pass this knowledge to Spencer so that he can maintain and continue these relationships.

places of our landscape, whether we are physically there or not. Speaking place names before travel prepares us to navigate and occupy specific places. Place names provide points of reference that allow us to confidently predict our interactions with the landscape. They are our vernacular compass for how to operate in our worlds: knowing when and where to harvest, which lineages steward which territories, the proper etiquette for honoring the beings that sustain us.

In this paper, we focus on place names as one index of traditional knowledge in a sacred Gitk̲'a'ata landscape: *Laxg̲a̲lts'ap,* also referred as "Old Town" by the Gitk̲'a'ata people. (TSLA 2022a) (Figure 12). *Laxg̲a̲lts'ap* is the focus of a community project for the Gitk̲'a'ata whose goal it is to tell the rich and deep history of the Gitk'ata on/with that landscape (Lepofsky et al., 2017). The research question for this paper, "what do *Sm'algya̲x* place names in *Laxg̲a̲lts'ap* tell us about the connections between people and landscape?" stems from this larger goal. We highlight the traditional knowledge connected to the *Laxg̲a̲lts'ap* watershed by compiling previously and newly documented place names and presenting them alongside cultural knowledge about these places gathered through travels with Elders on the land and in visits with them at home. This work also illustrates the value of research methodologies grounded in situated and specific cultural and ecological networks. The linguistic meanings within the *Sm'algya̲x* structure of these place names offers insight, but this insight is most meaningful when understood from a Gitk̲'a'ata perspective. The name *Laxg̲a̲lts'ap* (Supplementary Table 1 #23) itself exemplifies this, combining *lax*= 'on' with the word *g̲a̲lts'ap* for 'village, town, community,' derived from *g̲a̲l*= 'container for' and *ts'ap* 'tribe, community.' As a place name, *Laxg̲a̲lts'ap* refers to Gitk̲'a'ata life *on* the territory, held as a people within the container of this place. The multiplicity of oral traditions, memories, and place names concentrated in and on *Laxg̲a̲lts'ap* represent the Gitk̲'a'ata's deep connection to this place and care for it. The place names of *Laxg̲a̲lts'ap* are themselves containers for Gitk̲'a'ata insights into life lived on and of the land.

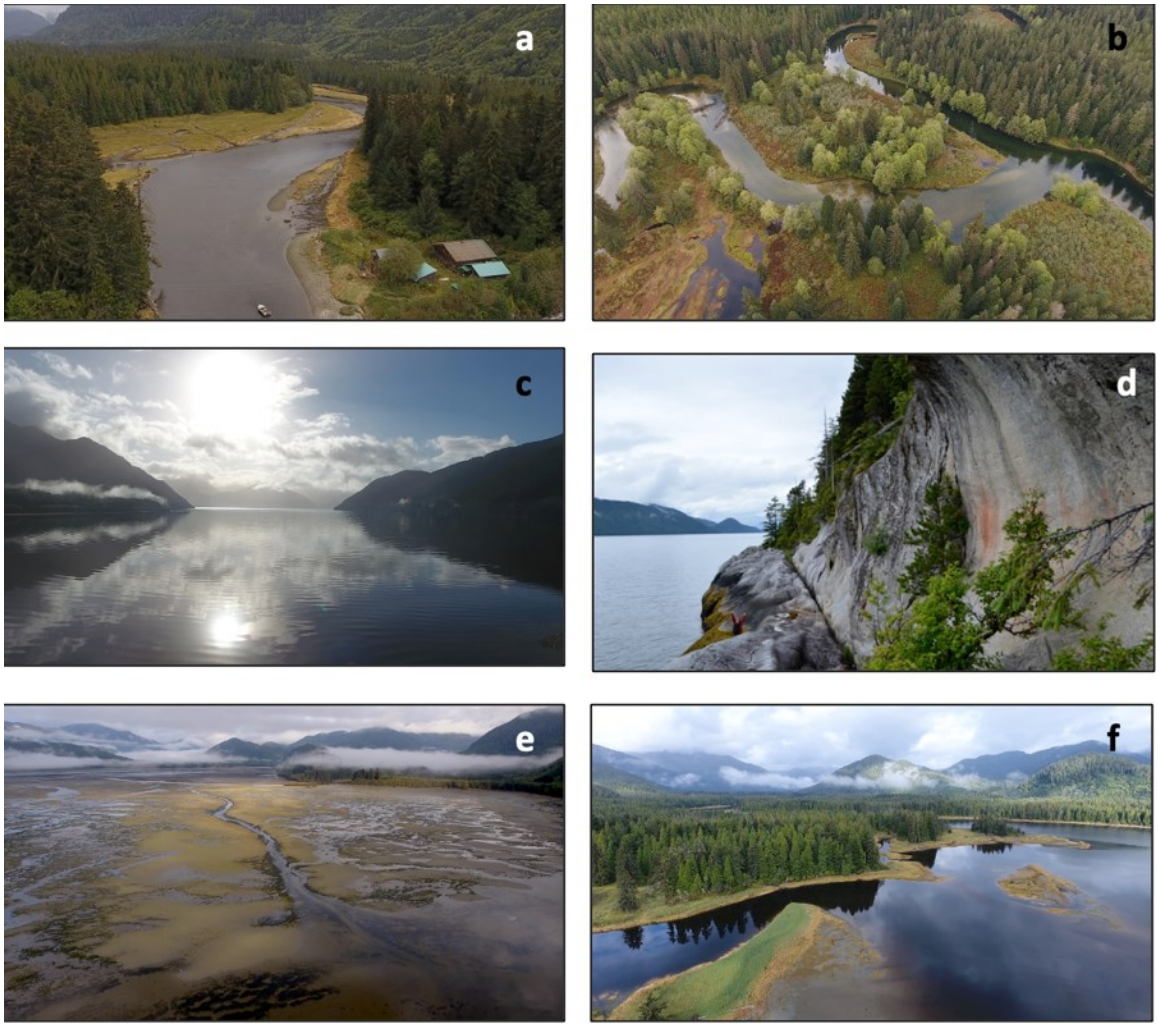

Figure 12. Landscapes of Laxgalts'ap: (a) K̲'a̲la̲ K̲'a'at (Kitkiata River) and current village at Old Town Proper; (b) Wil Basa̲xga Aks (The Divide) on the K̲'a̲la̲ K'waal (Quaal River); (c) Looking out from Laxg̲alts'ap to Gisi Walwaal (Douglas Channel); (d) Pictograph in Gisi Xamu; (e) Intertidal zone of Laxg̲alts'ap; (f) Entrances to both Xa'ustaa and K̲'a̲la̲ K'waal .

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4.2. My Introduction to the Place Names and Laxg̲a̲lts'ap

I first began to understand the deeper meanings of place names 12 years ago, as I travelled with Elders Clyde Ridley and Matthew Bolton by boat from our Gitk̲'a'ata reserve *Txałgiiw* or Hartley Bay (etymology unknown; Supplementary Table 1 #67) to *Lax Kxeen,* the island which the city of Prince Rupert is on (*lax*= 'on' *k*= 'place' *xeex* 'foam'; Supplementary Table 1 #64), where many Gitk̲'a'ata live today. They told me a

story of a steep mountain side in Gitk̲'a'ata territory called *'Lii k̲'an t'oo* (*'lii=* 'on' *k̲'an=* 'over' *t'oo* 'lie.down'; Supplementary Table 1 #65), with a sharp bowl-like face that funnels wind currents directly into the pass of water we regularly travel. Clyde explained the meaning of the place name as follows: "It's like leaning over or coming straight down over the edge. See that mountain there, it's because the wind is always leaning or coming over the edge of it." He explained how these gusts of wind fall down the face of *'Lii k̲'an t'oo,* affecting travellers, and how the *Sm'algyax* name holds many potential lessons for those who understand the language. To a boat captain, the name tells them to approach at a certain angle or be wary during certain tides or winds; to the fisherman, it tells which way your boat may drift when setting nets; to the hunter, it tells of the ways thermals push off the mountains to affect an animal's cautiously chosen whereabouts. In following years, I consistently heard Elders reference this spot when enquiring about weather conditions, or how ones' trip was to and from *Kxeen* (*k=* 'place' *xeex* 'foam'; Supplementary Table 1 #63) (Figure 11).

Following this, Clyde and Matthew introduced me to our ancestral home, *Laxg̲alts'ap,* and ultimately shed more light on the compass that lives within the place names of our territory. While at the time I understood I was privileged to be escorted by two fluent Elders who were born and raised in *Laxg̲alts'ap*, I didn't fully comprehend the extent of that privilege. Learning from two fluent speakers in such a meaningful landscape, where they were both born and raised, provides insight that I am only beginning to understand. Clyde and Matthew hadn't visited *Laxg̲alts'ap* for at least a decade, but as we travelled northward up the inlet, their stories in *Sm'algyax* flowed as fluidly as the tide that pushed us. It was obvious that we were home. Our landscape spoke to these Elders and invited them to speak back (e.g., Engman & Hermes, 2021). Conversing in the language while on the land added layers of depth to our experience of being there together, triggering and reinvigorating encyclopedic memories of the landscape, sweeping dust off this encyclopedia and allowing us to open it together. A sense of deep connection and belonging to this place extended to everyone they remembered in these stories. Throughout these conversations, I am keenly aware that Clyde and Matthew's expectation that their deep connection and ongoing relationship with this place included me and required my reciprocation.

4.2.1. The Gitk̲'a'ata, Our Territory, and Laxg̲a̲lts'ap

Most Gitk̲'a'ata reside today in our ancestral village of *Txałgiiw* (Hartley Bay) and the nearest urban centre *Kxeen* (Prince Rupert). *Laxg̲a̲lts'ap* refers to our main village site on the lower *K̲'a̲la̲ K̲'a'at* (*k̲'a̲la̲*= 'upriver,' *k̲'a'at* 'cane'; Supplementary Table 1 #18), as well as to the larger watershed composed of three tributary rivers, the *K̲'a̲la̲ K̲'a'at*, *K̲'a̲la̲ Kwaal* (*k̲'a̲la̲*= 'upriver' *kwaal* unknown; Supplementary Table 1 #17) , and *Xaa' a̲staa* (unknown; Supplementary Table 1 #55). Before the creation of Indian Reserves in our territory in 1889, this village was the main home for many Gitk̲'a'ata. The archaeological record of the watershed indicates occupation since at least 10,600 years ago, with ancestral village site locations following falling sea levels and meandering rivers (Letham et al., 2023). Whether living on the reserve, in *Kxeen,* or elsewhere, our population remains connected to our territories and what they provide; our language and place names solidify this connection.

Laxg̲a̲lts'ap is remote, only accessible by boat or seaplane, and most easily reached through *Txałgiiw* via *Gisi Walwaal* (*gisi*= 'along' *Walwaal* 'dripping', Douglas Channel; Supplementary Table 1 #59) (11 & 12). The trip north from *Txałgiiw* passes through coastal fjords travelled by my people for thousands of years. To the untrained eye, this channel evokes an archetypal Northwest Coast wilderness; to the Gitk̲'a'ata, it is a well-worn highway. This corridor is an archive holding generations of history, law, use, and occupancy. The rocky shores of steep mountains lead through waypoints of our ancestor trickster *Txeemsm's* first and ultimately disastrous journey to *Laxg̲a̲lts'ap*. *Txeemsm's* lost belongings have kept their shape but have turned to stone; his bentwood boxes, food, canoe and even traces of his smallpox are all present features attaching themselves to the landscape[16].

Entering the *Laxg̲a̲lts'ap* watershed, one is greeted by ancestral pictographs and an expansive field of boulders with elaborate petroglyphs. Through a whirlwind of seabirds, ducks, and geese, you must come in on high tide to pass over a shallow sandbar

[16] For more information on coastal tricksters and place names see Thornton, Deur, and Adams, 2019.

extending more than a kilometer. Several rock and wood fish traps on the sandbar reflect ancestral management of the rich resources offered by the estuary. At the estuary, the three rivers of the watershed converge, the largest of which snakes for 26 kilometers through snow-covered mountains, all of which hold their own stories and place in our cultural psyche. The pools, bends, and gravel beds in the river provide refuge and habitat for salmon, while mammals, fruits, berries, and medicines thrive along the banks of the riparian zone and into the uplands. Archaeological sites along ancient shorelines attest to the strong continuity of presence of Gitk̲'a'ata people in this dynamic landscape (Letham et al., 2023).

Today, *Laxg̲a̲lts'ap* refers to the entire watershed as well as a key seasonal village during the crucial months from summer to fall, when several species of salmon, a mainstay of sustenance and ceremony, travel back from oceans to rivers and are harvested. This cycle coincides with the availability and harvest of many culturally valued plants, medicines, berries, and mammals. This watershed was, and remains, carefully managed by our Gitk̲'a'ata hereditary system of governance. It is a touchstone of institutional and environmental sovereignty today. The hills, mountains, waters, and ancient houses are ceremonial and ritual grounds where our people maintain cultural, spiritual, economic, and political dependence on place, bridging the connection between ecosystems and human culture, and ultimately marking *Laxg̲a̲lts'ap* as one of the epicenters of Gitk̲'a'ata society.

One hallmark of culturally significant places is that they have dense concentrations of place names (Hunn, 1994; Thornton, 2011, p. 69). Such is the case for *Laxg̲a̲lts'ap,* with the densest concentration of place names in our territory (Gitga'at First Nation & Reid, 2011). Gitk̲'a'ata belong to the ecosystems of this watershed. The place names we speak construct a mental and verbal map that is both practical and moral in that it teaches us about "being" on and in this landscape (e.g. Basso, 1996). This map, and the deep knowledge underpinning it, are continuously renewed as the Gitk̲'a'ata exercise our belonging to these lands and seas, and our commitment to stewarding our ancestral places.

4.3. Methods

Among the Ts'msyen, there is a rich history of anthropological study on a diversity of topics that are often based on years of immersive relations with Ts'msyen knowledge holders. This anthropological history begins with scholars such as Franz Boas (1916), William Barbeau and William Beynon (1915-1957), and Viola Garfield (1939; 1951), ultimately broadening into a range of accounts on Ts'msyen people, culture, and histories (Halpin and Seguin (Anderson), 1990). Notably, several of these works are by community members themselves who honor Ts'msyen knowledge processes and protocols (e.g., Beynon, 1953a; Gray, 2015; Greening, 2017; Leighton-Stephens, 2022; Menzies, 2006, 2010; Ritts & Greening, 2018; Ryan, 2014; Turner & Clifton, 2006, 2012; TSLA, 2008, 2022a, 2022b). There is also a rich history of Sm'algya̲x language resources, of which the most in depth linguistic work comes from the Ts'msyen Sm'algya̲x Language Authority (TSLA). Grounded in Dunn's initial research on Sm'algya̲x in the 1970's (1995), the TSLA has worked with many fluent speakers to construct an official orthography for Sm'algya̲x, an online dictionary (2022a), and many education modules on structure and grammar, among many other projects and materials (See Anderson et al., 2008). The TSLA research is foundational to this study.

Yet, what is missing from the rich body of literature is a first-hand account of what it means to navigate Ts'msyen place names while living the knowledge embedded within them. As such, there is yet to be a truly immersive study of Ts'msyen place names and the key land-based aspects of the culture they are tied to. Though there are many place names recorded and defined in the literature (Beynon, 1953(a,b); Beynon, Halpin, and Anderson, 2000), place names are often mentioned in a way that highlights them in a one-off fashion – passively recognizing their relation to history or TEK with little conversation on the lived experience tied to those names. What we offer in this paper is insight into the depth of these place names by highlighting how the first author interprets, relates to, and practices place names from a territory in which he actively visits and harvests.

