Learning to Listen: Supporting Survivant Futures through Food Forest Restoration with Chief Leschi Schools

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Abstract

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This thesis tells the story of a collaborative, capacity building project that supports the long-time desires of Chief Leschi Schools (CLS) and the Puyallup Tribe of Indians by supporting the expansion and revitalization of a Food Forest Outdoor Classroom space on CLS school grounds and Puyallup Tribal Land. By increasing access to cultural resources and Traditional Foods, while centering Tribal History and Culture as innate sources of strength, this collaboration supports community health and CLS curricula, empowering the next generation, their surrounding communities, and the environment. Context, history, and theory are interwoven with changing awareness, knowledge, and community desire to usher readers through the experience rather than a list of conclusions. Through relationships and the accountability they foster, I demonstrate how an active practice of listening increases project

relevance and community participation while also facilitating flexible methods and “good work” grounded in intent.

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LIST OF IMAGES AND FIGURES

Land Acknowledgement[1]

I would like to thank the many Tribes of the Coast Salish region whose Traditional Lands the University of Washington occupies. The Land and Sea of this region are connected to the Body, Heart, and Lives of these Peoples and have been since Time Immemorial. I seek to honor the strong Sovereign Nations of the Coast Salish region and their right to Self-Determination. I thank these Peoples: Past, Present, and Future and recognize that this Acknowledgement is only a beginning in a conversation of awareness, action, and connection. I also recognize that a Land Acknowledgement is a formal act undertaken by many different Indigenous groups that holds varying and different significance other than the term adopted today by western institutions.

So, with this important recognition of the Land and its Peoples in our Hearts, we move forward.[2]

[1] I would like to acknowledge that Land Acknowledgements can often feel very performative and because of this, a bit frustrating depending on the context. However they are part of a small growing awareness of the long ignored and inhuman origin story of the United States of America. Importantly, they also constitute an accepted first step in the formal process of Reconciliation (relationship building and creating new more equitable futures for all). A Land Acknowledgement is not to be taken lightly, nor is it a somber affair. A celebration, part of a long history of ceremony, a welcoming of People and Place. It is an opportunity to speak from the heart and embrace an openness and honesty with our past, present, and future. Or as Ta7talíya Nahanee of the Skwxwú7mesh (Squamish) Nation explains, it is "just the beginning of understanding and connecting to our ways of being and our ways of being within shared territory."

[2] This is a Land Acknowledgement I originally had the pleasure of co-writing with SMEA students, Michael Buck (Yakama Nation) and Jazzmine Fragiacomo for the UW SMEA Student Blog, *Currents*. I then partially rewrote the piece with Dr. Clarita Lefthand-Begay, a Navajo Nation scholar in the UW Information school to introduce a webinar series on Environmental and Energy Justice issues in Tribal contexts. The series ran for half a year and was funded by the UW Center for Environmental Health Equity. Dr. Lefthand-Begay was the Deputy Director and Director of Relations with Tribal Nations, Communities and Organizations for the Center before the program was cancelled abruptly in May 2025 by the Trump Administration.

Thanks

I thank the Ocean that provides. I thank the Winds that come down from all directions and carry us along our paths. I would like to thank Michael Buck (Yakama Nation) for his inadvertent and advertent teachings on speaking from the Heart and Acknowledging the Land and its People. I would like to thank Dr. Clarita Lefthand-Begay (Navajo Nation) for exposing me to alternate ways of thinking, knowing, and relating to the world, my research, and my interests. I also would like to thank Dr. Jillian Fish (Tuscarora Nation in the Haudenosaunee Confederacy) and Dr. Victoria O'Keefe (Cherokee Nation citizen and member of the Seminole Nation of Oklahoma) for their gracious understanding and support during my time in graduate school. I would especially like to thank my advisors, Dr. Terrie Klinger and Dr. Nives Dolšak for their understanding and support throughout my evolving awareness and research process. More generally, I also thank all the teachers, researchers, and practitioners who have opened my world and helped me make sense of it all. I thank my family and friends who have supported me through all the intricacies of life. And I especially thank you, the reader, for your time while reading this work.

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Author's Statement

Hello and welcome.[3]

My name is Thor Leighton Belle. I am a brother to a Sister, a son to a Mother. They are both two of the strongest people I know. Friends became family early, and I can remember a few teachers who changed my life forever. Without them, I would not be where I am today.

As a family we moved around a lot—chasing fish and fleeting opportunity. I lived the longest in South Bristol, a small fishing town on the coast of Maine.[4] The Lands and Water there are the ancestral home to the Walinakiak Abenaki Tribe (People of the Bays).[5] I had a grand total of six

[3] This paper covers a lot and I choose to use footnotes to elaborate, give credit to inspirations that fall outside the normal accepted practices of academic citations, and otherwise provide context to my work. The primary inspiration for this comes from a chapter "Footnotes (Books and Papers Scattered about the Floor)" in Katherine McKittrick, *Dear Science and Other Stories* (Durham: Duke University Press, 2021), 14-34. The chapter and its use of footnotes have been a source of sense that reflects the piles of notes and journals that carry the contents of my memory. (Nothing exists in isolation and I find it near impossible to ignore the connections). Taking this space and time to reflect and trace feels radical in an academic system (and world) that emphasizes hierarchical order and perceived efficiency. While there are many reasons this is important, the one I would like to focus on in this note is the ability of the present to reflect new futures. *That is to say, that to create a present you want to be a part of, is to remake the future.* In this pursuit, the importance of understanding, trust, and quality relationships is both the method and the medicine, the action and answer. I offer these notes to demonstrate this relational process. By facilitating shared understandings through history, context, and effort, I hope to build a certain amount of trust–a foundational aspect of respectful relationships–between I, the author, and you, the reader.

[4] I was born in Eastport, Maine to parents of mixed European ancestry. My mother's family has an unclear history and origin. My father is Welsh and his mother and father came to New York City when he was still very young. I no longer have a relationship with my father after a messy upbringing.

[5] Throughout this article I often refer to terms like Land, Water, Ocean, and People with a capital letter. This is to denote them as proper nouns or Individuals worthy of Respect and Fundamental Rights in accordance with Natural or First Law and the networks of Relational Accountability that make this research possible (Cajete 2018; Leonard et al. 2023; Redvers et al. 2020) In Braiding Sweetgrass, author Robin Kimmerer (Potawatomi), describes the importance to breaking the grammatical rules which often denote plants and animals as "its" and humans as "distinct…[reinforcing an] elevated position of humans and their creations in the hierarchy of beings" (2013, p. 385). She explains that the English language lacks the depth and dexterity to reflect the kinship, self hood, and animacy of nouns in many Indigenous contexts (Kimmerer 2013, p. 385). Therefore, in lue of my own lack of fluency with the dxʷləšucid Lushootseed Language, as well as my desire to not reinforce practices that center humans as the only creatures on this planet who are worthy Respect, I adopt a habit of capitalizing nouns whose importance has been imbued upon me by Indigenous Mentors and Knowledge Holders over the last few years (Kimmerer 2013, p. 55). This practice of calculated capitalization is also supported by new guidelines published in 2020 by the American Psychological Association's Publication Manual under Section 8.9: Oral Traditions and Traditional Knowledge that call for authors to "capitalize words for specific groups… and culture-related words"

kids in my eighth-grade class. Throughout it all I also had the Ocean. I earned my undergrad degree in Fisheries Biology but was surprised and alienated by a lack of accounting for people in fisheries management. I became a captain at 26 and delivered boats for people who didn't always appreciate them. I was lucky to look like I belonged.

The Ocean has always been there for me.

When I had nothing, it gave me work.

When I didn't feel like I belonged, it gave me a home.

When I couldn't stand my own thoughts, it gave me solace.

But in return, what had I given it?

Back in 2019 I wrote this brief reflection in a journal while a friend and I rowed halfway to Alaska as part of a storytelling project.[6] This trip awakened me to the possibilities of storytelling for connecting people across different backgrounds and values. I came back to school to find the words for how I feel and to make a conscious difference in the systems I care deeply for. My work has and will always, find ways to empower people and change perceptions and actions surrounding fisheries, the Ocean, and the Land. In graduate school, through chance, care, respect, and relationality, I am honored to have expanded this focus to supporting Tribal Sovereignty, Self-Determination, and Justice.

(2020, p. 260-261). Thus, when in doubt, I capitalize. Not to confuse readers or dilute the intentionality of my work, but rather out of an abundance of caution, respect, and gratitude for the lessons and experiences that make up this work as well as the work of Past and Future Generations.

[6] In 2019, a friend, Pax Templeton and I participated in the Race to Alaska (R2AK) as Team Funky Dory. We raised money and awareness by partnering with Pacific Wild, a Canadian non-profit that uses storytelling and media to advocate for Marine Protected Areas (MPAs) and Indigenous Conservation Protected Areas (ICPAs) in the Great Bear Rainforest and Sea (the region along North America's Pacific Northwest Coast stretching from northern Washington to Alaska).

I am a non-native educator and developing researcher who is more comfortable milling lumber than writing a thesis. While attending graduate school at the University of Washington I have navigated a variety of experiences that have taught me much about what effective allyship and reciprocal 'research' can look like. However, I am relatively new to working with Indigenous Individuals, Communities, Organizations, and Nations.[7] If I restate a concept, it is because the teachers I have learned from have reiterated its importance to me. All that follows is my evolving understanding of a world I will never fully understand.[8] To source this work please follow my sources to the original texts and acknowledge and uplift the brilliant and long-standing works of Indigenous researchers and thinkers whose ideas, writings, and knowledge have made my own work possible. I am beyond grateful to the experience and challenge.

[7] Many different terms exist for Native Peoples. It is important to recognize that all these terms are constructed and designed to attempt to represent the diverse "contemporary descendants of a wide variety of Tribal Nations." (Hodge et al. 2009. pg 212). The preferred name is always that of the specific Tribal Nation to which an Individual belongs. However, in this paper I sometimes use general terms like Indigenous, Native, or Tribal to refer to common concerns and accepted understandings shared by the broad array of sovereign Nations and their People indigenous to what is now North America. It is my hope here to emphasize commonalities without over generalizing the many different perspectives, experiences, histories, and cultures of Indigenous Peoples.

[8] For me, the concept of "knowing what you cannot possibly know" comes from *Katherine McKittrick's Dear Science and Other Stories*, a multiplus exploratory work of black and anticolonial methodologies. The book has helped me greatly to find a way through the often muddy waters of large academic systems. The above paraphrase comes from the line, "how I know what I know, where I know from, who I know from, and what I cannot possibly know." (pg. 14). The importance of knowing is valued across all scientific disciplines yet my work has taken me beyond my community, my culture, and much of my formal academic background. Most tangibly, I believe a deeper understanding of where my knowledge originates, where it is relevant, and where I have gaps makes me a better communicator and simply put, person. However, as McKittrick does, I have grown to find comfort in looping through the shadows of my own understandings, catching glimpses of my own paradox of knowing. This process has become a foundational aspect of my evolving understanding of self as well as my role in and around this collaboration.

Project Background and Rationale

The Puyallup Tribe of Indians and Chief Leschi Schools

The Puyallup Tribe of Indians is a federally recognized Tribe named after a diverse group of Peoples who inhabited many dispersed villages stretching from the foothills of təqʷuʔmaʰ/təqʷuʔbəd (Mt. Rainier) to the shores of the Salish Sea.[9] In dxʷləšucid (Lushootseed), the Puyallup People are the spuyaləpabš, meaning "people from the bend at the bottom of the river."[10] This spuyaləpabš name is said to be reflective of the Puyallup People's reputation as being welcoming and generous (Puyallup Tribe of Indians 2025b). While colonization displaced and reorganized the Puyallup People, the Puyallup Tribe persevered, securing expanded reservation lands and fighting for Tribal rights, including fishing rights recognized in the 1974 Boldt Decision and sovereignty reaffirmed in the 1990 Land Claims Settlement (Puyallup Tribe of Indians 2025b).

In 1976 the Puyallup Tribe of Indians founded the Puyallup Tribal School to address cultural misalignment in local public schools and the Washington State Curricula by ensuring Native students received an education that respected and reflected their identities.[11] Striving to make

[9] Federal Recognition is central to the United State's Federal Indian Trust Responsibility and Federal Indian Law which holds American Indian as well as Alaska Native Tribes and Bands as "dependent sovereign nations" with the United States (Carroll 2019) This means the United States government has a moral and "legally enforceable fiduciary obligation" to protect Tribal Treaty Rights, Lands, cultures, resources, and ways of being. The concept originates from the sovereign relationship early explorers and settlers had with Tribes and Tribal Nations or confederations. It has subsequently been upheld, codified, and formalized through 400 years of Treaties, numerous Supreme Court cases, and many different statutory laws including the Constitution of the United States (Carroll 2019; Seminole Nation v. United States, 1942)

[10] These dxʷləšucid or Lushootseed spellings are only one of several ways to name the language. Other versions include xʷəlšucid and txʷəlšucid. I do not mean to privilege any specific dialect of the Coast Salish Peoples language and I include them mainly to emphasize and elevate Coast Salish Peoples as a whole. I am not a scholar of dxʷləšucid and I encourage any interested people to explore Tulalip Tribes website, Lushootseed: The Language of Puget Sound at https://tulaliplushootseed.com/.

[11] Many CLS students are still affected by the lasting impacts of colonialism and the U.S. government's failure to uphold Treaty obligations (Puyallup Tribe of Indians 2025; N. Nelson, Personal Communications, March 2025). Leaders from the Puyallup, Nisqually, Steilacoom, Squaxin, Snohomish, Steh-Chass, T'Peeksin, Squi-aitl, and

school enjoyable and relevant for Tribal students Tribal Leaders fought for this right for years, building a legacy that would later become siʔab ləšxayʔ xalalʔtxʷ or Chief Leschi Schools (CLS). From its inception, CLS has actively involved the Puyallup Tribal Council, families, and students in decision-making processes to ensure programming meets the needs of the community. The Puyallup Tribal Council appoints a School Board composed entirely of parents of CLS students. This governance structure ensures that Tribal leadership and families shape educational priorities. Parent Dinners and talking circles provided additional input. The result has been a steady increase in student enrollment and success since the school's humble beginnings (N. Nelson, Personal Communications, March 2025). Having evolved into an award winning, 32-million dollar, 200,000 square-foot facility located in Puyallup, Washington, CLS is one of the largest Bureau of Indian Affairs schools in the United States.[12] In 2018 it became an official State-Tribal Education Compact School with an agreement that releases CLS from the typical curriculum, programs, funding, policy, and enrollment requirements of other public schools in the state. This makes CLS, and the nine other State-Tribal Education Compact Schools in Washington State, especially significant as physical representations of Self-Determination and Tribal Sovereignty.

Prioritizing Puyallup Tribal enrollment first and general Tribal enrollment second, CLS serves a 97-percent Native American student population of about 701 students in grades preschool through 12th. CLS students represent about 70 different Tribal affiliations in Pierce, King,

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Sahewamish Tribes and Bands were coerced or very likely forced to sign The Medicine Creek Treaty in December 1854 by the first governor of Washington, Isaac I. Stevens (Carpenter 1971). The Treaty promised education, healthcare, fishing and gathering rights, and a small amount of financial compensation in exchange for about 2.5 million acres of land (Carpenter 1971). The Treaty's complex legacy and frequent failures have led to many policies that disregarded Indigenous values, resulting in cultural erasure, systemic neglect, and, at times, outright harm (Carpenter 1971). The consequences of this broken trust continue to manifest as significant disparities in health, education, and economic stability for many in the surrounding CLS community (Carpenter 1971; N. Nelson, Personal Communications, March 2025; Puyallup Tribe of Indians 2025b).

[12] Originally founded as the Puyallup Tribal School in 1976 the school was forced to move three separate times before adopting the Chief Leschi Schools name in 1991.

Thurston and Kitsap counties. Every day all students are bussed door to door in over 60 different bus routes that often require students to travel more than an hour to get to campus.[13] Additional after school and weekend athletic and extracurricular transportation services are also provided to ensure all students have the ability to participate and succeed in CLS programing and Puyallup Tribe opportunities like Culture workshops and Traditional Gathering outings. The Tribe provides free breakfast and lunch to those who need it as well as early pickup and dropoff services for students with parents that work non typical hours.

Through the strong support of the Puyallup Tribe of Indians, CLS also offers many different mentorship opportunities and support networks for students. Elders on campus provide daily mentorship, reinforcing cultural knowledge and identity. Culture teachers further serve as guides, supporting students academically and personally. An additional and dedicated Student Support Program outside of the more typical Student Counseling Center also provides tailored, individual support for students who need it.[14] Dedicated teachers and small average class sizes of just 15 students build close community ties and enable staff to adapt to student needs, ensuring an inclusive and responsive educational environment. CLS also provides access to advanced

[13] Many CLS students live in remote or 'fringe' locations, making travel to and from school a constant challenge. This is partially due to the historical marginalization of Native peoples in the US and WA which forced many families off their land to less desirable or difficult to reach areas to escape settlers and preserve their way of life (N. Nelson, Personal Communications, March 28, 2025).

[14] Many CLS students face significant hardships at home that can limit student capacity to engage in conventional classroom learning (N. Nelson, Personal Communications, March 28, 2025). According to the State, in the 2024-2025 school year approximately 64% of CLS students were members of low-income households (OSPI 2025). However CLS staff believe this figure likely underrepresents the real number of low income households as many families hesitate to disclose personal hardships due to historical mistrust of institutions and surveys (N. Nelson, Personal Communications, March 28, 2025). Similarly many CLS students struggle with attendance records and only 40.9% of CLS students attended school at least 90% of the time. However, attendance records also do not reflect the complexity of student experiences. Many students work full or part-time jobs while attending school making regular attendance challenging. Additionally students encounter loss and death in their tightly knit communities on a level not experienced by students in wealthier areas (N. Nelson, Personal Communications, March 28, 2025). (Low income family determinations are a factor of Family Unit Size (FUS) and Gross Family Taxable Income. A single person family is considered low income when they earn less than $27,861 with the low income threshold increasing by about $10,000 per additional Family member. Thus a family of four would have to earn roughly less than $57,861 to be considered a low income household (OSPI 2025)).

coursework and opportunities at local colleges through programs like Running Start, again offering transportation and scheduling flexibility to maximize student access and remove barriers to higher education.

CLS also addresses systemic barriers that have historically limited Native representation in leadership roles, through a robust Career and Technical Education (CTE) program. Here five career pathways: Hospitality (Culinary Arts), Science and Engineering (Natural Resources), Education Careers, Audio and Visual Technology, and Health Sciences (Medical Careers) build bridges to high-level careers in Tribal enterprises and beyond.[15] Each CTE Pathway is linked to local Tribal industries and leaders, equipping students with essential skills, applied learning opportunities, and connections to leadership positions through relationships that serve as essential career-building opportunities. CTE Programs primarily target high school students but also include foundational pathways at the elementary and middle school levels (Nancy Nelson, CLS Executive Director of Curriculum and Instruction). Many of the community members who participated in early planning of the CTE Program now serve on the CTE Advisory Board, offering continued guidance and support.

At CLS a variety of flexible, student-centered programs evolve in response to student needs, and are paired with adaptable support structures to ensure success and keep students engaged. Prioritizing experiential and applied learning approaches that resonate with students' lived experiences, CLS students play a central role in shaping their education. They have input on

[15] Statewide assessments do not reflect the values and knowledge systems of many CLS students, and often serve as additional barriers for CLS students who wish to pursue higher education opportunities (N. Nelson, Personal Communications, March 28, 2025). For example, according to Washington State, only 32% of CLS students demonstrated foundational grade-level knowledge in English language arts, only 23.7% in math, and only 33.3% in science during the 2023-2024 school year (OSPI 2025). However no WA State statistics are reported highlighting student involvement in CLS's two largest departments, the Culture and CTE Pathways.

grade-level placements, internship activities, and curriculum content. This empowerment fosters engagement and ensures student learning experiences align with personal and professional aspirations. CLS also integrates diverse reflective practices, including talking circles, academic counseling, storytelling, and journaling to help students evaluate their own growth as well as assess the effectiveness of CLS programing by providing valuable feedback on program impacts for staff, teachers, and administrators.

Families also choose CLS because it honors Tribal Culture and Identities, ensuring students remain connected to their Heritage. A dedicated Cultural Department works to center Culture and Language in all school activities and provides students and community members with outlets for self-expression and cultural revitalization. Community members recognize that culturally relevant education, mentorship, and community-driven programming is critical to student success as well as the well-being of the broader Tribal community. Weekly all-school Circles reinforce community connections with frequent guests appearances and performances. Circles also provide CLS students and staff with a platform to drum, dance, and sing Traditional Songs together as an entire school. Through intergenerational connections and real-world collaborations Culture is presented to students as both foundational to health and wellness as well as a viable career path for lifelong success.

CLS endeavors to “prepare students to lead successfully in two worlds.” (Chief Leschi Schools 2025). The school does this through iterative, growing practices which are built to represent their participants in every possible sense. And ultimately, while CLS students face systemic disadvantages, they also embody thriving, surviving, cultural knowledge, deep traditions of

intergenerational learning, and relational stewardship. CLS is an amazing and inspiring place driven by people who truly care about creating better, more inclusive futures. It is a Place that makes you feel like anything is possible.

Evolving Ties to the Land

"*Water is life. Salmon is life. Without them, who are we as a people?*"

Daryle Barnes. 2023. Insights From Two Puyallup Tribal Members on Smoked Salmon Preparation. Interview By Molly Bryant, Puyallup Tribal News.

