

# DamXan gud.ad t'alang hllGang.gulXads Gina Tllgaay (Working together to make it a better world)

Kii'iljuus Barbara Wilson, Haida Nation, Simon Fraser University

## **Abstract**

*This article is a compilation of my thoughts based on interviews with the (coastal) village residents of Skidegate, Haida Gwaii. I asked, How can we make our communities healthy and able to withstand the rising winds, waters, more extreme temperatures, and droughts, all of which are related to climate change? How can we use our ancient kil yahdas (spoken laws) to empower our Nation to uphold our values of Yahguudang (respect), Ista ad isgid (reciprocity), Gud 'Laa (consensus), Tll'yahdah (make things right), and 'Laa guu ga kanhlln (stewardship) to create a safe, healthy planet, including the ocean, for present and future generations? Study participants identified the need for more education on climate change impacts and the reinvigoration of ancestral laws. Colonization is discussed throughout this research because of the impacts it has had and continues to have on our life ways. The removal of Canadian legislation, such as the Indian Act, Species at Risk Act, and Fisheries Act, and the revitalization of ancient laws lived for thousands of years, which taught the Kuuniisii (the ancestors) to live respectfully with all aspects of the earth, is needed. These ancient laws offer respect and interdependence, as well as control over our Nation and other nations collectively. Currently, Indigenous communities are facing ongoing colonization while attempting to address the impacts of climate change. Reinfusing our kil yahdas (spoken laws) and kuuya (precious things or values) is important for rebuilding and maintaining healthy and resilient communities and strong governance. We hope that this reanimation will reduce the impacts of climate change, especially on our ocean.*

## **Résumé**

*Cet article rassemble les réflexions inspirées d'entrevues menées dans le village côtier de Skidegate, dans les îles Haida Gwaii, pour répondre aux questions suivantes : « Comment pouvons-nous assurer la santé et la résilience de nos collectivités devant l'intensification des vents, la montée des eaux, les températures extrêmes et la sécheresse, tous des problèmes dûs aux changements climatiques? Comment pouvons-nous faire appel à nos anciennes kil yahdas (lois orales) pour donner à notre Nation le pouvoir de défendre nos valeurs, c'est-à-dire Yahguudang (respect), Ista ad isgid (réciprocité), Gud 'Laa (consensus), Tll'yahdah (réparation) et 'Laa guu ga kanhlln (responsabilité écologique) pour faire de la planète, et de l'océan, des endroits sûrs et sains pour les générations présentes et futures? » Selon les participants à l'étude, nous devons augmenter la sensibilisation aux changements climatiques et revitaliser les lois ancestrales. La présente recherche aborde aussi le sujet de la colonisation, vu ses répercussions passées comme présentes sur notre mode de vie. Certaines lois canadiennes sont dépassées, comme*

*la Loi sur les Indiens, la Loi sur les espèces en péril, et la Loi sur les pêches, et il faut redonner leur juste place aux anciennes lois millénaires, qui ont enseigné aux Kuuniisii (les ancêtres) à vivre en harmonie avec la Terre dans sa globalité. Ces lois anciennes célèbrent le respect et l'interdépendance et permettent à notre Nation, et aux autres Nations collectivement, de contrôler leur destin. À l'heure actuelle, les Autochtones subissent toujours la colonisation et doivent en plus s'adapter aux changements climatiques. Nous devons réintégrer nos kil yahdas (lois orales) et nos kuuya (valeurs ou choses précieuses) pour rebâtir et conserver la santé et la résilience de nos communautés, de même que pour en solidifier la gouvernance. Nous espérons que cette revitalisation atténuera l'impact des changements climatiques, particulièrement sur notre océan.*

*Keywords:* tll'yahdah (*make things right*), kil yahdas (*spoken laws*), yahguudang (*respect*), climate change, decolonization, *Indian Act*

**Mots-clés :** réparation, lois orales, respect, changements climatiques, décolonisation, *Loi sur les Indiens*

## Gina Gansda Suu (Introduction)

With increased evidence of climate impacts globally (Bush et al., 2014; Kolbert, 2015) and the rising cost of energy (Jang, 2015), First Nation communities in Canada and other Indigenous communities around the world are faced with the challenge of minimizing their energy demands and carbon footprint with limited financial capital to implement both traditional and new technologies. This is particularly acute in remote (coastal) Indigenous communities which experience disproportionate levels of impact from rising waters, lack of food security, and poverty (United Nations [UN], 2009). First Nations communities bear the cost and legacy of fossil fuel intensive energy sources, such as diesel, oil and coal, and constrained economic opportunities (Mackey & Strathdee, 2015). Knowing that emitting carbon dioxide and methane into the atmosphere has caused an imbalance, we must do our part to assist Mother Earth's attempt to tll yahda (*make things right*).