This paper is also situated within, and inspired by, an extended tradition of Indigenous toponym and ethnogeographic research. Indigenous place names of the Pacific Northwest Coast have long been analyzed to highlight semantic groupings and the traditional knowledge within them (Boas, 1934; Carlson and McHalsie, 2001; Hunn 1996, Hunn and James, 2000; Hunn et al., 2015; Thornton, 2011; Waterman, 1920). It isn't hard to find conversations on how, across North America (Aporta, 2016; Harrington 1916; Kari,1989; Oliviera, 2009), and abroad (Cogos, Roué, and Roturier 2019; Koch and Hercus 2009), Indigenous place names in general embed unique land-based knowledge. We honour and add to these works by hosting a Gitk̲'a'ata conversation on Sm'algya̲x place names in Gitk̲'a'ata territory, emphasizing the Indigenous pedagogical processes, methodologies, and lived experience tied to them.

To blend linguistics and Indigenous placename knowledge, our paper relies heavily on Indigenous research methodologies and theory. These Indigenous research methodologies recognize how in-situ experiences with the Land are necessary in pedagogical process (Simpson, 2017; Tuck and Yang, 2012), and how land-based theory necessitates recognizing the ecologies we exist in as our primary teacher (Kovach, 2021). Throughout this paper readers will find Indigenous methods such as being and visiting (Gaudet, 2019; Wilson, 2008) paired with autoethnography (Bainbridge, 2007; Chew, Hicks, and Keliiaa 2015) to communicate personal experience in scholarship. We are also guided by the Ts'msyen philosophy of gugwilx'ya'ansk, approximately translated as "for all time passing down," a layered metaphor for Gitk̲'a'ata pedagogical practice. Gugwilx'ya'ansk refers to the practice, encoded in Ts'msyen law, that when knowledge is transferred, we are obligated to keep that knowledge moving, growing, and circulating for all time, guided by our hereditary governance system. For millennia, this philosophy has ensured cultural and institutional continuity in intergenerational stewardship of knowledge, law, and property (Greening, 2017). Our hereditary commitments to pass down knowledge and cultural responsibilities constitute the framework of *gugwilx'ya'ansk*. The way that place names are taught, passed from one generation to another, while we are out on the land together, exemplifies how Ts'msyen pedagogy fits into our larger cultural ecosystem.

Being on the land in a Gitk̲'a'ata way taps into ways of knowing and understanding place names that cannot be accessed in any other way. By experiencing place names in the context of where they originated, by hearing the stories to which they belong, from those who share our hereditary connection to this place, we can relate to the many dimensions of experience, past and present, indexed in a name. Learning *in situ* also gives physical, embodied understandings to how and why a place name expresses and contains our cultural relationships with land, water, territory, and place. This way of learning is in stark contrast to the deliberate disruption of our system of *gugwilx'ya'ansk* and our ways of teaching and learning by the residential school system, which removed children from their families and from their land, depriving them of the opportunity to learn the territories to which they were born.

When I showed interest in learning from my Elders, their pedagogical methods were summarized in a simple instruction: "*Get Spencer to Laxg̲a̲lts'ap with us, and just "be" Gitk̲'a'ata*." I found that when I spent time in these real life Gitk̲'a'ata situations with Elders such as Clyde and Matthew, I retained far more of their teachings (Figure 13). Indigenous scholars in other contexts have similarly spoken to the power of methodologies of being with Elders, visiting, and learning on the land. (e.g., Gaudet, 2019; Wilson, 2008). These approaches can and should be integrated into research which engages with Indigenous knowledge, especially as a grounded method for Indigenous scholars engaging with their own communities (McGregor, 2004b; Simpson, 1999; Whyte, 2018).

Figure 13. Interviewing Gitk̲’a’ata Elders: (a) Dana Lepofsky, Spencer Greening, and Elizabeth Dundas on K̲’a̲la̲ K’waal (Quaal River); (b) Clyde Ridley, Isaiah Dundas, Fred Ridley, and Spencer Greening at Wil Basa̲xga Aks (The Divide); (c) Fred Ridley and Spencer Greening in Laxgalts’ap; (d) Matthew Bolton and Allan Robinson in Kxeen (Prince Rupert); (e) Helen Clifton in Txałgiiw (Hartley Bay); (f) Ernie Hill Jr. in Txałgiiw; (g) John Pahl in Kxeen; (h) Phyllis Bolton and Matthew Bolton in Terrace, B.C.; (i) Clyde Ridley, George Clifton, and Harvey Ridley in Kxeen.

Photo credits: Mark Wunsch. Used with permission.

Over the past twelve years, Gitk̲'a'ata Elders have shared with me their knowledge of place names. These Elders not only represent their families and their own mentors, but a long line of ancestors who have passed knowledge on to them. These Elders, as well as those who contributed to earlier documentation and research, shared their knowledge with the trust that it will be transmitted to those who should receive it. The place names compiled here build on and carry forward decades of work with *Sm'algya̲x* knowledge holders to document their knowledge of place (Supplementary Table 1). This knowledge has been gathered and held for diverse reasons, both for community goals and in the service of outside research interests. The Elders whose contributions are represented here support sharing this knowledge in an academic context, and understand its value to other communities, and to all of us as we face pressing decisions in living in, caring for, and adapting to changing ecosystems.

I tried whenever possible to work with Elders in *Laxga̲lts'ap* itself. Each time we visited the watershed, memories and stories about this place and its meanings flowed, just as they had on my first visit. When Elders were unable to travel to *Laxga̲lts'ap* because of weather, health concerns, or mobility constraints, these conversations took place over a shared meal of traditional food such as smoked salmon, mountain goat, moose, bear, or ducks, often something I had harvested in *Laxga̲lts'ap*. At one dinner, with Elders Allan Robinson, Fred Ridley, Harvey Ridley, Clyde Ridley, George Clifton, and Myrna Clifton, the conversation about place names evolved not from my "research questions," but was triggered by the food on the table, the memories it evoked, and descriptions of where and how it was harvested. In this conversation, certain individuals held the role of authority, confirming others' recollections of place names. In other visits, we integrated language documentation methods into our interviews, showing video footage of travels to and from *Laxga̲lts'ap* as a visual prompt for recording memories, place names and their meanings, and other aspects of Ts'msyen traditional ecological knowledge in the language (e.g., Rosenblum, 2015).

This research foregrounds my knowledge and journey with place names, building on a legacy of Gitk̲'a'ata research and knowledge production. Meanwhile this paper is truly a collaborative product of three authors, each with distinctive backgrounds and set

of knowledge. I write as an inheritor of his communities' histories and territories through *gugwilya'ansk*, and as a scholar at the intersection of academic and community-based research practices. The second authors are non-Indigenous researchers based in universities, practicing community-engaged linguistic anthropology and archaeology/ethnoecology, respectively. The final product integrates these different approaches and worldviews.

4.3.1. Linguistic Structure and Semantic Groupings

We analyzed the linguistic structure of the Gitk̲'a'ata place names we gathered by looking closely at the literal translations of each meaningful part, or morpheme, and at how they combined to make broader meanings. Building on my personal cultural knowledge and lived experience of Old Town and Gitk̲'a'ata territories, we also spoke with knowledge holders about their meanings, consulted dictionaries and grammars of the language, and sought guidance from the Ts'msyen Sm'algya̲x Language Authority (TSLA) to review the place names, their literal translations, and the cultural meanings they contain and refer to. The TSLA verified decisions about how to spell these names and interpret them. This process provided insights into how the *Sm'algya̲x* language frames space and place, and how concrete and literal meanings point to cultural, metaphorical, ecological, and historical knowledge. Identifying structural patterns also provides a template for the creation of new place names in *Sm'algya̲x*, with practical relevance for ongoing stewardship and resource management of our territories.

A small set of semantic themes emerged from the process of analysing the place names, sharing many qualities with the categories described in other work on Indigenous place names (cf. Hunn 1996; Thornton 2011). Some are derived from observation of the land and water, both descriptions of visible topology and physical features, and of the known behaviour of non-human inhabitants. Other names reference 'resources' in the landscape: species of flora and fauna which are meaningful to humans, for harvesting, health, and sustenance. Another group refers to events, in stories from near and deep time. Lastly, several refer to tenancy and stewardship. These abstract categories overlap to a great degree with categories identified in place names elsewhere, such as Tlingit,

Haida, and Sahaptin territories, even as they index a distinctly Ts'msyen way of knowing (Hunn 1996; Thornton 2011).

Supplementary table 1 provides a list of Gitk̲'a'ata place names, a gloss of the morphemes in each name, and a description of the place, including cultural knowledge suitable for sharing here. Where identifiable, the semantic categories evident in the *Sm'algyax* morphemes are coded as well. We note, however, that the literal translations of *Sm'algyax* place names in *Laxg̲alts'ap*, as well as brief descriptions of the cultural content, are just a minimal trace of the living network of cultural knowledge in *Laxg̲alts'ap* rising from generations of Gitk̲'a'ata lives lived on the land.

4.4. Results: Understanding Gitk̲'a'ata Place Names

We compiled 58 *Laxg̲alts'ap* place names (Figure 11, Supplementary Table 1). Twenty-two Elders and knowledge holders informed this research (Supplementary Table 2). Many were born and raised in the smokehouses or longhouses of *Laxg̲alts'ap*. Others spent time hunting, trapping, fishing, cultivating, and gathering with grandparents, parents, aunts, and uncles who were born and raised in *Laxg̲alts'ap*. Elders born between the 1920s and the 1960s tell stories of travelling from present day *Txałgiiw* to *Laxg̲alts'ap* in a dugout canoe, to spend the summers and falls paddling or poling up the rivers to harvest berries, salmon, or wild game for the winter.

4.4.1. Linguistic Structure and Semantic Groupings

We found certain patterns in the linguistic structure of the place names. *Sm'algyax* place names tend to begin with one or two forms with locative or directional meaning, such as *hał=* 'alongside' or *ksi=* 'outwards' (TSLA, 2022a; Dunn, 1995).

These *proclitic*[17] forms modify the meaning of the noun or verb which follows, always adding information about where something is, or how it is moving, and in which direction.

The simplest names have just two parts, with a noun or verb root following the proclitic, as in *Kxałg̲a̲n* (*k*=LOC *hał*= 'alongside' *g̲a̲n* 'tree'; Supplementary Table 1 #12). In some place names, more than one proclitic precedes a lexical root, as in *Ksi A Laawÿ* (*ksi*= 'out' *a*=PREP *laawÿ* 'trout'; Supplementary Table 1 #9) (Anderson, Ignace, and TSLA 2008). Some are possessed noun phrases like *K̲'a̲la̲'aksm Edmund Patelas* or *'Na Xłaayas No'os*, identifying unequivocally the 'owner' or steward of the land (Supplementary Table 1, #13, #28, #35, #36).

Many place names with more parts, like *Wil Üüsga Aks (wil*='where' *üüsk* 'stink'-*a* CN *aks* 'water'; Supplementary Table 1 #52) also mimic the structure of a *Sm'algya̲x* clause or sentence, as opposed to a noun or verb phrase. These place names contain intransitive verbs, followed a 'connective' morpheme[18] (abbreviated CN). Of the 58 place names in the list, seven names (#1, #8, #17, #19, #42, #54, #56) contain one or more untranslatable morphemes.

Analyzing the linguistic structure also allowed us to identify four semantic categories in translations of the *Sm'algya̲x* place names:

1) Physiographic and Ecological (PE): Descriptions of the physical and living place: both its phyisiological and ecological features, whether

[17] Clitics are a type of linguistic form, like roots and affixes. See Anderson 2005 for more information about clitics in general and Anderson and Ignace (2008) and Dunn (1995) on clitics in Sm'algya̲x. Sm'algya̲x has ~250 proclitics with many grammatical functions. They are obligatory in many contexts, attaching to phrases and sentences to modify their meaning. Some add modal nuance to a root, like sis= 'to pretend to do or be X', or aspectual meaning, like. si= 'to begin to do X'. They may contain adverbial meaning, expressing the manner in which something happens (t'm= 'quickly', hagwil= 'quietly', 'wa'wis= 'without cause') or they might have meanings which we as English speakers associate with verbs, nouns, and adjectives, such as x= 'to consume X', xs= 'to resemble X', ama= 'good'. These are similar to the so-called "lexical suffixes" important in the grammars of Wakashan and Salishan languages.

[18] Connectives are a feature of Sm'algya̲x grammar which link one word to the next, and vary depending on the type of word they precede (i.e. common noun, intransitive verb etc.).

actual or metaphorical, as well as the behavior of beings known from observation;

2) Harvested Resource (HR): Descriptions which identify harvested resources and subsistence activities;

3) Historical Events (HE): Names that associate of a place with events from recent or deep-time history[19]

4) Hereditary Title (HT): Names that index hereditary title or stewardship of a place.

Most place names (37) fit unambiguously into a single category. Viewed from a Gitk'a'ata perspective, there are nine place names that simultaneously fit into two categories. These place names reflect the way that historical events, harvesting, and stewardship are intertwined in Gitga'at governance systems. Seven refer to hereditary title and another aspect of the place: four of which hold the word *k̲'a'at* 'cane', referencing our *Gitk̲a'ata* origins and the historical events which made us responsible for our territory. Three refer to orchards and berry grounds and those who tend and harvest them. The final two of the eight described specific phenomenon - an historical event or a harvested resource - while also being descriptive of the geographic area.

We did not assign categories to seven place names with untranslatable morphemes, nor to three additional place names for which the specific meaning is not known (#3, #39, #51), though we note that one of these names seem to refer to a storied event (#39).

A large number (26) of place names are descriptions of the geography and known behaviors of its non-human residents, such as *Ksü Mask* (*ksü*=‘out’ *mask* ‘red’; Supplementary Table 1 #11) describing a tributary creek with a reddish tinge, and

[19] We use the terms history and historic to refer to any form of Gitk̲'a'ata history, and especially oral histories. The Ts’msyen have two categories of history: adaawx, translated as “true tellings” and malsk, meaning “history or stories.” Adaawx often refer to institutionalized or owned stories within the hereditary system that depict laws, protocols, tangible and intangible ownership of items including names, crests, territories and privileges, and land stewardship or rights and title. Malsk encompass stories that are less formal, without the same political and ceremonial protocols attached to them. Stories are understood, among our people, to be multivocal. The stories we present here derive from the knowledge of the first author and may differ from other representations.

Lax̲'aws (*lax̲*= ‘on’ *aws* 'sand’; Supplementary Table 1 #24) describing the large beach in front of the current village. However, a more nuanced understanding of this first category arises when we compare two names which refer to water: *K'gwa̲nks* (*k'*= ‘place of’ *gwa̲nks* ‘spring’; Supplementary Table 1 #20) and *Wil Mooksga Aks* (*wil*=‘where’ *mooksk* ‘white’ *-a* CN *aks* ‘water’; Supplementary Table 1 #50) *K'gwa̲nks* refers to a freshwater spring, and *Wil Mooksga Aks* refers to the white water of a tributary of the *Kwaal*. While both could be categorized as a geographic feature, *K'gwa̲nks* refers to drinkable water, a harvestable resource essential to life in *Laxg̲a̲lts'ap*, and is categorized as such. The freshwater source in this place is a key location that hosts cultural associations and stories. In contrast, the name *Wil Mooksga Aks* only describes the white waters of the river, not a location to gather water for daily needs.