The Puyallup Tribe are one of many Salmon Peoples of the Salish Sea. Even today many Tribal members and CLS students are fishers and gatherers, still relying at least partially on the Land for subsistence and a living (N. Nelson, Personal Communications, April 2025). As a result, many Tribal community members and CLS students have a broader suite of awareness when it comes to managing environmental degradation and climate change. They are acutely aware of how, left unchecked, these forces can and in many cases, have, resulted in not just the loss of Traditional Food sources like Salmon or Huckleberries, but also Traditional Medicines like Self Heal and Devil's Club, as well as cultural resources like Cedar Bark, Bear Grass, and other plants used for weaving, drum making, and cultural and spiritual practices.[16] As a result, Tribal Community members and CLS cultural teachers have clearly identified desires for increased sources of Native plants where they can harvest First Foods, Medicines, and cultural resources locally.

[16] Many of Native Plants and Animals are used as food, medicine, and cultural resources. Traditional Foods are also recognized as Traditional Medicine, nourishing the body, mind, soul, and the surrounding environment through connectedness and reciprocity (Krenn et al. 2017). This is something I have learned time and time again from the CLS and Puyallup Tribal Communities and I thank them for this awareness.

Puyallup Tribal members have long understood that the health and abundance of these resources are directly, reciprocally, and inherently tied to the health and well-being of the many connections between them. Healthy connectedness between Peoples, the Land, the Water, Plants, Animals, and "All Our Relations" are recognized as the basis for overall well-being.[17] CLS and the Puyallup Tribe emphasize connectedness through programs, practices, and approaches which transcend the bounds of western disciplines.

The Puyallup Tribe's Heritage Division partners with the Puyallup Tribal Health Authority to offer not just Traditional Medicines but community harvesting and stewardship opportunities (Pemberton 2021). The Puyallup Tribal Fisheries Department doesn't just monitor fish harvest, catch regulations, and hatcheries but also collaborates to distribute surplus salmon to Puyallup Tribal members as well as return fish carcasses to the upper reaches of the watershed, allowing the valuable nutrients they contain to be shared with upstream ecosystems that have been cut off from historical fish runs by dams, culverts, and other human activities (Marks et al. 2023; Rohwer 2025). Additionally the Fisheries Department includes a dedicated Water Quality Division that works "to protect human health and the environment" through comprehensive habitat restoration, monitoring, and community environmental stewardship events (Naylor et al.

[17] The phrase "All My Relations" or "All Our Relations" was first introduced to me by friend and fellow SMEA Masters student Michael Buck (Yakama Nation) as part of collaborating to write the Land Acknowledgement for the UW SMEA Student Blog, *Currents* in the Spring of 2024. I learned much during this time and I am very grateful for Michael's positivity and teachings. Through this experience and others I have come to understand that while the phrase is shared by many Native Cultures across the US and Canada it often holds deeply personal meanings for different individuals. I will likely never fully understand its true significance or bounds and more importantly, I don't have the right to define it outside of my own thoughts and feelings. Instead I offer Thomas King's (Cherokee Nation) definition from his same titled chapter in the Native written textbook, *Aboriginal Perspectives*—""All my relations" is at first a reminder of who we are and of our relationship with both our family and our relatives. It also reminds us of the extended relationship we share with all human beings. But the relationships that Native people see go further, the web of kinship to animals, to the birds, to the fish, to the plants, to all the animate and inanimate forms that can be seen or imagined. More than that, "all my relations" is an encouragement for us to accept the responsibilities we have within the universal family by living our lives in a harmonious and moral manner…" (2004, p. 71).

2024, p. 3). Throughout their usual and accustomed territory, the Puyallup Tribe of Indians are dedicated leaders in efforts to protect and restore, connective, healthy ecosystems that support the return of abundant Salmon runs and healthy communities in the region.

Clear Creek Basin (Place)

One such ecosystem is the Clear Creek Basin, a watershed that drains approximately 12.4 square miles of lowlands and plateaus surrounding the CLS campus (Marks et al. 2023; Northwest Hydraulic Consultants Inc. 2018, p. 2). The basin is located largely within Puyallup Tribal Lands as well as unincorporated Pierce County, however parts of the watershed are also included in the Cities of Tacoma and Fife (Puyallup Tribe of Indians 2017, p. 8) Clear Creek Basin has four main tributaries that join together into its mainstem and namesake, Clear Creek, before draining into the Puyallup River along its southern bank. Moving upstream are Swan, Squally, Clear, and Canyon Creek, each of which flows north through its own narrow ravine to create a series of five distinct fingers cut from a larger plateau that rises to approximately 330-400 feet above sea level. These tributaries and their erosion of sediments from the plateau serve as the main sources of aggregate for spawning in the Clear Creek mainstem (Marks et al. 2023; Naylor et al. 2024). Moving upstream again, to the area around CLS and Lake Leschi, a few highly channelized drainages join together to carry the lower waters of Canyon Creek to the Clear Creek mainstem while also draining the CLS campus and its surrounding agricultural land near 52nd Street East.[18]

[18] The CLS's campus is located directly adjacent and North North East of the nexus of Canyon Creek and the Clear Creek mainstem. Two drainage ditches, South Ditch which runs East to West between the CLS campus and the agricultural land directly to the North of it and Drainage Ditch #10 which runs along the North of the BNSF rail line and now serves as a link between Canyon Creek and Clear Creek. I have included the names of these ditches for general awareness and context but it is worth mentioning that their names seem to change depending on who you ask.

The Clear Creek Basin is known to provide vital salmon habitat to the lower Puyallup River Basin, hosting a few salmonid species of interest to the Puyallup Tribe (Marks et al. 2023; Naylor et al. 2024; Northwest Hydraulic Consultants Inc. 2018; Pierce County 2024). ESA endangered Chinook as well as ESA threatened steelhead and bull trout have been observed in addition to coho, pink, chum, and cutthroat (Marks et al. 2023, p. 109; Pierce County 2024). The Basin contains miles of spawning, rearing, and foraging habitat for salmonids at all stages of their life cycle and is one of the first side channels in the Puyallup River still partially accessible to fish (Marks et al. 2023, p. 109; Naylor et al. 2024; Pierce County 2024). Much of this available habitat is located in Swan Creek (protected by Swan Creek Park) and the lower reaches of Clear Creek near the Puyallup River (Marks et al. 2023, p. 109). Fish use in the upper reaches of the Basin's waterways is not fully understood due to a series of undersized culverts and a diversion dam at River Mile (RM) 1.9—approximately 0.2 miles up from where the Clear Creek tributary forks from its mainstem near Pioneer Way—limit or fully block a majority of the potential habitat in the Basin's upper reaches (Marks et al. 2023, p. 109).

Recognizing both the Basin's importance as well as increasing threats to habitat the Puyallup Tribe and local partners have engaged in a few restoration efforts at the mouth of Clear Creek which are thought to have contributed to two of the highest returns of adult Chinook Salmon in over 40 years during the 2019 and 2021 season (Marks et al. 2023, p. 110; Port of Tacoma 2019, 2021). Unfortunately during these same years high pre-spawn Chinook female mortality of 41% in 2019 and 36% in 2021 indicate that more must be done to protect this valuable habitat for future generations (Marks et al. 2023, p. 110).

Much of the Basin's waters remain threatened by low flows, channelization, invasive plant species, flooding, channel erosion, water quality issues (low dissolved oxygen and bacteria), as well as poor to nonexistent riparian cover (Marks et al. 2023, p. 109). Together these factors aggregate to further limit habitat for salmonid foraging, rearing, and spawning in much of the mid to upper Clear Creek Basin (Marks et al. 2023, p. 109). Threats to habitat are illustrated by sharply diminishing escapement for Chum Salmon and Pink Salmon since the 2013 spawning season as well as Chinook Salmon and other Salmon species observed stranded below anthropogenic channel restrictions (Marks et al. 2023, p. 110 and 109).

Floods and Climate Change

It is impossible to describe the Clear Creek Basin without mentioning flooding. Much of the lower Basin below Clear Creek RM 3.05 has been designated a FEMA repetitive loss area with major flooding events occurring on average every 3.5-years, contributing to over 15 federally recognized disasters in Pierce County either caused or exacerbated by flooding since 1960 (Puyallup Tribe of Indians 2017, p.14). Currently, the Clear Creek Repetitive Loss Area stretches along Clear Creek proper directly to the north of Pioneer Way with elevations ranging from around 11 to 18+ feet above SL. This area is divided into two smaller basins by the elevated Gay Road at Clear Creek RM 1.25 (Northwest Hydraulic Consultants Inc. 2018, p. 10). Here Clear Creek overtops its banks at an approximate 12-foot river stage (annual to 2-year flood), becoming hydraulically connected to the surrounding floodplain as well as acres of agricultural and residential properties (Northwest Hydraulic Consultants Inc. 2018, p. 10). During flood stages of approximately 12 to 15.5-feet (1 to 7-year flood) the floodplain remains as two separate pools (Northwest Hydraulic Consultants Inc. 2018, p. 10). However at flood stages beyond

15.5-feet Clear Creek overtops Gay Road and the floodplain acts as a single large basin (greater than 7-year flood) (Northwest Hydraulic Consultants Inc. 2018, p. 10).

The Clear Creek repetitive loss area is also part of the Puyallup River's historical floodplain (Puyallup Tribe of Indians 2017). In the 1850s settlers began clearing, building, and farming the rich soil of the lower Puyallup River (Puyallup Tribe of Indians 2017). Soon the natural flooding of the Clear Creek Basin became a barrier to 'progress' and its meanderings were channelized, dyked, and controlled by floodgates so industry and farming in the lowlands south of the Puyallup River could flourish (Northwest Hydraulic Consultants Inc. 2018; Pierce County 2024; Puyallup Tribe of Indians 2017). Disrupting the natural hydrology of the Basin has resulted in a series of unintended consequences including the decimation of Salmon runs, catastrophic flooding, introduced invasive species, and water quality issues (Marks et al. 2023; Naylor et al. 2024; Northwest Hydraulic Consultants Inc. 2018; Pierce County 2024; Puyallup Tribe of Indians 2017). All of these are projected to intensify under future climate change scenarios (Northwest Hydraulic Consultants Inc. 2018, pp. 44-49).

In 2018, during the last completed Basin-wide floodplain report, Pierce County and modeling subcontractor Northwest Hydraulic Consultants Inc. (NHC) utilized the representative concentration pathway 8.5 (RCP8.5) for planning and flood predictions in the Basin. RCP8.5 corresponds with an 8.5 watt increase in net solar radiation per square meter of the earth's surface by the end of 2100 (Northwest Hydraulic Consultants Inc. 2018, p. 24; Pierce County 2023). Driven by insulating effects from an increase in the net atmospheric concentration of greenhouse gases (GHGs) resulting from the continued consumption of fossil fuels, the RCP8.5

pathway is considered the “business as usual” pathway where greenhouse gas emissions are not reduced over the next century (IPCC 2023, pp. 9-12). Given current trends and the rise of actual GHGs emissions since the Intergovernmental Panel on Climate Change’s (IPCC) Fifth Climate Change Assessment Report back in 2014 both Pierce County and NHC consider the RCP8.5 pathway to likely be an underestimate the future emissions of GHGs in the region (Northwest Hydraulic Consultants Inc. 2018, p. 24, Pierce County 2023).

Under RCP8.5 the IPCC predicts average global temperatures to increase by at least 4°C from the year 2000 to 2100 (2023, p. 10). Already average temperatures on Puyallup Tribal Land, Pierce County and the surrounding Salish Sea region have already increased by over 2°C since 1895 (Pierce County 2023). In the Clear Creek Basin, warming temperatures have resulted in less precipitation in the summer months (May-August) and more precipitation (particularly in the form of rain) in the winter months (October-April) (Northwest Hydraulic Consultants Inc. 2018; Pierce County 2023). In the Summer, reduced precipitation and increased temperatures have caused droughts that stresses Native Plants, increasing opportunities for non-native or invasive plants to take over while simultaneously reducing stream flows and increasing stream water temperatures (Northwest Hydraulic Consultants Inc. 2018; Pierce County 2023). Reduced stream flows and increased invasives like reed canary grass (*Phalaris arundinacea*) interact with channelized streams—like the reaches of Clear Creek directly adjacent to CLS and Lake Leschi—to choke and slow streams, increasing aggradation in a positive feedback loop (Northwest Hydraulic Consultants Inc. 2018; Pierce County 2023). Aggraded streambeds clogged with fine sediments and prolific reed canary grass not only bury the gravel substrate necessary for Salmon spawning but also reduce channel capacity during winter rains, raising the

frequency of flood stages that exceed the banks of Clear Creek (Northwest Hydraulic Consultants Inc. 2018, pp. 46-47). When combined with larger, more frequent rain events and reduced snowpack, runoff from winter storm events is predicted to increase flooding events in both frequency and intensity under future climate predictions (Northwest Hydraulic Consultants Inc. 2018; Pierce County 2023).

Another factor contributing to increased flood risk in Clear Creek Basin is Sea Level Rise (SLR) (Northwest Hydraulic Consultants Inc. 2018; Pierce County 2023). Factors such as wind, salinity, channel flow, and tide height make future projections of SLR's effects on flooding in the Clear Creek Basin nuanced and complex. However, it is projected that the mouth of the Puyallup River in Commencement Bay could see anywhere from one to nine feet of SLR by the year 2100 (Northwest Hydraulic Consultants Inc. 2018, p. 40). Observations beginning in the early 2000s show the Basin is already affected during high tide events with brackish water regularly recorded at high tides of 12-feet or more, near Puyallup RM 2.9 where Clear Creek drains into the Puyallup River (Pierce County 2018, p. 5). Since 2018, stream gauges installed at the Gay Road Culvert located at approximately Clear Creek RM 1.0 routinely show the effects of tidal waters at tides of over 12-feet (Pierce County 2018, p. 5).

The drainage of the Clear Creek Basin is directly controlled via two floodgates that block high water levels in the Puyallup River from flowing up into Clear Creek and into its historic floodplain whenever the river stages exceed 12.5-feet. When compared to open channel scenarios, this prevents backflooding from the Puyallup River during lesser flood events (Northwest Hydraulic Consultants Inc. 2018, p. 45). However, during greater flood events, these

floodgates serve as a bottleneck “prolonging flooding” as floodwaters recede (Northwest Hydraulic Consultants Inc. 2018, p. 45). Thus, waters from the four streams draining into the Basin “can still cause significant flooding on the valley floor” even without backflooding from the Puyallup River (Northwest Hydraulic Consultants Inc. 2018, p. 3). Given the known infiltration of tidal waters into the Basin, SLR has the potential to result in more frequent closures of the Clear Creek floodgates, exacerbating drainage issues in the Basin at river stages above 12.5-feet (Northwest Hydraulic Consultants Inc. 2018; Pierce County 2023).

While settlers, farmers, and residents may have initially protected themselves from frequent smaller flooding events by creating a series of levees, dikes, retention ponds, infiltration basins, and flood gates they have not managed to tame the waters of the Clear Creek Basin. Current flooding scenarios occur at river stages over 12-feet (annual to 2-year flood) where Clear Creek overtops its banks affecting agricultural and residential land within its repetitive loss area (Northwest Hydraulic Consultants Inc. 2018). Future flooding scenarios are dictated by climate change and only predicted to increase in frequency and intensify in consequence regardless of future emissions scenarios (Northwest Hydraulic Consultants Inc. 2018; Pierce County 2023; Puyallup Tribe of Indians 2017). As Northwest Hydraulic Consultants explains, “regardless of changes to the flow-control structure or floodplain storage, continuing river bed aggradation and climate changes will account for a 25 percent increase in annual chance for stages to exceed 13 feet on average, with similar increases at all other flood elevations” (2018, p. 49).

Left unchecked, failed flood controls, ecological destruction, and escalating effects of climate change—the legacy of progress in lower Puyallup River Valley—have the potential to combine

with increasing urbanization and populations growth in Pierce County to threaten potential futures in the Basin (Naylor et al. 2024, p. 76; Northwest Hydraulic Consultants Inc. 2018; Pierce County 2024; Port of Tacoma 2021). However these very threats also provide vital context whose local significance can offer a different story. Indeed, *because* of the failure of current flood controls to mitigate flooding in the Basin; *because* of the promise of worsening flooding under future climate scenarios; and *because* of the threats of urbanization and development, the future of the Basin has finally begun to receive comprehensive and long-term attention by a variety of local stakeholders.

A New Hope[19]

The Clear Creek Basin is part of the Puyallup Tribe of Indians usual and accustomed fishing and harvesting grounds and it serves as one of the last refuges for Salmon and other migratory species in the lower Puyallup River. This significance, aided by the Basin's manageable size and urgent need for updated, more resilient flood controls, as well as its generally rural yet close proximity to population centers like the City of Tacoma, creates a near perfect incubator for ecosystem wide change. Collaborations between Tribes, local, state, and federal governments, the Basin's residents, farmers, and other local stakeholders have given rise to partnerships like the Floodplains for the Future (FFTF) and the Riverside Strategy Plan (RSP) that emphasize long-term, community-driven, ecosystem-wide planning and action (Floodplains for the Future 2021; Pierce County 2024; Pierce County 2025b).[20] Since 2013 and 2019 respectively, these

[19] Yes, it's a Star Wars reference. I want to thank Dr. Hugo Puerto (Muisca Confederation in Bacatá, Columbia), an Assistant Professor of Socio-Cultural Anthropology at UW for his open and honest conversations with me during the Spring of 2024. Dr. Puerto's 2018 Master's Thesis titled, *A New Hope: Perspectives on Implementing the Pilot of a New Comprehensive Health Care Model in Guainía, Colombia*, and the conversations it inspired provided a space of mutual interest and passion stemming from "A galaxy far far away…"

[20] Originally called the 2019 Clear Creek Strategy Plan, the effort was renamed the Riverside Strategy Plan as part of a 2024 update and effort to better represent the Riverside Community the collaboration seeks to serve (Pierce

partnerships have utilized community outreach programs, workshops, roundtables, and dialogue groups to bring together diverse local stakeholders, building community and establishing flexible shared values and goals (Floodplains for the Future 2021; Pierce County 2025b). With the shared goals of flood resilient communities, thriving agricultural economies, healthy habitats, and recovering Salmon runs, the FFTF, RSP, and their many partners are pushing back against beliefs that Salmon, agriculture, and flood controls are mutually exclusive of one another (Floodplains for the Future 2021).

The understanding that healthy, connected floodplains and ecosystems give rise to flood resiliency and agricultural vitality is nothing new to the Puyallup Tribe (Puyallup Tribe of Indians 2017). Having carefully stewarded the Puyallup River Watershed and Clear Creek Basin for healthy living and sustainable food production since time immemorial, the Puyallup Tribe has always advocated for comprehensive community management and contiguous floodplain habitats (Puyallup Tribe 2025a). Through a series of coordinated restorations, studies, analysis, long-term monitoring projects, and management plans the FFTF and the RSP are working to catch up with these understandings and adapt current and future practices to reflect both Tribal and settler perspectives (Floodplains for the Future 2021). While funding constraints, outdated practices, climate change, and a diverse range of stakeholder perspectives certainly present challenges for thriving potential futures, over a decade of cooperative work and relationship building offer an inspiring arc of hope for the Basin's futures.

County 2025). More details as well as a timeline of affiliated projects can be found on the Riverside Strategy Plan's webpage, https://www.piercecountywa.gov/8341/Riverside-Strategy-Plan#.

Already the lower reaches (Clear Creek RM 0.0 to 1.5) of the Basin have seen extensive floodplain reconnection and wetland restorations projects finished in 2016 (40 acres, Upper Clear Creek Mitigation Site) and 2022 (16 acres, Clear Creek Habitat Restoration Project) (Port of Tacoma 2021; Pierce County 2024).[21] Additionally beginning in July of 2025 the Swan Creek Channel Restoration at 64th Street project is set to begin stabilizing and restoring approximately 2.5-miles or nearly half of the lower portion of Swan Creek and its surrounding riparian areas (Pierce County 2025a). With an expected completion in 2027 or 2028, the project utilizes engineered log jams and native plants to reforest and slow stream erosion, increasing sediment recruitment and thus enhancing water quality, flood resilience, forest health, and Salmon spawning habitat (Pierce County 2025a). This project is significant because Swan Creek drains approximately 3.8 square miles or nearly a third of the 12.4 square mile Clear Creek Basin and it represents some of the best and most accessible Salmon spawning habitat in the Basin (Marks et al. 2023, p. 109). For Salmon, the potential benefits of the Swan Creek Channel Restoration are compounded by the Clear Creek Habitat Restoration Project completed in 2022 which restored and reconnected crucial rearing and foraging habitat stretching from the mouth of Clear Creek to

[21] The Upper Clear Creek Mitigation Site is a slightly misleading name as it is actually located in the lower part of Clear Creek (stretching from Gay Road at RM 1.0 to Clear Creek RM 1.5). The name was given to the site by the Port of Tacoma and its misleading name is a legacy of a 2013 settlement with the U.S. Environmental Protection Agency and U.S. Department of Justice for violations of the Clean Water Act. In 2008 the EPA and the U.S. Army Corps of Engineers discovered the Port was responsible for bulldozing and destroying approximately 4-acres of wetland in Hylebos Marsh located in Commencement Bay. They also found the Port had illegally dumped "over 4,000 cubic yards of urban fill materials" just to the east of Hylebos Marsh into roughly 2-acres of wetland known as EB-1B (U.S. Environmental Protection Agency 2013). In the settlement the Port of Tacoma agreed to pay a 500,000-dollar fine as well as mitigate negative impacts through over 3-million dollars of wetland restorations. Restorations included a 1.7-acre site referred to as the Alexander Avenue/EB-1B Wetland Restoration as well as two mitigation sites along Clear Creek. The first, a 16-acre site located at the mouth of the Clear Creek Basin and stretching to approximately Clear Creek RM 0.5 was originally called The Lower Clear Creek Habitat Site. It was later renamed the Clear Creek Habitat Restoration Project when the project was improved through the removal of an access road that left the Port's original site hydraulically disconnected from Clear Creek (and thus ineffective). The second site, the 40-acre Upper Clear Creek Mitigation Site, was then left with an inaccurate name that lost context with the renaming of the lower site (Port of Tacoma 2021; Pierce County 2024; U.S. Environmental Protection Agency 2013).

just upstream (Clear Creek RM 0.4) of where Swan Creek drains into Clear Creek at RM 0.15 (Pierce County 2024, 2025a, 2025b).