Haida knowledge and perceptions of climate change impacts and solutions on XaaydaGa Gwaay.yaay (*Haida Gwaii*), British Columbia, Canada are examined in this paper. Specifically, my research addresses the following research question: How can we make our communities healthy and able to withstand the rising winds, waters, more extreme temperatures, and droughts, all of which are related to climate change?

I surveyed Haida stories and the knowledge held by the residents of HI Gaagilda Llnagaay (Skidegate Village) to achieve the following: 1) document traditional knowledge of climate change, reflected in words and stories; and 2) evaluate local understanding of the carbon footprint concept.

This study weaves together research on and knowledge of Haida governance, laws, and education within the urgent context of climate change and ongoing colonization. It is premised on one personal and pivotal goal: How can we make a difference? In recent years, I have observed concerning impacts from human-caused climate change. Snowfall has decreased or melted earlier each year, and summers are dominated by hotter temperatures, impacting our rivers and forests, as well as the occupants of these ecosystems. The ocean, our main source for food, is under threat from warmer temperatures, overharvesting, the arrival of invasive species, and the return of extirpated mammals, such as sea otters. The impacts of climate change are severe and sometimes feel irreversible.

I write most of this work in the first person. I am a mother, grandmother, great grandmother, aunt, cousin, and *k'uuljaad Xaayda* (*Haida matriarch*) of the St'awaas *Xaaydagaay* (*Sawhet Owl People/Eagle Clan*) of HIKinul Kaahlil (Cumshewa Inlet). Of my 78 years, I have only lived 17 years away from my home islands of *Xaayda Gwaay.yaay* (Haida Gwaii, known as Queen Charlotte Islands between 1787 and 2010), five of which were to complete my master's degree, from 2014 to 2019.

The Haida Nation is sovereign and has never surrendered our rights and title to our home. When I refer to “national” in my writing, I am referring to the Haida Nation. When referring to the colonial state, I speak of Canada or the federal or provincial governments.

### Xaayda kil (Haida Language)

Like many Indigenous languages, *Xaayda kil* (*Southern Dialect*) and *Xaad kil* (*Northern Dialect*) were disrupted by colonial education. Today, we are actively pursuing a revival of both dialects through mentor–mentee projects, stories, songs, dances, and language immersion. One avenue for learning is the Skidegate Haida Immersion Program (SHIP). The elders attend each weekday and concentrate on recording, explaining/teaching, and revitalizing *Xaayda kil*. Throughout my research, *Xaayda kil* is included as much as possible to honour the knowledge carried in the words. *Xaayda kil* is an isolate, with no connection to any other language in the world. All Haida language included in this research is in *Xaayda kil*, except for northern place names, which are in *Xaad kil*.

Since the SHIP was first formed in 1998, elders have been working continually, gathering and recording knowledge while developing the orthography to better reflect the sounds that resonate in our language. At first the elders, fluent in our mother tongue and English, struggled to resolve why many spoke the words or phrases with slight variations even when they were being used in the same context. After discussions and looking at where their mothers originated from, they realized that there are many distinct dialects. They concluded that, due to the many years of being isolated from each other, just as our language is an isolate, the dialects evolved from the same isolation. With *Kilgudang* (*arranged*

marriages) and other legal functions, such as 'waahlGahl (*the final step in making an action or intellectual property legal*) and 'Waahlin (*an apology feast*), the language's foundation stayed the same, but its details varied. The elders' conclusion challenges what the people were led to believe from yaatsXaaydaGa (*Iron men's*) writings. The present population of HlGaagilda Llnagaay and Gaau originally lived in the ancient villages on all the coasts of Xaayda Gwaay.yaay. This explanation makes sense. Our ancestors have occupied our homeland since it was light then, and yet dark (Swanton, 1905a).

The published glossary and various recordings of words, phrases, and meanings show that Xaayda kil has developed through lived and observed experiences on the lands and the waters. The knowledge of harvesting cycles has resulted in a natural calendar that is inherently connected to this place.

The old ones with an ancient knowledge understood the multi-levels of knowledge buried in specific words and phrases in Xaayda kil and Xaad kil. In my father's last years, he would attempt to explain to me about the deeper meanings behind a phrase in Xaayda kil. The idea wasn't just the words that were spoken but the knowledge that was triggered when these certain phrases were said and acknowledged, and certain actions taken by the people of the village. An example of this is sk'awGan Gaalang skaasda, a phrase that describes the time when the colour of salmonberries changes from green to red or golden, a transformation that happens overnight. This change indicates that it is time to get ready to go to the west coast to catch spring salmon passing through our waters. The meanings behind the words spoken bring a vision of salmon swimming at night and the phosphorescent light trail they leave behind them. This phrase indicates the connection between the land and the ocean happenings. Another indicator connected to the salmonberries is earlier in the year: When the leaves and flowers first start unfurling/blooming, the halibut are in the inlet, but their flesh is blue. This means they need to eat to fatten up. When the blossoms become green berries, it means the halibut are plump enough to harvest. I wonder what other precious knowledge pieces have been lost because of forced disruption that prohibited the passing on of our language and life ways?