General descriptions of landscape features contrast with place names that identify specific species and indicate traditional ecological knowledge about where to look for essential resources. *G̲a̲lg̲a̲n (g̲a̲l*=‘container’ *g̲a̲n* ‘tree’; Supplementary Table 1 #2), for example, just refers generally to “trees," while *'Ya̲g̲a̲ Sa Luwi* (*'ya̲g̲a̲*=‘downwards’ *sa*=‘harvest’ *luwi* ‘alder’; Supplementary Table 1 #57), identifies a place where culturally important red alder trees can be found, highly valued as a source of medicine, dye, and wood for carving, and prized as firewood for smoking salmon (Turner, 2014).

Several names illustrate the layered meanings embedded in place names, and the necessity of cultural and ecological knowledge to understanding what a place means. *Ha'lilimootk* (*ha'li*= ‘time.when’ *limootk* ‘safe’; Supplementary Table 1 #6) is the mountain where our people sought refuge during a great flood. The word *ha'lilimootk* appears frequently in Bible translations and hymns to mean 'saviour'. But this translation is derivative of the word's deeper meaning in Ts’msyen cultural ecology. *Ha'lilimootk* refers to the first precious run of oolichan arriving at the end of winter, best for rendering these small oily fish into a highly valued grease sometimes called ‘liquid gold,’ a saviour when food preserves are low.

Lu Awta (*lu*= ‘into’ *awta* ‘porcupine’; Supplementary Table 1 #26), located at a bend in the *K̲'a̲la Kwaal,* meanwhile, refers to a recent event where Matthew Bolton

observed a large porcupine repeatedly coming out of the forest onto the riverbank throughout one fall. His name marks this occurrence as unique, but also ties into older ecological teachings around sustenance. For the Gitk̲'a'ata, *Lu Awta* evokes knowledge of our relationships with porcupines and the value of their meat, quills, and cultural history. Porcupines are considered easy to kill, making them essential in times of food shortages. I was taught by my Elders that traditional hunters keep a mental map of porcupine dens and routes in their hunting or trapping territory in preparation for hard winters, but in seasons of plenty, we are discouraged from harvesting them.

The river *K̲'g̲ala K̲'a'at* also has a name with layered meanings, embedding knowledge about hereditary title and relationships to the land with a reference to Ts'msyen histories. The mouth of the *K̲'g̲ala K̲'a'at* hosts the main Gitk̲'a'ata village in the watershed. *K'a'at* 'cane' refers to the origin story of one of our chiefly lineages in the village *Temlaxam* on the upper Skeena River, 200 km NE of *Laxg̲alts'ap*. The Gitk̲'a'ata branch of *Temlaxam* group took the cane as a crest, represented in *Gitank'a'at* (*git=* 'people of' *-n* POSS *k̲'a'at.* 'cane' Supplementary Table 1 #60) - the name of their original village site on the river *Ksi'gwin K̲'a'at* (a.k.a. Fiddler Creek*, ksi=* 'out' *gwin* 'freshwater' *k̲'a'at.* 'cane,'; Supplementary Table 1 #61), which has a large rock shaped like a cane (Albright, 1987; John Pahl, personal communication, 2014). The rock was later represented through a fireweed cane in crests and regalia. The *k̲'a'at*, crest, and all the places named after it from our migration stories index the history and bloodline connection of the Gitk̲'a'ata from *Laxg̲alts'ap* to the upper Skeena. When the Gitk̲'a'ata arrived in *Laxg̲alts'ap*, *Wahmoodmx*, the chief of the *Gispudwada* (Killer Whale) lineage, placed his cane on the ground and declared *Laxg̲alts'ap* to be the permanent home of the Gitk̲'a'ata (Campbell, 2011; Marsden, 2012), thus naming the river the *K̲'g̲ala K̲'a'at.*

The name *K̲'g̲ala K̲'a'at* also reminds us that the *Temlaxam Gispudwada* chiefs maintain socio-political and governance responsibilities to the upper Skeena as well as *Laxg̲alts'ap* (McDonald, 2016). The landscape of the Skeena is dotted with village names echoing Gitk̲'a'ata places on the *K̲'g̲ala K̲'a'at*. From our ancestral village *Gitank̲'a'at* on the *Ksi'gwin K̲'a'at*, to *Ksyen K̲'a'ata* (Alder Creek*, ksyen* 'Skeena.river' *k̲'a'at* 'cane' *-a* derivational suffix; Supplementary Table 1 #62) on the lower Skeena River (Beynon

1953b), these names locate us among our neighbours, accentuating the shared crests and deep sociocultural connections, protocols, responsibilities, and alliances originating from this shared moment of migration. Within Ts'msyen systems of governance, *Sm'algyax* place names reference political ties among those sharing crests and histories.

Place names that refer to individual ownership or stewardship of harvesting sites also illustrate cultural specificity. *Ła Łaayas No'o* and *'Na Xłaayas Dooł* both refer to a single place of highly valued highbush cranberry bushes *(łaaya, Viburnum edule*), stewarded in the twentieth century by two Gitk̲'a'ata matriarchs from the same lineage: Lucille Clifton *(No'o)* and her daughter Edith Robinson (*Dooł)* (*ła*= 'recent' *łaaya* 'cranberry' *-s* CN.POSS *no'o* 'mother, honorific name'; Supplementary Table 1 #28; and *'na*= 'where' *x*= 'to.harvest' *łaaya* 'cranberry' *-s* CN.POSS *Dooł* hereditary name; Supplementary Table 1 #35). In this place were also blueberry bushes (*smmaay, Vaccinium spp.*) and Pacific crabapple trees (*moolks, Malus fusca*). Nearby is *'Na Xmoolks Dooł* (*'na*= 'where' *x*= 'consume' *moolks* 'crabapple' *Dooł* hereditary name; Supplementary Table 1 #36), referring to an orchard with a unique variety of Pacific crabapples.

These place names index the relationship between a place and those who are responsible for caring for it. They reflect how *No'o* and her children, grandchildren, and those she helped raise, managed these areas with care, tending them, cultivating them, and stewarding them, harvesting enough to host winter potlatches for the community and for families' winter supplies (Turner et al., 2012). Author Lepofsky initially categorized these place names as primarily places for gathering resources, reflecting her worldview as a non-Gitk̲'a'ata ethnobiologist. However, for myself as a Gitk̲'a'ata citizen of this place, the rules, governance, and politics of navigating a place are foremost, and these places are primarily sites of hereditary ownership.

4.5. Discussion

The *Sm'algyax* words used to describe Gitk̲'a'ata territory offer insights into the relationships that our ancestors cultivated for millennia: relationships that reflect an

interdependent way of living with and in the natural world. When Elders speak of landscapes in *Sm'algyax*, they bring forward a multidimensional world of specific knowledge sets, shared intergenerational histories, and ways of being in those places. Speaking place names activates a muscle memory of moving across the landscape. Each name indexes a multidimensional cultural reality, both literal and metaphorical, located in the present, but also layered with, and linking us to, our past and our future. At the core of this is the intertwining of people with the places where we, and our languages, live.

4.5.1. Continuity and Change

The layered meanings and adaptability of Gitk̲'a'ata place name knowledge ensures continuity across generations, despite colonial disruptions. Even though many of our important places are also often referred to in names which, on the surface, are English, these too derive from adaptations of their original *Sm'algyax* names. *Wil Basax̲ga Aks* (*wil=* 'where' *basax̲k* 'divide' *-a* CN *aks* 'water'; Supplementary Table 1 #46) has become 'The Divide,' and *Laxg̲alts'ap* is referred to as 'Old Town.' Even though some of the detailed information in the *Sm'algyax* names does not persist in their English translations, whether a name is spoken in English or *Sm'algyax*, it calls up our deep time connections to our territory and the places within in. Our temporary adoption of the English language was forced by the colonial occupation of our territories, but our use of English in these place names reinforces the ongoing strength and persistence of our relationship with and knowledge of these territories, and our refusal to surrender them.

Although some of our place names are untranslatable today, speaking them holds deep meaning for our community. A good example from outside of *Laxg̲alts'ap* is *Txałgiiw*, the current name for Hartley Bay. There is no agreed upon definition of *Txałgiiw*, yet its sound holds historical significance. Elder Helen Clifton learned from Lewis Clifton (*Ya'as)* how the place name's history has been preserved, while its pronunciation, and thus etymology, has changed. Lewis Clifton had stated that during the height of the Tlingit and Ts'msyen wars, now known to be at least two millennia ago (Martindale & Marsden 2003), Hartley Bay was referred to as *Sg̲agyiis* (*sg̲a=* 'across' *gyiis* 'miss'; Supplementary Table 1 #66). This word contained instructions to Gitk̲'a'ata

travellers paddling in the dark along the east side of the Douglas Channel who needed to "miss" this particular bay on their frequent journeys to and from *Laxg̲alts'ap* en-route to the outer territories. Over millennia, even while the pronunciation of *Sg̲agyiis* may have changed to *Txałgiiw,* our preservation of the history of the original name remains.

Place names that refer to human stewardship also reflect our active and uninterrupted relationships with our territory. In *Laxg̲alts'ap*, four names refer to people who lived during the European colonial moments of contact and imposition (Supplementary Table 1 #13, #28, #35, #36). They stand out because in contrast to the European use of place names as tools to claim land and affirm unearned individual and corporate title (e.g., *Rupert's Land*), place names in Indigenous languages are far less likely refer to people (Hunn, 1996, p.19). Historically, names of Gitk̲'a'ata people would rarely be imposed on the landscape. Instead, the landscape is imposed onto Gitk̲'a'ata people, literally, when names of geographic features are given to us (Campbell, 2011, p.15). In this way, our concept of *ownership* of land encompasses our debt and responsibility to the places we steward, in contrast to an extractive and disembodied concept of private property still encoded in colonial legal and financial systems. Indexing Gitk̲'a'ata and Ts'msyen ownership with *Sm'algyax* place names on maps may support sovereignty by making Gitk̲'a'ata ownership and stewardship legible to colonial systems of governance.

Our relationship and responsibility to *Laxg̲alts'ap* is evident in hereditary names. For instance, Tina (Violet) Robinson, a Gitk̲'a'ata Matriarch of the *Ganhada* (Raven) lineage, holds the name *Hał Txoo* (*hał*= along.edge, *txoo* broad) which refers to a *łaaya* (highbush cranberry) harvesting area and signals her rights and responsibility to steward that place. These land-based rights and responsibilities lead to ongoing participation in our political institutions where wealth is dispersed in the potlatch through resources harvested in the territory (McDonald, 1995) - in this case *łaaya*. While a resource is being dispersed or consumed during a potlatch, the place it was harvested from and hereditary details, such as those described above, would be announced publicly. This highlights the community economics, governance, and ecological stewardship woven into Gitk̲'a'ata names and place (Roth, 2001;2008). These responsibilities do not end with Tina but

continue through her hereditary successor who will assume the same responsibilities, making it another example of *gugwilx'ya'ansk* in action.

4.5.2. Protecting Knowledge and Language Revitalization

Removal, displacement, and the effort to extinguish Indigenous languages have threatened the continuity of some of our knowledges of place (e.g., Nicolson, 2013). Preserving and protecting knowledge associated with places like *Laxg̲a̲lts'ap* is thus a primary goal of my Nation as well as our academic partners. In the course of our work with Elders, we have been able to gather these names in culturally appropriate ways. I began by documenting place names into Google Earth, recording waypoints as .kmz files. I used these files to create an interactive tour of *Laxg̲a̲lts'ap* for the Elders I was working with, allowing knowledge holders to provide feedback. Our research team compiled these place names into a spatially referenced community-directed database, ensuring culturally appropriate data sovereignty and security (e.g., Taylor & Kukutai, 2016). Our database of place names and knowledge is a living archive intended to be edited and extended over time. By making these place names and their structure accessible through the database, we also offer Gitk̲'a'ata learners of *Sm'algyg̲a̲x* another way to access place names and the knowledge they contain. Information on the linguistic patterns and semantic structure of our place names in the database can also inform community decisions about creating new place names, strengthening our present and future connection to our lands and seas.

Invigorating a collective body of Indigenous place names is inherently anticolonial, removing the Western lens imposed on the landscape. Disassociated, sterile, and paternalistic names recently imposed on the landscape can be swept away, restoring those names that truly belong to this place and its histories. Connecting our people to our land in this way is reminiscent of a past beginning, when all *Sm'algyg̲a̲x* speaking peoples were moving across these landscapes and establishing new relationships with different watersheds, mountains, fjords, and oceans many generations ago.

The lessons, teachings, and knowledge necessary for survival in our territory persist in daily acts of *gugwilx'ya'ansk*. Speaking *Sm'algyg̲a̲x* allows for the persistence of our Indigenous morals, values, knowledge, and ideas. Pairing our language with a life

lived on the land empowers an ecological map that connects the Gitk̲'a'ata with our territory. This connection happens organically, sometimes without conscious thought, and is part of actively being Gitk̲'a'ata. Reciting place names and their stories allows Indigenous people to re-know the wisdom of their ancestral teachings and continue to honor these teachings into the future.

4.6. Final Thoughts

Using place names solidifies our identity and relationship with the lands and waters on which we reside. This is why it was so important for my Elders to "get Spencer to *Laxg̲a̲lts'ap*": so this knowledge continues in our way of *gugwilx'ya'ansk*. Beyond my personal journey to learn these places and their meaning to the Gitk̲'a'ata, I am responsible for passing this knowledge to younger generations, not just by writing about it, but by bringing them to *Laxg̲a̲lts'ap* to live our culture on the land. In reviving cultural dimensions embedded in our language and our ancestral places, and in learning by being and doing in a place, Indigenous learners connect knowledge with place, to nourish the relationship among the human and non-human worlds that sustain us.

This revival implies a research process which is more than recording lists of place names and identifying semantic categories; it means structuring my life so that I can experience a true connection to place with and for my Elders and the generations to come. When I think of place names, I don't want to think of papers and notes, I want to think of all the aspects of *Laxg̲a̲lts'ap* that make me feel it is my ancestral home. I want to think of the people who have kept this alive, and how they have passed on our sacred responsibility for stewarding our territory, and the encyclopedic knowledge necessary to do it well. Studying Indigenous toponomy should bring us closer to the ecosystem in which the words are embedded. This is what *gugwilx'ya'ansk* embodies, a cyclical pedagogical thread connecting humans, their society, and the territories which they live.

Though beneficial, *gugwilx'ya'ansk* does not necessarily mean learning place names in remote locations and contexts. *Laxg̲a̲lts'ap* place names are present in familial events, political meetings, harvesting, formal and informal dinners, and interviews. These

contexts have been a part of our research process for millennia. The more *Gitk̲'a'ata* a situation is, the more traditional knowledge will emerge from the conversation, enforcing the importance of gathering place-based knowledge in a meaningful cultural context.

As an Indigenous researcher working on place names, I carry a responsibility to be in an ongoing relationship with those named places. This relationship is in part captured by Hunn's (1996) idea of "mental economy" among oral cultures, for whom places worth remembering are maintained through place names. The places that speak to people must be able to be spoken about and remembered within our collective minds. In my case, this connection between meaning, place names, and place is deepened by my ancestral connections and my moral life-long relationship to these places. In my own mental economy, I categorize place names through a cultural lens that allows me to see and feel how I live with these places, as opposed to just analyzing them.