Supporting these restorations, culvert removals funded through a 7.4-million dollar grant awarded to the Puyallup Tribal Fisheries Department by the Department of Transportation's National Culvert Removal, Replacement, and Restoration Program have the potential to further increase fish mobility on Puyallup Tribal Lands and withing the Clear Creek Basin (Jasmin 2023). Puyallup Tribal Fisheries has planned culvert removals at each of the Basin's four main tributaries (Swan, Squally, Clear, and Canyon Creeks) where they cross under Pioneer Way and the BNSF rail line (Jasmin 2023). In addition, Pierce County, FFTF, and the RSP have also begun the process of planning for the removal of several other undersized and outdated culverts within the Clear Creek Basin through the National Culvert Removal Project (Jasmin 2023; Pierce County 2025b). These actions would notably include culvert removals at Nancy's Ditch and Gay Road each of which have been observed to both impede Salmon and worsen flooding conditions in the lower and middle reaches of Clear Creek (Floodplains for the Future 2021; Marks et al. 2023; Pierce County 2023). This would further reopen pathways to much needed upstream spawning habitat, forming vital connectivity with rearing and foraging habitat in the restored lower reaches of Clear Creek (Jasmin 2023; Marks et al. 2023).

Pierce County and its partners have also begun a flood prone property buyout program using federal grant money to purchase repetitive loss properties, remove their structures, and return their Land back to the floodplain (Floodplains for the Future 2021; Pierce County 2025b). Having already acquired over 200-acres between the Port of Tacoma and Pierce County, this

program is a first step in widespread floodplain reconnection and restorations in the Basin (Pierce County 2023). Next steps include expanding the Upper Clear Creek Mitigation Area for the Port of Tacoma, the remeandering of Clear Creek above the Gay Road culverts, the remeandering and floodplain reconnection of lower Canyon Creek, improved fish passage around the former trout hatchery at Clear Creek RM 1.9, improved agricultural drainage and filtering from the farms surrounding CLS, and possibly even an eventual removal of the restrictive floodgates at the nexus of Clear Creek and the Puyallup River (Floodplains for the Future 2021; Marks et al. 2023; Pierce County 2023, 2025b).

While many of these projects are in their early phases of community input, design, planning, and funding, if completed they would represent transformative, ecosystem-wide change in the Basin. To keep track of this transformation, the FFTF partnership has centered monitoring, learning, and improving the practices and approaches utilized while working towards shared goals since its inception in 2013 (Floodplains for the Future 2021). This approach was reaffirmed as a foundational part of the 2019 RSP as well (Pierce County 2025b). As a result, the benefits and outcomes of all the above actions are also being carefully analyzed and monitored by FFTF and the RSP through the Pierce County Department of Planning and Public Works (Floodplains for the Future 2021; Pierce County 2023). This is in addition to ongoing monitoring practices by the Puyallup Tribe of Indians Water Quality and Fisheries Departments (Marks et al. 2023; Naylor et al. 2024).

These projects and restoration sites are collaborative works driven by the Puyallup Tribe of Indians, Muckleshoot Indian Tribe, local nonprofits, the Port of Tacoma, and Pierce County

(Floodplains for the Future 2021; Pierce County 2025b). They are additionally supported through funding by the U.S. Fish and Wildlife Service, Bureau of Indian Affairs, National Oceanic and Atmospheric Administration, Washington Department of Ecology, Washington Department of Fish and Wildlife, Washington Department of Natural Resources, Washington State Department of Transportation, The Nature Conservancy, and Puget Sound Partnership (Floodplains for the Future 2021; Pierce County 2025b; Port of Tacoma 2021).[22]

While the futures always contain degrees of uncertainty and planned restorations and projects in the Clear Creek Basin are not necessarily guaranteed, even partially completed, they offer a transformative hope for more connected communities and ecosystems. When taken collectively, these efforts amount to restoring and reconnecting a majority of the channels, wetlands, and riparian areas in the small but important Clear Creek Basin. They are supported by decades of evolving collaborative partnerships as well as tangible benefits from past, current, and future restorations. For the Puyallup Tribe, local community members, and CLS students these actions make a compelling case that they could be an active part of Salmon resurgence in the Basin within the not so distant future. For all residents in the Basin, they offer the potential of better flood controls and more climate change resilient communities. Despite challenges, potential futures in the Basin are bright, offering a landscape of hope for current and future stewards of the region.

[22] It is possible that the wide array of unprecedented changes within the current federal government have the potential to disrupt and delay many of these projects which rely in part on federal grants and allocations (Most 2025; Washington State Office of the Attorney General 2025). Luckily, over 25-million in supplemental funding allocations to temporarily fill potential deficits has already been approved by the Pierce County Council (Most 2025). Additionally the questionable legality of many of the current administration's actions have given rise to multiple lawsuits and a constantly changing picture of what the future landscape of federal funding might look like (Washington State Office of the Attorney General 2025).

Stewards of Lake Leschi

The Clear Creek Repetitive Loss Area lies within a stones throw of the CLS athletic fields located directly to the west north west of the school's main building. Though not explicitly planning for the effects of climate change, during the school's construction in 1996, the Puyallup Tribe did take flooding risks into account while designing the school's campus. By elevating the grounds approximately 4 to 5-feet using fill dirt from developments located in downtown Puyallup to a final elevation of 23 to 27-feet above sea level the Tribe was able to protect the campus from all but the most severe flooding events (Northwest Hydraulic Consultants Inc. 2018, p. 8).[23] Additionally, during construction, the Puyallup Tribe recognized impacts the CLS Campus would have on the Land and hydrology by voluntarily constructing a wetland to offset and buffer the campus from the Basin's floodplain. This included the creation of a small Lake between the campus and the Repetitive Loss Area that would become the future setting for this project.

This small Lake became known as Lake Leschi after Leschi the War Chief of the Nisqually, who refused the signing of the 1854 Medicine Creek Treaty because it failed to provide the Tribe with good Land within its usual territories. Leschi the Chief was an honorable leader who fought and advocated for the rights of Native Peoples throughout the region. In 1858 Chief Leschi was unjustly hanged by then Washington state governor, Issac Stevens. However his legacy has endured as a Leader, Peacemaker, and "a Martyr to Liberty, Honor and the Rights of his Native Land." (Carpenter 1971; Chief Leschi Schools 2025).[24] Honoring the great Chief's legacy, it is

[23] This story was told to me informally on a variety of occasions and the school's transformation, as well as the creation of Lake Leschi, can be seen by scrolling back to historical satellite imagery of the site on Google Earth.
[24] The quote "a Martyr to Liberty, Honor and the Rights of his Native Land" is attributed to the inscription on the back of the memorial at Chief Leschi's grave at the Cushman Indian Cemetery located on the administrative grounds of the Puyallup Indian Reservation in Tacoma, Washington. The full inscription reads as follows: "*Judicially*

for whom that the school itself is also named. Just like the school, Lake Leschi is a meaningful place for Puyallup Tribal members, CLS staff, and its students. It represents the hopes, dreams, and desires of so many people that it is an honor to be a part of it in any way.

After the construction of the school the Puyallup Tribe, CLS staff, teachers, volunteers, and administrators had a big job on their hands. They were building a new school and growing as an institution, as well as resurging as a People and a Nation. Focusing on the school and giving students the education they deserved became the first priority for the Puyallup Tribe and CLS staff. School buildings and the central campus came first. Open fields became manicured athletic fields and eventually a small sports complex with a stadium for teams and events. Community members, school board members, the Puyallup Tribal Council, Tribal Elders, Teachers, and Cultural Leaders threw everything they had towards building up the institution, curricula, and supporting students. While the school and students grew, Lake Leschi and its surrounding wetlands waited patiently.

Then in 2020, Elsie Mitchel, a new CLS CTE teacher in the Science and Ecology Pathway, began restoring the littoral area alongside Lake Leschi with the help of Puyallup Tribal Fisheries, her students, and a few other dedicated CLS community members (E. Mitchel, Personal Communications, April 2024; Puyallup Tribe of Indians 2025a). They secured funding through Pierce County's "Watersheds Small Grants Program" as well as the Pierce Conservation District, "Green Partnership Fund" for the project then titled: Make Lake Leschi Accessible To All (Pierce County 2020, p. 1; Pierce Conservation District 2020, pp. 5-6). With the support of the

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murdered on February 19, 1858, owing to misunderstanding of Treaty of 1854-1855, serving his people by his death. Sacrificed to a principle. A martyr to liberty, honor and the rights of his native land. Erected by those he died to serve." (Carpenter 1971; Chief Leschi Schools 2025).

School Board, she worked tirelessly to advocate for, and begin to realize what had once only been a dream for many CLS teachers, staff, and students; a thriving outdoor classroom space where students could learn in a hands-on outdoor space, applying their knowledge and building real world experience for future careers and opportunities (ClimeTime 2025; E. Mitchel, Personal Communications, 2024-2025; Puyallup Tribe of Indians 2025a).

Image 1. Make Lake Leschi Accessible To All Master Plan. This image hangs in one of the display cases near Elsie's classroom. It was made by students during Elsie's initial Make Lake Leschi Accessible to All project in 2020. With ideas like water quality sampling, a Pond Committee, weekly adventure lessons, a boardwalk to improve accessibility and protect the ecosystem, a challenge course to hone social and emotional skills, a vlog (video blog) to capture student involvement, outdoor learning spaces, as well as apprenticeships and field trips, it captures the desires of teachers and students alike.

Building off of this momentum, Elsie secured funding in 2021 and began expanding the outdoor classroom space to include a small modular hatchery for students to begin hatching, rearing, and

releasing their own young Salmon into the Clear Creek Basin (ClimeTime 2025; E. Mitchel, Personal Communications, 2024-2025; Puyallup Tribe of Indians 2025a).[25] In the spring of 2022 students raised and released their first batch of fry, freeing over 15,000 Chum Salmon into the waters of Canyon Creek that run adjacent to Lake Leschi and the CLS campus (E. Mitchel, Personal Communications, 2024-2025; Puyallup Tribe of Indians 2025a). In subsequent years, students in Elsie's classes have spawned, hatched, and released over 30,000 Coho and Chum Salmon into the Basin's waters with support from the Puyallup Tribal Fisheries Department (Puyallup Tribe of Indians 2025a; Pyle 2024).

Despite recognizing the importance of having an applied, outdoor learning space accessible for students on the CLS campus, I often heard from Elsie and other CLS teachers and staff that the task of teaching and mentoring students was more than a full-time commitment even without taking time grow a restoration site, maintain the space, and run a small Salmon hatchery. In this way, the main challenge to overcome for the site's continued success became not one of desire or wanting, but rather of capacity and limited hours in the day.

The result was that prior to this collaboration, these gaps in capacity had allowed invasives to recolonize much of the original site that Elsie and her students had restored in 2020. This original site required maintenance and improvements for it to continue to grow into its full potential as an outdoor classroom space. Additionally, to create a space large enough for multiple classrooms to utilize the area at once, the original site needed to be expanded by clearing the surrounding area of invasives and replanting it with Native Plants. And finally, to ensure the space is safe for

[25] Funding secured through the ClimeTime Climate Science Initiative facilitated by the Washington State Office of the Superintendent of Public Instruction (OSPI) and originally created via a Washington State legislative provision requested in 2018 by then Governor Jay Inslee (ClimeTime 2025).

students of all ages and abilities to come and learn, new paths and gathering areas need to be constructed with a careful eye to drainage and groundwater flow to ensure they are accessible for students and teachers throughout the year. With this backdrop in mind, the primary aim of this collaboration between CLS and UW SMEA graduate students became one of filling these immediate gaps in capacity with the eventual goal of expanding internal capacity within CLS to support the site's thriving survival well into the future.

Gratitude for the UW Team

To be part of the long-term hopes and dreams of an entire community has been an unbelievable honor. My involvement in this project first began through a different collaboration between CLS and UW SMEA that focused on utilizing digital storytelling to empower students.[26] However, the more time I spent volunteering at the school the more my work shifted to support the Puyallup Tribe and the schools long time dream of a thriving outdoor classroom space at Lake Leschi.

During this period I worked most with fellow UW graduate student Kayley Pingeon. Kayley grew up in Graham, Washington, just to the southeast of CLS and brings with her diverse experience in American Indian Studies (AIS), natural resource management, environmental science, and riparian restoration projects in Washington state. Kayley is passionate about Orcas and the environment and views Salmon habitat restoration as a key component of Orca protection. She is a Board Member at Orca Conservancy, a Washington nonprofit that seeks to support thriving futures for Orcas in the Puget Sound through diverse, comprehensive, and

[26] My initial introduction to CLS as well as the Nisqually and Puyallup Tribes was initially made possible through an existing relationship between Binah McCloud (Puyallup), Hanford McCloud (Nisqually), Annette Bryan (Puyallup), and Dr. Patrick Christie (UW SMEA Professor).

collaborative solutions.[27] She is also the Executive Director of Free the Green, a Washington nonprofit dedicated to habitat restoration in Pierce and King Counties.[28] On top of this Kayley is also a mother to a daughter and a protector of all creatures wherever she encounters them. Together Kayley and I spent a lot of time clearing invasives, nurturing Native Plants, and mentoring students. If I ever use the term "we" without prior clarification then "we" means Kayley and I.

In the last six months of the project we were grateful and honored to be joined by two new UW SMEA graduate students Zoe DeGrande and Will Burnham. Both Zoe and Will are SMEA Graduate Students as well as Foreign Language and Area Studies (FLAS) Fellows. They both bring unique perspectives as interdisciplinary scholars focused on transforming local resource management and conservation programs and practices. Their contributions have been invaluable for the project and "we" are honored to have had the privilege of working with them.[29] In particular their willingness to jump right in and help with site maintenance facilitated a smooth transition between SMEA graduate cohorts by building trust and relationships with CLS teachers, leadership, and students. This gift of their time allowed Kayley and I the piece of mind that the project would continue "in a good way" well past our involvement.[30]

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[27] More information on Orca Conservancy can be found on their website, https://www.orcaconservancy.org/.
[28] More information on Free the Green can be found on their website, https://www.freethegreen.org/.
[29] Throughout this project I have been honored to work with a wide variety of amazing, talented, knowledgeable, passionate, and dynamic individuals. The many relationships created and nurtured within and around the project exist well outside of the bounds of 'research.' They are constantly growing, evolving, and expanding beyond the confines of this thesis and certainly beyond the confines of my own understanding. Rather than limit these people to a stagnate list of introductions, I hope to represent and honor their contributions by introducing them in narrative form as I tell the "Story of the Garden" later in this work. Thank you to everyone, thank you.
[30] The phase "good work" or "in a good way," is an awareness that has been passed to me while working with the Nisqually, Puyallup, Shoalwater Bay, and Lower Elwha Klallam Tribes of the Coast Salish Region (Washington State and beyond) as well as in a variety of other Indigenous contexts over the last few years. The phrase "in a good way" holds varying significance to different Indigenous People and its true meaning and significance extends beyond my background and current awareness. As a result I share the words of researchers Heather Sauyaq Jean Gordon (Iñupiaq, citizen of the Nome Eskimo Community) and Deana Around Him (Cherokee Nation): "Doing something "in a good way" means that before starting a task or activity we honor our history, our traditions, our

Image 2. The UW SMEA Student Team. From left to right: Will Burnham, Zoe DeGrande, Kayley Pingeon, and Thor Belle.

ancestors, and our spirituality… this is an Indigenous relational approach, and it is grounded in Indigenous Knowledges where we view all humans, nonhumans (i.e., plants, rivers, mountains), and more-than-human kin as our relatives" (2025, p. 3). Heather and Deana apply the concept of "doing something in a good way" to Indigenous and non-indigenous researchers working in Indigenous contexts saying; "research in a good way draws on the strength of Indigenous cultures and the impacts include built capacity, centering Indigenous Knowledges, and advocacy for Indigenous goals" (2025, p. 1). The concept has also been described to me by Indigenous mentors and friends as understanding the contexts and histories of a community before doing 'work' or research. While this concept could be considered broad—with varying significance depending on subject and settting—at its foundation is a wonderfully simple lesson. When we engage in research or actions in a way that feels "good or right" we are nourishing our connections and relations, approaching the world with love and kinship, as well as making our surroundings and self a better place (2025, p. 3).

Discourses of Loss and Desire[31]

"...to ask you to tell me a story

about the sweet grass you planted—and tell it again

or again—

until I can smell its sweet smoke,

leave this thrashed field, and be smooth."

Natalie Diaz. 2017. From the Desire Field. p. 13.

This thesis is sensitive. It carries the weight of dreams. Of desire. Of health and wellness—the next generation. It holds Land, Water, Plants, Animals, People before the wash of colonial structures and walks through whispers of knowing I will never understand. It wonders about justice, reparations, and the feeling that something just isn't quite right. It strives to put significance and experience before consequence and category. It hopes to move with intention born of a personal, professional, and scholarly awareness that the capacity to burden—to

[31] The title "Discourses of Loss and Desire" was inspired by Natalie Diaz's second poetry collection *A Post Colonial Love Poem* and specifically the poem *From the Desire Field*. Natalie Diaz is Mojave and an enrolled member of the Gila River Indian Tribe (Akimel O'odham). *From the Desire Field*, first published in 2017 by the Academy of American Poets, explores the power of renaming, of changing narratives of anxiety and stress into tales of love, desire, and gardens of good. I was reminded of this poem by a friend, SMEA professor Dr. P. Joshua Griffin. While revisiting the poem I came across Dr. Eve Tuck's open letter. It is a powerful, articulate summary of many things I have come to understand over the last two years of 'higher education'. I had been struggling to represent my own journey of understanding through the evolving narratives of loss and desire, deficit and strength-based approaches and Dr. Tuck's letter has served as an invaluable framework for this section. The next 20+ pages contain background information with a particular emphasis on their significance for Native communities and populations. I hope that these contexts allow readers to approach this thesis with a shared understanding (particularly in regards to health and wellbeing) of research within Indigenous communities. These pages are by no means a comprehensive look at the context, history, and complexities that inhabit this realm. Instead they reflect my own path through the lessons and research that guided me through this collaborative project. As always, I encourage readers to use my work as a jumping off point for their own evolving journey. Please explore the primary sources of this work and cite and uplift the Knowledge Holders whose efforts have made my own journey possible.

harm—is often only a short miscalculated step away from care (Anderson and Cidro 2019; Cajete 2016; McMullin et al. 2023; Million 2009; Starblanket 2018; Trask 1996).[32]

With this awareness, I offer the following sections as I draw from a broad ecosystem of literature and experience to examine some of the perspectives that have come to shape conversations relating to Indigenous health, wellness, and the environment. Within them I attempt to contextualize the narratives of these conversations through frameworks of desire, strength, and abundance over all too common narratives of loss, damage, and deficit. The background and context provided by these sections has profoundly affected the methods and approaches I have used in this collaboration.

I have also learned that many lessons and frameworks relevant to Indigenous communities lose their specificity, power, and meaning when they are stripped of their history and context. In this way the early context-rich nature of this thesis is representative of my own journey while working with the CLS Community and the Puyallup Tribe of Indians. I have learned to trust in this process and I ask that readers approach these sections with an open mind and heart—trusting that the parts beget the whole.

[32] Within these sections are examples of how possible misunderstandings and their unintended consequences can mar the work of otherwise well intended researchers and professionals working in the fields of health, wellness, and the environment. I include these examples not to be overly negative or to give the impression that I don't believe non-native folks should be working in collaboration with Native groups, but rather as cautionary contexts for those engaged in this work. I hope to both acknowledge historical injustices as well as call attention to the fact that their contemporary equivalents are unfortunately not yet uncommon. Representation, reparations (Land Back), systemic changes, and misunderstandings are continuing challenges that cannot be sidelined or overlooked within the research process or its related relationships.

Creating Space for Desire

"While there is loss, my ancestors filled it for me with a thousand ways of love, with power, with dreams, with caretaking one another and this earth, with anger, with rage, with story."

Natalie Diaz. 2020. Natalie Diaz Unravels What It Means to Be American and Native.

Interview By Arriel Vinson, Electric Literature.

In the Fall of 2009, Dr. Eve Tuck (Unangax̂, enrolled member of the Aleut Community, St. Paul Island, Alaska) published an open letter in the Harvard Educational Review titled, *Suspending Damage: A Letter to Communities*. The message of this letter reads as clear as a bell tolls on a cold morning—stop operating "even benevolently, from a theory of change that establishes harm or injury in order to achieve reparation" (p. 413).