### Personal Observations and Case Study

This research also draws on my personal observations about environmental changes in Skidegate. The world has shifted so significantly with a changing climate. We have adapted as we can, but now we are at a place where, even though we are resilient, it may not be enough. As Ocean people, our food sources have been impacted, especially in Xaana Kaahlii (Skidegate Inlet) where we live. It is critical to look at what is happening and how quickly it is happening to understand the urgency of changing our use of fossil fuels and decreasing our contributions to the global carbon footprint.

## Xaayda (Ocean People)

We are Ocean people. Over the deep time when XaaydaGas Chii' akaatl' lxa (*Our ancestors first came out of the ocean*) to rest, Tllguuhlga Gan Xaayda Gwaay.yaay (*Had no place to rest as the world was covered with water*) (Swanton, 1905a, p. 110), the one with hair like a seagull, gave Nangkilslas two pieces of stone and told him how to put them into the water and occupy our lands; there were no trees available to build houses (Deans, 1895 Fedje & Mathewes, 2005). Other stories talked about our kuuniisii (*ancestors*) coming out of the waters and taking off their outer layer, just as one takes off their coat, only putting it back on to go back into the ocean to eat (GwaaGanad, personal communication, 2003). It was “light then, yet dark, they say” (Swanton, 1905a). In 1895, Deans published stories he gathered from our kuuniisii, telling how our physical human bodies have changed from walking on fours to finally being upright.

Prior to foreign epidemics, our population has been estimated to be more than 25,000. Foreign diseases brought from abroad severely impacted our population starting in the 1400s (Boyd, 1999; Gibson, 1992). Colonization has also impacted our lands, people, and governance.

## DaaGang.nga (Expression When Things Are Really Bad)

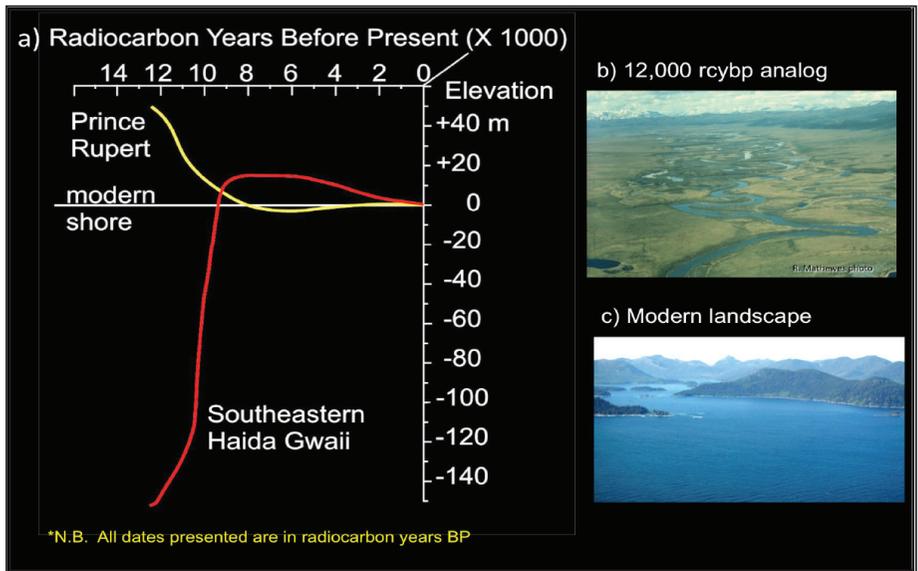
We have survived through a multitude of climate changes over thousands of years. Our stories tell us of floods, ice ages, droughts, and warmer weather. In “Haida Gwaii Human History and Environment from the Time of Loon to the Time of the Iron People,” Fedje and Mathewes (2005) described a time almost seventeen thousand calibrated years ago when the waters were lower by 140 +/- metres and then started to rise (Figure 1). The waters changed drastically and reached nearly 20 metres above the shoreline that is known today. These changes happened in a relatively short period of time, and Haida stories, as well as scientific accounts, describe these changes and how our kuuniisii adapted.