Thornton (2011, p.112) noted that "[w]ith naming comes knowledge, and with knowledge, power: the power not only to use, control, and possess but also, just as important, to define." Linguistic revitalization empowers not only our communities, relationships with fluent speakers, and relationships with land, but also how we conduct research. On a personal level, learning place names has been a catalyst for my relationship with land, as each time I hear a new place name or saying associated with land, I find new teachings or tools in how to understand "the land" on a deeper level. On a communal level, revitalizing our place names articulates a commitment to a life lived on and in the territory. We are actively turning the conversation of linguistic research into one of empowerment where our health and wellbeing is at the center (e.g., Chew, 2016). To explore these place names is to explore our landscapes; to live these place names ensures a deep sense of relationship, responsibility, and identity.

Chapter 5.

Concluding Thoughts

The human experience is forever guided by one's relationship with the landscape on which they reside. Each human culture on this earth provides a glimpse into their relationship with ecosystems and how those ecosystems have shaped them. For the Gitk̲'a'ata people, *Laxg̲a̲lts'ap* has shaped us for millennia and this dissertation is one chapter of my life-long commitment to understanding how *Laxg̲a̲lts'ap* has shaped who I am, my culture, my community, and where and how I relate to *place* and knowledge.

Though this metaphorical life chapter has been grounded in *Laxg̲a̲lts'ap*, it has largely been a journey of walking in two worlds. These two worlds entail navigating Indigenous knowledge in its intended setting - amongst my community and on the Land, and how or where Indigenous Knowledge fits within academia. The glaring difference between these two settings is that while in an Indigenous context, I relate to *place* and knowledge by *living it*. In the academic context, Indigenous Knowledge is removed from its home, then theorized, examined, critiqued, and discussed. I struggle with recording or discussing knowledge systems if I have not lived them. As such, relating to *place* and knowledge in the academic world has never truly felt comfortable to me.

Though walking in two worlds has been written about by many authors and scholars before me(see Cajete, 1994; Deloria,1969, 1973; Fixico, 2003; Hernandez, 2023; Little Bear, 2000; Simpson, 2017; Kimmerer; 2013; to name a few), I am still searching for balance in this space and feel unresolve as I complete this dissertation process. This discomfort may resonate with other Indigenous scholars making their way through an academic degree. For example, in chapter 3 I struggle with portraying a story of stewardship laws and deep dedication to place, when I have undoubtedly spent more time on a computer than on the Land while writing this thesis. The gift of having in-tact ecosystems in my territory, while being surrounded by culturally fluent elders, allows me to be on the Land more than most academics. These are privileges I am forever grateful for. Yet, my ability to learn on the land still pales in comparison to my mentors who grew

up navigating, tending, and harvesting in our sacred landscapes year-round. Realistically, participating in these places year-round is the only way that our knowledge systems have survived for millennia.

In both chapter 2 and 4, I wonder who my audience is and whether a Gitk̲’a’ata person will ever read these publications. While writing them, I wondered about the accumulated hours of learning a new academic language or citation style – be it archaeology, linguistics, APA or Chicago – and if I would feel a deeper sense of accomplishment if I spent those same hours teaching youth oral histories and place names. However, each of these questions grapple with the unknown and seek an answer to a specific question that I subconsciously chase: what path can I walk in this modern world that will best facilitate my families’, communities’, and my own ability to maintain deep relationships with our *places* and traditional knowledge?

Another reality is that our world is diverse. Amongst my own tension and existential fog within this research there have been moments of absolute clarity in learning transdisciplinary ways of addressing problems today. I can pinpoint several moments in the past six and half years of this thesis where collaboration with non-Indigenous knowledge systems has been synchronistic with Indigenous knowledge systems, and how they play a role in the modern world. Though the concept of braiding Indigenous and non-Indigenous knowledge is far from new (Bartlett et al., 2012; Ermine, 2005), truly understanding how to braid them involved me shifting my negative pre-conceived notions of Western science and thought.

Though negativity associated with Western science is certainly warranted due to its long history of being used as a colonial tool (McCallam, 2017; Nadasdy, 1999; Smith, 1999; Wilson, 2001), many on-going conversations and collaborations with my colleagues have made it possible to braid western science with Indigenous knowledge (see Letham et al. 2023, 2021; Fernández-Llamazares et al., 2021; Atlas et al., 2021; Lepofsky et al., 2020, 2017). In these partnerships, Indigenous led-projects have brought a wide range of academics together, each who bring different skillsets on how to address modern societal issues. As a result, my participation in such scientific endeavours has

allowed me to understand that academic approaches to scientific research can also be a neutral tool, where its potential uses change with its practitioners (see Lertzman, 2009). Participating in these partnerships removes the tools of Western science from colonial claims of ownership and relocates them into a space of Indigenous empowerment. Ultimately, my experiences with these collaborations have allowed me to imagine a global web of knowledge that connects us in the common cause for understanding how to be better humans.

Thus, I can understand how most of the tension throughout this academic journey derived from what felt like an emphasis of *analysis* over *relationship* within academia. In settings where siloed knowledges and production-based timelines are a norm, lessons from Indigenous knowledge and relationship give us insight for growth. Embodying and practicing relationship when working with Indigenous Knowledge would address much of this and we already have a rich foundation to work with; from research processes and actionable results (Menzies and Butler, 2021), to meaningful co-authorship that goes beyond simplistic incorporation or recognition (Atlas et al., 2021, Fernández-Llamazares et al., 2021), to law and environmental policy - where *relationship* can be understood as a conservation value (Thornton, 2010). Just as we now know eliminating human roles within ecosystems negates our understanding of ecosystems themselves, eliminating the humanness of relationship in knowledge hinders us as well.

I am left speculating on my future in research and the nuance of walking these two worlds. Though I don't know the exact path I will find myself on, undoubtedly, I will be navigating a transdisciplinary world – whether through my community or in academia. Regardless, there is comfort reflecting on the lessons *Laxg̲a̲lts'ap* has brought me. *Laxg̲a̲lts'ap* has given me an anchor and theoretical grounding on how to relate to my surroundings, from the non-human world to the people I surround myself with. *Laxg̲a̲lts'ap* provides a moral, legal, spiritual, and cultural foundation for how to navigate ecosystems, people, and place. This grounding and foundation plays into striving to be able to relate to all things – including other ways of knowing.

A mentor and friend of mine used to point out how Indigenous knowledge, and through extension the Land, has a non-didactic way of teaching (see Hoffman, 2005, pg. 188). He spoke of how Indigenous knowledge acts as a mirror, allowing one to look into themselves and assess their relationship with all things. *Laxg̲a̲lts'ap* has done this for me, and it is my goal that through this thesis, *Laxg̲a̲lts'ap* may inspire the same in others. Perhaps through this introspection and thought, we find glimpses of lessons for ourselves in how we understand the places we inhabit and the way we move through those spaces, whether alone, as families, neighbours, and communities.

References

Absolon, K. (2010). Indigenous wholistic theory: A knowledge set for practice. *First Peoples Child & Family Review*, *5*(2).

Absolon, K., & Willett, C. (2005). Putting ourself forward: Location in Aboriginal research. In L. Brown & S. Strega (Eds.), *Research as Resistance: Critical, Indigenous, and Anti-oppressive Approaches* (pp. 97–126). Canadian Scholars' Press.

Adelson, N. (2000). *'Being alive well': Health and the politics of Cree well-being.* University of Toronto Press.

Albright, S. (1987). *Archaeological evidence of Gitksan and Wet'suwet'en history*. Self-Published.

Anderson, E. N. (1996). *Ecologies of the Heart: Emotion, Belief, and the Environment.* Oxford University Press.

Anderson, E. N., & Pierotti, R. (2022). *Respect and responsibility in Pacific Coast Indigenous Nations: The world raven makes*. Springer International Publishing.

Anderson, M., Ignace, M., & Ts'msyen Sm'algya̲x Language Authority. (2008). Ts'msyen Sm'algya̲x grammar resources, twenty user-friendly modules on key Ts'msyen Sm'algya̲x structures: module 06, prefixes, visible grammar. *Ts'msyen Sm'algya̲x Language Authority*.

Anderson, M. (2016). Ntsabm a gyiyaaksi'i (Our village out to Sea): A resource for language revitalization. *Journal of Marxism and Interdisciplinary Inquiry*, *8*(1).

Anderson, S.A. (2005). *Aspects of the theory of clitics*. Oxford University Press.

Archibald, J. (2008). *Indigenous storywork: Educating the heart, mind, body, and spirit*. UBC Press.

Armstrong, C. G., Lyons, N., McAlvay, A. C., Ritchie, P.M., Lepofsky, D., & Blake, M. (2023). Historical ecology of forest garden management in laxyuubm Ts'msyen and beyond. *Ecosystems and People (Abingdon, England)*, *19*(1). https://doi.org/10.1080/26395916.2022.2160823.

Armstrong, C.G., Spice, A., Ridsdale, M., Welch, J.R. (2023). Liberating trails and travel routes in Gitxsan and Wet'suwet'en Territories from the tyrannies of heritage resource management regimes. *American Anthropologist, 125*(2), 361-376.

Atalay, S. (2008). Multivocality and Indigenous archaeologies. In J. Habu, C. Fawcett, & J.M. Matsunaga (Eds.), *Evaluating multiple narratives* (pp. 29–44). Springer.

Atlas, W. I., Ban, N. C., Moore, J. W., Tuohy, A. M., Greening, S., Reid, A. J., Morven, N., White, E., Housty, W. G., Housty, J. A., Service, C. N., Greba, L., Harrison, S., Sharpe, C., Butts, K. I. R., Shepert, W. M., Sweeney-Bergen, E., Macintyre, D., Sloat, M. R., & Connors, K. (2021). Indigenous systems of management for culturally and ecologically resilient Pacific salmon (oncorhynchus spp.) fisheries. *Bioscience*, *71*(2), 186–204. https://doi.org/10.1093/biosci/biaa144

Atleo, C. G. (2015). Aboriginal capitalism: Is resistance futile or fertile? *Journal of Aboriginal Economic Development*, *9*(2), 41–51.

Atleo, C., & Boron, J. (2022). Land is life: Indigenous relationships to territory and navigating settler colonial property regimes in Canada. *Land (Basel)*, *11*(5), 609. https://doi.org/10.3390/land11050609

Atleo, E. R. (2004). *Tsawalk: A Nuu-chah-nulth worldview*. UBC Press.

Atleo, M.R., (2006). The ancient Nuu-chah-nulth strategy of hahuulthi: Education for Indigenous cultural survivance. *International Journal of Environmental, Cultural, Economic and Social Sustainability, 2*(1), 153-162.

Bainbridge, R. (2007). Autoethnography in Indigenous research contexts: The value of inner knowing. *Journals of Australian Indigenous Issues, 10*(2), 54-64.

Balee, W. (1985). Ka'apor ritual hunting. *Human Ecology: An Interdisciplinary Journal*, *13*(4), 485–510. https://doi.org/10.1007/BF01531156

Barbeau, M. & Beynon W. (n.d. (a)). VII-C-74M, Box 10, f.1: Temlarham the land of plenty on the North Pacific Coast. Northwest Coast Files. *Marius Barbeau Collection*. Canadian Museum of History.

Barbeau, M. & Beynon, W. (n.d. (b)). VII-C-67M, Box 6, f.2: Raven-clan outlaws on the North Pacific Coast. Northwest Coast Files. *Marius Barbeau Collection*. Canadian Museum of History.

Barbeau, M, & Beynon, W. (1915-1957). Northwest Coast Files. Marius Barbeau Collection, Canadian Museum of History, Gatineau, Quebec.

Bartlett, C., Marshall, M., & Marshall, A. (2012). Two-Eyed seeing and other lessons learned within a co-learning journey of bringing together Indigenous and mainstream knowledges and ways of knowing. *Journal of Environmental Studies and Sciences*, *2*(4), 331–340. https://doi.org/10.1007/s13412-012-0086-8

Basso, K. (1988). Speaking with names: Language and landscape among the Western Apache." *Cultural Anthropology, 3*(2), 99-130.

Basso, K. (1996). *Wisdom sits in places: Landscape and language among the Western Apache.* University of New Mexico Press.

Battiste, M. (1998). Enabling the autumn seed: Toward a decolonized approach to Aboriginal knowledge, language, and education. Canadian Journal of Native Education, 22(1), 16-27

Battiste, M., & Henderson, J. Y. (Eds.). (2000). *Protecting Indigenous knowledge and heritage: A global challenge*. Purich Publishing.

Brant-Castellano. M. (2004). Ethics of Aboriginal research. *Journal of Aboriginal Health*, *1*(1), 98-114.

Beck, W., & Somerville, M. (2005). Conversations between disciplines: Historical archaeology and oral history at Yarrawarra. *World Archaeology*, *37*(3), 468–483.

Berkes, F. (2008). *Sacred Ecology* (2nd ed.) Oxfordshire, UK: Routledge.

Beynon, W. (1953a) Volume BF 131.1 Northwest Coast Files. *Marius Barbeau Collection*. Canadian Museum of History.

Beynon, W. (1953b). Northwest Coast Files. Volume BF 418.3 and C - Map 278A (Map B-9). *Marius Barbeau Collection*. Canadian Museum of History, Gatineau, Quebec.

Beynon, W., Halpin, M. M., & Anderson, M. (2000). *Potlatch at Gitsegukla William Beynon's 1945 notebooks*. UBC Press. https://doi.org/10.59962/9780774852166

Boas, F. (1916). *Tsimshian mythology 1,2*. Bureau of American Ethnology Annual Report 31. Smithsonian Institution.

Borrows, J. (2019a). Earth-bound: Indigenous resurgence and environmental reconciliation. In M. Asch, J. Burrows, & J. Tully (Eds.), *Resurgence and Reconciliation* (pp. 49–82). University of Toronto Press. https://doi.org/10.3138/9781487519926-004.

Borrows, J. (2019b). *Law's Indigenous ethics.* University of Toronto Press.

Brody, H. (1988). *Maps and dreams: Indians and the British Columbia frontier* (2nd ed.). Douglas & McIntyre.

Brown, J. E., & Cousins, E. (2001). *Teaching spirits: Understanding Native American religious traditions.* Oxford University Press.

Cajete, G. (1994). *Look to the mountain: An ecology of Indigenous education*. Kivaki Press.

Cajete, G. (2018). Native science and sustaining Indigenous communities. In M. K. Nelson & D. Shilling (Eds.), *Traditional Ecological Knowledge* (pp. 15–26). Cambridge University Press. https://doi.org/10.1017/9781108552998.003.

Campbell, K. (2011). *Gitga'at evidence report*. Unpublished report prepared for Hartley Bay Band Council and Gitga'at Lands and Resources Stewardship Society.

Cardinal, H. (1969). *The unjust society: the Tragedy of Canada's Indians.* M. G. Hurtig.

Cattelino, J. R., & Simpson, A. (2022). Rethinking Indigeneity: Scholarship at the intersection of Native American studies and anthropology. *Annual Review of Anthropology*, *51*(1), 365–381. https://doi.org/10.1146/annurev-anthro-101819-110339

Chew, K.A.B., Hicks, N., & Keliiaa, C. (2015). Claiming space: An autoethnographic study of Indigenous graduate students engaged in language reclamation. *International Journal of Multicultural Education*, *17*(2), 73-91. https://doi.org/10.18251/ijme.v17i2.966.