Tuck explains how such theories of change are seemingly borrowed from the litigation discourses of early emancipatory and civil rights movements often with varying success (p. 413-414). She presents the premise that in the eyes of many research perspectives, the perceived accountability and change catalyzed by proof of damage frameworks is so great and so successful they have become ubiquitous with social change (p. 414). She acknowledges that while "putting the world on trial" may have initially served to force colonial structures to mitigate some of the harms born of settler-colonial atrocities; the approach is no longer sufficient, often yielding unpredictable results and serving to relegate and further harm Indigenous communities who are working constantly to thrive, heal, and move past historical traumas and present day losses (p. 415).

As Dr. Dian Million (Tanana Athabascan) explains in her 2008 abbreviated essay of *Felt Theory*, "...colonial discourses are the complex outcomes of negotiations where any one strand (position in the conversation) can never be simply extricated from its mutual production in any other" (p. 267-268). In *Felt Theory*, Dr. Million agrees with Tuck and a host of other Indigenous Scholars, Knowledgeholders, and Elders, arguing that "...contemporary representations of historical abuse are languages" which become a "discourse now anchored by an elaborate edifice of memory and emotion in Tribal consensus" (Million 2008, p. 268); ibid).[33]

Navigating these spaces can be daunting and often challenging for both Native and non-native community members, researchers, educators, and health professionals (Million 2008; Tuck 2009). Desire-based language and narratives offer a potential solution, rewriting potential futures through careful, intentional reworkings of today. In her letter, Tuck provides a clear roadmap for desire based research, characterizing it as depathologizing, exposing structural inequity with a focus on its significance for the individual (pp. 415-416); as accounting for, and uplifting hope, dreams, visions, and wisdom (p. 417); as questioning and disrupting the common assumptions of blame, ignorance, and motive (pp. 417-418); as well as an aware and conscious inclusion of the

[33] An important note is that the focus of Dian Million's *Felt Theory* is not solely about changing narratives from damage to desire between and within Native and non-native populations. While this is certainly a piece of the essay its main focus is of the importance of acknowledging the strength, power, patience, and endurance of Native women who have often bore the darkest violences of colonial structures. This message is deeply important to me and I debated using the piece in this context because I do not want to dilute the message of the piece. However a series of conversations helped affirm a belief that by carefully making space for the reference I can find a way to uplift the entirety of its message. The "felt experiences" of Native women who suffered in silence while white women in Canada and the United States fought for and began to obtain their fundamental human rights is not a topic that is easily brought up (as Million notes in *Felt Theory* on p. 270). Million holds that Native women everywhere had no outlet, no recourse for their pain—yet they survived. Facing discrimination from all sides, Native women fought forward, growing stronger in spite of their collective isolation. Through this struggle they "honed and developed a profound literature of experience" which all too often served as the only record of their strength in the face of deep pain and suffering at the hands of colonialism (Million 2008, p. 272).

complex personhoods of all humans as relational figures who cannot be reduced, generalized, or fully understood (pp. 417-419).[34]

A Framework of Desire

"We can change the action. Which changes the story. Which changes the system.

Systems are just collective stories we all buy into."

Baratunde Rafiq Thurston. 2019. How to Deconstruct Racism, One Headline at a Time. 16:10 [video].

In the fields of Landscape Architecture and Urban Planning, the term "desire lines" is used to explain the paths people take that fall outside the prewritten scripts of paved footpaths (Ruíz 2022).[35] Often taking the form of informal lines of wellworn grass and earth, desire lines offer an unscripted view of human movement and longing through time and space. Their paths tell a story of "diverse topological conditions and sociocultural contexts" and often "embody contested relationships between demarcated restraints and the possibilities of people in a place" (Ruíz 2022, p. 21). In our current era of runaway climate change, desire lines can question the resilience of our perceived 'stable state' as well as our prevailing approaches to its maintenance.

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[34] Just as new languages must be learned and practiced with intent for their meaningful integration into our lives, a shift to languages of desire requires careful, conscious work combined with grace and kindness offered to meet any inevitable mistakes made along the way. As a researcher working for a better tomorrow, the potential of desire-based research frameworks is highly relevant to my work. At the beginning of my time in this project, desire and strength-based approaches to challenges was not something I had ever received much formal training in. Growing up on boats and farming taught me to find problems and fix them. Undergraduate research in fisheries biology underscored this with an emphasis on finding and following numerical data to make effective decisions. Shifting my perspective and reframing things has (and will continue to) challenged me greatly. However, I am forever grateful for the many lessons I have received throughout this process.

[35] The term desire lines came to me through a 2022 analysis of the films of Indigenous film maker Sky Hopinka (Ho-Chunk Nation, Pechanga Band of Luiseño Indians) by Diana Flores Ruíz in the Journal Film Quarterly. However the term originated much earlier in 1958 by French philosopher Gaston Bachelard when he described "pathways of desire" in his powerful work, *The Poetics of Space: The Classic Look at How We Experience Intimate Places*. The term is also linked with another French philosopher, Michel de Certeau and his exploration of the "rhetorics of walking" discussed in his 1984 work, *The Practice of Everyday Life* (Ruíz 2022, p. 21).

Their very existence belie the dominance of the systems and entities we all inhabit. This ability to contradict, to betray cracks in the facade of a status quo, is particularly poignant in the context of historically marginalized communities. Communities that often experience contemporary injustices in the form of systems, languages, and approaches not designed for them. Here desire lines can ask important questions about whose needs aren't being met and why (Ruíz 2022, p. 21). They offer a flexible conceptual example for highlighting and learning from different perspectives, cultures, experiences, and worldviews. Threads of desire woven together form alternative frameworks of existence rooted in the continued strength, values, and needs of Peoples and Places otherwise not accounted for by many western approaches. By centering frameworks of desire—the spaces between the obvious—specific and diverse needs, wants, and hopes can materialize to offer both researcher and research partner greater efficacy within collaborative projects.

While their existence questions, desire lines and frameworks of desire, can simultaneously offer answers to persistent problems by highlighting alternatives to preconceived or existing approaches. In this way they can facilitate thriving communities, economies, and environments for all People. In the context of my work with CLS, desire lines can offer tangible examples of future possibilities despite current conditions and infrastructure. Trampled paths through invasive reed canary grass leading from Lake Leschi to the banks of Clear Creek tell tales of CLS student and teacher desires to more widely utilize the space. Muddy holes made by stray footsteps along existing paths hint that new or wider footpaths might be needed in some areas. These traces upon the landscape offer the hints of the unspoken requests of the CLS community—informed understandings for later formal inquiry. By expanding the concept to the greater Clear Creek

Basin surrounding CLS, one could say the flooding waters of the Clear Creek Basin form desire lines along the perimeter of its repetitive loss area. Here regardless of demarcations, even expensive floodgates and years of dredged channels cannot hide lines of muddy leftovers and flood debris tucked high into the crooks of trees. Such repeated outlines of the Basin's historic floodplain offer telltale signs of longing between previously connected ecosystems, clues for future restorations. At Lake Leschi and with the CLS community we can listen to the calls of the landscape and its inhabitants to better serve both.

Survivance

As we move from frameworks of loss, deficit, and western-settler approaches of 'correcting' them, many Native Scholars have theorized that it may be necessary to change or adapt the terms we use to describe our world (Fish and Syed 2018; Henry 2019; Miller 2008; O'Keefe et al. 2021; Wilbur and Gone 2023). The term Survivance was first introduced in 1994 by Anishinaabe scholar and writer Gerald Vizenor of the Minnesota Chippewa Tribe (Vizenor 1999). Survivance offers unburdened insights into alternative thriving futures and a potential to better describe "modern Indigeneity" (Wilbur and Gone 2023, p.1). "Instead of focusing on deficit, Survivance allows for recognition of the exceptional, the remarkable, the strengths of communities" (Henry 2019, p. 21). At its root, Survivance is a combination of survival and resistance. It is active, acknowledging the historical and cultural strengths that all Indigenous people share, providing a place for growth (Glancy 2008). Vizenor (1999) saw survivance as an active conversation between Native resistance and thriving resurgence—its definition built and shaped by many stories in "cultural conversion and native modernity" (Vizenor, 1999, p. x). He emphasized that

Native peoples inherently embody survivance—in their lives, their histories, their cultures—in relationships with ancestors, future generations, and the environment.

Survivance is a term created by Native people, for Native people. It resists narrow definitions and overgeneralizations, allowing Native peoples to transcend and break free of heterogeneous narratives of adversity and subjugation on their own terms (Wilbur and Gone 2023, p.1). While it shares similarities with the long evolving term resilience, in the context of shifting approaches from deficit to desire, from vulnerability to strength, Survivance "carries significant potential as an alternative to terms like resilience" (Wilbur and Gone 2023, p. 2). Resilience, at its core, often "explores responses to adversity" limiting its ability to break free and adapt to alternative narratives of modern Indigeneity (Wilbur and Gone 2023, p. 1). This association can reinforce the status quo and prevent progress, health, and equity (Wilbur and Gone 2023). By centering Indigenous perspectives and values from inception, Survivance has the potential to better serve Native People, communities, and their environments through fresh approaches free of preconceived definitions, perceptions, or associations (Glancy 2008; Henry 2019; Wilbur and Gone 2023).

In Figure 1 I explore how common words associated with both resilience and Survivances can represent shifts in perception from those of passive endurance to those resurging resistance in Native communities. This figure demonstrates how "surviving while thriving," or Survivance, can offer an alternative to the term resilience for Indigenous Communities, collaborators, and non-native allies. Originating from, and predominantly used by Indigenous scholars, Survivance offers original, unrestricted, and unburdened approaches that transcend the limitations of

"Indigenous Resilience" across time and space. Utilizing a list of synonyms and associated words, the figure explores how this shift is representative of an active transition from passive endurance to resurging resistance.

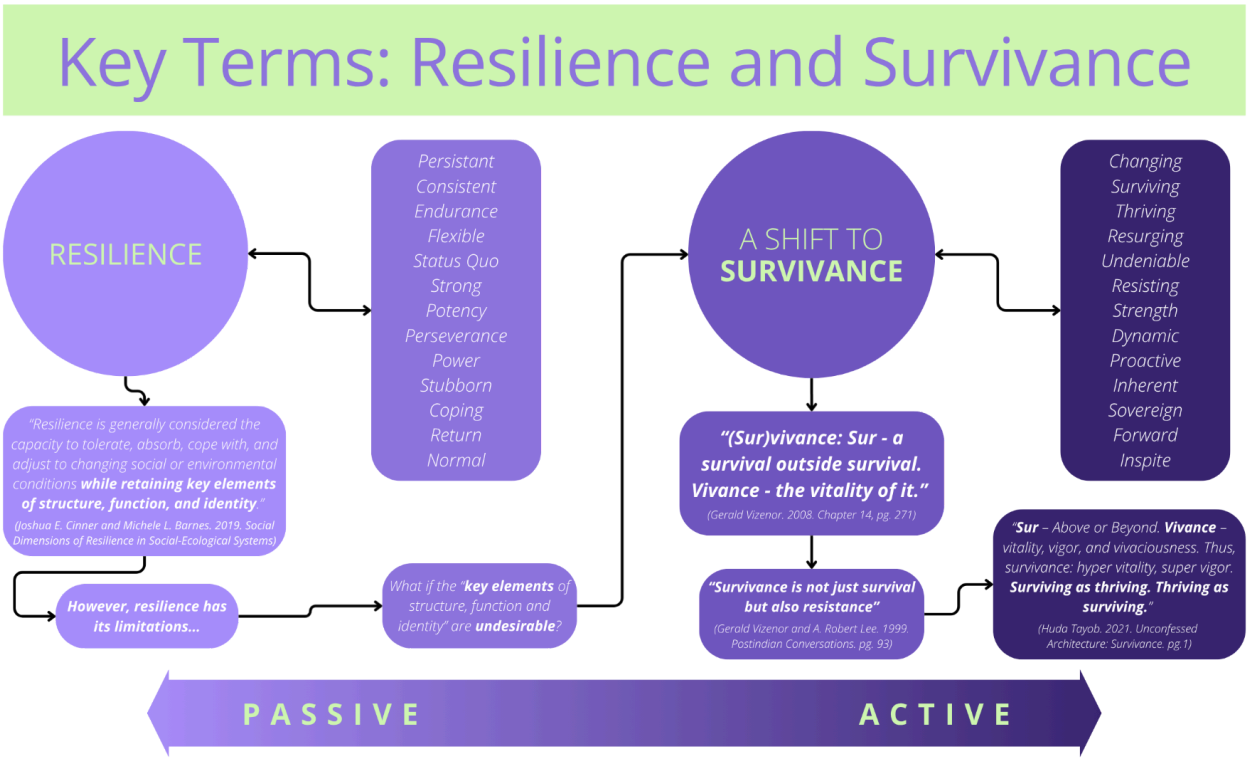

Figure 1. Key Terms: Resilience and Survivance.

In a 2023 review of scientific papers focused on health and wellness and utilizing the term Survivance (*n=32*), Rachel E. Wilbur (Tolowa and Chetco descendant) and co-author Joseph P. Gone (Aaniiih-Gros Ventre Tribal Nation) found the use of the term to be both increasing and gaining traction across 22 different fields of study. The authors utilized a thematic analysis to categorize use of the term into several common themes surrounding Native health and wellness. Wilbur and Gone identified these themes as; shifting narratives, enhancing Sovereignty through empowerment and agency, nurturing Traditions and Decolonial actions, enhancing community and collectivism, and temporality in reference to intergenerational learning, continued practice,

and the importance of the current moment in time. At CLS, although they are not actively presented as Survivance, all of these themes are an integral part of the School's Mission and structure. The term Survivance thus offers another contextual example helping UW researchers (me in this case) align their work with the goals and approaches of the school.[36]

Indigenous Approaches to Health and Wellness

"...Indigenous peoples have been healing their communities without western legitimization for centuries, predating western psychologies and modalities of healing."

Jillian Fish et al. 2022. "Walking in Two Worlds": Towards…, p. 626.

The CLS campus is steeped in the themes of health, wellness, and a healthy environment. Everpresent in the form of posters, lesson plans, conversations, and programming these themes represent many desires within the CLS Community. The Lake Leschi outdoor classroom space and restoration site represents a continuation of these desires and needs within the CLS Community. Through early conversations within the school it became apparent that many CLS community members are worried that students—the next generastion—are increasingly becoming separated from their connection to the environment and their traditional roles as environmental stewards. Some community members believe that the decline of this connection is

[36] Wilbur and Gone also noted that the term Survivance was most often used by early career Indigenous scholars in their doctoral dissertations. Theorizing that this could indicate that early career scholars are "increasingly identifying with survivance over other similar terms, such as resilience" they also emphasized the term was often used by scholars attempting to reflect broader Indigenous concepts of health and wellbeing (Wilbur and Gone 2023, p.11). Both of these reflections mirror my own experience in these settings while serving the double purpose of uplifting Indigenous scholars and younger generations. Listening to and providing space for the younger generations to speak is another lesson I have learned from my mentors and those I look up to. These reasons have also contributed to my choice to utilize the term Survivance in this thesis and my work with CLS.

at least partially behind some of the health and wellness challenges experienced by the CLS student body.

The themes of health and wellness has been an evolving piece within this collaboration, moving from an overt emphasis early on in the project to a later innate emphasis with undefined qualities. This shift was informed by the following research into Native health and wellness frameworks (predominantly in the US and Canada though similarities exist in other locations). These frameworks and approaches were instrumental in making the Food Forest Project relevant to a wider audience within the CLS community and the Puyallup Tribe of Indians.

Contrasting Approaches

"We only know what we know until someone knows better.

A rose by any other text will still be Rosetta…"[37]

Chance the Rapper, Verse 2, *Broad Shoulders* by Taylor Bennett

Many Indigenous understandings of health and wellness are more comprehensive than western-settler approaches to health and healing (Hodge et al. 2009; Hunter et al. 2022; Fish and Syed 2018; Fish et al. 2022, 2023; O'Keefe et al., 2021, 2022, 2023). Indigenous concepts of health and wellness are expansive with themes of connectedness, empowerment, Relationality, Place, History, Culture, and Survivance (Fish and Syed 2018; Fish et al. 2022, 2023; O'Keefe et

[37] These lines come from a Taylor Bennett song written in tandem with his big brother, Chancelor Bennett (Chance the Rapper). In the song, "Broad Shoulders," the brothers trade verses back and forth about the process of growing up, learning, and relearning. It draws from Shakespeare's Romeo and Juliet, and the play's adage, "A rose by any other name would smell as sweet." Here Chance also invokes the Rosetta Stone, a Hellenistic period artifact used by modern archeologists to decipher ancient Egyptian Hieroglyphs. Taken in concert, the lines emphasize lifelong learning, balancing knowing and not knowing, and the idea that certain things have inherent meaning regardless of language, written or otherwise (Bennett and Bennett 2015; Hinks 2022).

al., 2021, 2022, 2023; Wilbur and Gone 2023). For example, within many Indigenous-led health services there is no separation between the health of the mind and body as we are accustomed to in most western health services. The two are inseparable, deeply rooted in a connectedness between physical and mental health as well as an individual's connectedness to the many relations around them. As O'Keefe et al. (2022) explains, "*...mental health is intrinsic and integrated with health and wellness. Indigenous mental health and well-being also includes connectedness with ancestors, family, community, and lands, as well as storytelling, ceremony, spirituality, cultural identity and engagement, and self-determination.*" (p. 2). As a result, many western health and mental health services tend to lack cultural, regional, and generational relevance for many Native Peoples, often making them ineffective in Indigenous communities, (Hodge et al. 2009; Hunter et al. 2022; Fish and Syed 2018; Fish et al. 2022, 2023; O'Keefe et al. 2021, 2022, 2023).

Furthermore, western health services can yet again serve to perpetuate colonial perspectives and practices through deficit-based approaches and narratives of loss in both practice and research (Hodge et al. 2009. pg 211). Deficit-based approaches are risk and individual focused. They tend to pathologize or treat others differently based on their non-normative behavior or characteristics. Furthermore, they tend to propose western approaches to correct these perceived 'shortcomings' which often serves to further suppress Indigenous Knowledge, Culture, and Practice. As a result, deficit-based approaches often inadvertently reinforce colonial perspectives, systems of power, and resulting inequities by disenfranchising or assuming Indigenous communities are inferior (O'Keefe et al. 2021, 2022, 2023). In contrast, strength-based approaches to health and mental health provide context through historical, intergenerational, social, cultural, and political

narratives. They tend to support existing community strengths, uphold self-determination and sovereignty, promote justice and equity, and consequently, are often much more versatile across different interventions and health conditions (O'Keefe et al. 2021, 2022, 2023).

Health and a Changing Climate

Without these more nuanced understandings of health and wellness in Indigenous contexts western approaches to health and wellness can often inadvertently harm Indigenous People, groups, and communities (Hodge et al. 2009; Hunter et al. 2022; Fish and Syed 2018; Fish et al. 2022, 2023; O'Keefe et al. 2021, 2022, 2023. A good example of this comes from the evolving study of human health and climate change. Across academia and the world there is an increasing awareness of how the challenges of climate change can affect human health and wellness (Cunsolo and Ellis 2018; Ogunbode et al. 2022). Within this growing field, many researchers are recognizing that mental health concerns arising from climate change and ecological destruction are just as important as their effects on physical health (Cunsolo and Ellis 2018; Ray 2021). Many terms like ecological grief or anxiety, climate grief or anxiety, ecoanxiety, and solastalgia are being used with increasing frequency in health research (Brown et al. 2024; Ogunbode et al. 2022).

While often considered "disenfranchised grief" or grief that is not publicly or openly acknowledged, climate and ecological grief has been shown to exist in real world terms (Cianconi et al. 2020; Cunsolo and Ellis 2018). Increased levels of depression, anxiety, substance abuse, post-traumatic stress disorder, and even suicide can be linked directly to acute events, existential threats, and disruptions to the social determinants of health (SDOH) arising from

climate change (Brown et al. 2024; Cianconi et al. 2020; Corvaran et al. 2022; Cunsolo and Ellis 2018; McMichael et al. 2010; Parks, M. 2022; Tribal Adaptation Menu Team 2019).

Some researchers have theorized that psychological conditions arising from climate change might disproportionally affect Indigenous communities and other groups whose livelihood, culture, or spirituality is inherently connected to the Land and Sea (Brown et al. 2024; Corvaran et al. 2022; Cunsolo and Ellis 2018; Ford et al. 2019; Parks 2022).[38] However, terms like climate grief and ecoanxiety may not be relevant to some Indigenous and other historically marginalized communities who have often lived surrounded by the "emotional terrain" of a potentially unlivable future (Ray 2021, p. 1). Furthermore, researchers studying concepts like climate grief and ecoanxiety may actually end up diverting resources from the front line communities who need them most in future climate scenarios (Ray 2021; Schlegel 2022). Worse, the unequal adoption of terms like climate grief by western-settler researchers and liberal elites many even represent more convoluted 'fears of loss' arising from threats imposed by climate change to the structures that support and facilitate their ongoing power, privilege, and wealth (Norgaard and Reed 2017; Ray 2021; Schlegel 2022).[39]

Researchers studying disproportionate mental health effects from a changing climate in Indigenous Populations also tend to emphasize dialogues of loss without fully understanding the many contexts which have given rise to such health disparities (Million 2009; O'Keefe et al. 2021, 2022, 2023; Wilbur and Gone 2023). There is no denying that significant disparities exist

[38] The majority of this literature on 'climate anxiety' is written by western or northern researchers with limited input from the people and communities they 'study' (Ogunbode et al. 2022, Norgaard and Reed 2017; Schlegel 2022).
[39] The fear of loss, either conscious or subconscious, of privileges arising from colonialism and the continued subjugation of BIPOC (Black, Indigenous, and People of Color) entities within western-settler societies is complicated.

across various health metrics between the total U.S. population and the Native American Indigenous population.[40] However researchers emphasizing these statistics often only reflect a small part of a story that is not their own. Such metrics are decontextualized from the historical and systemic contexts that perpetuate them.[41] They fail to recognize the strength, resilience, and survival of many Native people in the face of past and ongoing colonialism, genocide, cultural genocide, racism, and underrepresentation (Million 2009; O'Keefe et al. 2021, 2022, 2023; Wilbur and Gone 2023).

