Echo Elsewhere: Settler Colonialism and the Materialization of Sound

by

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Abstract

On July 24th 2020, members of Beaver Hills Warriors, Black Lives Matter YEG, Treaty Six Outreach, community Elders, and the Crazy Indian Brotherhood set up camp on a piece of land near downtown Edmonton in protest of police violence targeting unhoused people in the city. For the next four months the site would be known as the Pekiwewin Prayer and Relief Camp. Pekiwewin existed at the convergence and opening of the ruptures caused by the Covid-19 pandemic, the reckoning of Canadian diplomatic reconciliation, decolonizing demands for land back, and the mass uprising against white supremacist police violence in response to the murder of George Floyd by Minneapolis police on May 25th, 2020. Pekiwewin lasted for four months as a police-free community with resident Elders and a Sacred Fire, a kitchen serving two meals a day, a medic and harm reduction tent, community security, donations, and a library. At its peak, 400 people lived at Pekiwewin. The final residents of Pekiwewin were forcibly removed by police officers on November 12, 2020.

In this thesis, I reflect on how my time as a medic at Pekiwewin has shaped my understanding of the relationship between sound, structures of perception, the material-semiotic production of knowledge, and settler-colonialism. What became clear to me — in the collision between my experience of sound at Pekiwewin, and my attempts to record sound elsewhere for a previously proposed research creation project — was the profound inability to separate the two. Not only did these two seemingly different projects, mutual aid and a creative sound recording practice, become important to think together, the literal sounds of each 'distinct' project were heard alongside each other, and in their co-constitutional materialization.

In Echo Elsewhere, I will argue that sound is a material-semiotic force-relation always in the process of becoming. I look to Donna Haraway and Karen Barad to think through the materialization of sound as a boundary-making practice that delineates, or cuts, what is included,

or considered to matter, in the construction of sound. This thesis takes seriously that sound must be located within the material, social, and political conditions of its emergence. In the first chapter I will locate myself and my research within the tradition of deep listening as practiced, theorized, and taught by the late Pauline Oliveros. I will read Oliveros alongside Dylan Robinson and his concept of Hungry listening – listening through settler-colonialism – to think through an ethico-political practice of listening that is attuned to the social resonances of our time. In the next two chapters, I will detail how I have come to understand and theorize sound and assert three primary claims that resonated throughout this project: 1) sound is always situated and must be understood as co-generative, shaping and shaped by, the conditions of its emergence; 2) sound is porous and articulates the interconnectivity of our material and social relations; 3) sound is politically relevant to a critical analysis of settler colonial social relations in the so-called state of Canada. Finally, I will propose in the form of keywords, four different sonic concepts that might help us think through sound and its relationship to settler-colonial world-making.

In the conclusion, I will, in concert with Dylan Robinson, propose refusal as a useful orientation from which to ground more ethical sonic-research, including the proposal that particular technologies of remix might allow us to engage, in Karen Recollect's term, the slipstream of sound, without relying on extractive recording practices.

Preface

The thinking for thesis began as a multi-media collaboration with Kateryna Barnes entitled *Unsettling Colonial Cartography: Sonic-Spatiality of Treaty Six on the University of Alberta North Campus. Unsettling Colonial Cartography* was first presented as an installation for "Repurposed: an exploration of digital art and activism" hosted by the University of Alberta's FemLab in 2018, and then at the 2019 HASTAC Conference at University of British Columbia. I presented my own paper on the project at Congress and the SpokenWeb Conference, both in Vancouver, BC, in 2019. This project has also been documented on Kateryna's personal blog, my HASTAC Scholar blog, and a chapter I wrote for a forthcoming collection of essays on contemporary Digital Humanities work in Canada with the University of Ottawa Press, edited by Paul Barrett and Sarah Rodgers. The above work is explicitly acknowledged in Chapter One: Listening Positionality and informs Chapter Two: Theorizing Sound.

Dedication

This thesis is dedicated to those living and loving on the frontlines of settler-colonialism's many crises. To the people who lived at Pekiwewin who continue to sound out fiercely despite, and in opposition to, the ongoing and simultaneous abandonment by, and organized violence of, the state. This thesis is dedicated to those we have lost since then and the many people struggling every day to survive the opioid epidemic. To the agitators and noise-makers, the artists and the Elders, this thesis humbly hopes to echo your calls for a politics of possibility that demands an otherwise and elsewhere to settler-colonialism.

Acknowledgements

First I would like to thank my supervisors, Maureen Engel and Tami Oliphant. Mo, thank you for continuing to ground me in the 'scope' of graduate research while always nurturing my pursuit of big questions and forever learning. Thank you for being the supervisor I needed, for engaging my thinking seriously and critically, and for the feminist pep-talks when I needed them. Tami, your belief in me was tangible, I am so grateful for the ways you made me feel capable and intelligent and grounding me back into my obligations to continue to learn and work towards the world I want to live in. Your willingness to work with, and find relevance in, my weird ideas allowed me to do research that really means something to me.

Thank you to Jordan Abel and Natalie Loveless for thinking with me on this project, for asking me such meaningful questions, and for all the thinking and writing and making and doing that you two undertake that continues to inspires and encourages me. Thank you to Clare Peters for helping me access an incredible recording set up.

Thank you to my family for their patience and understanding, for the nourishment and encouragement, and more than anything, for your support in pursuing the things that matter to me. Thanks to Stephanie Olsen and Kahn Lam for your incredible friendship, for reading to me when I was concussed, for letting me recite my proposal to you on the side of a mountain while on vacation, for all the missed hang outs and crying phone calls. I love you both very much. Thank you María Alvarez Malvido for sharing in this journey with me, sending me all the articles, asking me brilliant questions and sharing in the joy and pain of learning how to be better in the world. Thanks to Kateryna Barnes for being the best cohort co-conspirator I could ask for, grad school was so much more meaningful because you were a part of it! Thank you Jessie Beier for your incredible support, wisdom and brainstorming. You continual encouragement and care means more than you know. Beth Capper, thanks sharing your wisdom with me, for lovingly articulating your support, and the nights of wine and mezcal that always provided a much needed break. Daisy, Emie, my puppy pals, your companionship makes everything more possible. And last but not least, Rob Jackson, I literally, could not have done this without you. I have learned so much in thinking with and alongside you, thank you for challenging me, for listening and talking things out with me, for your incredible editing skills, and your commitment to keeping me fed and cared for in the midst of the chaos.

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Proem

Yellow milk crate full of cords.
Check.

Four pelican cases with mics that I cannot afford to damage.
Check.

Long admired Roland four channel portable recorder.
Check.

Black notebook.
Check.

iphone.
Check.

Pauline Oliveros manual, I mean book.
Check.

Water bottle.
Check.

Sunscreen.
Check.

Sun hat.
Check.

Considerable doubt about recording in the river valley.
Check.