Chew, K.A.B. (2016). "Chikashshanompa' Ilanompohóli Bíyyi'ka'chi (We will always speak the Chickasaw language): Considering the vitality and efficacy of Chickasaw language reclamation." [Doctoral dissertation]. University of Arizona.

Cohen, K. S. (2023). What is Indigenous science? *Explore*, *19*(4), 498–499. https://doi.org/10.1016/j.explore.2022.10.014

Colwell-Chanthaphonh, C., & Ferguson, T. J. (2010). Intersecting magisteria. *Journal of Social Archaeology*, *10*(3), 325–346. https://doi.org/10.1177/1469605310377960

Cote-Meek, S. & Moeke-Pickering, T. (Eds.). (2020). *Decolonizing and indigenizing education in Canada.* Canadian Scholars.

Coulthard, G.S. (2014). *Red skin, white masks: Rejecting the colonial politics of recognition*. University of Minnesota Press.

Couture, J. (1989). Native and non-Native encounter: A personal experience. In W. Cragg (Ed.), *Challenging the conventional: Essays in honor of Ed Newberry* (pp. 123-154). Burlington, ON: Trinity Press

Cruikshank, J. (1981). Legend and landscape: Convergence of oral and scientific traditions in the Yukon territory. *Arctic Anthropology*, *18*(2), 67–93.

Cruikshank, J. (2005). *Do glaciers listen?: local knowledge, colonial encounters and social imagination*. UBC Press.

Cybulski, J.S. (2014). Conflict on the northern Northwest Coast: 2,000 years plus of bioarchaeological evidence. In C. Knüsel & M.J. Smith (Eds.), *The Routledge Handbook of the bioarchaeology of human conflict*, (pp. 415-451). Routledge.

D'Arcy, P. & Kuan, D. (2023). *Islands of hope: Indigenous resource management in a changing Pacific*. ANU Press.

Deloria, V. (1969). *Custer died for your sins; an Indian manifesto.* Macmillan.

Deloria, V. (1973). *God is red: A native view of religion* (1st ed.). Fulcrum Publishing.

Deloria, V. (2006). *The world we used to live in: Remembering the powers of the medicine men*. Fulcrum Publishing.

De Laguna, F. (1960). *The story of a Tlingit community: A problem in the relationship between archeological, ethnological, and historical methods* Vol. 172. US Government Printing Office.

De Laguna, F., Riddell, F. A., McGeein, D. F., Lane, K. S. and Freed, J. A. (1964). Archeology of the Yakutat Bay area, Alaska. *Bureau of American Ethnology Bulletin*.

De Laguna, F. (1972). Under Mount Saint Elias: The History and Culture of the Yakutat Tlingit: Part Two. *Smithsonian Contributions to Anthropology*, *7*, 1–1395. https://doi.org/10.5479/si.00810223.7.2

Drawson, A. S., Toombs, E., & Mushquash, C. J. (2017). Indigenous Research Methods: A Systematic Review. *The International Indigenous Policy Journal*, *8*(2), Article 2. https://doi.org/10.18584/iipj.2017.8.2.5

Drucker, P. (1943). Archaeological survey on the northern Northwest Coast. Anthropological Papers, No. 20. Washington D.C.: Smithsonian Institution, Bureau of American Ethnology.

Duff, W. (n.d). Tsimshian File: folder 50 (Gitga'ata). *Wilson Duff Files*. Museum of Anthropology University of British Columbia.

Dunn, J. A. (1995). *Sm'algyax: A Reference Dictionary and Grammar for the Coast Tsimshian Language*. University of Washington Press.

Echo-Hawk, R. C. (2000). Ancient history in the new world: Integrating oral traditions and the archaeological record in deep time. *American Antiquity*, *65*(2), 267–290.

Edinborough, K., Martindale, A., Cook, G. T., Supernant, K., & Ames, K. M. (2016). A marine reservoir effect ΔR value for Kitandach, in Prince Rupert Harbour, British Columbia, Canada. *Radiocarbon*, *58*(4), 885–891. https://doi.org/10.1017/RDC.2016.46

Eisenstein, C. (2011). *Sacred economics: Money, gift, & society in the age of transition*. Evolver Editions.

Eldridge, M. (2001). *Gitga'at archaeology report*. Unpublished field notes. Gitga'at First Nation.

Ellis, C. (2004). *The ethnographic I: A methodological novel about autoethnography*. AltaMira.

Ellis, C., Adams, T. E., & Bochner, A. P.. (2011) "Autoethnography: An Overview" *Historical Social Research* 36, no. 4: 273-290.

Engman, M.M., & Hermes, M. (2021). Land as interlocutor: A study of Ojibwe learner language in interaction on and with naturally occurring 'materials.' *The Modern Language Journal*, *105*(1), 86-105.

Ermine, W. (2005). The ethical space of engagement. *Indigenous Law Journal, 6*(1), 193-203.

Fast, E. & Kovach, M. (2019). Community relationships within Indigenous methodologies. In S. Windchief & T. San Pedro (Eds.). *Applying indigenous research methods: storying with peoples and communities*. Routledge.

Fernández-Llamazares, Á., Lepofsky, D., Lertzman, K., Armstrong, C. G., Brondizio, E. S., Gavin, M. C., Lyver, P. O., Nicholas, G. P., Pascua, P., Reo, N. J., Reyes-García, V., Turner, N. J., Yletyinen, J., Anderson, E. N., Balée, W., Cariño, J., David-Chavez, D. M., Dunn, C. P., Garnett, S. C., … Vaughan, M. B. (2021). Scientists' warning to humanity on threats to Indigenous and local knowledge systems. *Journal of Ethnobiology*, *41*(2), 144–169. https://doi.org/10.2993/0278-0771-41.2.144

Fowler, C. S., & Lepofsky, D. (2011). Traditional resource and environmental management. In E. N. Anderson, D. M. Pearsall, E. S. Hunn, & N. J. Turner (Eds.), *Ethnobiology* (pp. 285–304). John Wiley & Sons, Inc.

Fixico, D. L. (2003). *The American Indian mind in a linear world: American Indian studies and traditional knowledge*. Routledge.

Garnett, S. T., Burgess, N. D., Fa, J. E., Fernández-Llamazares, Á., Molnár, Z., & Robinson, C. J. (2018). A spatial overview of the global importance of Indigenous lands for conservation. *Nature Sustainability,* 1, 369–374.

Gaudet, C. (2019). Keeoukaywin: The visiting way - fostering an Indigenous research methodology. *Aboriginal Policy Studies*, *7*(2), 47-65. https://doi.org/10.5663/aps.v7i2.29336

Gauvreau, A., Fedje, D., Dyck, A., Mackie, Q., Hebda, C. F. G., Holmes, K., White, Q. Y. E., Housty, D. W., Housty, Ĝ. R., & McLaren, D. (2023). *Geo-archaeology and Haíłzaqv oral history: Long-term human investment and resource use at EkTb-9, Triquet Island, Núláẃitx̌v Tribal Area, Central Coast, British Columbia, Canada*. Journal of Archaeological Science: Reports, 49, Article 103884.

Gitga'at First Nation & Reid, M. (2011). *Gitga'at place names mapping project*. Unpublished report prepared for Hartley Bay Band Council and Gitga'at Lands and Resources Stewardship Society.

Gone, J. P. (2017). "It felt like violence": Indigenous knowledge traditions and the postcolonial ethics of academic inquiry and community engagement." *American Journal of Community Psychology, 60*(3-4), 353–360. https://doi.org/10.1002/ajcp.12183.

Gottesfeld, A. S., Mathewes, R. W., & Johnson Gottesfeld, L. M. (1991). Holocene debris flows and environmental history, Hazelton area, British Columbia. *Canadian Journal of Earth Sciences*, *28*(10), 1583–1593. https://doi.org/10.1139/e91-142

Gray, R. (2015). "Ts'msyen revolution: The poetics and politics of reclaiming." [Doctoral dissertation]. University of Massechusetts Amherst.

Greening, S. (2017). Raven bloodlines, Tsimshian identity: An autoethnographic account of Tsimshian wil'naat'ał, politics, pedagogy, and law. [Master's thesis]. University of Northern British Columbia. https://doi.org/10.24124/2017/58909

Guédon, M.F. (1984). An introduction to Tsimshian world view and its practitioners. In M. Séguin (Ed.), *The Tsimshian: Images of the past; views for the present* (pp. 137-159). UBC Press.

Hamilakis, Y. (2016). Decolonial archaeologies: From ethnoarchaeology to archaeological ethnography. *World Archaeology*, *48*(5), 678–682

Harris, K. B. & Robinson, F. P. (1974). *Visitors who never left: The origin of the people of Damelahamid*. UBC Press.

Hart, M. A. (2010). Indigenous worldviews, knowledge, and research: The development of an Indigenous research paradigm. *Journal of Indigenous Social Development*, *1*(1A). https://journalhosting.ucalgary.ca/index.php/jisd/article/view/63043

Hayward, A., Wodtke, L., Craft, A., Robin, T., Smylie, J., McConkey, S., Nychuk, A., Healy, C., Star, L., & Cidro, J. (2021). Addressing the need for Indigenous and decolonized quantitative research methods in Canada. *SSM - Population Health*, *15*, 100899. https://doi.org/10.1016/j.ssmph.2021.100899

Heikkilä, K., & Fondahl. G. (2010). Indigenous toponyms as pedagogical tools: Reflections from research with Tl'azt'en Nation, British Columbia. *Fennia - International Journal of Geography*, *188*(1), 105-122.

Henige, D. (2009). Impossible to disprove yet impossible to believe: The unforgiving epistemology of deep-time oral tradition. *History in Africa, 36*, 127-234. https://doi.org/10.1353/hia.2010.0014

Hernandez, J. (2022). Fresh banana leaves: Healing Indigenous landscapes through Indigenous science. North Atlantic Books.

Hill, B., & Hill, R. (1974). *Indian petroglyphs of the Pacific Northwest*. Hancock House Publishers.

Hoffman, R. (2005). "Rekindling the fire: The impact of Raymond Harris's work with the Plains Cree." [Doctoral dissertation]. Trent University.

Housty, W. G., Noson, A., Scoville, G. W., Boulanger, J., Jeo, R. M., Darimont, C. T., & Filardi, C. E. (2014). Grizzly bear monitoring by the Heiltsuk people as a crucible for First Nation conservation practice. *Ecology and Society*, *19*(2). https://doi.org/10.5751/ES-06668 -190270

Hunn, E. (1994). Place-names, population density, and the magic number 500. *Current Anthropology, 188*(1), 81-85.

Hunn, E. (1996). Columbia Plateau Indian place names: What can they teach us? *Journal of Linguistic Anthropology*, *6*(1), 3-26.

Ignace, M., & Ignace, R. E. (Eds.). (2017). *Secwépemc people, land, and laws = Yerí7 re Stsq'ey's-kucw.* McGill-Queen's University Press.

Inglis, R. (2014). *Gitga'ata First Nation traditional use or occupancy study project for the proposed LNG carrier shipping route: Preliminary Report*. Unpublished report prepared for Gitga'at First Nation.

Jeness, D. (1922). *The life of the Copper Eskimos (Volume XII), Report of the Canadian Arctic Expedition 1913-1918*. F.A. Acland.

Kii7iljuus & Harris, H. (2005). Tllsda Xaaydas k'aaygang.nga: Long, long ago ancient Haida stories. In Fedje, D.W. & Matthewes, R.F. (Eds.), *Haida Gwaii: Human history and environment form the time of Loon to the time of the Iron People*, (pp. 121-139). UBC Press.

Kimmerer, R. W. (2013). *Braiding sweetgrass: Indigenous wisdom, scientific knowledge, and the teaching of plants.* (1st ed.). Milkweed Editions.

Kirch, P.V. (2018). Voices on the wind, traces in the earth: Integrating oral narrative and archaeology in Polynesian history. *Journal of the Polynesian Society, 127*(3), 275–306.

Kovach, M. (2005). Emerging from the margins: Indigenous methodologies. In L. Brown, & S. Strega (Eds.), *Research as resistance: Critical, Indigenous, & anti-oppressive approaches* (pp. 19-36). Toronto, Ontario, Canada: Canadian Scholars' Press.

Kovach, M. (2021). *Indigenous methodologies: Characteristics, conversations, and contexts* (2nd ed.). University of Toronto Press.

Kuokkanen, R. J. (2007). *Reshaping the university responsibility, Indigenous epistemes, and the logic of the gift.* UBC Press.

LeCompte, M. D., & Schensul, J. J. (2010). *Designing & conducting ethnographic research an introduction* (2nd ed.). AltaMira Press.

Leen, D. (1985). *A preliminary inventory of Haisla and Kikiata rock art.* Kitimat Heritage Advisory Commission in partial fulfillment of Heritage Conservation Branch Permit 1984-19.

Leighton-Stephens, D. (2022). "Adaawgm Ts'msyen int suwilaay'magm: Teachings from our Ts'msyen narratives." [Doctoral dissertation]. Simon Fraser University.

Lepofsky, D., Armstrong, C. G., Greening, S., Jackley, J., Carpenter, J., Guernsey, B., Mathews, D., & Turner, N. J. (2017). Historical ecology of cultural keystone places of the northwest coast. *American Anthropologist*, *119*(3), 448–463. https://doi.org/10.1111/aman.12893

Lepofsky, D., Armstrong, C.G., Mathews, D., & Greening, S. (2020). Understanding the past for the future: Archaeology, plants, and First Nations' land use and rights. In N.J. Turner (Ed.), *Plants, people, and places: The roles of ethnobotany and ethnoecology in Indigenous Peoples' land rights in Canada and beyond,* (pp. 86–106). McGill-Queen's University Press. https://doi.org/10.1515/9780228003175-011

Lepofsky, D., Toniello, G., Earnshaw, J., Roberts, C., Wilson, L., Rowell, K., & Holmes, K. (2021). Ancient anthropogenic clam gardens of the Northwest Coast expand clam habitat. *Ecosystems (New York)*, *24*(2), 248–260. https://doi.org/10.1007/s10021-020-00515-6

Lertzman, K. (2009). The paradigm of management, management systems, and resource stewardship. *Journal of Ethnobiology*, *29*(2), 339–358. https://doi.org/10.2993/0278-0771-29.2.339

Lowan, G. (2009). Exploring place from an Aboriginal perspective: Considerations for outdoor and environmental education. *Canadian Journal of Environmental Education, 12*, 42–58.

Letham, B., Martindale, A., Waber, N., & Ames, K. M. (2018). Archaeological survey of dynamic coastal landscapes and paleoshorelines: Locating early holocene sites in the Prince Rupert harbour area, British Columbia, Canada. *Journal of Field Archaeology*, *43*(3), 181–199. https://doi.org/10.1080/00934690.2018.1441575

Letham, B., Lepofsky, D., & Greening, S. (2021). A post-glacial relative sea level curve for the central Douglas Channel area, British Columbia, Canada. *Quaternary Science Reviews, 263*. https://doi.org/10.1016/j.quascirev.2021.106991

Letham, B., Lepofsky, D., & Greening, S. (2023). Wil Luunda 'Waada aks (where the waters meet): Deep-time histories of shifting estuarine landscapes and human settlement in Laxgalts'ap watershed, northern British Columbia, Canada. *Journal of Island and Coastal Archaeology*. Advance online publication. https://doi.org/10.1080/15564894.2023.2202154

Little Bear, L. (2000). Jagged worldviews colliding. In M. Battiste (Ed.), *Reclaiming Indigenous voice and vision* (pp.77-85). UBC Press.