Many Indigenous people and groups have special strengths that increase their resilience or survivance to a changing climate. Some of these strengths include; experience dealing with stressful circumstances, inherent flexibility and strength through close knit communities with sovereign local governance structures, access to Traditional Ecological Knowledge (TEK), as well as a "strong tradition of intergenerational stewardship of and responsibility for the land" (Hatala et al. 2020; McMichael et al. 2010, p. 212).[42] These strengths and many others can often be traced back to the many relationships which make up and surround Indigenous communities. Together these relations constitute what Kyle Powys Whyte (Potawatomi Nation) calls a

[40] According to the CDC, 14.7% of the total U.S. population lives in poverty, while 26.6% of all Native and Indigenous people live in poverty. Additionally, Native and Indigenous People are twice as likely than whites to be unemployed and they report serious psychological distress 2.5 times more than the general population over the course of a month (Mental Health American 2024). In the United States, Native and Indigenous People begin to abuse substances such as alcohol at younger ages and at higher rates than all other ethnic groups, and the rates of suicide in youth ages 15-19 are more than double that of non-Hispanic whites (Mental Health American 2024).
[41] As discussed earlier in this section, this can inadvertently harm some Indigenous communities by perpetuating damaging narratives and further marginalizing groups.
[42] Many of these inherent strengths are also supported by recent research conducted by both Indigenous and non-indigenous scholars whose findings have demonstrated that by increasing community cohesion, promoting self-expression, and more generally empowering participants and their surroundings, Communities can increase their resilience to the mental health consequences of climate and ecosystem change (Brown et al. 2024; Cinner and Barnes 2019; Ford et al. 2018; Hunter 2022; Johnson-Jennings et al. 2020).

community's *collective continuance* or "a community's capacity to be adaptive in ways sufficient for the livelihoods of its members to flourish into the future (Whyte 2013, p. 518).[43]

Deficit to Desire in Native Health

The Indigenist Ecological Systems Model (IESM) aligns with strength or desire based Indigenous concepts of health and wellness by reflecting layered understanding of Indigenous health and wellness through historical, cultural, individual, immediate, surrounding, and distant contexts (Fish and Syed 2018; Fish et al. 2022, 2023; O'Keefe et al., 2022, 2023). It is a flexible framework that acknowledges the broader ecosystems of experiences, relationships, and connectivities which together contextualize health and wellness in Indigenous contexts (Fish and Syed 2018; Fish et al. 2022, 2023; O'Keefe et al., 2022, 2023). Importantly, the IESM recognizes that the individual can only be understood through a relational context with history, culture, ancestors, family, community, spirit, lands, and future generations. By emphasizing the histories and cultures of Indigenous Peoples as profound sources of strength, healing, and wellness, the IESM creates a strength-based vision of development through interconnectedness and relationality across time and Place (space) (Fish and Syed 2018; Fish et al. 2022, 2023; O'Keefe et al. 2021, 2022, 2023).

The IESM was initially adapted from Bronfenbrenner's Ecological Systems Model, first published in his 1979 paper, *The Ecology of Human Development*. First described in their 2018 paper, *Native Americans in Higher Education: An Ecological Systems Perspective*, Dr. Jillian Fish (a lineal descendent of the Tuscarora Nation in the Haudenosaunee Confederacy) and Dr.

[43] This capacity to adapt could also be called Survivance, or the community's natural ability to adapt, grow, and thrive (Wilbur and Gone 2023).

Moin Syed used the model to explain historical and cultural influences on Native American students in higher education (Fish and Syed 2018). The IESM shares similarities with a variety of different Indigenous health frameworks, supporting its relevant adaptation across a range of different Indigenous groups and wellness programs (Fish and Syed 2018; Fish et al. 2022, 2023; O'Keefe et al., 2022, 2023).

In 2022, Dr. Jillian Fish expanded and applied the model while developing "Walking in Two Worlds", a culturally appropriate psychotherapy group for Indigenous students at the University of Minnesota, Twin Cities (Fish et al. 2022).[44] This case study offers many insights that are relevant to own collaboration with CLS including but not limited to; the importance of personal relational experiences for non-native researchers when understanding and contextualizing Native research and health practices (p. 636), being prepared for systemic and procedural barriers to traditional and cultural practices (pp. 632-634), and the need to account for justifiable and inevitable mistrust of non-native and extralocal researchers, program facilitators, and institutions (Fish et al. 2022, pp. 631-633). Dr. Jillian Fish presents the IESM not just as a framework for designing and implementing Indigenous health and wellness programs, but as "a tool, not to examine Indigenous peoples, but for understanding differences in ways of knowing and being" (pp. 626-627). She concludes saying that the IESM is "an invitation" for Indigenous and western ecologies to engage in reciprocal understanding, healing, and transformation (Fish et al. 2022, p. 641).

[44] Dr. Jillian Fish created the "Walking in Two Worlds" program with encouragement and input from the Indian Health Board of Minneapolis in collaboration with Circle of Indigenous Nations and the University of Minnesota's Student Counseling Services program while working towards her PhD in counseling psychology from the University of Minnesota (earned 2020)(Fish et al. 2022).

Dr. Victoria O'Keefe, a Cherokee Nation citizen and member of the Seminole Nation of Oklahoma, further explored the IESM, using it to organize, situate, and evaluate a variety of historically and culturally relevant health interventions, group therapy practices, and research approaches created to support a variety of Native Peoples from within "CANZUS" and particularly Indigenous youth (Fish et al. 2022; O'Keefe et al. 2023).[45] As O'Keefe et al. (2022) explain, "Indigenous populations experience the most positive developmental outcomes when they are able to access their histories and cultures in their environments, and less desirable outcomes when their environments prohibit this" (p. 3). As a non-native researcher working in an unfamiliar space the IESM has been a very helpful tool for contextualizing, supporting, and enhancing the existing health, wellness, and cultural programs offered by CLS through an expansion of the Lake Leschi outdoor classroom and restoration site.

In Figure 2, I combine the lessons of the IESM with a particular focus on how health and wellness interact with the concept of Survivance (in relationships both near and far). This figure illustrates how increasing the connectivities between the various levels of the IESM can trickle inward and outward to nourish the health, wellness, and survivance of each level, including entire communities and the environment as a whole (Fish et al. 2022, 2023; O'Keefe et al., 2022, 2023; Glancy 2008; Vizenor 1999; Wilbur and Gone 2023). In this way "good work" done in one Place can have far reaching, reciprocal effects with benefits that extend beyond individuals, their families, friends, communities, environments, or anything else that interacts with them.[46]

[45] "CANZUS" or "Canada, Australia, New Zealand, and the United States" is a collective term for these nations that share similar histories of European colonization as well as similar legal and political systems (O'Keefe et al. 2023).
[46] See Fn. 30 for an explanation of "in a good way" and "good work."

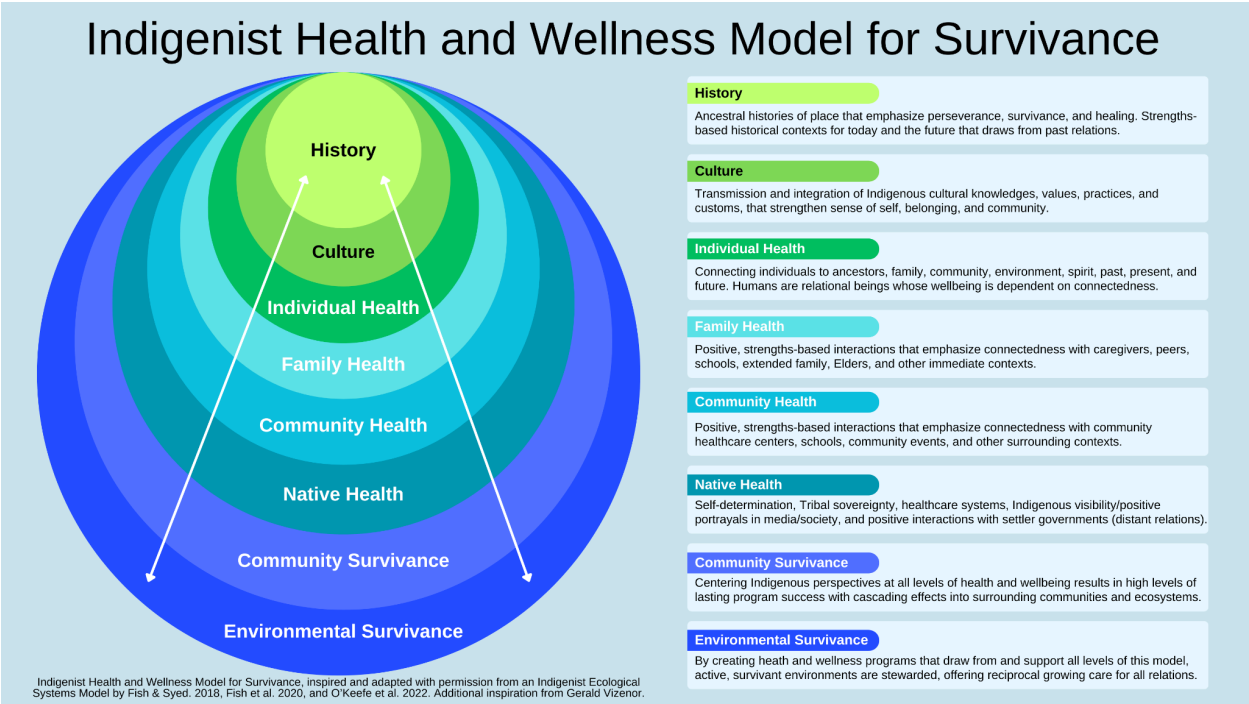

Figure 2. Indigenist Health and Wellness Model for Survivance (IHWMS). The IHWMS provides a map or narrative of Native health, strength, and Survivance. It is an expanded version of the IESM that I began using to organize my own work in a variety of Indigenous contexts.[47] The IHWMS explicitly connects the concepts of Native health and wellness with Survivance, highlighting how programs that nourish all levels of Indigenist health and wellbeing can trickle out through relations to affect community and environmental capacity for survivance; forming reciprocal loops of survivance, health, and wellbeing across all levels of being.

The lessons of an IESM and the IHWMS are supported by an increasing number of studies that find by centering Indigenous knowledge and worldviews in research, program design, and implementation, participants can achieve lasting successes with cascading effects into surrounding communities and ecosystems (Armstrong 2021; Fish and Syed 2018; Fish et al. 2022, 2023; O'Keefe et al., 2022, 2023, Ullrich 2019). Learning from these frameworks I often used them to evaluate my work with CLS—looking both outward and inward—analizing my

[47] Both Dr. Jillian Fish and Dr. Victoria O'Keefe advised me on my initial interpretation of this model in the Spring of 2024 for a Health and Wellness Module I created while providing technical assistance to the Shoalwater Bay Tribe with Dr. Clarita Lefthand-Begay (Navajo Nation) in the UW Information School. I am very grateful for their willingness to share their work with me for these purposes. Dr. Jillian Fish is also responsible for my introduction to the limitations of resilience and the shifting narrative of survivance, when she shared Wilbur and Gone's 2023 paper, *Beyond resilience: A scoping review of Indigenous survivance in the health literature*.

actions, narratives, and practices in an attempt to support as many layers of the IESM and thus IHWMS as possible.

I would like to conclude these sections by stating that knowledge of strength-based recenterings of Indigenous health and wellness frameworks as well as Indigenous responses to climate change and ecological upheaval, helped me better relating to my Indigenous research partners and their diverse experiences in adaptation (Gould et al. 2023; Wilbur and Gone 2023; Wildcat and Voth 2023). Before spending time with these discourses my own awareness of this work was near nonexistent and deeply tied to my background within a western world and positivistic western science. As a result I have often found it difficult to articulate the highly connected nature of this project. By learning from these discourses I feel very grateful to have deepened my own relationships with and within this work, improving my ability to adapt and think quickly while working with CLS Community partners and Puyallup Tribe of Indians. These awarenesses have made me a much better resource for my research partners and the communities I hope to support.

Project Approaches

"Meaningful consultation with Tribal Nations is deeply important and rests upon slow, intentional relationship building in adherence to community protocol."

Reuben J. Martinez. 2024. *Seeking Energy Sovereignty: Pacific Northwest Tribal Engagement in Proposed Offshore Wind Energy Development*, p. 36.

In this section I continue to outline and describe how the above discourses shaped the Food Forest collaboration between the CLS Community, the Puyallup Tribe of Indians, and UW

Researchers with a particular eye to methodology.[48] We begin with a brief introduction and analysis of Community-Based Participatory Research (CBPR) and Participatory Action Research (PAR) as they relate to researchers working with and within Indigenous groups. Pausing to study some of the inadvertent pitfalls of these paradigms we gather knowledge and learn from Indigenous scholars. As we move forward we center Self-Determination, Tribal Sovereignty, and a thriving Native Resurgence as we apply those fundamental principles to the concept of "good work" and what we will call Good Capacity Building in research collaborations between Indigenous and non-indigenous groups.[49] Next we reflect on how these awarenesses shaped shared goals for this project and briefly outline how my own personal framework of accountability guided my work within this project. Finally, we briefly introduce TEK, Traditional Foods, Land-based healing, supporting Future Generations, and storytelling as flexible methods or approaches utilized and explained in greater detail within the results and coda sections that follow.

Balancing Perspectives: A Note on Research Paradigms

The origins of Community-Based Participatory Research (CBPR) include a Northern Tradition of Participatory Action Research (PAR) related to researcher Kurt Lewin and "practical systems improvements" through utility and mutual benefit (Wallerstein and Duran 2018, p. 27). As well as a Southern Tradition of openly emancipatory participatory research, championed by Orlando

[48] History interwoven with concepts and frameworks from Indigenous and other justice-oriented, transformative scholars and knowledge holders has been fundamental in guiding my approaches to this project. Throughout my time working with Alaska Native and Indigenous Indian American populations at the UW Center for Environmental Health I have learned firsthand the importance of uplifting and highlighting Indigenous perspectives and knowledge in conversation, print, and action. Again, I hope to highlight and credit the work of my Indigenous peers and mentors through intentional references and language emphasizing their crucial contributions—wherever possible diverting attention from my own work to theirs—for without their work mine would not be possible.

[49] See Fn. 30 for an explanation of "in a good way" and "good work."

Fals Borda, Paulo Freire, and others, that centers decolonial, anti-oppressive, justice oriented frameworks while also rejecting western domination over People and Place (Brown and Tandon 1983; Wallerstein and Duran 2018). At their core, both traditions involve a relational, reciprocal approach where researchers collaborate with community members, transferring tools, resources, and knowledge to the community to make informed actions in exchange for local data, mutual knowledge generation, and researcher access (Wallerstein and Duran 2018). Both CBPR and PAR exist within a Participatory Research Paradigm (PRP) that in the last thirty years have; "like flows in a braided stream, intermingled more and more" (Chambers 1992, p. 5). For the purposes of this discussion we will refer to them collectively as PAP or PAPs.

Challenges of Participatory Research Paradigms

Though not necessarily explicitly stated, PRPs link social science and social activism with an emphasis on respect, relevance, reciprocity, relationality, towards a community (Brown and Tandon 1983; Chambers 1992; Wallerstein and Duran 2018). As researchers Nina Wallerstein and Bonnie Duran (mixed race Opelousas/Coushatta descendent) put it, "the most important issue for community-based participatory researchers is the relationship between outside researchers and community members" (Wallerstein and Duran 2018, p. 30). When this tendency interacts with our widening systems world where people are no longer described through their lives and relations but rather through their roles within political, economic, and legal systems, it becomes easy for researchers to "take the existence of a collective Indigenous voice and vision for granted, oversimplifying and universalizing the different objectives and priorities of Indigenous people within the collective." (Starblanket 2018, p. 3; Wallerstein and Duran 2018).

"The discursive privileging of "the Indigenous community"" has thus given rise to the creation of methodological frameworks that account primarily for researcher responsibilities to those in positions of leadership and with powers of representation and voice within collectives. Furthermore, it overlooks questions of accountability to those whose existence belies bounded notions of the Indigenous community. Taken together, these tendencies run the risk of reinforcing normative orders and the assumptions they entail, while also containing or marginalizing difference within communities."

Gina Starblanket (Cree and Saulteaux), Complex Accountabilities, 2018, pg. 3.

Over privileging accountability to "the community" in a PRP as well as its unintended consequences can be seen as a catch-22 representative of one of the inherent challenges of working in an Indigenous community as a non-native or even as a non-local Native researcher. A PRP researcher entering a community for the purpose of conducting research, earning a degree, and/or furthering one's career is reliant upon permissions and maintaining good relations with community leaders in power. Without an intimate and nuanced understanding of the power dynamics, biases, and motivations within a community it is difficult to engage in a PRP without compromising in some way its decolonial and equality driven values (Anderson and Cidro 2019). Similarly, the emancipatory goals of participatory research are often in near direct conflict with the funding systems which allow their fruition. For example, achieving meaningful engagement with a majority of community members within the ticking clock of a typical grant calendar is a nearly full time responsibility, that can stretch both community and researcher to their limits while also constituting a dangerous conflict of interest (Anderson and Cidro 2019; Miller 2009; Wallerstein and Duran 2018).

Additional difficulties related to utilizing Participatory Research Paradigms (PRPs) with Indigenous groups are due to fundamental epistemological differences between each (Smith 1999; Wilson 2008). A PRP draws upon critical social theory, acknowledging that a person's understanding is historically and socially constructed through experience and knowledge transfer from one generation to the next (Wallerstein and Duran 2018). While this lens comes closer to the relational foundation of Indigenous knowledge systems, it still interprets understanding through the eyes of individuals (Wallerstein and Duran 2018, pg. 33). In the context of science, this implies a few things: 1) that the knowledge of a community, or a group can be understood; 2) that one group needs the other to generate useful knowledge; and 3) that knowledge can be owned (McGregor 2019; McKittrick 2021). While PRPs emphasize that knowledge generated in a participatory process between the researcher and the community is more valuable and therefore useful than knowledge originating from only one source, they do not inherently place equal value on the knowledge of community and the researcher (Brown and Tandon 1983; Chambers 1992; Wallerstein and Duran 2018). The all too frequent result of these epistemological differences is Indigenous perspectives and knowledge systems that are relegated to that of the supplemental in collaborations with western academic institutions. This constitutes a continuation of the politics of superiority that arose from within colonial discourses (Smith 1999; Wallerstein and Duran 2018; Whyte 2018; Wilson 2008).

Indigenous Research Paradigms

An Indigenous Research Paradigm (IRP) originates in the limitless fundamental relationships of multiple realities. It holds that relationships are the origin of all reality and that these relationships are more important and the entities between which relationality exists. The

importance of these relationships gives rise to the concept of relational accountabilities or healthy relationships generated through principles of Respect, Reciprocity, and Responsibility (Wilson 2008). IRPs offer corrections to western research praxis that do not fully reflect Indigenous concerns (Miller 2008; Smith 1999). IRPs originate in the fundamental right of self-determination and are supported by the pillars of mobilization, healing, transformation, and decolonization that support Indigenous Peoples as they develop, recover, survive, and thrive (Smith 1999, p. 117). An IRP actively acknowledges that "research is not neutral," and that the processes that shape, carry, and share knowledge are foundational, invaluable, and transformative (McGregor 2019, p. 19; Smith 1999).

Indigenous researchers conducting cutting edge research within an IRP have provided many helpful examples for my own work with CLS (Fish and Syed 2018; Fish et al. 2022, 2023; O'Keefe et al. 2021, 2022, 2023; Wilbur and Gone 2023). While IRPs can offer important and invaluable approaches, perspectives, and lessons for both Indigenous and non-indigenous people it is important to understand that their purpose is not to coach non-indigenous people on ethical and informed interactions with Indigenous peoples. In fact they aren't created for non-indigenous people at all (Smith 1999). They are spaces for Indigenous Peoples and agendas (McGregor 2019; Smith 1999; Wilson 2008). Allyship entails acknowledging and uplifting the brilliant and long-standing work of Indigenous researchers who are often systematically misrepresented in academia as a crucial step towards decolonizing the spaces we work, live, and otherwise inhabit.

Learning from an IRP and CBPR

Terms like Two-Eyed Seeing, Nested Knowledge, or Braided Knowledge are all terms developed by Native researchers trying to understand their roles within—or relationship with—western science and its academic institutions (Kimmerer 2002; Peltier 2018).[50] Mi'kmaw Elder Albert Marshall first described the concept of Two-Eyed Seeing in 2004 as part of a collaborative, co-learning journey between Mi'kmaw knowledge holders inhabiting Unama'ki, the "land of fog" (Cape Breton Island in northeastern Nova Scotia, Canada) and researchers from the Cape Breton University (Bartlett et al. 2012). The collaboration arose from concerns within the Mi'kmaw community of the Eskasoni First Nation that youth in their community didn't feel represented in higher education programs (Bartlett et al. 2012). Albert Marshall describes this process as: "to see from one eye with the strengths of Indigenous ways of knowing, and to see from the other eye with the strengths of western ways of knowing, and to use both of these eyes together" (Bartlett et al. 2012, p. 335).