It is six months into Covid 19 and I have more and better equipment than I had imagined in my conception of this project. Something, however, feels very uncouth about setting up in public space as we try to figure out how to navigate each other and the contagion. *Space between* and *distance from* have become markers of sociality, as we all learn what six feet feels and sounds like. Awareness of one's 'bubble', is a new kind of Covid attunement, aided by sound revealing one's proximity. This multi-sensory experience reminds me that sonic research has material consequences. "This research must be socially responsible," I tell myself as I set up on the back steps. "Protocol must travel, it must adapt," as I set up in the garden. "The intimate spaces of the home take on new meaning during a pandemic," when I set up in the living room.

I have been recording from the limited radius of my home for one month now. I can't tell the difference between the flow of traffic and the river in the not-too-far-off distance. Not that differentiation is what I am after. Non-differentiation is informative. Restrictions have been lifted and people are beginning to move about. I went to Goodwill. If I can go to Goodwill, I can record in the river valley.

The spot by the river, only a few blocks from the house faces south. To the west, a bridge with wood slats crosses over the fire department boat launch. A paved path on both sides of the bridge leads west from the house, past the fire department, Epcor and the old Rossdale Power Plant, under, or up to, the new Walterdale bridge. The northern mouth of the path opens up to a memorial park erected in 2005 after much controversy and Indigenous advocacy that sought to mark the traditional burial grounds of Indigenous ancestors and settler traders dating back to at least the early 18th century. Resting at this site are the returned remains of bodies excavated in the name of construction and urban development. Across from the official memorial, will soon sit another kind of memorial, a living monument to the persistence of Indigenous life in amiskwacîwâskahikan, a site that, for the next four months, we would come to know as Pekiwewin.

Daisy knows this path intimately, she sniffs her way along it twice a day. I follow her, she follows the beaver, or baby muskrat, and the smell of garbage strewn about. She is drawn to the bush by the bench by *the spot* where remnants of human life lived in the river valley excite her senses. When I let her off leash, she runs along the fence, removed from the path by tall grasses and wildflowers, doing her guard dog duties. This summer though, the paths are too busy

for that. The trail system teems with people who had been told they can't do much else. Distinct, of course, from the teeming that is always already there, but unsanctioned. Bikes, *there are so many bikes*, skateboarders, joggers, and more dogs than Daisy knows what to do with.
A slight turn off the path and I am at *the spot*.

This is *the spot* I was drawn to record at – a place that is part of my daily life, along the river and amongst the trees, a place where I go to think, and where I have difficult conversations with my friends, and the river flows, and the university, downtown, and the legislative grounds are all present and sensed. A site of sonic co-mingling of the different worlds and spaces I inhabit.

When I face the river, at the edge of the bank at *the spot*, I cannot see the path or anything happening behind me. Yet the rickety wood slats alert me to passersby, who, if they pay attention, can spot me, back turned, mics out. I think that most people won't care much about what I am doing, and that our prying neighbors might have questions that I am ready to answer – don't worry – I am in *grad* school – this is *research*. "I think about sound and what it can teach us about how we live in the world," or something vague but satiating. My presence, with gear that can trespass their private spaces, hear into their homes and disregard the fences they erect, won't disturb them nearly as much as the time I spend at Pekiwewin giving out harm reduction supplies and doing first aid, and certainly not as much as the person who has lit a fire to stay warm by the bench by *the spot*.

Recording at *the spot* for the first time I hear construction, airplanes, the flow of the river, the buzzing of bees, and the chatter of joggers. I hear conversations but I don't really listen. Someone says something about running a marathon, someone yells at their kid. People talk extra loudly because they haven't figured out this distance thing yet. My noise cancelling headphones create and dissolve a barrier between me and them at the same time.

I record at *the spot* a few times, though am never able to be present as I want to be. I wonder if it is about self-consciousness, my ADD, or the fact that the attunement I am seeking is actually just really hard. It doesn't feel quite right to have access to a world below 20 dBs, but I can't quite name the discomfort that is only partially about the people and conversations I have access to. Spying on the mundane lives of my rich neighbors doesn't feel like surveillance. This awareness will come.

July 24th, and the George Floyd uprisings have been raging for two months. Blockades in support of Indigenous Land Defenders continue across Turtle Island and the death of reconciliation has been declared by Indigenous youth. On this day, July 24th, the Tipi goes up, and the Sacred Fire is lit at Pekiwewin, a police free, autonomous prayer and relief camp, on former Papaschase reserve Land, currently designated as an overflow parking lot across from the city-recognized burial ground, by the north mouth of the Walterdale bridge. Five blocks from *the spot*.

Pekiwewin comes into being as the different scales of state violence and resistance to such violence are amplified through collective demands to defund the police, give land back, and care for each other in the face of a global pandemic. Pekiwewin seeks to provide mutual aid and organizes around the right to collective life lived otherwise.

The entire neighborhood of Rossdale is attuned to the presence of Pekiwewin, some because they are worried about their lawn furniture, others because their liberation is tied in with those at camp. R and I volunteer as medics, not because we have the skills, but because we show up at the right time and know some of the organizers. Camp becomes a regular part of our daily lives, and the five blocks between home and camp dissolve quickly. We invite organizers to shower, eat, and use the internet at our place. We do regular water runs because we have a car and can do it in a pinch. People living at camp walk by as we are out in the yard, and a still tentative but familiar hello is exchanged. Walkie-talkies mistakenly left on wake us in the middle of the night. Sirens, backfiring cars, and fireworks jolt my nervous system. I am *attuned* to the sounds of Pekiwewin, and I cannot escape the hypervigilance they require. The distinction between home and camp is tenuous, and sound reminds me both that these spaces are connected, and yet, very separate.

The spot is connected to camp via the paved path in the river valley. Many who live at Pekiwewin move, rest, and seek shelter in the river valley's brush. My awareness of this movement is heightened as I recognize faces and traces of people from camp on my walks with Daisy. This stretch of river valley has long been home to people sleeping rough. If this is not obvious to us, it is because the condition of houselessness means people living rough must always be on the move. The neighbors yammer about "every summer" and the increase of unhoused folks and the signs of their existence. People's movements are tracked by private security guards hired by someone in the neighborhood. The Rossdale community newsletter

declares camp a security threat, and unites neighbors as co-signers on an angry letter to city council. Personal security systems allow homeowners to keep a 24/7 eye on what is *theirs* – or so they tell us. The never-ending cycle of cops in cars, on bikes, and undercover, remind me that none of these individual initiatives to protect and surveille private property can be disarticulated from the carceral apparati of the state. CCTV cameras are installed in the river valley, news media and police helicopters hover above. Covid provides cover for increased community policing, both by the cops and by each other. R and I wheat paste in protest – "snitching doesn't keep us safe." The community league paints "street art" over graffiti under the bridge. Our neighbors snicker as we walk to and from camp. Many cross the street as we approach. This is the context in which I return to recording.