Losey, R. J., Stenholm, N., Whereat-Phillips, P., & Vallianatos, H. (2003). Exploring the use of red elderberry (sambucus racemosa) fruit on the southern Northwest Coast of North America. *Journal of Archaeological Science*, *30*(6), 695–707. https://doi.org/10.1016/S0305-4403(02)00242-X

Mahoney, S. P., Geist, V., & Krausman, P. R. (2019). The North American model of wildlife conservation: Setting the stage for evaluation. In S. Mahoney & V. Geist (Eds.), *The North American Model of Wildlife Conservation* (pp. 1-8). Johns Hopkins University Press.

Mahoney, S. P., & Geist, V. (Eds.). (2019). *The North American model of wildlife conservation*. Johns Hopkins University Press.

Malindine, J. (2017). Northwest Coast halibut hooks: An evolving tradition of form, function, and fishing. *Human Ecology: An Interdisciplinary Journal, 45*(1), 53–65. https://doi.org/10.1007/s10745-016-9884-z.

Marsden, S. (2002). Adawx, spanaxnox, and the geopolitics of the Tsimshian. *BC Studies, 135*, 101–135.

Marsden, S. (2012) *The Gitk'a'ata, their history, and their territories.* Unpublished report prepared for Hartley Bay Band Council and Gitga'at Lands and Resources Stewardship Society.

Martin, J., & Frost, P. (1999). The organizational culture war games: A struggle for Intellectual dominance. In S. Clegg, C. Hardy, & W. Nord (Eds.), *Handbook of organizational studies* (pp. 345 – 367). Sage Publications.

Martindale, A., & Marsden, S. (2003). Defining the middle period (3500 BP-1500 BP) in Tsimshian history through a comparison of archaeological and oral records. *BC Studies*, *138,*13-50. https://doi.org/10.14288/bcs.v0i138/9.1670

Martindale, A., & Jurakic, I. (2004). Northern Tsimshian elderberry use in the late pre-contact to post-contact era. *Canadian Journal of Archaeology*, *28*(2), 254–280.

Martindale, A. (2006). Methodological issues in the use of Tsimshian oral traditions (adawx) in archaeology. *Canadian Journal of Archaeology*, *30*(2), 158-192.

Martindale, A. (2014). Archaeology taken to court: Unraveling the epistemology of cultural tradition in the context of Aboriginal title cases. In N. Ferris, R. Harrison, & M. Wilcox (Eds.), *Rethinking colonial pasts through archaeology* (pp. 397–442). Oxford University press.

Martindale, A., & Nicholas, G. P. (2014). Archaeology as federated knowledge. *Canadian Journal of Archaeology*, *38*(2), 434-465.

Martindale, A., Marsden, S., Patton, K., Ruggles, A., Letham, B., Supernant, K., Archer, D., McLaren, D., & Ames, K. M. (2017a). The role of small villages in Northern Tsimshian territory from oral and archaeological records. *Journal of Social Archaeology*, *17*(3), 285–325. https://doi.org/10.1177/1469605317730411

Martindale, A., Letham, B., Supernant, K., Brown, T., Edinborough, K., Duelks, J., & Ames, K. M. (2017b). Urbanism in Northern Tsimshian archaeology. *Hunter Gatherer Research*, *3*(1), 133–163. https://doi.org/10.3828/hgr.2017.8

Mason, R. (2000). Archaeology and Native North American oral traditions. *American Antiquity, 65*(2), 239-266. https://doi.org/10.2307/2694058

McDonald, J. A. (1995). Building a moral community: Tsimshian potlatching, implicit knowledge and everyday experiences. *Cultural Studies*, *9*(1), 125–144. https://doi.org/10.1080/09502389500490271

McDonald, J. A. (2016). Tsimshian wil'naat'ał and society. *New Proposals: Journal of Marxism and Interdisciplinary Inquiry, 8*(1), 11-40.

McCallum, M. J. L. (2017). Starvation, experimentation, segregation, and trauma: Words for reading Indigenous health history. *The Canadian Historical Review*, 98(1), 96–113.

McCoy, K., Tuck, E., & McKenzie, M. (Eds.). (2017). *Land education: Rethinking pedagogies of place from Indigenous, postcolonial, and decolonizing perspectives.* Routledge.

McGregor, D. (2004a). Traditional ecological knowledge and sustainable development: Towards co-existence. In M. Blaser, H.A. Feit, & G. Mcrae (Eds.), *In the way of development. Indigenous peoples, life projects, and globalization* (pp. 72-91). Zed Books.

McGregor, D. (2004b). Coming full circle: Indigenous Knowledge, environment, and our future. *The American Indian Quartely*, *28*(3). 385-410.

McGregor, D. (2013). Indigenous women, water justice and zaagidowin (love). *Canadian Woman Studies*, *30*(2/3), 71.

McKechnie, I. (2015). Indigenous oral history and settlement archaeology in Barkley Sound, western Vancouver Island. *BC Studies*, *187*, 193–229. https://doi.org/10.14288/bcs.v0i187.186162

McLaren, D.S. (2003). Uncovering historical sequences in central Coast Salish oral narrative. In R.L. Carlson (Ed.), *Archaeology of Coastal British Columbia*: *Essays in Honour of professor Philip M. Hobler* (pp. 189-202). Simon Fraser University Archaeology Press.

McQuaid, G. (2022). Local ecological knowledge of mountain goats in the Skeena region of British Columbia and its importance to wildlife management. [Master's thesis]. Royal Roads University.

Menzies, Charles R. (Ed.). (2006). *Traditional ecological knowledge and natural resource management*. University of Nebraska Press.

Menzies, C. R. (2010). Dm sibilhaa'nm da laxyuubm Gitxaała: Picking abalone in Gitxaała territory. *Human Organization*, *69*(3), 213–220. https://doi.org/10.17730/humo.69.3.g68p1g7k40153010

Menzies, C. R., & Butler, C. F. (2007). Returning to selective fishing through Indigenous fisheries knowledge: The example of K'moda, Gitxaała territory. *American Indian Quarterly, 31*(3), 441–64. https://doi.org/10.1353/aiq.2007.0035.

Menzies, C.R. and Butler, C.F. (2021). Centring community knowledge in land use research. *BC Studies*, *209*, 103-124.

Miller, J. (1984). Feasting with the Southern Tsimshian. In M. Séguin (Ed.), *The Tsimshian: images of the past: views for the present* (pp. 27–39). UBC Press.

Miller, J. (1997). T*simshian culture: A light through the ages.* University of Nebraska Press.

Moss, M. L., & Wasson, G. B. (1998). Intimate relations with the past: The story of an Athapaskan village on the southern Northwest Coast of North America. *World Archaeology*, *29*(3), 317–332. https://doi.org/10.1080/00438243.1998.9980382

Nadasdy, P. (1999). The politics of TEK: Power and the "integration" of knowledge. *Arctic Anthropology*, *36*(1/2), 1–18.

Nadasdy, P. (2003). *Hunters and bureaucrats: Power, knowledge, and aboriginal-state relations in the Southwest Yukon*. UBC Press.

Napoleon, V.R. (2009). "Ayook: Gitksan legal order, law, and legal theory." [PhD dissertation]. University of Victoria.

Nelson, P. (2021). Where have all the anthros gone? The shift in California Indian studies from research "on" to research "with, for, and by" Indigenous peoples. *American Anthropologist*, *123*(3), 469–473. https://doi.org/10.1111/aman.13633

Nelson, M. K., & Shilling, D. (Eds.). (2018). *Traditional ecological knowledge: Learning from Indigenous practices for environmental sustainability*. Cambridge University Press. doi:10.1017/9781108552998.

Nicholas, G. P. (Ed.). (2016). *Being and becoming Indigenous archaeologists*. Routledge. https://doi.org/10.4324/9781315433134

Nicolson, M. (2013). “Yaxa Uḱwine’, yaxa Gukw, dłuwida Awiṅagwis: “The body, the house, and the land”: The conceptualization of space in Kwakwaka’wakw language and culture.” [Doctoral dissertation]. University of Victoria.

Ortiz, S. (1990). Simon Ortiz. In L. Coltelli (Ed), *American Indian writers speak* (pp. 103-119). University of Nebraska Press.

Pike, K. L. (1967). *Language in relation to a unified theory of the structure of human behavior.* De Gruyter Mouton.

Renker, A. (1995). Knowledge is not available to just anyone. In A. Hirschfelder (Ed.) *Native heritage: Personal accounts by American Indians, 1790 to the present*, (pp. 125 – 134). Macmillan.

Reo, N. J., & Whyte, K.P. (2012). Hunting and Morality as Elements of Traditional Ecological Knowledge. *Human Ecology: An Interdisciplinary Journal, 40*(1), 15–27. https://doi.org/10.1007/s10745-011-9448-1.

Robin, T., Burnett, K., Parker, B., & Skinner, K. (2021). Safe food, dangerous lands? Traditional foods and Indigenous peoples in Canada. *Frontiers in Communication*, *6*. https://doi.org/10.3389/fcomm.2021.749944

Rosenblum, D. (2015). “A Grammar of Space in Kwaḱwala.” [Doctoral dissertation]. University of California.

Ross, R. (2014). *Indigenous healing: Exploring traditional paths*. Penguin Group.

Roth, C. F. (2001). Names spread in all directions: Hereditary titles in Tsimshian social and political life.” *BC Studies 130*, 69–109.

Roth, C. F. (2008). *Becoming Tsimshian: The social life of names*. University of Washington Press.

Ryan, T. L. (2014). “Territorial jurisdiction: The cultural and economic significance of eulachon Thaleichthys pacificus in the north-central coast region of British Columbia.” [Doctoral Dissertation]. University of British Columbia.

Rydving, H. (2010). The ‘bear ceremonial’ and bear rituals among the Khanty and the Sami. *Temenos*, *46*(1). https://doi.org/10.33356/temenos.6940

Samuel, C. (1982). *The Chilkat Dancing Blanket*. (S. Porter, illus). Pacific Search Press.

Seguin, M. (Ed.). (1984). *The Tsimshian: Images of the past, views for the present.* University of British Columbia Press.

Shaw, P. (2001). Language and Identity, language and the Land. *BC Studies*, *13*. 39-55.

Simpson, L.B.(1999). Traditional ecological knowledge: Issues, insights, and implications. [PhD dissertation]. University of Manitoba.

Simpson, L.B. (2017). *As we have always done: Indigenous freedom through radical resistance*. University of Minnesota Press.

Smith, G.H. (2000). Maori education: Revolution and transformative action. *Canadian Journal of Native Education, 24*(1), 57-72. https://doi.org/10.14288/cjne.v24i1.195881

Smith, L. T. (1999). *Decolonizing methodologies: Research and Indigenous peoples* (1st ed.). Zed Books.

Smith, T., Koskas, & Bulkan, J. (2023). "Loved to death": Conflicts between Indigenous food sovereignty, settler recreation, and ontologies of land in the governance of Líl̓wat tmicw. *BC Studies*, *216*, 13–170.

Smythe, C. (2018). *Doing battle with the halibut people: The Tlingit, Haida, and Tsimshian halibut hook*. Sealaska Heritage Institute.

Stewart, I. J., Scardino, J., Petersen, J., Wise, A. W., Svec, C. I., Buttram, R.H., Monette, J. L., Gonzales, M. R., Svec, R., Scordino, J., Butterfield, K., Parker, W., & Buzzell. L. A. (2021). Out with the new and in with the old: Reviving a traditional Makah halibut hook for modern fisheries management challenges. *Fisheries (Bethesda)*, *46*(7), 313–20. https://doi.org/10.1002/fsh.10603.

Swiderska, K., Argumedo, A., Wekesa, C., Ndalilo, L., Song, Y., Rastogi, A., & Ryan, P. (2022). Indigenous peoples' food systems and biocultural heritage: Addressing Indigenous priorities using decolonial and interdisciplinary research approaches. *Sustainability (Basel, Switzerland)*, *14*(18), 11311-. https://doi.org/10.3390/su141811311

Taylor, J., & Kukutai, T. (2016). *Indigenous data sovereignty: Toward an agenda*. ANU Press.

Thompson, K., Hill, C., Ojeda, J., Ban, N. C., Picard, C. R., & Belgrano, A., 2020. Indigenous food harvesting as social–ecological monitoring: A case study with the Gitga'at First Nation. *People and Nature, 2*(4), 1085–1099. https://doi.org/10.1002/pan3.10135.

Thornton, T. F. (2010). A tale of three parks: Tlingit conservation, representation, and repatriation in Southeast Alaska's national parks. *Human Organization*, *69*(2), 107–118. https://doi.org/10.17730/humo.69.2.154360762413k056

Thornton, T. F. (2011). *Being and place among the Tlingit.* University of Washington Press; In association with Sealaska Heritage Institute.

Thornton, T. F., Deur, D., & Adams, B. (2019). Raven's work in Tlingit ethno-geography. *Language Documentation and Conservation*, 39.

Toniello, G., Lepofsky, D., Lertzman-Lepofsky, G., Salomon, A. K., & Rowell, K. (2019). 11,500 y of human-clam relationships provide longterm context for intertidal management in the Salish Sea, British Columbia. *Proceedings of the National Academy of Sciences - PNAS*, *116*(44), 22106. https://doi.org/10.1073/pnas.1905921116

Ts'msyen Sm'algya̲x Language Authority. (2018). *S.V. "hał=,".* Sm'algyax Living Legacy Talking Dictionary. https://web.unbc.ca/~smalgyax/.

Ts'msyen Sm'algya̲x Language Authority. (2019). *Wila sit'aatksa da̲ga̲ał*. https://www.smalgyax.ca/dagaal.

Ts'msyen Sm'algya̲x Language Authority (2014-2024). (2022a). *Sm'algya̲x Words*. First Voices. https://www.firstvoices.com/explore/FV/sections/Data/Ts'msyen/Sm%E2%80%99algyax/Sm'algya%CC%B1x

Ts'msyen Sm'algya̲x Language Authority (2014-2024). (2022b). *Ts'msyen Sm'algya̲x Language Authority Website*. https://www.smalgyax.ca/home

Ts'msyen Sm'algya̲x Language Authority. "Translating Laxga̲ltsap place names: Fluent speakers consultation." Zoom Meetings, Feb 11, 2022; Nov 28, 2022; Dec 5, 2022; Mar 3 2023.

Tuck, E., & Yang, K.W.(2012). Decolonization is not a metaphor. *Decolonization: Indigeneity, Education & Society*, *1*(1), 1–40. https://jps.library.utoronto.ca/index.php/des/article/view/18630.

Turner, N.J., Marianne, M.B., & Ignace, R.E. (2000). Traditional ecological knowledge and wisdom of Aboriginal peoples in British Columbia. *Ecological Applications*, *10*(5), 1275–1287.

Turner, N. J., & Berkes, F. (2006). Coming to understanding: Developing conservation through incremental learning in the Pacific Northwest. *Human Ecology: An Interdisciplinary Journal*, *34*(4), 495–513. https://doi.org/10.1007/s10745-006-9042-0

Turner, N. J., & Clifton. H. (2006). The forest and the seaweed. In C. R. Menzies. (Ed.), *Traditional ecological knowledge and natural Resource Management* (pp. 65-86). University of Nebraska Press.