Deans (1895) recorded stories of our kuuniisii on Xaayda Gwaay.yaay in the 1800s. These stories describe a time when the weather was much warmer but was starting to get much colder (see also Deans, 1895, as cited in Fedje & Mathewes, 2005, p. 126, and Wilson, 2005). Other stories gathered by Deans (1895) speak of another time when the climate was much warmer and the insects were bigger and their bites killed the people. The ancestors used caves in rocks as shelters. Historically, they also dug holes in the soil and covered themselves with branches or skins (Deans, 1895), and the lands were similar to the steppes found in the northern areas of the world (Mackie & Acheson, 2005; Fedje & Mathewes, 2005).

Another story gathered by Deans (1895) talks about Kalga Jaad (*Ice Woman*) leading our people away from tllgaay 'waadluXan kalga gan (*the earth was frozen*) or 'waadsGwa / 'waadswa GaaGwii un kwaan gang (*Ice Age—lost way over there*)

in a time period before and up to the last Ice Age) as the people descended on our lands. Fedje et al. (2005) described findings in the intertidal archaeological site of Kilgii Gwaii (also known as Ellen Island) from the time that the waters were rising. It appears that our ancestors may have been using skin shelters for camping, as this area was a camping site. My observations led me to hypothesize that wooden stakes had a specific use for a skin tent, which would have enabled the people to be mobile ahead of the rising ocean and still have shelter. This could verify that in deep time humans existed on these Islands and the resilience of our ancestors (Fedje et al., 2005).

In the late 1800s, the people from the southern villages who survived smallpox and other diseases gradually gravitated to HIGaagilda Llnagaay because of the religious organizations promising they would be saved. Understanding that our id kunGasda ga xaaynang.ngas (*those living before us*) had experienced or heard of deaths of many hundreds and thousands of our relatives from as early as the 1500s, and definitely during the 1700s and 1800s, it would make sense that the survivors would be looking for a way to be saved. My family was the last group to move from our village of HIKinul Llnagaay (Cumshewa Village) into HIGaagilda Llnagaay.



Note. Change in sea level rise and topography of Haida Gwaii that is included in the story of Raven, shown here with the following: (a) radiocarbon dating; (b) photos of what Haida Gwaii probably looked like; and (c) photos of what it currently looks like. Reprinted with permission from *Haida Gwaii Human History and Environment from the Time of Loon to the Time of the Iron People* (Fedje & Mathewes, 2005).

Figure 1, Change in Sea Level Rise and Topography of Haida Gwaii

Families holding personal knowledge and inheriting responsibilities for certain lands and a portion of the ocean around their own villages (Elders of Skidegate and the Skidegate Haida Immersion Program [SHIP], 2016, p. 168) made serious decisions when moving to this village because it meant that they had to *k'uusGaw*. This meant families giving up power and living under the Hereditary leader of the village they moved to.

This decision to move from our original villages facilitated the imposition of new colonial laws, such as the *Indian Act*, *Fisheries Act*, and potlatch ban, without our consent. These laws drove our own laws underground. My *xaadGa* (father), Niis Wes of *Gakyals KiiGawaay* (*those born at Gakyals*), along with the *kuuniisii* of the St'awaas *XaaydaGaay*, tell me that because keeping our word was important for upholding our oral laws, they worked very diligently to live by the new laws put on them. As Alfred Adams said, "Without any treaty; without being conquered; we have quietly submitted to any laws made for our government, and this we intend to be our course" (Haida Laas, 2010, p. 7). When deciding to move into another clan's territory, protocol would require negotiations for food, fibre, medicines, and spiritual needs, as well as payment to the head 'Laana AwGa.

### Huu tllguu hll 'waa gan (Methodology)

*Xaayda kil yahdas gidGang 'la kilGuhlga dii huu tllguu hll 'waa gan (Haida law told me how to do it).*

The *Xaayda kil yahdas* I use in this paper is Ad kyanang *kunGasda* (*to ask first*). One cannot presume that it is alright to do something, whether it is doing something to another or going on to another's territory, without getting permission first. Depending on what you wish to do, the type of payment must be settled between the stewards of the lands, waters, and spaces prior to any entry through bodies of water or land, or before any other actions, such as gathering for your needs. Prior to European laws being put upon us, *this* was the law everyone understood and lived by. It would have been settled with the 'Laana AwGa, or in the case of my proposed survey, with the village council or administration. In this spirit, discussions were necessary to ensure my proposal was grounded in relevant issues and that there was no misunderstanding in the questions for my proposed survey.

The underpinnings of my research are situated at the centre of Haida language, governance and laws, and life ways within the urgent context of climate change. I looked to *Xaayda Kil Yahdas* to guide my research and process. In my literature review and research, I asked, what can we do to lower our carbon footprint, provide safe and healthy homes, and make homes affordable? Throughout this article, I provide information, evidence, and research that suggest we look to the past—our old ways of doing things—o create a future that we want. As I outlined above, my *id kunGasda ga xaaynang.ngas* (*those living*

*before us*) were resilient and found unique and ingenious solutions to address environmental changes. I believe that we can (and must!) do this again.