I return to *the spot* when I have two weeks' notice to return the gear that I borrowed from a kind and generous tech person at the University. Between shifts at camp I make a concerted effort to care about school, and something other than the immediate needs of a world on fire. I linger at *the spot* before I start to set up my gear. That feeling of discomfort returns, this time, ready to be named. My milk crate of cords, pelican cases containing way too expensive mics, R4 Pro, and Tilley hat could easily belong to the UCs sitting in the unmarked van a few blocks up. This doesn't matter for my housed neighbors, who are invested in the surveillance of the neighborhood. But it does matter for those residing at Pekiwewin.

Among all this cop shit, I realize that I feel like a cop.

On that day, what would be my last day of recording, I set up at *the spot*, I don't know if it is better to be more or less discrete: people should know they are being recorded, or, I am not doing what it might look like, so who needs to see it. I decide on the former, and set up slightly closer to the path. Ten minutes into recording, in a glance over my shoulder, I lock eyes with a familiar face: someone who lives at Pekiwewin. Someone whose freedom and wellbeing I would go to battle for. We don't talk and I feel caught, and probably they did too. Shame might be the right word for this moment.

I immediately silenced the recording, knowing that they already had little say in how their movements and life practices were being recorded. Knowing that I was one of many tracking their movements through this space.

This shame is informative.

Introduction

I had initially imagined my thesis, previously-titled "Unsettling Complacency: Sonic Attunement and the Dissonance of Settler-Colonialism," to be a research creation project in which I planned to create a protocol of sonic attunement – via recording technologies and remixing practices – that might help us better understand the role that sound plays in maintaining settler-colonialism and enabling otherwise spaces of sonic encounter. However, as a thesis ought to be, and especially one written during a global pandemic, this project has been shaped by the conditions of its emergence. While I am still deeply committed to engaging sound as a co-constitutional force in our settler-colonial life worlds — perhaps even more so — what, and how I have come to know about the materialization of sound, and sound as a force-relation, has been significantly altered by my experiences of the last year.

Eight months ago, as I defended my proposal, I could not have imagined this is where we would be. Pandemic, reckoning, uprisings. The conditions of possibility for my research both constricted and expanded, but always in relation to the violence of settler-colonialism. As I will argue, sound is a material-semiotic force-relation always in the process of becoming. I look to Donna Haraway and Karen Barad (2007) to think through the materialization of sound, including the material, discursive relations, and apparatuses – where "apparatuses are the material conditions of possibility and impossibility of mattering" (p.148) – as a boundary-making practice that delineates, or cuts what is included, or considered to matter in the construction of sound. As such, to trace what has changed in my thinking/listening – the stuff of this thesis – I must also note the material and contingent realities that have so meaningfully come to bear on the sounding situation of our time.

Pekiwewin

With the home as the beacon of security and safety during Covid, the state sanctioned precarity of houselessness functioned as it always has, maintaining the excess, and abandoning the poor. In the winter of 2020, unused buildings were converted into temporary shelters with isolation capacity but little regard for the worsening conditions of life under Covid-19. Three months into the pandemic, when the government decided to re-open the economy, the shelters were shut down and people, already socially isolated and yet exponentially more vulnerable to Covid, were reminded that their access to shelter is always conditional. With the moratorium on rent hikes

and evictions being lifted, and the deepening economic impacts of the pandemic, more people were being unhoused every day in Edmonton. The closed borders have put a strain on the drug supply, and drugs are being cut with more and more deadly filler– more people die from opioid overdoses in the city than Covid, and this has yet to be treated as a crisis by those in power. Covid brought to light many of the conditions that made Pekiwewin both necessary and possible. In a moment when state abandonment was felt deeply by so many, when racial and class dynamics of the pandemic had settled in, people wanted, needed to show up for each other more than ever, Pekiwewin formed.

On July 24th 2020, members of Beaver Hills Warriors, Black Lives Matter YEG, Treaty Six Outreach, community Elders and the Crazy Indian Brotherhood set up camp on a piece of land near downtown Edmonton in protest of police violence targeting unhoused people in the city. For the next four months the site would be known as the Pekiwewin Prayer and Relief Camp. Early that first morning, organizers erected a Tipi and lit the Sacred Fire on the ceremonial grounds of the Papaschase Cree (and the many nations with relationships to this land), a site currently designated as RE/MAX Field's overflow parking lot. When the police showed up later that evening to clear the grounds, they were told that they have no jurisdiction on Indigenous Land and they retreated. Over the next week, people set up tents and by week three there was a kitchen serving two meals a day; clothing, tent, and toiletry donations; community security; and a harm reduction and first aid tent. At its peak, over 400 people resided at Pekiwewin.

I was involved at Pekiwewin as a medic. Not because I have formal medical training, because I don't. I do, however, have relationships with the organizers, years of frontline experience, value harm reduction, community care, and personal agency, and most importantly, know how to talk to people. I started volunteering at Pekiwewin a few times a week, which, over the course of its nearly four-month existence became at least five times a week, often for close to ten hours a day. Mostly, my role was to support harm reduction practices, offer emotional and mental health support, wound care, and overdose response. This happened at the first aid tent and out amongst the personal tents when we were alerted to an emergency by calls for "medic." These calls came from across the field: one person would yell and others would echo, sometimes reaching us immediately, sometimes only after it had been taken up by the chorus.

I would run, often challenged to locate the original source of the echo, not knowing what kind of incident I would be responding to. Discerning the nature of yelling at camp was an important part of being a medic and led to a hyper sonic-attentiveness. This hypervigilance necessitated a particular type of presence – especially after months of isolation, not to mention the continual pressure of state violence that haunted Pekiwewin – and led to a particular kind of fatigue and reprioritization that made academic work feel almost impossible. And yet, sound, an affective force and a forever relation of study for me, was always present, acting on my body even when I was not aware of it.

I live five blocks away from the site of Pekiwewin. The neighborhood is called Rossdale, and is built on the Rossdale flats. Down on the flats this summer, Pekiwewin buzzed with collective life and assertions of Indigenous sovereignty, reverberating through the valley and unsettling the housed residence and their property-owning entitlement to land. For 10 000 years the flats have been a meeting place for Indigenous peoples, namely, at the time of settlers' arrival, the Blackfoot and the Cree. The flats were appropriated by the Hudson's Bay Company in the 1830s as the fourth Fort Edmonton. During the 1880s the Papaschase band was displaced from their reserve land in Rossdale, later to become an industrial zone for Edmonton's growing urban population, and now a residential community. This section of the river flats has been ceaselessly reshaped by its location in a flood zone, along the river. Historically, politically, spiritually, geologically, the history of the Rossdale flats far exceeds the settler expansion and extraction that have come to mark this low land. Indigenous activism, ceremony and ancestral relationships continue to assert that Rossdale is Indigenous land. Echoing through the river valley, this place sounds in its historical particularities.

Most who own property in the neighborhood seem to have forgotten the history of Rossdale that includes the Indigenous stewards of the land, the spiritual and ceremonial significance of the burial grounds, and the flats that continue to function as a place of rest, communion, and resistance for locals and travellers alike. As the Indigenous organizers of Pekiwewin made clear, this location was intentionally selected for its importance to local Indigenous livelihood, asserting a connection between ongoing settler-colonialism, land dispossession, poverty, and police violence.