Turner, N. J., & Thompson (Edōsdi), J. C. (Eds.). (2006). *Plants of the Gitk̲’a’ata people: ‘Nwana’a lax yuup.* Gitga’at First Nation, Coasts Under Stress Research Project, and Cortex Consulting.

Turner, N. J., Robinson, C., Robinson, G., and Eaton, B. (2012). To feed all the people: Lucille Clifton’s fall feasts for the Gitga’at community of Hartley Bay, British Columbia. In M. B. Quinlan, & D. Lepofsky (Eds.), *Explorations in Ethnobiology: The Legacy of Amadeo Rea* (pp. 324-63). Society of Ethnobiology.

Turner, N. J., Armstrong, C.G., & Lepofsky, D. (2021). Adopting a root: documenting ecological and cultural signatures of plant translocations in Northwestern North America. *American Anthropologist*, *123*(4), 879–897.

Usher, P. J. (2000) Traditional ecological knowledge in environmental assessment and management. *Arctic*, *53*(2), 183-193. https://doi.org/10.14430/arctic849

Wagamese, R. (2016). *Embers: One Ojibway's meditations.* Douglas & McIntyre.

Watkins, J. (2011). Indigenous archaeology as complement to, not separate from, scientific archaeology. *Jangwa Pana*, *10*(1), 46–62. https://doi.org/10.21676/16574923.64

Weber-Pillwax, C. (2001). What is Indigenous research? *Canadian Journal of Native Education*, *25*(2), 166-174.

Welch, J. R. (2014). Xavante ritual hunting: Anthropogenic fire, reciprocity, and collective landscape management in the Brazilian Cerrado. *Human Ecology: An Interdisciplinary Journal*, *42*(1), 47–59. https://doi.org/10.1007/s10745-013-9637-1

Whiteley, P. M. (2002). Archaeology and oral tradition: The scientific importance of dialogue. *American Antiquity*, *67*(3), 405–415. https://doi.org/10.2307/1593819

Whyman, T., Adams, K., Carter, A., & Jobson, L. (2021). Lateral violence in Indigenous peoples. *Australian Psychologist*, *56*(1), 1–14. https://doi.org/10.1080/00050067.2021.1893595

Whyte, K. P., Brewer, J. P., & Johnson, J. T. (2016). Weaving Indigenous science, protocols and sustainability science. *Sustainability Science*, *11*(1), 25–32. https://doi.org/10.1007/s11625-015-0296-6

Whyte, K. (2018). What do Indigenous knowledges do for Indigenous peoples? In M.K. Nelson & D. Shilling (Eds.), *Traditional ecological knowledge: Learning from Indigenous practices for environmental sustainability* (pp. 57-81). Cambridge University Press.

Wilson, S. (2001). What is Indigenous research methodology? *Canadian Journal of Native Education*, *25*(2), 175–179.

Wilson, S. (2008). *Research is ceremony: Indigenous research methods*. Fernwood Publishing.

Windchief, S., & Cummins, J. (2022). Considering Indigenous research methodologies: Bicultural accountability and the protection of community held knowledge. *Qualitative Inquiry*, *28*(2), 151-163.

Windchief, S., & San Pedro, T. (Eds.). (2019). *Applying Indigenous research methods: Storying with peoples and communities*. Routledge.

Wright, W. (2003). *Men of m'deek and wars of m'deek*. Gitselasu.

Wyllie de Echeverria, V. R. (2013). *Moolks* (Pacific crabapple, *Malus fusca*) on the North Coast of British Columbia: Knowledge and meaning in Gitga'at culture. [Master's thesis]. University of Victoria.

Yellowhorn, E. (2006). The awakening of internalist archaeology in the Aboriginal world." In R. Williamson & M.S. Bisson (Eds.), *Archaeology of Bruce Trigger: Theoretical Empiricism* (pp. 194-209). McGill-Queen's University Press.

Appendix.

Supplementary Tables

Sm'algya̲x Place Names

Categories:

PE: Physiographic and Ecological Description

HR: Harvested Resource

HE: Historical Event

HT: Hereditary Title

X: Category unknown or undetermined

	Place names (~alternative pronunciations)	**Morphological Analysis**	**Semantic Category**	**Description of Place**	**English Name (if applicable)**	**Source**
Place Names in *Laxgalts'ap*						
1	*Do'opsn Yaan*	Do'opsn=yaa-n ?=walk-2SG[20]	X	Forested area with clearings used for gardening at the mouth of *K̲'a̲la̲ Kwaal* river, commonly known as the Robinson Family Garden	Robinson Family Garden	p
2	*Ga̲lga̲n*	ga̲l=ga̲n container=tree	PE	Pool at the mouth of the *K̲'a̲la̲ Kwaal* where firewood is gathered (l) Current village site(q)[21]	N/A	l, q

[20] Abbreviations used in glossing: 2.SG 2nd person singular; CN connective (See: https://web.unbc.ca/~smalgyax/); CN.ATT connective attributive; CN.HYP pre-verbal connective marking hypothetical mood; CN.POSS connective indicating possession; INST instrumental; LOC locative; PL plural; PREP preposition.

[21] This is one of 3 place names that is associated with more than one location; see also (8) *kba'ats* and (56) *'Ya̲ga̲ Sa Luwi*.

	Place names (~alternative pronunciations)	Morphological Analysis	Semantic Category	Description of Place	English Name (if applicable)	Source
3	*Gan Lu Gyiimk*[22]	gan=lu=gyiimk INST=into=wipe	X	Tributary on the *K'ala Kwaal*	White River	p, q, r
4	*Ganu Xsgiik*	ganu=xsgiik trap=eagle	HR	The location of this place is not known, except as being located in *Laxgalts'ap.* Eagle traps are places where eagles are harvested for their down, used in certain dances.	N/A	p, q, r
5	*Gitk'a'ata*	git=k'a'at-a people=cane-derivational.suffix	HE, HT	Current village site which shares its name with the Gitk'a'ata people, referring to our stewardship of the watershed and the oral history of the *k'a'at* crest	Old Town	l, p, q, r
6	*Ha'lilimootk (~Ha'limootk)*	ha'li=li-mootk place.where=PL[23]-safe	HE	Largest mountain in watershed, directly north of Gavel Lake, where the Gitk'a'ata sought refuge during a great flood.	N/A	a, c, f, j, l, n, o, p, q, r[24]
7	*Hał 'Na Doo*	hał='na=doo alongside=where=opposite.side	PE	Treeline and beach on N side of Kitkiata Inlet, E of *K'ala K'a'at*	N/A	a, p, q
8	*Kba'ats*	k=ba'ats place=?	X	First pool in *K'ala Kwaal* where you fish for salmon (l) Tributary creek in *K'ala Kwaal* where salmon pool up (p)	N/A	a, l, p, q, r

[22] Matthew Bolton used the descriptive term *Wil Mooksga Aks* (wil=mooksk-a aks, where=white-CN water) in an interview for the same place.

[23] This plural marker refers to many people being safe in this place.

[24] The location of this mountain is misidentified in Gitga'ata and Reid 2011.

	Place names (~alternative pronunciations)	Morphological Analysis	Semantic Category	Description of Place	English Name (if applicable)	Source
9	*Ksi A Laaẅ*[25]	ksi=a laaẅ out=PREP trout	HR	Spot at mouth of *K̲'a̲la̲ K̲'a'at*, in front of current village site, where trout pool up.	N/A	p, q, r
10	*Ksü Gwitgwiniiwks* (*~Ksi Gwitgwiniiwks*)	ksü=gwitgwiniiwks out=owl	PE	Point directly across from the current village in OT, where owls are.[26] BE remembers an owl flying up to the window and speaking Sm̲'alyax to No'o, followed by a death in the community.	N/A	a, l, m, q, r
11	*Ksü Mask*[27]	ksü=mask out=red	PE	Place in Old Town, assumed to be a tributary with a red tinge. Details of location not known.	N/A	p, q, r
12	*Kxałg̲a̲n (~Hałg̲a̲n)*	(k=)hałg̲a̲n (place=)alongside.tree	PE	Treeline and beach on N side of Kitkiata Inlet, W of *K̲'a̲la̲ K̲'a'at*	N/A	a, l, m, p, q, r
13	*K̲'a̲la̲'aksm Edmund Patelas*	k̲'a̲la̲'aks-m Edmund Patelas river-CN.ATT Edmund Patelas	HT	The tributary of the *K̲'a̲la̲ Kwaal* where Edmund Patelas harvested fish	Backlund Creek	j, l

[25] Both Helen Clifton (p) and UVIC (q) include alternate spellings *Si A Laaẅ*. *Kts'm A Laaẅ* is also documented in q. The translations for these alternatives would be as follows: Si A Laaẅ (harvest=PREP trout) and *Kts'm A Laaẅ* (place.of=inside=PREP trout).

[26] Helen Clifton (p) identifies the point across from the OT village as *Uks Gwitgwiniiwks*, but other sources consistently use that name for Caponero Creek.

[27] This place name is also recorded as "*Wil Ksi Mask"* (wil=-ksi mask, where=out red) in Helen Clifton's place name notebook (p).

	Place names (~alternative pronunciations)	Morphological Analysis	Semantic Category	Description of Place	English Name (if applicable)	Source
14	*K'ałą'aksm Gyels*	k'ała'aks-m gyels river- CN.ATT mussels	PE[28]	Section of the *K'ałą K'a'at* river where freshwater mussels live (not edible)	N/A	j, l
15	*K'ałą Gąts*	k'ała=gąts upriver=pour	PE	Tributary river in Laxgalts'ap watershed	N/A	p, q, r
16	*K'ałą Hahaytk*	k'ała=ha-haytk upriver=repeated.action-stand.up	PE	A human-made island hosting approximately 10 longhouses near the mouth of the *K'ałą Kwaal*	Man-made Island	p, q, r
17	*K'ałą Kwaal*	k'ała=kwaal upriver=?	X	Largest river in the *Laxgałts'ap* watershed, flowing NW to SE	Quaal River	a, d, f, h, j, l, m, n, o, p, q, r, t
18	*K'ałą K'a'at*	k'ała=k'a'at upriver=cane	HE, HT	Major salmon bearing river with lake system in *Laxgałts'ap* headwaters, referring to the place stewarded by the Gitk'a'ata and the oral history of their crest	Kitkiata River	a, d, f, h, j, l, m, n, o, p, q, r
19	*K'aldaks*	k'=aldaks[29] place=?	X	N of current village site, place to gather wild currant	N/A	p, q, r
20	*K'gwąnks* ~ *Ksi Gwąnks*	k'=gwąnks place=spring ksi=gwąnks out=spring	HR, PE	Fresh water source NE side of Kitkiata inlet near petroglyph site	N/A	a, f, l, p, q, r
21	*K' k'a'at*	k'= k'a'at place=cane	HE, HT	Current village site and general territory within the watershed.	Old Town	r, t

[28] Because the name refers to freshwater mussels not considered edible, this place name is categorized as referring to a feature of the landscape rather than a species that would have been considered a 'resource' for humans to gather.

[29] This word was closely reviewed by the TSLA and is not believed to be derivative of *aks* 'water'

	Place names (~alternative pronunciations)	Morphological Analysis	Semantic Category	Description of Place	English Name (if applicable)	Source
22	*K'nu B(i)lax*	k'nu=b(i)lax place.where=moss	PE	Fresh water source across river from current village (l)	N/A	a, l, p, q, r
23	*Laxgalts'ap*	lax[30]=galts'ap on=village	HE[31]	Watershed flowing into the Kitkiata inlet, also commonly used to refer to current village site	Old Town (Watershed and present-day Village site)	a, b, c, d, f, h, i, j, l, m, n, o, p, q, r
24	*Lax'aws*	lax='aws on=sand	PE	Beach in front of current village described as "where all the tides meet" (p)	N/A	a, p, q, m, r
25	*Lax T'aam K'a'at*	lax=t'aa-m k'a'at on=lake-CN.ATT cane	HE, HT	The lake on the *K'alax K'a'at,* referring to a lake stewarded by the Gitk'a'ata and the oral history of their crest	Kitkiata Lake	l, p, q, r
26	*Lu Awta*	lu=awta into=porcupine	HE	Bend in *K'alax Kwaal* where MB repeatedly saw a large porcupine emerge	N/A	a
27	*Lu Ha'ats*	lu=ha'ats into=stump	PE	Place in river way up the *K'alax Kwaal*	N/A	l, p

[30] Both *lax* and *lax* are prenominal proclitic variants meaning 'on'.

[31] This name refers to the story of the founding of the original village, and the claiming of this watershed for the Gitk'a'ata people.

	Place names (~alternative pronunciations)	Morphological Analysis	Semantic Category	Description of Place	English Name (if applicable)	Source
28	*Ła Łaayas No'o(s)* ~ *'Na[32] Xłaayas No'os*	ła łaaya-s No'o(s) recent highbush.cranberry-s No'o(s) mother 'na=x=łaaya-s No'o(s) where=consume=cranberry-CN.POSS No'o	HT, HR	Orchard on *K'ą̲lą̲ Kwaal*	N/A	a, f
29	*Masga Aks*	mask-a aks red=CN water	PE	Tributary creek with reddish tinge on the *K'ą̲lą̲ K'ą̲'ą̲t*, upriver from the village site . May be the same as # x *Ksü Mask*	N/A	l
30	*Mą̲goonł Kwaal*	mą̲goon-ł kwaal headwaters-CN.HYP river.name	PE	Headwaters of the *K'ą̲lą̲ Kwaal*	N/A	a, p, q, r
31	*Mą̲n Txas G̲ą̲n*	mą̲n=txas=g̲ą̲n upwards=along.surface=tree	PE	A place in the upper section of *K'ą̲lą̲ Kwaal*, sometimes shallow causing one to drag canoe over dams or logs	N/A	j
32	*Na Xsoos Txeemsm*	na=xsoo-s Txeemsm POSS=canoe-CN.POSS Txeemsm	HE	The place where Txeemsm crashed his canoe against the cliffs on the W side of the *Gisi Wil Waal* (Douglas Channel) fjord, which became a large rock between *Uks Gwitgwiniiwks* (Caponero Creek) and Kitkiata Inlet perched on top of other rocks and broken pieces of cliff	N/A	i, j

[32] The TSLA reviewers also translated *'na=* as place. It is translated as 'direction, toward, side' in the Sm'algyax dictionaries we consulted. This may be a Gitk̲'a'ata dialect difference.