### ChinGaang Ad kyanang kunGasda (Seeking Consent and Witness)

Reflecting on the United Nations Declaration on the Rights of Indigenous People (UNDRIP, 2007) and the requirement to have free, prior, and informed consent, and previous research amongst the Haida, my need for consultation with my community, started prior to writing the research goals. Keeping this in mind, it was necessary for me to include consultation with Skidegate administrative staff before the research began. Prior to settling on the final version of my questionnaire, I approached the Skidegate village administration to discuss the intention and content of my proposed questionnaire. Discussions were necessary to ensure my proposal was grounded in the reality of daily issues and the general feelings among Skidegate residents about surveys. The Skidegate Chief Administrator, Barbara Stevens, and one of her staff, Dana Moraes, met with me. Discussion took place about the kind of information I wanted to gather. Did I want to visit each home, or could this be better accommodated by a workshop setting? How would I ensure privacy? Terminology was discussed and opinions on whether this or that would offend someone was challenged and resolved. At this point, never having conducted a survey myself, the questionnaire consisted of 101 questions, and there are approximately 360 homes in the village. My intention was to sample 10% of all homes in HlGaagilda Lnagaay. Simon Fraser University's (SFU) Office of Research Ethics (ORE) required completely unbiased questions, but I felt it was necessary to look at possible reactions of the community members in light of past negative experiences with other surveys and researchers (Borrows, 2010). For people who have lived in reserves and have been viewed as species to be studied and exploited, research has left a distaste in our mouths. Keeping this in mind, using respectful, unfettered English, and providing information which explained the purpose and hoped-for results needed to be planned as part of the process. A lesson in our laws from my father is to always daw in (*to have witnesses to validate my actions*). For this questionnaire and following Xaayda Kil Yahdas (Spoken Haida Law), I opted for a workshop instead of door-to-door interviews.

The aim of my questions was to understand the community's level of knowledge about climate change. I was also looking for thoughts about possible options for making our carbon footprint smaller. The community workshop also provided information on the quickly changing climate. Throughout, I kept Xaayda Kil Yahdas as my guiding values. Gudgii t'aalang giida (*we all share*) in light of the grant funding and educational opportunities I have been honoured to receive, I now share and will continue to share my learnings and my research results.

In this case, for my survey, I practiced Gud gad iis (*coming together to discuss*) and Aagang.Guu (*consensus*). I ensured that everyone taking part in answering

my questionnaire heard the same questions at the same time, including an explanation of what each question meant if they needed clarification. The people in attendance were ChinGaang (*invited to witness*) as well as take part in my research. When a Kilslaay attends a 'WaahlGahl (*potlatch*), they are invited as witnesses for the proceedings of the opposite clan's business. Kilslaay understand that they are there as witnesses to ensure everything is done legally as the host has discussed with their clans and the witnesses prior to the potlatch. What is to be witnessed needs to be understood and agreed upon prior to the potlatch. Once the issue has been brought to the legal conclusion, it is the responsibility of witnesses to keep the record straight and carry the message of what was legalized and/or tll yahda (*made right*). Once tll yahda has been completed, the issue is finished. No one can bring it up again.

### HIᑭang.gulxaay.yang Guudluu (Work All Together)

As I have begun to describe above, in June 2017, I held a workshop in HIᑭaagilda Llnagaay, with the agreement and permission of 25 Elders, adults, and youth, to assess Skidegate residents' level of knowledge about climate change and to provide up-to-date information on housing, energy, transportation, funding, and food security in light of climate change impacts on XaaydaGa Gwaay.yaay. We gathered in the Skidegate Community Hall. The afternoon included storytelling, discussions, listening, sharing ideas, eating together, and gathering our learnings. A written questionnaire was distributed. The responses are reflected in my data for this research. The situation called for a sense of humour, and this was displayed throughout the session by the principle investigator (PI) and participants. Humour, consensus, reciprocity, and building resilience are important parts of how our ancestors worked to find good decisions.