Over the summer, housed Rossdale residents did what they could to dislodge Pekiwewin from its claim to space, organizing around shutting it down. Pamphlets in our mailbox issued

warnings about an increase in ‘criminal activity,’ the newsletter ushering in news of a privately hired Paladin security presence, an angry letter to city council, a demand for, and presence of more police patrols, community league meetings to discuss strategies to pressure the city into shutting down the camp, all only begin to scratch the surface of the organized resistance by many in the Rossdale community. The neighborhood buzz about excessive garbage, substance use, and trespassing were accompanied by the obligatory refrain “if they could be good neighbors, then maybe they could stay.” Good neighbors in this case, being more about respectability politics and individuated responsibility than the treaty obligations that governed this place.

As I walked around Rossdale handing out a letter from the organizers of Pekiwewin introducing ourselves, I was told that people have security cameras and they compare footage. Someone in the community hired the private security firm Paladin to patrol the neighborhood in the evenings and report to him. People took policing the neighborhood into their own hands– vigilante property patrol with crowbars and a shotgun. The fire department was called on people lighting fires to stay warm, cooking food and hanging out. Angry neighbors on their morning run stopped across the street, stared, pointed and snickered, taking pictures with their expensive phones.

It is in this neighborhood, during the beginning of the Covid-19 pandemic and the George Floyd uprisings, that I was to undertake my research creation project engaging the sonic registers of settler-colonialism. I proposed that sound – its compositional materiality and affective potential – asked us to consider how our sonic world is both shaped by, and in excess of, settler-colonial practices of ‘knowing’ the land. I posited that engaging protocols for sonic attunement might expose the dissonance of settler-colonialism as it lives in the individual and collective body, as it lives in us and as it lives in the Land. In embarking on the above project, I aimed to sonically attend to the material-social relations of life exceeding settler-colonialism to argue for the political possibilities of an abundantly sounding, intimately connected, world.

As I sat in my backyard last summer, forever tuned into Democracy Now’s daily Quarantine Report, contending with the viability of an intensive recording practice in the public river valley during a global pandemic, I was acutely aware of the intimate connection between particles, vibrations, and the material-social relations that bind us together in sickness and in health. Tracking technologies, national border policies, and police enforced Covid restrictions, all served as a timely reminder of the social-political imperative that looks to contain bodies, not

only to manage a contagion, but create a reserve labor force, stratify care along class, racial, and national lines, and protect property values.

The project I proposed was an extensive and tech-heavy field-recording practice in the Edmonton river valley. Covid-19 posed multiple barriers to completing my project. First, the U of A gear lending program had been suspended. Second, was the complication of doing a public field recording project during a time in which we were renegotiating public space. And third, and what often felt most prohibitive, was the emotional overwhelm that came with exposure to the non-stop noise of rupturing worlds: Covid-19, the reckoning of Canadian diplomatic reconciliation, the mass uprising against white supremacist police violence, all sounding out urgently and publicly. Pekiwewin existed at the convergence and opening of these ruptures, the particularities of these crises in Treaty Six, echoing the refrain of international struggle. From the traffic island down in Rossdale, Pekiwewin joined the riotous chorus ringing out across the continent, dissonant/dissident, cacophonous noise sounding back against white-supremacy, colonial violence, and state abandonment, demanding to be heard. Quiet and freedom from surveillance clearly more precious and impossible in the police state looking to crush the demands of abolition and Indigenous sovereignty. What I thought I would hear by tuning in to the in/audible vibrations below the 'visual' surface, was sounding out loudly, and robustly. The hum of worlds sounding otherwise, in the spaces and moments of freedom, haunting, yet out of reach, to the powers that be.

Scales

Listening to the polyphonic scales of violence, resistance, and refusal that resound within the soundscape of settler-colonialism is informative. While we might hear public denunciations of state violence through the language of protest, the pervasive hum of industry, the creaking of dense forest, the warning of slapping beaver tails, and sounds of collective life emanating from Pekiwewin, all resound with information about the material-semiotic function of sound in our settler-colonial life-worlds. To think with the double-metaphor of scales requires the recognition that a sonic scale comprises differing degrees of intensity and audibility that contribute to the totality of a composition or sounding environment. Scales, in this case, are not locked in the present moment, but include the echoes and reverberations of historical relationships and the auralization of future possibilities as they sound together across time and space. Scales include

that which is easily perceived and that which is not, sounding in concert to (re)produce the vibrasonic environment. Scales also allow us to think through the gradation of violence, resistance, and refusal that sound out in our socio-material environment. For example, a singular bud sprouting through the concrete and Indigenous Land Defenders protecting a sacred waterway, may share sonic properties but on a different scale. These properties might include the dampening sounds of suppression, the literal force of the concrete and the state aimed to stamp out such flourishing, and the dissonance of sounding out anyways, against the forces that desire their demise. Listening to the different scales of our sonic environment, as Sound Studies theorist Salome Voegelin (2014) suggests in *Sonic Possible Worlds: Hearing the continuum of sound,* "reveals the invisible mobility below the surface of a visual world and challenges its certain position," (p.3) requiring a sonic-attention to the complex material histories de/re/composing under, above, and in co-constitutional relation to the visual surface of things.

In listening to the sound-matter that exceeds the visual surface of things I learned much about sound's indivisibility and force-ful presence. Perhaps, most meaningfully, my research solidified my commitment to sound as a social and political force-relation that shapes and is shaped by relationships of power while simultaneously opening up other possible sonic worlds. As Voegelin (2019) says: "sound as sonic material and sensibility, produces the political possibility of co-habitation and interactuality that makes thinkable the interconnectedness of the world as an invisible and mobile in-between, and makes audible the asymmetrical production and distribution of life chances which limits and erodes the possibilities of political participation." (p.58) By attending to the materialization of sound, an always material and discursive becoming, we might better hear intonations of power and resistance that shape the affective soundscape of our settler-colonial life-worlds.

Realizations

Like any sincere research project, the outcome of this thesis is different than the one I imagined. The conditions of its emergence both constrained the type of work I was able to do, and facilitated incredible opportunities for learning and growth. In the rest of this introduction I articulate my experience of field recording as an act of surveillance and the impact this experience has had on my research.

Due to the limitations mentioned above, my recording project was delayed until late June when I was able to borrow an incredible recording set up from the U of A Sound Studies Institute. This included four condenser mics and a Roland Four Channel Portable recorder with the capability to record sounds well above and below the threshold of average human hearing. Even though I now had access to the dream recording set up, I was challenged to find a recording location that felt appropriate given the complexities of navigating public space, especially as my proposed location in the river valley was now saturated with people recreating outside. While I began recording at home, I did eventually move to more public spaces in the river valley down in Rossdale.