Within the fields of health and wellness, natural resource management, and climate change adaptation, is Indigenous Knowledge and TEK often portrayed as a valuable supplement to western science and academic knowledge (Agrawal, 1995; Berkes, 1999; Burkett, 2013; Cajete, 1999). However it is not necessarily always considered equal in value (Whyte 2018). Kyle Powys Whyte (Potawatomi Nation) discusses the differences between Indigenous knowledge as having 'supplemental' or 'governance value' saying that by framing Indigenous Knowledge as

[50] I have heard from multiple Indigenous scholars over the last few years that they have no patience for non-native researchers who claim to understand and utilize an IRP or Two-Eyed Seeing approaches. As my own awareness has grown on the topic, so too has my agreement with this sentiment. Instead I include these terms, sources, and knowledge not to claim that my own work is representative of them but rather to continue to steer readers towards the work of Indigenous researchers and scholars. Their work is more than a conversation starter or lesson for non-native researchers. Their work is fundamental and their contributions invaluable to research within both Indigenous contexts and academia as a whole.

supplemental we tend to place it in a subservient role (Whyte 2018). At best, this runs the risk of neglecting or inadequately addressing important parts of the reality that surrounds us. At worst, this tendency can perpetuate colonialism through deficit-based approaches and narratives in practice and research. Concepts like Two-Eyed Seeing remind us that not only do Indigenous Knowledges have a place in higher education, but also that they are equally valuable across different ways of knowing.

Self-Determination and Tribal Sovereignty

Self-Determination is the fundamental right of all humans to choose their own destiny without constraints. In the context of Indigenous Peoples, their ability to exercise self-determination is a fundamental aspect of Tribal Sovereignty (College of Indigenous Studies 2025; Whyte 2018). Tribal Sovereignty is the right of Indigenous groups to organize and self-govern both legally and practically (College of Indigenous Studies 2025). Awareness of the Inherent Sovereignty of Indigenous people in what is now the United States is central to achieving the goals of climate justice and resiliency (Whyte 2018). Tribal Sovereignty in the United States is both a part of and apart from, US sovereignty through the federal government's Federal Trust Responsibility and Tribal Nations being considered Domestic Dependent Nations (College of Indigenous Studies 2025). The nexus for this convergence lies in the many treaties signed all over the US where early settlers recognized the governance and thus individual sovereignty of different Native Tribes, Bands, Confederations, and Nations. Thus the legal basis for US sovereignty is also reliant upon effective Tribal Sovereignty, Self-Determination, and honoring these Treaties (Whyte 2018). Or as Shannon Wheeler the Chairman of the Nez Perce Tribe explains: “Tribal Sovereignty *is* US sovereignty” (2023, October 1).

Good Capacity Building[51]

During the 2024 UW CEHE Fall webinar series Jonella Larson, a Yupik carver, mother, scholar, warrior, and leader offered the wonderfully succinct definition of capacity building as "Indigenous solutions to Indigenous problems." With this definition Larson highlighted the fact that by definition, capacity building must come from within Tribes, Tribal Nations, and Tribal Communities (Larson 2024). This does not mean that outside institutions cannot support these initiatives but rather that the direction, goals, approaches, and methods by which capacity is built must center Self-Determination and Tribal Sovereignty from the onset and at all levels of the work.

Early on in this collaboration it became apparent through discussions with CLS teachers and leadership that capacity built without continuance was not desirable. Capacity without continuance represented a type of performative work where benefits were not necessarily shared equally between CLS and its partnering entities. At CLS building capacity in younger generations and the collective continuance of the Tribe is a central part of the schools programing. A good example of this is the school's CTE program that was specifically designed to build lasting internal capacity within the Tribe by providing CLS students with the skills and connections necessary to thrive in Puyallup Tribal enterprises. In this project I learned from CLS that true capacity building is far reaching and comprehensive. It involves multiple generations as well as an awareness of not just creation but also continuation. By combining the principles of "Good Work" with efforts to ensure capacity built at the school had the resources to support its continuance beyond my own involvement, I sought to focus my awareness on achieving "good capacity building" as a result of this shared work.

[51] See Fn. 30 for an explanation of "in a good way" and "good work."

In this context, *Good capacity building* can be defined as a careful awareness of intention, action, and result which serves to respectfully and compassionately support Tribal Sovereignty and Self-Determination by answering community requests for technical support, time, and/or other resources. Good capacity building is not a secondary objective to a researcher's desired research goals or prerogatives.[52] It is a fundamental objective that guides respectful, responsible, and relevant research. In this way capacity building can become both method and result—question and answer. Good capacity building questions the languages of injustice that challenge our untenable present while simultaneously working to undo them through the intentional answering of community desires.[53]

Shared Goals

In this cross-cultural collaboration, shared goals helped facilitate flexible methods and "good work" grounded in intent.[54] This thesis was guided by two overarching goals co-developed with CLS Leadership, Teachers, and Students:

Goal 1: Support CLS with capacity building actions that are celebrated by Students, Parents, Teachers, Staff, and the Puyallup Tribe of Indians.

Goal 2: Ensure that capacity building actions are lasting and working towards a possible future self-sustaining state.

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[52] This does not necessarily mean that interests cannot align.

[53] As Native Hawaiian Leader, Educator, Scholar, and Activist Haunani-Kay Trask explains, allies must "willingly follow our[Native Peoples] lead because they live as uninvited guests in our[Native People's] country" (Trask 1996, p. 914). In this statement, Trask directly reminds us of both historical precedent as well as a shift in perspective between those descended from settler colonizers and those who fought against the practice. To work toward Justice this awareness must supersede the research objectives of western-settler researchers working with Native communities.

[54] See Fn. 30 for an explanation of "in a good way" and "good work."

According to these goals, the restoration project at Lake Leschi is not successful if the burden of maintaining it falls to the school before the CLS community has the long-term capacity to maintain the site. Long-term or lasting capacity is difficult to determine, as the lasting success of this project will not likely be observable during my time in the project. However, through a series of conversations with community members and CLS staff I came to understand that indicators of lasting capacity at CLS include but are not limited to: facilitating a sustainable food forest restoration site that is neither a burden to the community nor unutilized; supporting, inspiring, and employing the next generation of environmental leaders; creating a space that builds off and enhances current resources and curricula in ways CLS teachers and staff have long envisioned; building trusted relationships in tandem with excitement for the project; and finding ways to support the project and its participants that transcend academic and funding calendars.[55]

Institutional Accountability

In accordance with the UW Human Subjects Division and Institutional Review Board (IRB) this project was designated "not research" and given approval by the IRB process a few times while going through its initial relationship building, design, and development phases. In accordance with CLS and Puyallup Tribal Protocol I also received fingerprinting and a background check through the WA Office of Superintendent of Public Instruction at their Capital Region ESD 113 Office. The collaboration was also approved by CLS Leadership, the School Board, and Puyallup Tribal Council.

[55] The tangible and intangible processes through which lasting capacity and community involvement are actualized are discussed in the results section of this paper.

My Own Accountability Framework

Figure 3 shows my basic framework for cultivating relational accountability. I used this framework to guide my approaches and actions to the project and help facilitate a "good" project. Within this framework "...knowing what you cannot possibly know" was provided by careful reflection of my own positionality as well as in-depth literature reviews and history studies of the many topics relating to Indigenous Peoples in the US, Canada, and the World.[56] Throughout my involvement in this project, I also focused my awareness on the potential allocation of benefits and challenges arising from the restoration project and research collaboration. By working to understand how potential benefits are allocated, both present and future, as well as who they might inherently favor, I grounded my accountability to the community and my fellow collaborators. When this context and awareness was combined with careful listening and respectful relationship building, I found ways to better understand if the evolving project was/is celebrated by the CLS community (Gould et al. 2023; Starblanket 2018; Wildcat and Voth 2023).

[56] See Fn. 8 for an explanation of "...knowing what you cannot possibly know."

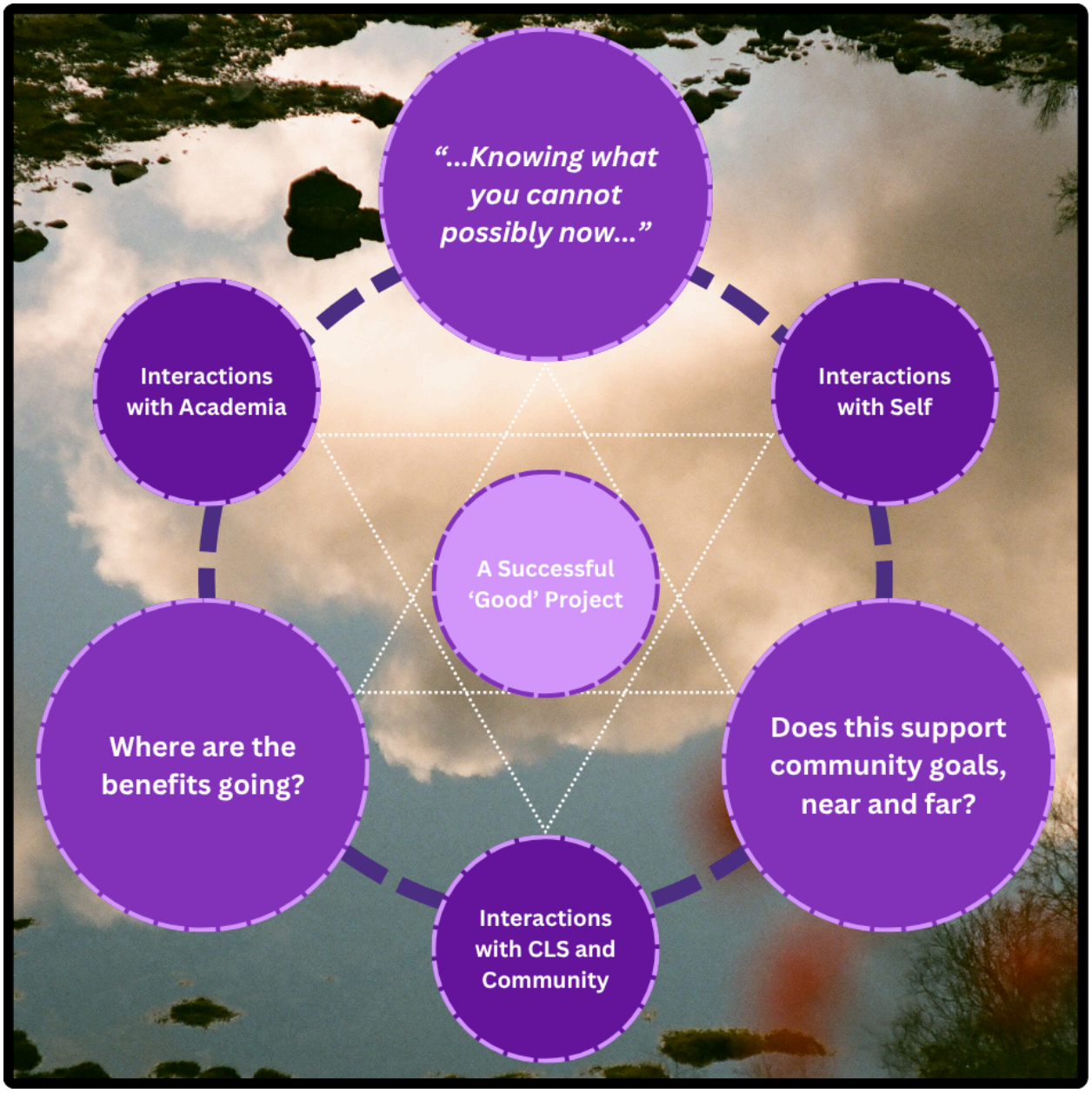

Figure 3. An Accountability Framework of My Own.

TEK, Traditional Foods, and Food Sovereignty

"Traditional relationships are a source of strength and are integral to holistic climate adaptation. These relationships may be strained and pressured by climate change, and adaptation may involve strengthening and supporting those relationships."

Tribal Adaptation Menu Team, 2019, Dibaginjigaadeg Anishinaabe Ezhitwaad, p. 24.

TEK is a term for deep relational knowledge generated through generations (Kimmerer 2002).[57] In Indigenous contexts it can function not only as a reservoir of biological knowledge, but also as a cultural cornerstone founded upon principles of Respect, Relevance, Reciprocity, and Responsibility (Johnson-Jennings et al. 2020; Kimmerer 2002; Tribal Adaptation Menu Team 2019). In any Indigenous groups TEK is directly represented in Indigenous food systems, Traditional or First Foods, and the right to enjoy, practice, and define them (Food Sovereignty) (Acharibasam et al. 2024; Armstrong 2021; Jernigan et al. 2023; Kimmerer 2002). These are integral to many Traditional Foods and Food Sovereignty are crucial aspects of many Indigenous concepts of health and wellness, both through enhanced senses of belonging and self-esteem as well as through general physical health and nourishment (Jernigan et al. 2023, O'Keefe et al. 2023). In her most recent book, *The Serviceberry: Abundance and Reciprocity in the Natural World*, Robin Kimmerer (Potawatomi Nation) explains it this way: "Food in our mouths is the thread that connects us in a relationship simultaneously spiritual and physical, as our bodies get fed and our spirits nourished by a sense of belonging, which is the most vital of foods" (p. 9).

[57] Other terms that share similar definitions include: Indigenous Knowledge (IK), Traditional Knowledge (TK), Indigenous Knowledge of the Environment (IKE), and Native Sciences (Agrawal, 1995; Berkes, 1999; Burkett, 2013; Cajete, 1999).

Through reciprocal relationships with Place, Indigenous Traditional Foods Systems and TEK can also nourish ecosystem survivance and function through cultural practice and environmental stewardship practices honed over generations (Armstrong 2021; Fish and Syed 2018; Fish et al. 2022, 2023; O'Keefe et al., 2022, 2023). This is supported by recent ecological studies that have found areas historically managed using TEK to have positive ecosystem function, health, and species diversity tends observable even after generations of extraction and neglect arising from settler-colonial systems and practices (Acharibasam et al. 2024; Armstrong 2021).

This collaboration works to support TEK and Indigenous Environmental Stewardship Practices at CLS by restoring parts of the Lake Leschi cultural ecosystem with over 25 different Native plant species valued by CLS and the Puyallup Tribe. These species were selected through a series of communications with CLS leadership, teachers, and students and the final list was approved by Cultural Leaders in the Puyallup Tribe. Each plant was selected for its use in Traditional Medicines, Cultural Practices, and/or Indigenous culinary uses as well as its ecosystem function and capacity for survivance in previously disrupted ecosystems.

Land or Place-Based Healing

"Western research philosophies give a lot of power to time while Indigenous philosophies that give that power to Place"

Dr. Dian Million speaks about the importance of Place as it relates to action and practice. Guest Lecture on Felt Theory. April 25, 2024, INSC 598: Indigenous Research Methodologies, Dr. Clarita Lefthand-Begay

It is important to mention that despite high levels of overlap between various Indigenous groups, it remains imperative that Indigenous health programs are grounded in local place, culture, and knowledge (Acharibasam et al. 2024; Johnson-Jennings et al 2020; Reed and Diver 2023). One method that centers these concerns and reframes them as sources of strength is Land or Place based healing (Acharibasam et al. 2024; Johnson-Jennings et al 2020; Reed and Diver 2023). This method complements and originates from the deep and spiritual connection to Place and the environment many Indigenous peoples have cultivated over thousands of years (Hatala et al. 2020; Johnson-Jennings et al 2020; Reed and Diver 2023).[58] In his 2008 essay *Tales of Wind and Water*, T. Mayheart Dardar, born in 1962 on the Houma Indian settlement at Golden Meadow, Louisiana, describes how ties to the land have helped his community recover after damages from climate change and colonialism: "The strength of the land gives us the ability to overcome… our ties to each other and our ties to the land are part of the dynamics of our identity and culture" (p. 29).

In a broad sense, Land-based healing programs seek to address the legacy of trauma connected to the forced removal, assimilation, and subjugation of Native populations, Nations, and Tribes during the last four centuries of colonization by strengthening and rejuvenating "ties to the Land" (Acharibasam et al. 2024; Johnson-Jennings et al. 2020; Reed and Diver 2023). Land-based healing programs can take the form of culture camps, intergenerational learning, community building programs, traditional foods, storytelling, talking or teaching circles, and/or ceremonies (Acharibasam et al. 2024; Johnson-Jennings et al 2020; Reed and Diver 2023). As with many

[58] It is worth noting that in the last several decades the importance of place or location specific research has also been increasingly emphasized in the western sciences through local theory, participatory research, grounded theory, implementation science, and other similar theories and methods (Bernard and Ryan 2010; Brown and Tandon 1983; Chambers 1992; Miller 2008; Schibeci and Grundy 1987; Wallerstein and Duran 2018).

culturally relevant Indigenous health programs, Land-based healing initiatives have been shown to have lasting and cascading effects into their immediate, surrounding, and distant contexts or relations (Acharibasam et al. 2024; Johnson-Jennings et al 2020; Reed and Diver 2023).

The site at Lake Leschi engages and nourishes all levels the IESM, offering students, teachers, community members, and TEK holders a community space to learn, grow, and heal in a semi-formal, reflective, outdoor setting. While not specifically labeled as such, CLS has already begun a process of restoration and land-based healing as Lake Leschi. Additionally the school itself embodies many of the principles of land-based healing whereas 1) the school exists as a representation of sovereignty and self-determination on retaken (purchased) lands that were formally taken from the descendants of the Puyallup Tribe of Indians, 2) Tribal leadership prioritizes programs and initiatives that reconnect students with their culture and history often through historical and contemporary relationships to Place, 3) the school centers Indigenous perspectives, knowledge, and systems as foundational, and 4) the school targets multiple levels of student health and wellbeing through curricula, support systems, after school programing, and cultural events. The Food Forest Restoration and Outdoor Classroom Space at CLS represents a continuation of these land-based healing practices through the co-created space of a riparian restoration site adjacent to a historically salmon-bearing stream.

Supporting Future Generations

To achieve lasting success, any projects that are designed to support Indigenous or Native People's health and wellness must redefine health models, definitions, and services to better reflect Indigenous culture, traditions, ways of knowing (epistemologies), and ways of being

(ontology) (Hunter et al. 2022; O'Keefe et al. 2022; Ullrich 2019; Wilson 2008). Within the broader category of Tribal health and well-being, youth are considered particularly important to community health and survivant futures (Brown et al. 2024; Cajete 2016; Jernigan et al. 2023, Ullrich 2019). Adolescence is recognized as a crucial time where health and wellness can have lasting effects on the long-term development of the individual and as a result their community (Brown et al. 2024; Jernigan et al. 2023).

In many Indigenous cultures youth represent Past Relations, through ties to Culture and History, Present Relations, through their immediate and surrounding contexts, and Future Relations, through their evolving development and yet-to-be Relations (Ullrich 2019). Additionally, in many Native governance and decision-making structures youth are involved in present-day decision making, because they are known to be the most affected by the consequences of any potential actions or inactions (Brown et al. 2024, Jernigan et al. 2023).

At CLS the importance of the next generation cannot be overstated. This collaboration and indeed CLS itself was born out of community concern that their youth were not getting an education representative of their culture while also providing them with the skill and tools for thriving success while existing in a world profoundly shaped by settler colonialism. CLS students bear the collective desires of their families, community, and Tribes and this project endeavors to support existing CLS efforts to empower students while also providing mentorship opportunities, pathways to higher education, and perhaps most importantly enjoyable, healing time outside.

Storytelling

In this qualitative, relational research project "data are the archeological record of experience" (Bernard and Ryan 2010, p. 6). This project moved both slowly and quickly, morphing, growing, and evolving with the diverse experiences of CLS collaborators, Tribal members, UW collaborators, and my own. The difficulty of properly capturing and conveying this diverse range of these experiences in a respectful, ethical, and effective manner has led me to structure the results and conclusions of this thesis largely through a series of meandering stories. Woven from the memories, feelings, notes, music, dances, gifts, conversations, relationships, photos, food, and other moments—the stories from this project offer an archive of valuable data generated from my evolving experience.

A Gift of Time: A Story of the Garden

...A story is never yours, even your own. How can you tell it?[59]

What follows is a story of the Lake Leschi Restoration from my perspective. In this story I move in and out of memories, reflections, technical details, and my own changing awareness as I find my place in the project and at CLS. In this way I hope that my writing can reflect the iterative, evolving nature of the project while also preparing the reader for the Coda section that follows.

[59] This project has always been about way more than me, my thesis, my graduation. It is about supporting healthy communities and pathways to higher education. It is about building capacity and creating new avenues for student success. It is about working and learning together. I am humbled, honored, and grateful for the experience and friends found through this work.

Image 3. 11/12/2024. A photo from before. The restoration site at Lake Leschi on CLS grounds was dominated by three main invasive species, reed canary grass (*Phalaris arundinacea*), scotch broom (*Cytisus scoparius*), and the ever present Himalayan blackberry (*Rubus armeniacus*). This photo was taken while standing in the area previously restored by CLS teacher Elsie Mitchell and looking towards the train tracks that stretch along Clear Creek and Pioneer Road. The average height of the blackberry is head high (6 feet) though in certain areas its height has grown to well above double overhead (12 feet).