The start of the workshop was over the lunch hour. A full meal was laid out for the participants and served prior to the actual work of the survey and presentations. This was done for two reasons. First, Haida protocol requires any work accomplished to be accompanied by the sharing of a meal, showing agreement, and having witnesses in attendance. Second, some of the persons attending may have had health reasons for needing to eat at regular intervals. I wanted to be respectful of that. Once lunch was completed, the workshop opened with introductions of all participants and volunteers to each other. Tickets to draw door prizes were given to each participant. Haida protocol requires that I honour people by giving something in return for what it is they have given to me or witnessed. Refreshments were available throughout the entire workshop. Although the Office of Research and Ethics at SFU instructed that no monetary payments be made, Xaayda kil yahdas also governs my actions. Before and during the workshop, tickets for door prizes were drawn. The order of doing business or making something legal usually happens first in the Haida way. Once completed, a meal is served. When all are in gina waadluxan gud 'laa

(*agreement*), the business is concluded. Instead of the usual order of business according to the Haida way, we did it this other way, with the meal first, and everyone was satisfied with the process.

During the workshop, I guided the people through each section of the questionnaire by reading the questions and giving participants sufficient time to record their answers on the hard copies of the questionnaire. Two presentations were given, discussions and explanations were provided when needed, and answers to the questions asked by participants were given. Volunteers were situated in areas where they could hear and record any questions.

Large poster-size papers were used to display the questions that I had permission from SFU's Office of Research Ethics to ask. Explanations were made when required.

After the conclusion of the initial workshop, an opportunity was provided through Swiilawiid Sustainability Society to speak on climate change and discuss options for making a difference in our world. Additional workshops took place in HIGaagilda Llnagaay and Gaw Tlagee (Masset) in 2017. No questionnaires were distributed at these sessions, but these gatherings provided another opportunity for youth and other community members to learn about local climate impacts and discuss options to address climate change. In this initial workshop and two other workshops, I was invited to present information on climate change and discuss options to make our carbon footprint smaller. The two latter workshops were held over two days. The first one was for all island women in Port Clements, and the other was co-hosted by Swiilawiid and the Council of the Haida Nation. Both focused on climate change and energy options for all island residents. Since these workshops, people have been anxious to start finding options to address climate change that will work for our communities and individuals. The Council of Haida Nation has one person to look at options; as an elected member of the Council, I sit in this committee as part of my portfolio.

## Questionnaire

The questionnaire I provided in the initial workshop consisted of 13 open-ended questions. The list of questions was approved by the Skidegate Band Council and the SFU ORE. In March 2019, ORE extended approval until my thesis defence in April 2019.

## Data Analysis

I summarized and synthesized the results from each question both quantitatively and qualitatively. I transcribed the answers provided by each respondent and synthesized the results by broad themes.

## Educational Presentations

During the workshop, the first presentation was accompanied with a PowerPoint presentation which showed the various changes that are taking place on XaaydaGa Gwaay.yaay. This presentation showcased the rising waters, erosion caused by bigger storms, and the fluctuating weather extremes of drought in the summers and wilder rainy seasons throughout the year. The second presentation addressed the challenge of “Food Security Amidst Climate Change.” Anne Salomon, one of my advisors, presented this on my behalf.

### Gangxaaw ad DuuGa (People Working Together and Results)

#### *Participant Demographics*

The workshop participants consisted of 18 women, six men and one gender unidentified. Participant ages ranged from 18 to 97 years old. Most of the 25 people present were between 58 and 67 years old. Most of the participants were bilingual, in Xaayda Kil and English, and 5 participants were language teachers. I feel it is important to acknowledge this as the thinking and understanding of English did not always reflect the rich and varied knowledge these participants contributed through their knowledge of Xaayda Kil.

#### *Carbon Footprint*

A highly diverse array of suggestions for how to reduce the carbon footprints at the individual, community, and national level were offered during the workshop. Individually, people suggested their carbon footprint could be reduced by changing their lifestyle choices. For example, respondents identified such options as the following: reduce, reuse, and recycle products; make wiser purchasing choices; choose energy efficient ways to travel; and cut back on the amount of energy they use to heat and light their homes. In terms of the broader Haida community, it was suggested that people return to and reinvigorate traditional Haida life ways and laws, all of which relate to the wise, respectful, and collaborative use of the environment. Moreover, shared climate-related information, climate-wise purchasing decisions by larger organizations, and reduced industry in the forests and ocean were identified as important measures to decrease the carbon footprint of Skidegate and the Haida community collectively. At the Canadian level, it was identified that federal laws needed to change and include Traditional Laws.

## Haida Words for Aspects of Climate Change

In my questionnaire, I asked participants to provide words that signified aspects of climate change. Respondents identified 21 Haida words and phrases that described short-term weather patterns, longer-term climatic conditions, and associated laws, observations, and fears (Table 1). Specifically, four of the noted phrases describe some Haida laws that underpin how Haida live with the earth and all its creatures. For example, Yah gid and tll yahda both reflect the need to take action to correct wrongdoings. Ad k'yaanang refers to the need for consent before any actions are settled. Gina 'Waddluxan Gud Kwaagid describes the knowledge that whatever we do to the world we do to ourselves. While 10 of the 21 words identified describe various ephemeral aspects of weather, including words such as stormy, sunny, cold, hot, thunder, and rain, some respondents associated deeper interpretations and associated feelings with these words. For example, while daala means rain, the devastating impact of floods was associated with it. Similarly, while hlgahlguu means stormy, the respondent associated "danger on the sea and land" with this word. Finally, some phrases expressed people's feelings about climate change, including Dii 'Guudang.ngaay hlkuxiida ga 'Laana Gwaay', meaning "I am worried about the world."