Differing from my original plan to record at one location, my project travelled. I was reminded that protocol, as I was theorizing it as a practice of relation, a process of opening up to other possible ways of living with each other, must necessarily adapt to the conditions of its unfolding to remain accessible. While protocol did not take the shape I imagined it would, it still runs throughout this project guiding what it means to be in good sounding relationships, attuned to one's critical listening positionality and the structural conditions that govern the sounding situation.

I began my project by listening both live, as I recorded, and then when I returned home. As I recorded I played around with the different recording parameters: recording mode, frequency and sensitivity; mic location, placement and angle; different input configurations and volumes. This process was not so much about finding the right set up, as it was about understanding the different recording parameters and the impact they had on the digitally processed sound. While listening back to the recordings allowed for post-recording reflection and remixing, it was the listening while recording, the listening with mic and recorder as an extension of my own listening body, that most meaningfully shaped my experience of sound.

The first (almost immediate) and most profound realization was that recording, with an extensive setup in the public river valley, above and below the threshold of common human hearing, felt like surveillance. That is, recording came to feel like a non-consensual practice of listening in on someone or something. As I used my recording gear to listen for the often undetectable sounds of my environment, I became uncomfortably aware that I might be encroaching not only on human sound worlds, but also on other-than-human sonic worlds that vibrate on their own particular frequencies. A new materialist argument would suggest that, in

recognizing this aliveness, via vibration, we might encourage more ethical relations with the environment[1] – and it might, and I hope that it does. However, throughout this project I have come to wonder if the inaudibility of these parallel sonic worlds is necessary for their continuation – not only in opposition to a soundscape dominated by audible sounds of industrialization and human activity, but sounding their own worlds outside of this binaristic antagonism.

Recording these relational frequencies enabled a form of surveillance-extraction through the listening to capture function of field recordings. Taking sound to be material and abundant, alive and agential, it too has the potential to be extracted for research without consent or meaningful relationship. This is not to conflate surveillance of the botanical, geological, atmospheric or animal with surveillance of Black and Indigenous bodies constantly under the threat of state violence, nor to assume that agency and ability to consent is equally distributed or experienced across life forms and experiences. Yet, as Audra Simpson's (2014) body of work details, field research, the collection of data about the 'natural world', and the technologies of anthropology, have long been used to adjudicate Indigenous peoples "authentic" relationships to Land, "all with the intent of upholding the law and the filter of comprehension: hierarchically arranged ethnographic categories." (p.32) As such, I suggest that technologies and practices of field recording operate within and as a part of a surveillance culture that listens to know about communities and ecosystems in opposition to the settler state. These apparatuses of surveillance come to shape recording practices, such as mine, even when those practices themselves seek to oppose the hungry listening of settler-colonial technologies.

As Simpson (2007, 2014) names, throughout the long history of ethnography and anthropology, it has been very hard to distinguish between research, settler-colonial practices of surveillance, and governance. One strategy that animates Simpson's work is refusal. That is, the refusal to make the inner workings of her own community fully transparent to readers who are not members of that community. While there are of course vital differences between Audra Simpson's research (and her location within her communities of research), I take refusal to be an important tactic that allows me both to acknowledge that while my own experiences are sites of learning that I feel obligated to write about, I must be careful to not record the inner dynamics of a community that worked so hard not to be surveilled. As such, my references to Pekiwewin are

[1] See for example Diane Coole and Samantha Frost (2010).

not intended to distill some sort of new insight and extract it from a community, I invoke them rather to show how my own lived experiences, as a sounding and listening body in relation to other sounding and listening bodies, inform the questions I wanted to ask and how I wanted to ask them.

Coming to the complicated realization that recording felt like surveillance, changed not only how I thought about sound but also how I thought about my own research practices. I asked myself how surveillance might not only apply to my actual recordings in the river valley, but might also inform my impulse to theorize about autonomous self-determining spaces and inaudible frequencies. As has often happened, I was stuck questioning how to write about my experiences as a researcher living in the world, whose academic questions are not, nor cannot be, separated from my own political and social life. How can I reflect on my experiences, acknowledging and honoring the way that they have informed my thinking, without being subsumed into the roles of observer, evaluator, archivist that have been laid out for me by my various attachments to social science and humanities research?

I was grateful for the release of Dylan Robinson's book, *Hungry Listening: Resonant Theory for Indigenous Sound Studies*, which I read diffractively alongside Pauline Oliveros, putting into conversation Oliveros' Deep listening, Robinson's critical listening positionality, and my own experiences of recording, to think through the complex relationship between attention, attunement, surveillance and extraction in sound based research. Surveillance presented an impasse in my research, meaningful shaping the form and content of my thesis, where, according to Lauren Berlant (2011) an impasse is "a holding station that doesn't hold but opens out into anxiety," (p.199) requiring care-ful attention, uncertainty, and loving caution.

In *Hungry Listening*, Robinson (2020) articulates settler-colonialism as a state of perception, drawing attention to the "the degree to which settler perception – along with Western epistemology more broadly – are subtended by possession (Morten-Robinson, 2015) and extraction (L.Simpson and Klein, 2003)." (p.10) To attend to the sounding relations of settler-colonialism as a body conditioned by the sense-perception apparatus of the very thing I look to critique is complicated work. And yet, finding the place where desire, sense, and knowledge meet to interrogate the internal/ized structures of settler-colonialism might allow us to begin to listen differently and critically. And while this work has its limits, I understand challenging this certain listening positionality as part of the multi-scalar work of unsettling

settler-colonialism. I do this work because I want to be part of a world that can listen and sound outside of the registers of this hellscape.

The sonic spectres of colonial violence were undeniably audible at camp - the traffic that dissected the patch of Ceremonial Land, reminding us that Pekiwewin could only exist as an island, that while this land had been re-occupied, it was contained within the infrastructure of the city. The sound of the bells at the Legislative grounds, remind us every hour on the hour of the colonial order of things. This sonic encounter with colonial violence was audible not only on the collective scale, but in my own response to cries for medic, amplifying the material importance of dissonance in theorizing the sounding of settler-colonialism. While dissonance is a powerful metaphor for thinking through the possibilities opened up by colliding sonic worlds, it materialized in my hyper-attentiveness to calls for medic at camp, and the real difficulty of distinguishing that from yelling associated with joy, pleasure, and commerce. As a concept that indicates a lack of harmony, or sound revealing tension, dissonance became an abstraction to theorize settler-colonial social relations, to then become concrete again in the space of attempting to do social relations otherwise, outside the colonial order of things. This shifted the emphasis from the political possibilities inherent in sound's dissonance, to the political realities of it. The possibilities still present, but ever more folded into the relations of dissonance as a site of political tension. My experience of attunement now oriented not only towards sonic fissures and futures, but towards past hauntings and echoes that are not engaged just at the moment of deep listening, but as they follow you home to bed.