Carefully, we squeeze are way past the long hungry thorns of Rubus armeniacus, the Himalayan blackberry.[60] *I stretch the curved tip of an old arborist's climbing saw down and forward towards the roots.*[61] *With quick, careful pulls I separate the long labyrinth of vines from the earth, cutting as many as I can reach before sliding a sturdy branch underneath the pile. Lifting up and pushing forward, I pry and roll a growing tangle of blackberry canes up and over itself, exposing*

[60] When I refer to the term "we" in this thesis I am always referring to Kayley and unless otherwise mentioned.
[61] In earlier iterations of my life I have both logged in Maine and work as an arborist in Maine, California, and Washington State. Knowledge of efficient and quality work with a host of mechanical and analog landscaping tools has been a result. Additionally I maintain many of the specialized tools required for this work. Kayley also has extensive landscaping and restoration experience and resources. This shared expertise and these connections and resources went a long way towards making us valuable resources for CLS.

the next row of canes for the waiting hooked draw of my saw. As the first mass of blackberry is reduced to a dense pile of cut canes I feel a rush of excitement and relief. This day has been nearly a year in the making…

Beginning in the spring of 2024 Kayley and I began volunteering regularly at CLS. This was the beginning of nearly a year of building relationships and trust with the CLS Community. It was these relationships and the trust they nurtured that would become the foundation of everything that would follow. Initially, I spent the most time with CLS Culture Teacher, Carl Lorton (Quinault Tribe) in his Cultural Products, Indigenous Culinary, and Canoe Journey Classes. Meanwhile Kayley supported Elsie Mitchell, a CLS Science and Engineering CTE teacher and the leader of the High School Ecology Club.

Carl teaches his Cultural Projects and Canoe Journey Classes from a woodshop in the school. We both shared a love of wood and woodworking along with a belief that students deserve an education that meets them where they are on any given day—one that provides tangible benefits for students now and in the future. Carl is one of the people who advocated the loudest for this project's growing emphasis on mentorship and pathways to future careers and opportunities. I am very grateful for his foundational contributions to the project as well as his frequent and welcoming introductions to his students and other CLS faculty.[62]

Carl's classroom offered a safe space to regroup, eat lunch, talk about wood or his latest project, and most importantly always have something to do.[63] In the months before Kayley and I were

[62] I developed a new appreciation for a good introduction while working at CLS. Staff and students are approached near daily with many well intentioned folk; a good introduction can make all the difference.
[63] Something I value greatly.

able to clear through the CLS volunteer and background check process, I was grateful for the familiar, welcoming space of a woodshop smelling of cedar.[64] Here students would just drop by to say "hello" and Carl would give them each a personal mix of attention, flattery, and gentle teasing before goading them back to whatever class they were skipping out on. Carl shows students that he cares about them and their future—and the students know it.

With a tight community and students in grades ranging from preschool to high school, CLS is a special place and unique among educational institutions I have experienced. Here it is not uncommon for three or more generations to coexist simultaneously with the shared practices of learning, growth, wellness, and Native Resurgence. For many in the western world this is not a common occurrence. Yet at CLS, as well as in the homes of its students, intergenerational learning is inherent and integral to the community. Students of all ages cross paths with each other. Entire families exist within the walls of CLS. Students are mentors to younger students,

[64] Alaskan Yellow Cedar (*Cupressus nootkatensis*) is one of my favorite woods to work with. It is strong for its relative density, easily workable, highly rot resistant, processes a fine luster without trying too hard, can have incredibly tight growth rings that remind you it has a right rivaling your own to exist, and it offers a clear, sweet, powerful smell that is unlike any wood I have encountered (other than perhaps, Port Orford Cedar (*Chamaecyparis lawsoniana*)). One of the great honors of this project was my ability to share a piece of quarter-sawn, old growth Alaskan Yellow Cedar with Carl as a thank you gift during our first planting ceremony in April. I had collected the piece almost seven years ago in 2018 when I first moved to Seattle and first began working more regularly on wooden boats. The particular piece in question was purchased as part of a lot of special woods sold from Dunato's Boatyard near Gasworks Park on Lake Union. The boatyard was going out of business as part of one of Seattle's many growth spurts. While moving a few years later, I was forced to cut six or more feet off the longest piece to fit and store it properly. The piece held a true eight inch by two inch dimension along its original clear (devoid of knots and inclusions) 18 foot length without compromising the quality or orientation of its grain. The grain held over 100 rings or growth years per inch and must have come from a tree with a diameter at base height (DBH) of at least 24-30 inches making it a likely 600-800 years old (DBH the standard measurement of tree diameter measured at approximately 4.5 feet above the ground). Written in pencil in several places along its length were scrawled the words "DO NOT TOUCH" and "DO NOT USE." Apparently another before me recognized its significance and hoped it might have a special use. When I gave the wood to Carl he simply said "I bet…" and then trailed off, disappearing into a corner of the woodshop. Emerging with a full size Skipper's Paddle from a CLS Canoe, he laid it over the top of the piece and pronounced it to be a perfect fit (a Skipper's paddle has a wider blade and longer length than other Canoe paddles to effectively steer the Canoe safely). I am very grateful that the cut I made while moving and often regretted (wood has its greatest potential in its full length regardless of convenience) could have such a serendipitous outcome. Carl, I look forward to seeing a Paddle that might steer generations of CLS students forward and along on their Canoe Journeys' emerge from such a tree. Thank you.

cultural leaders with voices ten times their size, athletes, healers for their community, family, and self. They often bare the collective hopes of their families, teachers, and communities. As a result both student and teacher are faced with a broad array of these many interactions on any given day, both good and bad.

As a nonlocal, nonnative guest to this space I began without a base literacy of these many interactions. No matter how many papers I read, or how many years of experience I thought I had, my experience was different. *Knowing, understanding, feeling*. I learned quickly that having a background in education, while helpful, was not enough. A lesson plan means nothing if a student has no space left to listen. Sometimes all a student needs is someone to talk to, or someone to be by but not talk to, someone to get them excited, or someone to make them feel cool, smart, or special. So I just began to show up. More and more.

I remember the afternoon three months into working with Carl and his classes. We were talking after class about the next day I should visit and he stopped me, saying, "You're welcome anytime." And I felt welcome. For the past few weeks I had been acting as an unofficial teaching assistant, engaging students who weren't joining in with the group, gathering loose highschoolers who would rather be nearly anywhere else, cleaning, tidying, talking students through the proper selection of sandpaper for their project, and generally having a ball. Students began to recognize me, give me daps as we passed in the hall, and perhaps most importantly, notice my absence.[65]

[65] CLS is located nearly an hour and a half south of the little wooden boat I call home and an hour south of my office at SMEA. Finding time to be reliably present while navigating traffic as well as a suite of university classes and commitments was challenging to say the least. After discussions with teachers it became obvious that Tuesdays through Thursdays would be the best days to visit. On these days the CLS high school class periods were 50-minutes, the longest periods of the week. Whether getting students out to the restoration site or rallying students to craft a dish in Indigenous Culinary, time was always a challenge at CLS. Additionally, while both CLS and UW class schedules are on a quarter system, they do not share the same breaks or quarter transitions. Clear and open communication as well as flexible plans helped navigate these challenges, however awkward periods of adjustment

Friendships had sprouted with teachers I only interacted with in passing. I would like to thank them each for their honest trust, stories, and conversations on the intricacies of their life, family, and day-to-day concerns. I do not have words capable of sharing these moments, but each conversation was impactful and meaningful for me. Thank you.

In the Fall of 2024 Kayley and I were nearly halfway through our second and final year at SMEA. Despite our relationships having grown greatly within the school, we had yet to achieve anything that felt like real tangible progress towards a restoration site at Lake Leschi. Most teachers seemed much too busy and perhaps ostensibly skeptical of the project and our involvement. Then one day in the first week of November 2024 I arrived at the school without any real specific plans other than to catch up with Carl and hopefully connect with the CLS Director of Culture, Mr. David Sway-La Cougar Duenas (Puyallup, Blackfeet, Comanche, and Choctaw).

When I first met Sway-La he held the dual appointment of CLS highschool dxʷləšucid (Lushootseed) language teacher as well as being the CLS Director of Culture. Sway-La is both one of the busiest and best dressed people I have ever met. He and his wife, Yvette Duenas

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after quarterly schedule changes and during UW finals still existed no matter how clear the communications. I was grateful to maintain a Tuesday - Thursday presence for both Fall and Winter Quarters during the 2024 - 2025 school year. This consistency went a long way when it came to building relationships with CLS students and teachers. These relationships helped me form a network of personal accountabilities (between teachers, students, the school, the restoration site, and myself) that kept me motivated and excited for my time working at the school and on site. Though this process is perhaps impossible to describe in words I can say that within these relationships and accountabilities I found ways to thank people for their time, conversation, and input on the project. Through little actions like taking the time to format pictures for the book given at a beloved teacher's retirement ceremony, making sure to always credit people with their ideas, or by listening to and encouraging someone's passions. Showing that I remembered and cared by providing accessible resources for someone's interests or by making helpful connections whenever I could. These little gestures built and informed my relationship with the school and the many people which make the school possible. For me this network of personal accountabilities is reminiscent of parts of Gina Starblanket's "Complex Accountabilities" and I would be remiss if I didn't mention the inspiration of her 2018 paper here.

Aponte (Quileute and also a teacher in the Culture Department at CLS) are a creative force in their communities and have a beautiful family. On top of his many responsibilities to his family, the CLS community, and the Puyallup Tribe, Sway-La also served as our main point of contact and the leader of the CLS-UW collaboration. Despite this and my own status as a relatively new face within the CLS community, Sway-La still always found the time to talk with me—sometimes only for a few words in passing but on this day things felt different.

I had stopped by Sway-La's classroom expecting him to be drum-in-hand, on his way to a dedication, Ceremony, or performance—either alone or with an entire drum and dance group in tow.[66] Again, this day was different. He seemed relaxed, cleaning up loose papers and abandoned pencils from the last round of high schoolers to rush from the classroom at the sound of the overly active bell.[67] I joined in with the task at hand, picking up pencils, miscellaneous trash, and sorting paper. Talking without much initial focus we begin to discuss the various ways CLS teachers might be interested in engaging their students within a restoration project.

Before I knew it we were headed down the hall and up the stairs to talk with Riel LaPlant (Blackfeet Nation), a Science and Engineering CTE middle school teacher. Along the way we stopped by Natalie Salo's elementary and middle school STEM classroom. This turned out to be a great order of operations as Natalie was a teacher new to CLS, and her excitement was contagious. She had a lot of thoughts on the project and proceeded to walk both of us around her classroom showing us all the ways she is working to make learning come alive for her students.

[66] At this point in the project Kayley and I had yet to clear through the background check and volunteer process at CLS so making it to Sway-La's classroom involved being escorted by a CLS staff member to ensure I was accompanied at all points while around minors in the school.

[67] CLS class periods follow complex schedules to accommodate elementary, middle, and high school students through regular advisory, Cultural, and Community building periods. The sometimes-unfortunate result is a plethora of bells that takes some time to learn.

A small river to learn about buoyancy, clay models of student inventions created to solve all the world's problems. Natalie explained how she supports her students to learn about and work towards solutions for the problems they care about. She explained how her 5th grade Science and Engineering students want to solve the challenge of "Access to First Foods" by using Indigenuity and Indigenous engineering. This seemed perfect! I remember feeling the rush of excitement after learning of a potential collaborator already.

Unfortunately, I also learned that the most elementary and middle school classes are only 30 minutes long, not nearly enough time for putting on boots, the domino effect of a single student's request for a bathroom break, let alone walking to and from the site. Slightly let down, I still didn't want all of Natalie's positive energy to go without reinforcement. I asked her what she would like to see more of for her students. Again, without hesitation she explained how students struggled to generalize and apply their knowledge in new spaces. She said would like to see more opportunities for applied learning, outside of the classroom. As the bell drew near, I thanked Natalie for her time, promised to keep her updated, and wished her luck with the rest of the day.

Sway-La was waiting in the hall. The pressing need to answer important emails had called him out of the classroom along with some sixth sense of when the bell would soon ring. Mr. LaPlant's classroom was also upstairs, away from any roving high schoolers whose casual remarks might serve as a bad influence. In my time at CLS I had come to admire Mr. LaPlant's teaching greatly. He is one who can get even the squirmiest of middle schoolers to stop and listen. He also runs the after school Middle School STEM Club that manages a balance of post school exuberance and respectful learning though careful structure, hands-on activities, and pizza. During my

introduction and our first conversation that October morning I also asked Mr. LaPlant what he would like to see more of in his classroom. Without hesitation he responded, “more opportunities for on-campus field trips” (R. LaPlant, Personal Communications, October 2024). This statement mirrored desires I had previously heard from Carl, Elsie, and only moments before, Natalie.

After thanking Mr. LaPlant for his time, I said goodbye and again wandered off to find Sway-La. As I waited patiently for him to finish talking with one of the school’s principals, my mind raced. Prior to this, and despite my best efforts, I realized I had been approaching the collaboration with a somewhat limited view. The sciences (as well as my own experience), had told me that a restoration site could support ecosystem health and resilience, benefiting the community now, as well as future climate possibilities. They also told me that shared community actions could do the same for the people that call those ecosystems home. I had researched and worked hard to collect knowledge that I hoped would be useful for the school. Unfortunately overtime, I became so focused on sharing this knowledge with the CLS community that I began to default to my own understanding of how to best do this. As a result, I had missed what the project represented to CLS. *A shared awareness yet each is different.* I had my knowledge, but my awareness originated from the outside-in instead of from the inside-out. In effect, I wasn’t effectively listening—my understandings had yet to catch up to my relations budding within the school. It wasn’t until I put myself aside and truly listened that I first began to grasp the true significance of the restoration site as a thriving outdoor classroom that could intrinsically support both community and ecological Survivance.[68]

[68] I switch to the term survivance here for several reasons: One, it gives space for changes in the way we understand concepts and knowledge that we might otherwise take as absolute; Two, it reflects an awareness that approaches and terms used in research founded (at least in part) from within western-settler values are often not applicable in other settings (specifically the CLS and Puyallup Tribal Communities I worked with here, but this is also true for many other Tribes and Native settings); and Three, it reflects my own shifts in awareness and approach moving from supporting community and ecological resilience as related yet separate desires (reflected in my early attempts to

Another bell rang and Sway-La and I started down the hall. I pretended to look diligently at my notes as I casually asked Sway-La about the history of outdoor classroom spaces at CLS. Sway-La began to describe how applied learning and outdoor classroom spaces were central to the mission of both CLS and the CLSs CTE Pathway. He explained how partnerships with the Puyallup Tribal Fisheries Department and other groups were heavily utilized by CLS teachers but also that it could be challenging to get an entire class together when a parent or guardian's permissions had to be secured in order to bus students to collaborations offsite. In this process some students with more challenging at home circumstances were often left out. He shared that the idea of an on-campus outdoor classroom site had been a longtime dream of both CLS and the Puyallup Tribe. Despite these hopes Sway-La explained that finding stable financial support and allocating staff to maintain the site had proved challenging for CLS in the long-term. Things would get started, plants would go in the ground, people would get excited, and then things would fizzle out and the ever-hungry blackberries would return. *There was simply too much else to do.* The result was Teachers and students who felt overwhelmed and doubted that restoration at Lake Leschi could ever take hold. The lessons of this conversation formed the beginning of another theme I would hear over and over from teachers and staff over the coming months. Access, maintenance, and usability were incredibly important to a successful outdoor classroom site.[69]

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create programming and social-emotional practices for humans at the site) to a felt understanding that there is no one without the other (reflected in later efforts to simply create a positive space that I trusted would support both as the community saw fit). Survivance allows for all of this together and more, giving space for ways of knowing and awareness far beyond my own.

[69] This conversation and others like it (particularly with Carl Lorton) also nudged me towards a greater and greater emphasis on long-term capacity building at CLS as I began to understand what was required to keep an outdoor classroom site going at the school.

Finally Sway-La and I headed over to the the elementary school wing to meet Davina Barril (Tlingít Matrilineal Clan, Eagle Moiety, Wooshkeetaan or Shark Clan), an elementary culture teacher with a passion for First Foods, Gathering, and Traditional Song and Dance. Within ten minutes of meeting I was offered delicious homemade soup and a wealth of knowledge that would later become inseparable from the Food Forest Restoration Site.[70] During this conversation Davina shared that she had been one of the reviewers of the *Tend* Curriculum as part of the Tend, Gather and Grow Project.[71] This was a program I had heard Natalie, Mr. LaPlant, Sway-La, and others at the school mention when we had first begun talking about Traditional Foods and a restoration site with the CLS community. While its many lessons were not fully incorporated into the project during my time at CLS, plant fact sheets and other materials of the *Tend* Curriculum were distributed to interested CLS students during planting parties as well as shared with CLS teachers and staff. Additionally, connections between CLS leadership, The Native Plants and Foods Institute, and the Living Breath of wəɬəbʔaltxʷ Indigenous Foods Symposium organizers were furthered and exciting potential future collaborations exist between these groups, CLS, and their Food Forest Restoration Site.

After thanking Davina and wishing her a happy afternoon, Sway-La and I were on the way back to his dxʷləšucid sčəwatilali (Lushootseed Classroom) when we crossed paths with CLS ParaEducator John Lee. John is a careful-spoken-listener whose calming presence is felt by all

[70] I use the term Food Forest here in lieu of a formal name generated by the CLS Community and Puyallup Tribe. In the next stages of this project a more formal naming process is planned potentially in collaboration with the dxʷləšucid or Lushootseed Language departments at both CLS and the Puyallup Tribe.

[71] Tend, Gather and Grow is currently hosted by The Native Plants and Foods Institute via Tacoma Peak Solutions. The Native Plants and Foods Institute provides technical assistance, training, workshops, educational resources, and consultation services that connect people to Native plants in the Pacific Northwest region. By sharing Traditional Foods, Knowledge, Stories, and Plant Teachings the Institute hopes to foster Respectful stewardship of the Land and human resilience while uplifting Tribal and Food Sovereignty as well as Native histories and knowledge systems. For more information on the Tend Curriculum and the many other resources hosted by The Native Plants and Foods Institute please visit their website: https://www.nativeplantsandfoodsinstitute.com/.

who interact with him, especially students. I almost don't remember how Kayley and I first met John, he has simply always been there to support us.[72] At CLS John fills an outsized role as a non-native teacher, role model, and general supporter of everyone who needs it. This afternoon, John had questions about the health of the Soil at the proposed restoration site. Luckily we had just been talking with Davina who also had questions (as well as some potential leads) about the site's Soil.

Both John and Davina had concerns about potential heavy metals contamination resulting from the toxic plume of the Asarco Company's smelter which operated in Tacoma in a variety of metal extraction capacities from 1889 to 1986 (Washington State Department of Ecology 2025). Given the desired use of the Land as a future source of Traditional Foods and Cultural Resources for students, the school, and the surrounding community the Soil has to be clean. Davina had posed the question clearly: "At what point is it 'ok' to Gather? (D. Barril, Personal Communications, October and November 2024). Davina shared contacts with the WA Department of Ecology's (WA DOE) Dirt Alert and Yard Cleanup Program as well as for some personal contacts who might be able to help track down the source of the fill-dirt used during the school's construction. In the months that followed, Kayley and I communicated with a variety of people in the WA DOE as well as Elders and community members present during the school's original construction. From these communications we learned that both the original dirt on site as well as the dirt imported to the site from the downtown Puyallup area was in the clear according to both historical accounts of the smelter's toxic plume as well as contemporary soil testing by both WA DOE and CLS Leadership.

[72] John was an early ally of the CLS Food Forest as well as outdoor classroom spaces in general. He has supported their existence, offering time and enthusiasm since before Kayley and I ever visited CLS through his involvement with the Indigenous Culinary Garden on campus as well as Elsie's initial restoration site at Lake Leschi.

In the time Sway-La spent walking me around and introducing me to teachers, not only was my understanding of the significance of the Food Forest Restoration Site fundamentally shifted but I also learned firsthand a valuable lesson about the importance of showing up to listen to all levels of the community. Also reinforced in the teachings of Gina Starblanket, a Cree and Saulteaux Nation scholar, the importance of being present in a positive way and listening to all levels of a community isn't just effective research it is also ethical, respectful, and foundational to the cocreation of a project that is celebrated throughout an entire community. To experience this process firsthand was transformational, reaffirming, and something I am extremely grateful for.

While building relationships at the school felt similar, at least in *shape* to finding my place at CLS and within the collaboration. For me, the *weight* of these relationships however was something else entirely. CLS, like many Tribal organizations in the US, is learning to navigate previously unfamiliar levels of attention. Scientists, companies, sports teams, nonprofits, they all want to say they are working to help support Indigenous youth, Tribes, Native Peoples. I learned this lesson first while working with Dr. Lefthand-Begay and again, over and over, at CLS. Early on I would meet a teacher in the school and they would quickly launch into a story about how an organization or company had tried to work 'with' them with little regard to what they needed or wanted in their class. Drones for middle schoolers, trees for the entire campus, another STEM program, movies, and more. These stories felt discouraging to me at first. It was hard for me to feel like I wasn't somehow a part of this problem. Yet as I spent more and more time at the school these stories began to take on a new meaning. The stories of groups coming and going, leaving little and taking lots of pictures began to feel more like generous offerings of advice. A

cautionary tale—advice for how not to approach the school and the Tribe—but only for those who were there to listen.[73]

Learning to walk the fine line of showing up with something to offer while also being flexible and ready to listen sometimes left me feeling uncomfortable (particularly) during some of my early days working in the school. The biggest change to this feeling came when Kayley and I finally finished going through CLS background checks and volunteer protocols and we were finally free to begin working on our own at the restoration site. In the beginning of January 2025 we began cutting our way through the dense thicket of blackberries that shrouded the site. *Here was something to do*. Clearing invasives from the site had a delectable clarity of purpose and the action gave both Kayley and I the gift of always having something valuable to offer in return for our warm welcomes during visits to the school. If teachers were busy or the school had an event to get ready for, we always had a place to go and things to do. Soon Kayley and I began syncing our class schedules together as much as possible and we were able to keep a steady schedule of bi-weekly visits to the site through most of the 2025 Winter and Spring seasons.