Haida Words and Phrases	Respondents' Interpretation of the Meaning
Chiina gow Gaddii	<i>Less fish</i>
Daala	<i>Rain. The impact of rain can be devastating when it comes to flood.</i>
Dii Guudang.ngaay hlkuxiida ga 'Laana Gwaay	<i>I am worried about the world.</i>
Gaa.ywu	<i>When the water is so rough it looks smoky.</i>
Gina 'Waddluxan Gud Kwigid	<i>Everything depends on everything else.</i>
Hiilang	<i>Thunder</i>
Hlgahlguu	<i>Stormy. Wind. Means danger on the sea and land.</i>
K'iina	<i>Hot</i>
Taajuu	<i>Windy</i>
T'aaGaw	<i>Snow</i>
Taagaay wad.dluxan gow Gaddii	<i>Less food. (Traditional foods)</i>
Taajuu daahlgahlda	<i>Changing winds</i>
Xaay.ya	<i>Sunny</i>
Xwii	<i>Cold</i>

Table 1. Haida Words and Meanings for Aspects of Climate Change Identified by Respondents

## Observations and Concerns of Climate Change

Observations and concerns about climate change spanned five broad categories with the following themes emerging from the data: extreme weather, rising sea level, warming, food security, and concerns about the next generation. Some citizens of Skidegate identified increased variation and severe weather conditions as a result of climate change, such as greater occurrence of storm ocean surges and higher velocity winds, longer winters and hotter summers, and drastic short-term changes that differ from normal weather patterns. Other villagers noted rising sea levels and potential impacts on coastal homes, erosion of beach areas, keeping up-to-date on climate issues, health of homes, and reduced habitat for all island's creatures, including humans, as points of concern with regard to climate change. Concerns were identified about increasing warming conditions and about the consequences of climate change on seafood availability and access. Specifically, it was felt some seafood will become increasingly scarce due to changing ocean conditions, and this will negatively affect people's health. As indicated, participants expressed concerns about how we impact our world and noted that they wanted to teach the important value of respect to the next generation.

### Xal kaagingdal [Transportation or Moving Vessel]

Thirty-seven suggestions regarding transportation and solutions were identified in the workshop as options for combatting climate change. I grouped these into national governance policies, individual actions, and education. Governance suggestions included banning tankers close to Haida Gwaii, improving water transport, creating policies encouraging use of more efficient boats, running alternative energy sources, buying and operating our own ferry, and banning motorized boats from Xaana Kaathlii. Other governance suggestions included improving existing transit, initiating beach clean-ups, purchasing on-island value-added materials, and creating stronger policies on recycling. Individual transportation solutions included co-operatively buying a vehicle among families, reducing dependence on vehicles through human-powered vectors such as bikes and pedal boats for short travel, returning to canoes and sails, sharing transportation, and using rowboats for some activities. Nine people either had no additional suggestions or did not understand the question.

### Guudang.ngaay uu 'waadsxagang, Tlaasgid [Additional Worries]

The villagers' additional concerns included the following: the need to work together as a community; education; energy; financial issues; governance; and values. Participants voiced the need to continue sharing Haida life ways, such as history lessons, teaching youth how to live off the land, and principles of Haida

stewardship. They also voiced the need to have respect for all living things, yourself, and elders, as well as the need to live more respectfully in the face of the changing climate.

There were ideas concerning energy, use of tidal or current wind power, housing, and accessing finances. Considering the history of logging and removal of other resources, the village people wanted to increase our Nation's governance including restricting the use of cedar and seafood to Haida only, closing all industrial resource extraction on the land, and protecting all waters, the title case, and rights to land. Transportation was an added issue as we are already paying for ferry services supplied by the quasi-provincial government. The idea of replacing the ferry with something more respectful than the current fossil fuel powered vessel was discussed. Looking at energy, it was suggested that there are other options to supply the village with respectful energy sources.