It was in the transgressing of these different sonic registers, for example, being at Pekiwewin and then being in my home five blocks away, that allowed me to experience the dissonance of these two intimately connected sonic experiences. The intensely embodied experience of hyper-attentiveness at Pekiwewin impacted how I listened and how I sounded when I left. Sounds that may have passed unnoticed before, ambient environment noises from elsewhere, were now located at Pekiwewin as they reached me in the backyard. Once again, the abstract became concrete as sound transgressed borders, and intimately and materially connected these socially and economically distinct places. This sonic attentiveness had become intractable and I came to notice different, and notice differently, sounds of the river valley, including sounds from Pekiwewin even though I was not there. This became a question of research ethics: could I continue to record without consent from people, people I know, who are being unknowingly

recorded in their homes? While I could not hear conversations, the sounds I was intent on recording, that is of the river valley, were indistinct from, and intimately connected to, the sounding social relations that Pekiwewin encompassed. Not only were individuals potentially implicated in this practice, but a contested and precarious community in its entirety. This was not an abstract concern, as is often true of contested and precarious communities resounding with lives lived otherwise, surveillance ultimately led to the destruction of Pekiwewin. On November 8th, more than thirty police officers came to remove the last fifteen residents of Pekiwewin from their homes. Police cars, vans, and wagons surrounded the park, and officers stood around and snickered, threatening arrest for any of us helping our friends pack up their lives in Safeway bags. People living at Pekiwewin were told they had five minutes to leave before they were to be forcefully removed. Other comrades stood outside the yellow tape and fence being erected around us, unable to cross the line, watching as police ID'd people, calling us by name, whispering, though not quietly, about how to "move this along."

The police showed up in full force to violently remove fifteen people from their homes without any regard for their belongings, their connection to Pekiwewin and the land, or their resistance to erasure. For those who know most intimately the persistent surveillance and violence of policing, this eviction was not an aberration, but a practice of ongoing dislocation by the state, more invested in an empty parking lot for an empty baseball stadium during a global pandemic than a vibrant, self-sustained Indigenous-led on Indigenous Ceremonial Grounds, camp that, through community, harm reduction, and police absence, kept people alive.

Thesis structure

This introduction has articulated the conditions of my project's emergence and transformation, taking seriously that sound must be located within the material, social and political conditions of its emergence. In the chapters that follow, I will locate myself and my research within the tradition of Deep listening as practiced, theorized and taught by the late Pauline Oliveros. I will read Oliveros and Dylan Robinson together, to think through an ethico-political practice of listening that is attuned to the social resonances of our time. In next the two chapters, I will detail how I have come to understand and theorize sound and assert three primary claims that resonated throughout this project: 1) sound is always situated and must be understood as co-generative, shaping and shaped by, the conditions of its emergence 2) sound is porous and articulates the

interconnectivity of our material and social relations; 3) sound is politically relevant to a critical analysis of settler-colonial social relations in the so-called state of Canada. Finally, I will propose in the form of keywords, four different sonic concepts that might help us think through sound and its relationship to settler-colonial world-making.

In my conclusion, I will, in concert with Dylan Robinson, propose refusal as a useful orientation from which to ground more ethical sonic-research, including the proposal that particular technologies of remix might allow us to engage the, in Karen Recollect's term, slipstream of sound, to model a non-extractive recording practice.

Chapter One: Listening Positionality

I grew up in a home where music was always playing. While my mom's dancing was once gravely embarrassing, it now bursts out of me every time I try to move to music. I started going to shows as a young teenager, became embedded in the local music scene, and spent a good decade as the girlfriend of the "dude in the band." I loved music, and yet felt ashamed that when I articulated this love it was always about music's *affective* qualities – how it made me feel or what it made me want to do. I didn't have the vocabulary to talk technically and yet, I thought and felt so much about music. I still remember the first time I got a pair of over the ear headphones, Sony. I saved up and bought them from Walmart. Listening to music through good headphones sometimes feels like the most erotic experience, that is, the closest I come to feeling my own power. As I have reflected on this experience, I have come to realize that headphones allow me to curate my own sonic environment, one in which I choose what I want to hear when I want to hear it. They also allow me to quiet the external noise for a bit, projecting, focusing, the sound inward, as opposed to abundantly and overwhelmingly all around me. Headphones allow me to curate my sonic accompaniment to the affective register that either aligns with how I am feeling, or can facilitate how I want to feel. This became especially true and apparent to me as I came to understand my own depression and anxiety, and learned how to cope with my ADD. Being able to curate my sonic environment has such a profound impact on my wellbeing, I always have my headphones with me. In a panicked, I-can't-leave-the-house-until-I-find-them, sort of way.

In my early twenties, as I came into my queerness and "a bros fall back" feminism[2], I longed to make loud noise with my friends and 'take up space' in the music scene. For two years, nine friends and I organized Not Enough Fest, a festival of all brand-new sound projects comprised entirely of women, queer and trans folks. We hosted over fifteen events each year and over thirty new projects formed out of NEF. We made noise music, practiced screaming together, taught each other about gear, and nurtured an incredible creative community that still resonates supportively in the city today. I started my first band in year one, a sludge metal band called TEETH. Year two, a friend and I created a harsh noise project called harshmellow. I had

[2] 'Bro's fall back' is an idiom from a 2013 zine called Destroy the Scene: Bro's fall back, written by "a few different babes" in Philadelphia, to address white-supremist hetero-patriarchy in the music scene.

never been as loud as I was during our practices and performances and I fucking loved it. The vibration of harsh, loud, and dissonant music made by me and my friends shook something loose in me. It physically altered my state of being not only in the moment, but hours after I would stop playing. I didn't really know how to play instruments, and still don't, but it turns out that, as went the refrain, "we had been lied to." Making music wasn't that hard. We could do it too. Making music with my beloved friends, we leaned into sounds that made us feel things, governed by the affective knowledge that I had been so quick to dismiss as a teenager.

After NEF I continued to make noise music, alone and with friends. I found myself drawn to drone and luxuriated in the minimalist use of sustained notes to suspend the body in continuous, loud, pulsing noise. I started to learn about the way that different frequencies activate the body and can be manipulated to induce different physical, emotional, and mental states. I continued to learn about Deep listening, Pauline Oliveros, and traditions of experimental composition and performance. *Sound,* not just music, has always been both a site of creativity and study for me.

In 2019, my second year of grad school, my co-conspirator Kateryna Barnes and I got a grant to create a sonic map of north campus with the intention of:

> detailing spacetime aurally - to suggest that listening to the other-than-human entities that animate campus - the water, the trees, the birds, the wind - might remind us that the university as institution does not wholly define the university as place. It is our hope that this map is a site of heard (and felt) connection wherein resonance with the sounds of the environment requires a (re)orientation to campus - a place sounding with the vibrancies of the Land and hi/stories of Treaty Six. And, due to its place-making significance, that sound be considered of cartographic importance. Where colonial mapping logics delineate and contain space for the sake of state seizure and control, sonic mapping begins to chart the complex entanglements and fluidity of spacetime that defy borders and static representations of space and place (Barnes & Cowley, 2019, para 5).