	Place names (~alternative pronunciations)	Morphological Analysis	Semantic Category	Description of Place	English Name (if applicable)	Source
33	*'Na Baa*	'na=baa where=run	HE	Steep flat rock in *Gisi Wil Waal* (Douglas channel) between Kiskosh and Kitkiata inlet. This rock is the centerpiece of a story where a Gitk̲'a'ata woman outran a Haida war party.	N/A	a, d, e, l, p, q
34	*'Na Wg̲an Hg̲'g̲ax*	'na=wg̲an hg̲'g̲ax where=sit.pl canada.goose	HR	W beach of Kitkiata Inlet, E-SE of *Xaa 'g̲astaa*	N/A	a
35	*'Na Xłaayas Dooł*	'na=x=łaaya-s Dooł where=consume=highbush.cranberry-CN.POSS Dooł	HT, HR	Orchard on *K̲'g̲alg̲ Kwaal*. Same location as *Ła Łaayas No'o*	N/A	a, f
36	*'Na Xmoolks Dooł*	'na=x=moolks Dooł where=consume=pacific.crabapple-CN Dooł	HT, HR	Crabapple orchard near mouth of *Xaa 'g̲astaa*	N/A	a, f
37	*Sgg̲an Bo'oxs*	sgg̲an=bo'oxs bush=pacific.crabapple (big round varietal)	HR	Grassy flatland in *K̲'g̲alg̲ Kwaal* with big round variety of crabapples	N/A	a
38	*T'oots'ibm yaan*	t'oots'ip-m yaa-n fort-CN.ATT walk-2.SG	HE, PE	Rock walls on sand flats of Kitkiata Inlet, likely those used during the Haida wars	N/A	p, q, r

	Place names (~alternative pronunciations)	Morphological Analysis	Semantic Category	Description of Place	English Name (if applicable)	Source
39	*(T')Uks Gal̲golts'a̲x*[33]	(t')uks=ga̲l-go̲lts'a̲x out.to.sea=PL-carry.on.back	X	SW point of the mouth of *K̲'a̲la̲ Kwaal* where there was a memorial pole associated with the holder of the name *Niis Na Dzuuk*	N/A	p, q, r
40	*Ts'm Ga̲ Loop*	ts'm=ga̲-loop inside=PL-stone	PE	Large pool in the *K̲'a̲la̲ K̲'a'at* for fishing salmon (any of the varieties in the river); currently with gillnet and/or rod and reel, traditionally also by spearfishing and likely dipnet	N/A	l, p, q, r
41	*Ts'm Xaa 'a̲staa*	ts'm=xaa'a̲staa inside=river.name	PE	Entrance of *Xaa 'a̲staa* where there are large crabapple orchards with sweet variety	N/A	p, q, r
42	*Ts'm Xaa Oo*	t'sm=xaa-oo inside=?–?	X	Left side of *Wil Basa̲xga Aks*, location of an older village site	N/A	p, q
43	*Uks Gwitgwiniiwks*	uks=gwitgwiniiwks out.to.sea=owl	PE	Waterfall draining from Caponero Lake into W side of Douglas Channel	Caponero Creek	a, g, l, m, q, r
44	*Uks K̲'oop'n*	uks=k̲'oop'n out.to.sea=uvula	PE	Stump at mouth of *K̲'a̲la̲ K̲'a'at* river that looks like a uvula, used for directional purposes and anchoring fishing nets.	N/A	a, l, p, q, r

[33] In a recent conversation, Clifton indicated that the variation in this name is related to dialect differences. The t' prefix in *t'uks* comes from families with Kitkatla grandparents, who say "t'uks" while other Gitk̲'a'ata say "uks." – Helen Clifton p.c. 2023). The Gitk̲'a'ata place names database also includes an alternate spelling, ‘Uksmaxsgulgalgaltsax as a separate place name, but our research indicates that this is the same place. Speakers suggested it would be spelled *Uks Aksm Ga̲lg̲olts'a̲x*, uks=aks-m ga̲l-g̲olts'a̲x (out.to.sea=water-CN PL-carry.on.back).

	Place names (~alternative pronunciations)	Morphological Analysis	Semantic Category	Description of Place	English Name (if applicable)	Source
45	*Uks Lax Kyoox*[34]	uks=lax=kyoox out.to.sea=on=grass	PE	Field with *k̲'a̲pk'oop* (pear-shaped bunchberry) at a bend in the *K̲'a̲la̲ Kwaal*	N/A	a, l, p, q, r
46	*Wil Basa̲xga Aks*	wil=basa̲xk-a aks where=divided-CN water	PE	The main divide in the *K̲'a̲la̲ Kwaal* where the river flowing from Gavel Lake meets the *K̲'a̲la̲ Kwaal.*	N/A	a, l
47	*Wil Da̲x Duulxk*	wil=da̲x-duulxk where=PL-stuck[35]	PE	Shallow first corner above the houses on the Kitkiata River, creating rapids in the *K̲'a̲la̲ K̲'a'at* during the tidal change.	Rapids in the *K̲'ala K̲'a'at*	p, q, r
48	*Wil Doo Gyet*[36]	wil=doo-gyet where=lie.pl-people	PE	Graveyard behind and across from current village site	N/A	j, l
49	*Wil Luunda 'Waada Aks*	wil=luunda='waada aks where=back.and.forth=reach water	PE	Where the rivers meet the tide in the *K̲'a̲la̲ Kwaal,* potentially referring to one of the deep pools encountered traveling upriver, where salmon gather in fall	N/A	q, r
50	*Wil Mooksga Aks*	*wil= mooksk-a aks* where=white-CN water	PE	Descriptive term for *G̲a̲n Lu Gyiimk* (White River), a tributary of the *K̲'a̲la̲ Kwaal*		a

[34] This place name is also used to describe other grassy fields in Old Town.

[35] 'stuck' in the sense of unable to go further

[36] This place name is also applied to an ancestral burial ground in a different location.

	Place names (~alternative pronunciations)	Morphological Analysis	Semantic Category	Description of Place	English Name (if applicable)	Source
51	*Wil Tgi Sasoo*	wil=tgi=sasoo[37] where=downward=rattle	X	Southernmost point of mouth of Kitkiata Inlet used for cache storage, "a place to hide relics"	Helen Point	p, q, r
52	*Wil Üüsga Aks*	wil=üüsk-a aks where=stink-CN water	PE	Waterfall west of Helen Point, source of fresh water	N/A	a, f, h, l, m, p, q, r
53	*Wudziks K'as̲k'oos*	wudziks=k'as̲k'oos almost[38]=crane	PE	Water ravine in sand flats in Kitkiata Inlet where the cranes gather	N/A	a, l, m
54	*Wudziks Stii'ml*	wudziks=stii'ml almost=?	X	Fresh water source on the first bend in the *K̲'g̲al̲g̲ K̲'a'at*, north of the current village in OT	N/A	a, f, i, l, m, p, q, r
55	*Xaa 'g̲astaa*	(unknown)	X	The river near the mouth of the *K̲'g̲al̲g̲ Kwaal* at the N end of Kitkiata Inlet	N/A	a, d, f, j, l, p, q
56	*Xg̲ Ga Loop*	xa̲=g̲a-loop[39] ?=PL-stone	PE	A deep rock pool for fishing in the *K̲'g̲al̲g̲ K̲'a'at*	N/A	p

[37] In a recent conversation, Helen Clifton indicated that she believes *sasoo* does not mean 'rattle,' but is an ancient word that is now untranslatable. (Clifton 2023)

[38] The word *wudziks* is an archaic form, not commonly used today.

[39] The first form in this word may be *Txg̲*=, meaning 'entire' or 'place.where'.

	Place names (~alternative pronunciations)	Morphological Analysis	Semantic Category	Description of Place	English Name (if applicable)	Source
57	*'Yaga Sa Luwi* ~ *'Yaga Ksi Luwi*	'yaga=sa-luwi downwards=harvest=alder 'yaga=ksi-luwi downwards=out=alder	HR	Point in *K'ala Kwaal* River (p) a bay north of Kitkiata Inlet on the W side of Douglas Channel (q)[40]	N/A	p, q
58	*'Yaga Ksi Łoo*	'yaga=ksi=łoo downwards=out=landslide	PE	Landslide in the *K'ala Kwaal*	N/A	a
Place Names outside of *Laxgalts'ap*						
59	*Gisi Walwaal* ~ *K'nisi Walwaal*	gisi=walwaal along=dripping *k'=nisi=walwaal* place=downriver=dripping		Douglas Channel	Douglas Channel	a, o,p, r, t[41]
60	*Gitank'a'at*	git=n=k'a'at people=where=cane		The village site on the *Ksi'gwin K'a'at* river.	Fiddler Creek Village Site	s

[40] This place name is associated with two different places in the sources we consulted. It is not clear whether it applies to both places or just one of the two.

[41] Other documented alternate spellings for this place include Gisiwulwal; Gisiwulwil; Gisi Wul Wal (Gisi Wil We'el); Gisiwulwal; Gisi wul wal; Gisi wul wel; K'nisiwulwal and Gyisi 'wilwaal. Another name for this waterway mentioned in p.c. with Matthew Bolton and Helen Clifton is *Gisi Xamu*, with unknown translation. Authors speculate that *Gisi Xamu* is an older name, and that *Gisi Walwaal* is a newer term for the Douglas channel that has potentially derived from an adjacent hunting ground *K'nisiwalwaal* (t).

	Place names (~alternative pronunciations)	Morphological Analysis	Semantic Category	Description of Place	English Name (if applicable)	Source
61	*Ksigwin K̲'a'at*	ksi=gwin[42]=k̲'a'at out=?=cane		A tributary of the upper Skeena (Near Cedarvale) where the Gitk̲'a'ata lived.	Fiddler Creek	l, s
62	*Ksyen K̲'a'ata*	ksi=yeen k̲'a'at-a out=fog cane-CN		Alder Creek A tributary on the Lower Skeena where the Gitk̲'a'ata established a village after Temlaxam migrations.	Alder Creek	t
63	*Kxeen*	K=xeex place=foam[43]		Modern day city of Prince Rupert	Prince Rupert	Common knowledge
64	*L̲ax Kxeen*[44]	l̲ax=k=xeex on=place=foam		Kaien Island and associated ancestral village sites	Kaien Island Prince Rupert	Common knowledge
65	*'Lii k̲'an t'oo*	'lii=k̲'an=t'oo on=over=lie.down		Steep cliffs in Grenville channel near Hartley Bay, North East side, that funnel bad winds.	N/A	a, j

[42] *gwin=* in present day Sm'algyax means 'towards', but in Gitksan, means 'fresh water' (*gwanks* in Sm'algyax). As a place in Gitksan territory, from a time when the Gitk̲a'ata were still living among the Gitksan, the place name likely retains this pronunciation.

[43] There are several interpretations of this word. Some say also *xeex* also means 'skunk'.

[44] *l̲ax=* appears in words for islands. *Kxeen* is used for the modern day city of Prince Rupert and *L̲ax Kxeen* refers to Kaien Island.

	Place names (~alternative pronunciations)	Morphological Analysis	Semantic Category	Description of Place	English Name (if applicable)	Source
66	*Sgagyiis*	sga=gyiis across=pass.by		Previous name for Hartley Bay	Hartley Bay	d From H. Clifton's notes (2017), Informant: Lewis Clifton (Ya'as)
67	*Txałgiiw*[45]	? unknown		Current name for Hartley Bay	Hartley Bay	Common Knowledge

Notes:

1. See Figure 11 for location of place names, however place names are not precisely cross referenced in agreement with Gitga'at Oceans and Lands Department (GOLD). Precise points on a map are held in a GOLD database.

2. The names in this table are drawn from interviews for this research, community documentation compiled prior, and common knowledge. Cited original research represents either the first time the names were shared with the lead author, or when significant knowledge was shared about a place name that is not commonly known. See Table 2 for a list of the knowledge holders that contributed to the place name research compiled here. See references cited for this appendix for full list. All *Laxgalts'ap* place names are recorded in a community database with full attribution. See below for a list of sources.

[45] Also spelled with a short vowel in the second syllable: *Txałgiw*.

Sources cited

Old Town Place Name Documentation: Interviews and Personal Communication

a. Bolton, Matthew, personal communication to Spencer Greening, 2017.

b. Bolton, Phyllis, & Bolton, Matthew. “Gitga'at Old Town Project Interviews.” Interview by Spencer Greening & Daisy Rosenblum. July, 2017.

c. Clifton, Arnold, personal communication to Spencer Greening, 2018.

d. Clifton, Helen, personal communication to Spencer Greening, 2019.

e. Clifton, Henry, personal communication to Spencer Greening, 2016.

f. Dundas, Elizabeth, personal communication to Spencer Greening, 2017.

g. Eaton, Isabelle, & Eaton Tony, personal communication to Spencer Greening, 2016.

h. Hill, Ernie Jr., & Hill, Cameron. “Gitga'at Salmon Stream Project Interviews.” Interview by Spencer Greening. 2015.

i. Reece, Sarah, personal communication to Spencer Greening, 2017.

j. Ridley, Clyde (Henry), personal communication to Spencer Greening, 2018.

k. Ridley, Fred, personal communication to Spencer Greening, 2018.

l. Ridley, Harvey, John Pahl, Allan Robinson, Clyde (Henry) Ridley, George Clifton, & Matthew Bolton. “Gitga'at Salmon Stream Project Interviews.” Interview by Spencer Greening. 2015.

m. Robinson, Allan, & Bolton, Matthew. “Gitga'at Old Town Project Interviews.” Interview by Spencer Greening & Daisy Rosenblum. July, 2017.

n. Robinson, Violet (Tina), & Clifton, Ruby. “Gitga'at Old Town Project Interviews.” Interview by Spencer Greening & Daisy Rosenblum. July, 2017.

Written Documentation Consulted

o. Clifton, Albert, & Clifton, Helen. “Gitga'at traditional use and occupancy interview 14.2.” Interview by Richard Inglis. 2014.

p. Clifton, Helen. “*Helen Clifton's Gitga'at place name notebook,” (ongoing)*. Informants: Johnny Clifton, Archie Dundas Sr., Jimmy Robinson. Hartley Bay, BC.

q. Gitga'at First Nation & Mike Reid. “*Gitga'at place names mapping database,*” Gitga'at First Nation. Hartley Bay, BC. 2011.

r. Marsden, Susan. *The Gitk’a’ata, their history, and their territories.* Hartley Bay, B.C.: Hartley Bay Band Council and Gitga’at Lands and Resources Stewardship Society, 2012.

s. Albright, Sylvia. *Archaeological evidence of Gitksan and Wet’suwet’en history*. Hazelton, B.C.: Self-Published. 1987.

t. Barbeau, Marius & William Beynon. 1915-1957. Northwest Coast Files. Marius Barbeau Collection, Canadian Museum of History, Gatineau, Quebec.

Place Name Knowledge Holders

List of knowledge holders who shared information about *Laxg̲alts'ap* with the first author for this study. All have deep connections and lived experience of *Laxg̲alts'ap*, having spent time in *Laxg̲alts'ap* in the past and today to fish, hunt, gather, and be on the land.

Knowledge Holders	**Relationship to First Author**
Bossy Bolton	Elder, Mentor
Matthew Bolton	Elder, Mentor
Phyllis Bolton	Elder, Mentor
Albert Clifton	Elder, Mentor, Relative, Clan Chief
Arnold Clifton	Elder, Mentor, Relative, Clan Chief
George Clifton	Elder, Mentor, Relative
Helen Clifton	Elder, Mentor, Great-Great Aunt
Henry Clifton	Elder, Mentor, Relative
Ruby Clifton	Elder, Mentor, Relative
Elizabeth Dundas	Elder, Mentor
Isobel Eaton	Elder, Mentor, Relative
Tony Eaton	Elder, Mentor, Relative
Cameron Hill	Mentor, Relative
Ernie Hill Jr.	Elder, Mentor, Relative, Clan Chief
John Pahl	Elder, Mentor, Grandfather
Sarah Reece	Elder, Mentor
Ronald Reece	Elder, Mentor, Relative
Clyde Ridley	Elder, Mentor, Relative
Harvey Ridley	Elder, Mentor, Relative
Fred Ridley	Elder, Mentor, Relative
Allan Robinson	Elder, Mentor, Relative
Violet (Tina) Robinson	Elder, Mentor, Relative