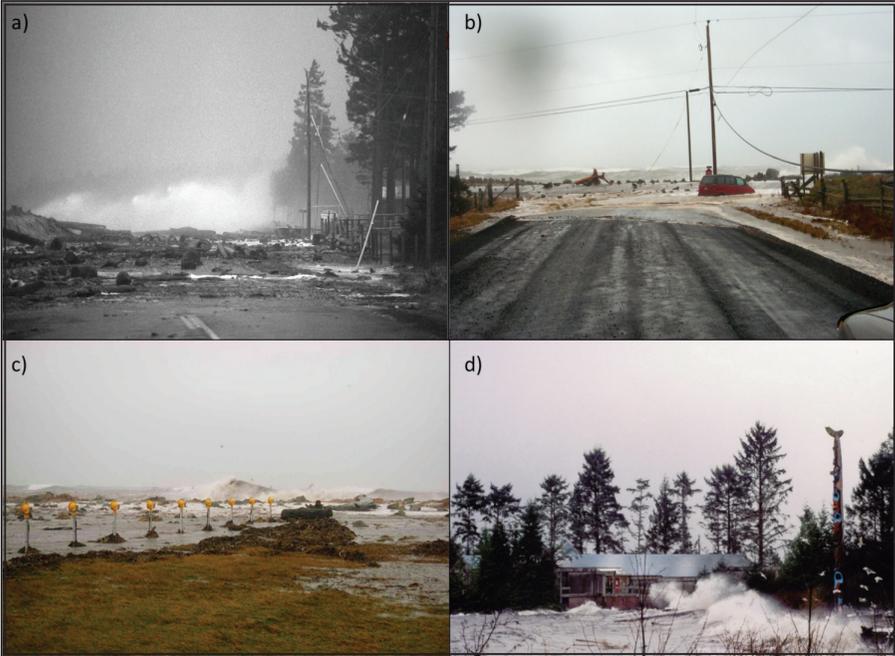
### Sii.ngaay Gina daahlGahlda Giidang 'laa suu (Personal Observations of Climate Impacts)

As the ocean rises, the shoreline in front of HlGaagilda Lnagaay is changing. To protect the village, the area consisting of sand and cobble is covered by boulder berms, with portions consisting of concrete walls to withstand the bigger more frequent waves. Two creeks mark the extremities of the old village's footprint. The combination of bigger waves, larger freshets, and log impaction led to erosion that altered T'am Gandlaay to the point where it had to be diverted. The original bed was backfilled and built up, and a field was created. The area between the houses and the shoreline was used as a place where the village men stored their trolling boats in boathouses during the winter seasons. Below this is the area where once dii naanGalang k'aaw k'aaGada ad Xuud ts'isGalang (*my grandmothers*) dried herring roe on kelp and cooked seal in a pot.

The lack of snow in higher elevations results in lower water levels in the creeks. This prevents salmon from continuing up the creeks to spawn in these waterways—once thriving sources of food. The berries start reviving either earlier or later in the spring; the foods for mammals in the ocean either arrive at different times of the year or have moved north. This means the whales, both Grays and Humpbacks, must travel farther to find the foods they need. What will the overall effect be for the whales that travel here to eat every spring from Hawaii? Where will they go to find the once-abundant krill and other foods necessary for their survival? In the month of May, when we would ordinarily meet them in the Gwii Haanas East coast areas, they have either not come here or passed through earlier, in March or April. The change in temperature and ocean acidification threatens our food security.

As a young child and in the years between 1989 and the present, I have lived close to the land and seas. Roads to access our old village are rare. Many people no longer have a vessel and rarely go to our traditional territories/oceans.

I worked with Parks Canada for Gwaii Haanas and became familiar with the lands and waters of my ancestors. Over the years, the changes in the old village sites, the shorelines, and what was happening on the lands became obvious. I observed the changes each season. The impact of the big storm of December 24, 2003 (Figure 2) on the Haida Heritage/World Heritage Site of SGang Gwaay (*Wailing Island*) was obvious. Woody debris, Styrofoam, and plastics littered the lower terrace of the old village and the roots of the large spruce trees along the periphery were bare and battered.



Note. Yellowhead Highway at Tlell (a) and (b), Sandspit Airport (c), and Haida Gwaii museum at *Kay Llnagaay* (d). Photos used with permission from Jason Shafto, Michael Brown, Sandspit Airport Staff, and Mavis Mark.

Figure 2. Photos from 2003 Storm at Yellowhead Highway at Tlell, Sandspit Airport, and Haida Gwaii Museum at *Kay Llnagaay*

In 2014, winds reaching hurricane force touched down in Skidegate Inlet, tearing the roof off one house and whipping the waters of the inlet into spouts, moving from *Skaama Llnagaay* (*Alliford Bay area*) to what is locally known as *Kaahl Guusda GuuhlGa Kun* (*BC Tel point*) in mere seconds (S. Brown, 2017, personal communication). Brown sent me a few pictures showing the water action at *Kaahl Guusda GuuhlGa Kun* (Figure 3).