Kateryna's and my desire for a different way of listening was grounded in a practice of deep listening, as championed by Pauline Oliveros. Oliveros' (2010) life's work was oriented towards deep listening, a practice of "listening in every possible way to everything possible to hear." (p73) It was our belief that moving through the world attuned to the living resonances of an ecosystem beyond colonial and capitalist containment required a recognition of the relational and

reciprocal nature of sounding – and that, in its co-generative becoming we learn about social relations as they are and as they might otherwise be.

Since then, my academic work has revolved around and extended from this project, taking up questions about the relationship between sound and Treaty, settler-colonialism, and white supremacy. These questions are not (solely) rooted in academic inquiry, but in a continued commitment to learning how to live better here in Treaty Six territory, and an attention to how my particular investment in sound can facilitate this sort of critical inquiry.

Sometimes this work feels hopeful, like the possibilities that resonate in the multitude of sonic 'timespace slices' can inform generative and meaningful action towards a world I want to live in. Other times, it can all feel like unwanted and inescapable noise, meaningless in a sea of ongoing violence. This oscillation is evident in my thinking and writing about sound and its relationship to settler-colonialism, including the sometimes incommensurable reliance on seemingly contradictory political and philosophical traditions. When my most hopeful self believes in the generative possibilities of sound to challenge colonial and capitalist alienation from the land and each other, new materialism and feminist science guide me towards a politics of possibility that recognize our material and otherwise interconnectivity as it resounds in the world around us. When I am overcome by the heaviness of this violence, I find myself reaching towards a more "historical" materialism, where the "material" signals the means of production and moments of challenge short of revolution are only ever subsumed back into the capitalist order of things. I have come to recognize that these two seemingly contradicting orientations force me to meaningfully tarryF with the incommensurability of the world I inhabit and the one I want to. This tension animates the importance of the 'coming alongside' of solidarity, that does not collapse struggles into one and the same but recognizes the importance of working across differences – ontologies, material conditions, possible futures – in the name of a different, though not necessarily the same, future. In the words of June Jordan (2003) "when we get the monsters off our backs all of us might want to run different directions." (p.13) This tension also allows me to attend to the material and materialization as relationships of physiochemical processes *and* the means of production, and importantly, the ways that these two are always in relation to each other, where the physical-material and material conditions of life under settler-colonial capitalism can both have weight in conversations about struggle and lives lived otherwise. As Avery Gordon (2016) tells us, "reimagining the world as it is always involves

imagining how it could be otherwise. Knowledge for social movement must move us; it must be sensual and magical" *and* it must involve "facing up to what's killing us." (p.62)

This thesis emerges out of a time when I was feeling particularly overwhelmed by the violence of capitalism and settler-colonialism. Covid-19, protests against white supremacist police violence, state abandonment of poor, unhoused, and racialized people, and the opioid crisis all weighed heavily on me as I began my research-listening. In this place, I sat with the tension of listening *deeply* while feeling like a cop. I tried to remain curious about sounds that I currently experienced as haunting. I was challenged to hear the possibilities that had been so exciting to me earlier.

This project is rooted in a longstanding commitment to the importance of sound and my role as an engaged and intentional listener in a perceptual world structured by settler-colonialism. I start this thesis with a discussion of Pauline Oliveros' Deep listening and Dylan Robinson's vital contribution of a practice of critical listening positionality because, ultimately, inescapably, this thesis is a product of my listening practices and positionality.

For Oliveros (2010) "deep listening involves going below the surface of what is heard, expanding to the whole field of sound while finding focus. This is the way to connect with the acoustic environment, all that inhabits it, and all that there is." (p. 77) Deep listening is an orientation, as well as a creative, and meditative practice. Oliveros was, importantly, an artist and composer who utilized the celebrated form of the score to engage people in exercises of deep listening and sonic performance. As a queer woman in the late 1970s, Oliveros responded to the male-domination of the experimental music scene by convening a women's ensemble at her California home where the sonic meditations were workshopped. Through the scores, deep listening is approached as performance, experimentation, and as a way tuning into the sonic world. According to Oliveros (2017), "listening is directing attention to what is heard, gathering meaning, interpreting, and deciding whether or not to take action based upon that meaning" (p.75). To listen means to locate yourself within the sound, "until it all belongs together and you are part of it," to hear and then acting from a place of interconnectedness (Oliveros, 2005, p.7).

Important to Oliveros' conception of Deep listening is the distinction between hearing, or sensory perception, and the intentional act of listening. As Oliveros (2005) says, "to listen is to give attention to that which is perceived both acoustically and psychologically." (p.xxii) In attending not only the physical sensation of sound, listening asks us to locate ourselves within

the sounding environment so that we might better understand how sound shapes our life-worlds and how in turn, we shape the sounding world. Deep listening requires an attention to relationships between all sounds, and modes of attention (Oliveros, 2010, p.78). Listening is a meaning-making endeavor, always happening through the habituated and perceptual structures that shape the way we listen, and yet, listening can change the way we experience the world, engage the conscious and unconscious to challenge our position in the sounding world.

For Oliveros (2010), deep listening is both ethical and political: "we open in order to listen to the world as a field of possibilities and we listen with narrowed attention for specific things of vital interest to us in the world." (p.78) For Oliveros, deep listening asked us to attend to questions about the transformation of humanity, how listening might provide a tool or practice of bringing "happiness and relief of suffering" into being." (p.90) Through a flexible and open practice of deep listening, listeners become aware of the interconnectivity of the sounding world, and "a new music reflective of a new humanity with a high value on life could arise." (Oliveros, 2010, p.90) This ethical commitment resounds with the collective political struggle to, as Ruth Wilson Gilmore's (2019) demands, treat all life as precious and worth fighting for.

While explicit references to the structuring force of power are largely absent in her work, Oliveros' suggests that deep listening requires attending to the 'angles' and different position of listeners within the field of sound. Listeners will each have their own "angle of observation" and "occupy different locations within the field of sound that shape their experiences of it." (2010, p.88) For Oliveros, these different locations within the field of sound arise out of the uniqueness of a listener's consciousness. Oliveros (2010) tarry's with questions about the co-constitutive nature of consciousness and sound throughout her theorizing of deep listening (p.90). However, her claims about the role of a listener's consciousness in the experience of sound stops short of an awareness of the socio-political conditions that shape one's subjectivity.

Pauline Oliveros is instrumental in thinking about listening as an embodied practice of attention that connects the listener to all that is sounding, including not only sounds external to the body, but internal sounds, memories, and dreams. Importantly, she posits that how one listens is informed by their unique position within the sonic field. However, what is not audible in Oliveros articulation of a listener's location within the sonic field are the historical relations that structure how we perceive the world around us. In *Deep listening: A composer's sound practice*, Oliveros (2005) says that "compassion (spiritual development) and understanding comes from

listening impartially to the whole space/time continuum of sound, not just what one is presently concerned about." (p.xxv) While a flexible listening practice that is open to new knowledge is an important part of a transformative listening practice, it is necessary to challenge the assertion that impartial listening is either possible or desirable. Later in this thesis, I will draw on Donna Haraway's (1988) concept of situated knowledges to argue that listening does not reveal an objective, truthful and singular sound, but 'partial' and subjective sounding truths. As Haraway suggests, this orientation towards feminist objectivity relies on the listener being ethically and politically responsible to the partial and imperfect claim to truth they make. While compassion may be a meaningful affective experience brought about by listening, a practice of situated listening requires action. Impartiality will not bring about the change Oliveros desires, but often leads to disastrous claims to objective truth from which decisions about the distribution of life chances are made. Reading Oliveros diffractively alongside Dylan Robinson might allow us to attend to the historical relationships that shape a listener's positionality while still honoring the interconnectivity of sounding bodies.