[73] Initially I think I might have taken stories like this a bit personally, causing a bit of personal discomfort or even light frustration with not being given the benefit of the doubt. Being given "the benefit of the doubt" is a privilege I "knew" about from a distance yet I didn't necessarily "feel it yet." The difference between "knowing of" something, and actually "feeling it" is quite different. I was lucky to have found support and experience while working for Dr. Clarita Lefthand-Begay and UW CEHE (see Fn. 77). At the same time I have learned to trust myself and my motivation for doing this work. I also found a practice grounding myself in my own intent and positionality to be helpful while navigating uncomfortable, confusing, or otherwise difficult moments in the project.

Image 4. 01/07/2025. Kayley and I have waited a long time to begin. Clearing volunteer protocols and background checks through the school and district, like most things, took longer than expected. Without them we needed an escort to go anywhere on the CLS campus. This meant bathroom breaks were planned well in advance and working to clear invasives on the restoration site was near impossible without cutting into the already packed schedules of CLS staff and teachers.

The gift of always having some clear action, of being able to show up, rain or shine, and do something productive was more than just efficient. In retrospect, this process and the momentum it built around Kayley and I's presence at the school served as *an unplanned lesson in reciprocity*.[74] During my first year in SMEA, friend and college Shayla Chatto (Diné and N'dee), offered the following definition of Reciprocity during her group presentation at the 2024 Living

[74] Not capitalized here because this is my own interpretation of reciprocity. My own awareness, worldview, and position as a white-male without Indigenous descent makes it near impossible for me to understand the deep and far-reaching significance that this term represents for a variety of Indigenous Peoples (Smith 1999; Wilson 2008). For example, Indigenous understandings of Reciprocity relate not just to local or surrounding responsibilities but also to Spiritual and Ancestral Responsibilities whose significance lie well beyond my own upbring, education, and understandings (Smith 1999; Wilson 2008).

Breath of wəɬəbʔaltxʷ Indigenous Foods Symposium; “Reciprocity is the act of giving, not necessarily expecting something back but knowing that the act of giving is really the act of creating.” This definition has stuck with me ever since. It speaks to the time, trust, and the sometimes leap-of-faith that is required to form and grow new relationships. It reminds us that relationships are not formed through transactions but rather through gifts of time, care, and love. At CLS, our ability (a privilege I am grateful for), to give our time to the school, the Land, and its many inhabitants became an act of creation far beyond any theorized or predicted significance.[75]

With regular visits, the approval of the school, and the lessons of my October afternoon walkabout with Sway-La, I began a sort of habit, or practice, of making rounds within the school before going out to work on the site. Each morning I would offer my time, carefully selected to coincide with faculty member's free periods, to hear thoughts, concerns, ideas, whatever people had to say. I would catch up, share something exciting, something meaningful, help out, or more generally just maintain my relationships with the many people who made the school tick. From Elsie’s class, to Carl's, then back again to grab the weed wacker batteries and learn a snippet about CLSs field trip protocols. Then off again to check in quickly with Sway-La. I would enter a class to say hi and end up helping an entirely different class make a craft to give to local people experiencing homelessness. Or I would somehow end up speaking in front of a class to students about my own long-winding path to college and graduate school, attempting to share that higher education wasn’t necessarily what they thought. I would do research and share information about

[75] I say privilege here not necessarily for the obvious reasons of graduate school being a pursuit most accessible to those who are afforded certain privileges by society but rather because as guests at CLS we had the privilege of being able to show up when we had the capacity to do so. For the teachers and staff who work there daily they are not allowed such a simple choice. They can’t simply pause time and not come in to work when they feel tired, worn out, or stressed. In my experience the privilege of being able to engage more or less without fear of losing your job is not to be discounted or taken for granted.

scholarships or free college tuition programs for Tribally affiliated students. I would learn about community events or CLS staff days where I could pitch the project to wider audiences. I would share ideas, inspiration, or support for someone's personal interests or dreams, collect cardboard for the site, provide updates, and try to involve as many people as possible with momentum gathering around the site. Sometimes I questioned my use of time during these interactions.[76] But I know now, that in these moments, I was learning—*Learning to listen, learning to share, learning to mesh with the intricacies of the school.*

During this period I also found other ways to support the school and the continuing evolution of the Food Forest Restoration Site. As part of the project's long-term goals I began to help facilitate the school in applying for additional funding outside of the University's system.[77] This was also a wonderful opportunity to build cherished relationships with members of CLS leadership that I might have not otherwise encountered.[78] In particular I enjoyed the privilege of working with Nancy Nelson, the Director of CLSs CTE Program. I can't thank Nancy enough for sharing her patience, knowledge of CLS history, advice, and grant writing expertise. In November 2024 worked with Nancy and Sway-La to prepare a grant proposal for the Indigenous Lifeways Fund hosted by the Indigenous-led Na'ah Illahee Fund. A month later in December the school was awarded 25,000-dollars of unrestricted funding to be used in any way CLS chose to support its

[76] I think mainly because I wasn't always directly achieving some end product as my New England upbringing had constantly conflated with my own self-worth.

[77] During this period I was also working with Dr. Clarita Lefthand-Begay (Navajo Nation) to co-create and produce the UW CEHE 2024 Fall Webinar Series, *A Digital Roadtrip: Amplifying Philanthropy in Indian Country, Practices and Perspectives*. This was an amazing experience which gave me personal insights and awareness into the value of unrestricted and Indigenous-led grantmaking as a tool for supporting a thriving Native Resurgence. I am very grateful for this experience as well as a variety of other grant writing opportunities I encountered while navigating graduate school.

[78] The process of working with CLS staff members on these grants greatly enhanced my own understanding of how CLS operates, gave me an even greater appreciation for its unique and diverse programing, as well as provided me with additional and valuable grant writing experience for my own future careers.

dream of an outdoor classroom space. While in my view this helped mitigate some inherent financial (and thus power) imbalances present within the CLS-UW collaboration, it also provided CLS with some flexibility to experiment with how they want to best utilize their own growing outdoor classroom space. With this success and its observed benefits in mind, in April 2025 I was again honored to help facilitate the school's application for a 250,000-dollar Thriving Communities Grant. Managed by Philanthropy Northwest with a majority Indigenous-led grantmaking team, this grant was also designed to offer flexible, unrestricted funding, specifically for Indigenous applicants. Awards for this grant have yet to be announced but awardees will be notified soon in the Fall/Winter of 2025.

Both of these grants will be used by CLS to support efforts to make sure the project is supported beyond my own, or even UW's, involvement. Through conversations with CLS Students, Teachers, and Administrators some exciting potential future uses for any these and other grants include: Honorariums for Traditional Knowledge Keepers, musicians, and artists to share knowledge, insights, and attend community events; purchasing more site materials such as mulch, compost, Native plant seedlings, irrigation equipment, and materials for an expanded outdoor classroom structure; expanding the site to include the aquatic environment of Lake Leschi; and developing a paid student summer internships program as well as expanding the CLS CTE program to provide students with CTE credits for stewarding the site and learning about the growing field of restoration.

Alongside our own work at the school, Kayley and I paid careful attention to ensuring the relationships and momentum we had helped generate around the site continued to grow. We

remembered the challenges of getting the collaboration going and we wanted to make sure the next round of SMEA graduate students didn't have to start off at the beginning in the next school year. What followed was a careful and respectful introductory period where I drove two first year students, Zoe DeGrande and Will Burnham down to the school as their schedules and events at the school allowed. I was careful to not invite them to any personal events until they had shown their faces around the school and met people enough for their presence to be recognized and understood by the CLS Community. We attended Friday Morning Circles at the school, made introductions to Sway-La, Carl, Elsie, Davina, John, and Superintendent Don Brummett, and they demonstrated their commitment to the project by working hard to continue to prepare the site for replanting in the Spring.

As the blackberry canes fell, our relations grew. And our efforts became more and more noticeable to CLS community members, teachers, and students, momentum and interest in the site began to gather and swell in ways I could never have imagined only a few months prior. Soon more and more CLS students and teachers began asking for progress reports and offering to give their time during classes or after school. What began with just one teacher bringing students out to the site soon became two, three, four, six, at times the entire school. Elsie's Ecology Club and Mr. LaPlant's Middle School STEM Club became regular visitors to the site, working to clear invasives, move dirt, mulch plants, and collect drainage rocks. Middle school math teacher Marnie McManus began bringing her 4th and 5th grade classes out to the site to aid in mapping wet areas, calculating their areas, and the volume of dirt and mulch required to plant them. For me, watching a middle school math class utilize the site to supplement and apply their geometry lessons outside the classroom was a defining moment of realizing the site's diverse potentials as

an outdoor classroom. I can't thank all of these people enough for trusting their valuable class time with Kayley and me.

Additionally, the CLS Student Broadcasting Club led by CTE teacher Elizebeth Ward also became involved in the project, creating a short documentary for the Pierce County Youth Engaged in Sustainable Solutions (YESS) 2025 Youth Film Festival. Students submitted a short five-minute documentary to match the event's theme: Climate Solutions. On June 1st I attended the screenings at the Grand Cinema in Tacoma Washington and was elated to watch the student's documentary titled, "The Food Forest," earn second place in the Festival.[79] It was very special to watch the students step into their accomplishment, gaining confidence and celebrating their success.[80] Many students in the Broadcasting Club are enrolled in CLS's CTE Program as part of its Audio and Visual Technology Pathway. They also help create the school's yearbook, produce the Warrior Student Broadcast, and a variety of other school media that document the stories of the school. The Food Forest Restoration Site was also honored to be featured in these publications which allowed the site to reach a broader audience within the school.

While Kayley and I may have worked initially to clear a majority of the large blackberry bushes and other hazards from the site, it was the students that gave these actions life. Their creativity and spirit changed the restoration from ecological to social-ecological. The sometimes mundane tasks of digging out blackberry root balls and sheet mulching reed canary grass became games

[79] The 2025 YESS, Youth Film Festival is hosted by Pierce County on their website: https://www.piercecountywa.gov/8792/2025-YESS-Youth-Film-Festival, and the CLS documentary The Food Forest can be viewed here: https://vimeo.com/1091840227/231fa1cebb?fl=pl&fe=vl.

[80] Over the course of the documentaries filming and production I built relationships with the Broadcasting Club and got close with a few of the students during invasive removal and planting events. It really did mean a lot to see them succeed and grow over this period. My profound thanks to Elizabeth Ward and the Students for all of the inspiration and good times!

and time for deep conversation. The importance of accessibility for students and teachers shifted, morphed, and enhanced the lay out of the site. Here the desire lines of the landscape merged with those of the students and teachers. Plantings were designed around topographic features and the moisture content of the earth below us. Between them, paths, a central circle area, and a series of swales managed runoff from the school's athletic fields. These provided access for walking and gathering, creating a dynamic space that ushers visitors into the site rather than shifting them around its perimeter.

Image 5. 05/10/2025. This image shows the Food Forest, CLS athletic fields, and Lake Leschi from above.

On April 2, 20205 my experience with the most recent evolution of CLS's Food Forest Restoration at Lake Leschi culminated with a Planting Ceremony with CLS students, parents, teachers, staff, Elders, the entire Puyallup Tribal Council, and UW Partners in attendance. The event was livestreamed to the school and any interested community members by students and

staff in CLS's Audio Audio and Visual Technology Department. Gifts were exchanged including Cottonwood Salve for students, personalized gifts for teachers, framed pictures, and Native Art for Council Members and School Board Members. Traditional Song and Dance performances honored the Restoration Site, all those in attendance, and the many strong people who worked so hard to make CLS the thriving space that it is today. After refreshments and the Ceremony, Tribal Council Chairman Bill Sterud planted the first little Huckleberry bush, breaking ground for the more than 100 people in attendance to join together in the planting of over 1000 Native plants throughout the site.[81]

One by one, Tribal Elders and Puyallup Tribal Council Members had stood up and shared their own experiences and desires surrounding CLS. They told stories of fighting for their right to a good education that represented their Culture and worldviews, of founding Puyallup Tribal Schools in 1976 when it was located in the borrowed old Hawthorne Elementary School building (now the site of the Tacoma Dome). Council Members recounted being moved two years later in 1978 after the building was condemned as a fire hazard. A hastily constructed new building near the Puyallup Tribes Administration Building housed the school but it was too small and middle and high school classes had to be held on the upper floors of the Tribal administration building. They shared how the school had faced closure in the early 1980s as student enrollment fell to less than 100 students, how the community worked tirelessly to improve conditions, eventually growing to nearly 800 students in 1991 when the school was renamed Chief Leschi Schools. Unfortunately this new building was also considered unsafe and condemned in the same year and

[81] A CLS and the Puyallup Tribe featured the Planting Ceremony over social media as well as in an article written by Hailey Palmer of the Puyallup Tribal News. CLS's Instagram post about the event can be viewed here: https://www.instagram.com/p/DICV8WAyMQY/?img_index=1; and the Puyallup Tribal News article can be viewed here: https://www.puyalluptribe-nsn.gov/news/chief-leschi-schools-breaks-ground-on-food-forest/.

the school was yet again moved, this time to a vacant elementary school on South 72nd Street. Throughout this all, Puyallup Tribal Council, the School Board, teachers, students, and the community had supported the school, pushed for better futures, and imagined a large dedicated school of their own—one that could grow and thrive with the community. In 1996 after years of dreaming, planning, lobbying, and fundraising construction finally began on a dedicated state-of-the-art Tribal School on Puyallup Lands.

Many of the people who spoke at the Food Forest's planting ceremony attended CLS in these early trying times and actively fought for the school's current splendor. As Council Members and Elders were recounting these stories I began to understand the significance of the big, beautiful, manicured campus that is now CLS in ways I couldn't have ever possibly conceived a year ago. I had read CLSs history on their website. I knew about the difficulties that brought the school to where it is today but I didn't truly understand the passion, desire, and hard work that had gone into the school's evolution. I hadn't felt those emotions. Yet as I listened to the speakers I saw it in their eyes and on their faces. I felt it in their voices and heard it in their words. The evolution, growth, and perseverance of CLS has been carried forward by generations of people wanting a better future for their children and Future Generations. Their many collective efforts have indeed led to a better future for their children, their grandchildren, their Tribe, and the environment that held them all together.

During the event I listened as many speakers recounted their own young desires of learning in a way they felt like it reflected their Culture and themselves. Being outside, learning in a relevant applied way was something many had wished they could have experienced in those early days of

the school. Many praised Elsie and her dedication to the site. How she transformed part of the area and gave the community a glimpse at the possibilities for outdoor-applied learning right in their own backyard. School Board Vice Chairman Jay Simchen has been around the school since its inception having attended it himself. He described working with Elsie and the CLS Grounds Crew to clear the first path down to Lake Leschi in 2018, explaining how our efforts were another big step towards realizing the potential of Lake Leschi. I felt grateful to be a part of this growth, to get a small peek into just how significant the area around Lake Leschi was for many CLS community members. These and many other stories that day solidified an awareness that had been growing in me for sometime now. The dream, the desire, to have an outdoor classroom space at Lake Leschi has existed for nearly as long as the school. *From little green shoots to Cultural Practice and back again.*

In the weeks after the Planting Ceremony in April, Will and Zoe have gradually taken on more and more of Kayley and I's roles at CLS. For me this transition culminated on May 15, 2025 when they led the preparations and activities for the Food Forest Restoration Site Station at CLS and the Puyallup Tribe's 2025 Culture Day Event. Culture Day at CLS is a celebration of ʔalalus ʔə spuyaləpabš or Puyallup Traditions and it represents the culmination of student Cultural and Traditional learning over the last school year. This years event was themed, qʷuʔ ti dəxʷəshəliʔ or "Water is Life" and it featured performances, Traditional Foods, and over 60 different stations representing a wide variety of CLS Culture Curricula, Puyallup Tribal Sovereignty, and Treaty Rights for student and community members of all ages. Will and Zoe organized activities at the Food Forest ranging from site maintenance to painting rocks as gifts for the site. They did an amazing job talking about the project and striking that careful balance of providing students with

purpose and direction while still allowing their spirit and creativity to flow. As a thank you for their participation, each student was given an envelope of Native wildflower seeds and stickers. Watching this transition in leadership, commitment, and understanding has been a highlight of the collaboration for me and I can't thank Will and Zoe enough for their patience, time, and commitment to the collaboration.

Coda

"All Flourishing Is Mutual"

Robin W. Kimmerer, *The Serviceberry*, 2024

Knowing, understanding, feeling—

A shared awareness yet each is different.

There was simply too much else to do.

Here was something to do,

an unplanned lesson in reciprocity.

Learning to listen, learning to share

learning to mesh with the intricacies of the school.

As the blackberry canes fell, our relations grew.

From little green shoots to Cultural Practice and back again.

In many ways the long, early-context rich nature of this thesis mirrors some of the lessons of this work. The actual project is nothing without the context and relationships that make it possible. If I hadn't spent the time I did learning my history—exposing myself to different concepts,

worldviews, and perspectives—but perhaps most importantly building relationships with the community, the project and its outcomes would not have been nearly as relevant to the CLS Community. It may never have even started. It might have started but its driving force might have come from outside the school (in this case UW), leaving its continuation tenuous without community wide investment.

Instead CLS's Food Forest Restoration Site at Lake Leschi has grown and evolved, following its roots of desire towards a community's dream. In this collaboration there is no conclusion, only continuation. Through relationships, independent financial support, and community backing the site has many pulling for it. The Puyallup Tribe of Indians supports the project and exciting new collaborative opportunities exist with the Water Quality Department, Heritage Department, and the Fisheries Department—with the potential to continue to grow and enhance the schools already thriving CTE programing.

The growth of community participation in the project highlights for me what is perhaps the best metric I have found for assessing the growth and successful project implementation of the Food Forest Restoration and Outdoor Classroom Site at CLS. Even in conversation, increasing participation and engagement of CLS teachers and students became something of a touchstone for successful project messaging, implementation, and potential future directions. If our messaging wasn't resonating with someone it likely wasn't because they had no interest in the subject but rather because our words or approach was incongruent with their own understanding or values. By "listening to the reaction" of community members and working to make sure all

who showed an interest were represented, the site gradually became more relevant for a greater number of people.

Some students cared about the site because of what it meant for Salmon restoration and potential futures of harvesting Salmon with their families in the Watershed. Others just wanted to be outside. A few potential future educators had interest in the future of the site and what it could mean for CLS to have a thriving, dedicated, outdoor classroom space. Some students wanted to document the site's transformation and share it as a hopeful message to their communities.

Teachers were interested in the site for its applied and dynamic learning potentials. Some wanted a place for students to blow off some steam on a Friday afternoon, still others wanted to take ownership over small areas of the site to facilitate deeper longitudinal relationships between their classes and the environment. Some teachers hoped to connect the site to existing CLS programing like the Indigenous Culinary Garden—or to new programs, like a voluntary school composing initiative. A few Master Weavers and Cultural Teachers at CLS hoped to harvest materials from the site for use in their classes. Many hoped the site could help facilitate lessons of Respect, Responsibility, Reciprocity, Connectedness, and student roles as Stewards of the Land by bringing lessons full circle.

Across the school, CLS staff and leadership have stepped up to support these and the many other desires of teachers and students for the site. Many administrators hope the project can continue to facilitate the growth of the school's CTE Program and particularly its Natural Resources Pathway. CLS Superintendent, Don Brummett, has been clear about the effects of the restoration

site and outdoor classroom space that began with Elsie's restoration site and the school's on-site hatchery program, saying engagement, grades, and interest in the sciences and the schools CTE Natural Resources Program have grown exponentially over the last year (D. Brummett, Personal Communications, February and May 2025).

At CLS I was privileged with a peek into a world where Reconciliation and Survivance are the prevailing narratives in a strong Native Resurgence. Through detailed studies of history, context, and thriving Indigenous-led research, I demonstrated my care for the project's potential outcomes and helped ensure that I came to the collaboration with something relevant to offer. Through a gift of time I was honored to create cherished relationships with all levels of the inspirational community that is Chief Leschi Schools. Together we stewarded the ancestral Lands and Water of the Puyallup Tribe while supporting CLSs capacity to enhance curricula, wellness goals, and support a thriving Next Generation. This collaboration's emphasis on finding resources that were both relevant and requested helped support its potential futures while also allowing for a flexible, evolving present that could shift with the schools desires. By listening to all levels of the Community, participation and excitement grew alongside a thriving outdoor classroom space and riparian restoration that offers long-term benefits for both People and the Environment. When asked about what had contributed most to the success of this collaboration CLS Culture Teacher Carl Lorton responded with ease saying: "*You listened.*"[82]

[82] I have no fancy words to explain how much this project meant, how much it felt—I can only say that it felt "Good." Thank you.

Image 6. 05/16/2026. The sun sets over a freshly planted and mulched Food Forest and Outdoor Classroom space at CLS.

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