In *Hungry Listening, Resonate Theory for Indigenous Sound Studies*, Dylan Robinson (2020) proposes critical listening positionality as a way of attending to settler-colonial modes of sonic attunement. Robinson proposes hungry listening as a concept, derived from the Halq'eméylem language, that names practices of listening through settler-colonialism. Hungry listening does not only impact settlers, but Indigenous people whose perceptual worlds have been shaped by the violence of settler-colonialism (p.2). As a sensory structure, hungry listening manifests in many different sonic practices. Sometimes these manifestations are obvious, but often they are so deeply embedded in our perceptive constitution that they are hard to name or recognize (p.3). As Robinson says, "settler-colonial listening positionalities can be generally understood as particular assemblages of unmarked structures of certainty that guide normative perception and may enact epistemic violence." (p.10) Critically attending to listening positionality seeks to unsettle what is considered 'normal' and challenge the certain position of settler-colonial logics.

Robinson (2020) frames settler-colonialism, in the tradition of Patrick Wolfe (2006), as a structure not an event, stating that hungry listening is a perceptive structure of settler-colonialism. Hungry listening is deeply connected to the colonial imperative to accumulate and extract land, knowledge, and culture. Locating hungry listening within the logics of possession,

Indigenous music and culture is framed as a "natural resource" to be extracted and assimilated into the state. This can mean for many settlers, or people hearing through settler-colonialism, that Indigenous culture gets associated with a sense of home, which as Robinson says, is a "mis-audation of Indigenous belonging within – or to – the settler state. Worse, it may guide the listener toward not only hearing belonging but toward naturalizing the relationship between listening, knowing, and ownership. Listening itself might become an act of confirming ownership, rather than an act of hearing the agonism of exclusive and contested sovereignties." (p.13) While Robinson is speaking explicitly about song in the above quotation, this logic of possession grasps at other sonic phenomena, including all the ways that sound materializes in relation to structures, discourses, and listening bodies.

Robinson (2020) states that listening is always a relation that involves the land, troubling the subject-object distinction of colonial ontologies to suggest a form of intersubjective relationship between the listener and sound. He goes on to say that the xwélmexw worldview honors the aliveness of sound, and the songs that "have life" (p.16). Robinson positions critical listening positionality as a "practice of guest listening which treats the act of listening as entering into a *sound territory"* wherein guest listeners are not always, nor should always be, privy to sonic information and assertions of Indigenous Sovereignty (p.53). A commitment to critical listening positionality would recognize that a guest listener's limited access is a necessary incommensurability, not something to be resolved.

If listening is a relation that always involves the land, a practice of *deep listening* has particular resonance in a settler-colonial context. As David Garneau (2016) suggests:

> the colonial attitude is characterized not only by scopophilia, a drive to look but also by an urge to penetrate, to traverse, to know, to translate, to own and exploit. The attitude assumes that everything should be accessible to those with the means and will to access them; everything is ultimately comprehensible, a potential commodity, resource or salvage. The academic branch of the enterprise collects and analyses the experiences and things of others; it transforms story into text and objects-in-relation into artifacts to be catalogued and stored or displayed (p.23).

Listening in and through a culture that seeks to penetrate and go "deep" below the surface of things to extract knowledge and resources is not something we can think our way out of. While we can continue to be critical, unsettle our sensory structures, and practice alternative ways of

listening, we are, inevitably, always party to a settler-colonial listening culture. While practices such as deep listening aim for non-instrumentalized relationships to sound, we must continue to critically engage with technologies of perception that are always already encoded by a colonial ontology. For Oliveros, the *deep* of deep listening first appeared as the name of an album released in 1988. *Deep listening* is an album recorded by Stuart Dempster, Panaiotis, and Oliveros in a cistern in Washington state. The deep of *Deep listening* was multi-vocal, signaling the depth of the physical space of recording *and* Oliveros' conception of listening as experienced during their collaboration (Oliveros, 2010, p.76). Oliveros (2005) later came to theorize the deep as "expand[ing] the perception of sounds to include the whole space/time continuum of sound" while engaging "complexity and boundaries or edges beyond ordinary and habitual understandings." (p.xxiii)

Engaging the space/time continuum of sound in this way resonates with Salome Voegelin (2019) and her desire to hear the in-between of sound and the political possibilities that resonate in the simultaneity of plural timespace slices that make up the sounding world. And, as such, this might allow us to hear the connections between what was, is, and could be. However, a socio-political approach to abundance must recognize its unequal distribution – an abundance of possibilities sound different in different situations. Possibilities, too, are subject to the socio-political environment, the listening body, and relational negotiations of consent, boundaries, and refusal. What presuppositions might a practice of listening that seeks to hear 'all that is sounding' include? A practice that suggests hearing *more* is an ethical imperative? That sound might hold an objective truth? That we can hear beyond our own subject position?

The question of depth or the *deep* of deep listening has a particular weight in settler-colonial context. As Robinson, Garneau, and others have noted, the colonial imperative is to penetrate, excavate, and extract in the name of knowledge-power. Here in Treaty Six, the concept of depth has particular resonance with broken treaty promises. While the Treaty Six agreement specifies settler access to land to the "depth of a plough," industry continues to remove precious resources from the ground, displacing Indigenous communities and disrupting relationships with the land. And yet, the natural resource industry is not the only industry that digs deep to displace and dis/possess. As Audra Simpson (2014) tells us, ethnographic research and cultural histories produced over the last 150 years of settler rule has created a "regulatory body of knowledge" that 'digs deep' to excavate, record and analyze Indigenous traditions and

has been used to make legal claims about authenticity, history and rights to land (93). As Simpson says in *Mohawk Interruptus*: "this body of work has deep resonances today, in a settler-colonial nation-state that uses anthropological and historical archives to determine legal presence, to adjudicate claims to land." (p.93) Further, Simpson (2017) and others have also reminded us that the 'listening project' of the Truth and Reconciliation Commission sought to dig deep into collective and personal trauma to reconcile the state's horrid past with its current colonial form (9:32).

In concert with Audra Simpson, Leanne Simpson (2013) notes that extraction is part of the process of a nation coming into being and ongoing production and management of its own life forms. According to Leanne Simpson, "extraction and assimilation go together" wherein land, people, relationships and knowledge are extracted to construct a state that requires Indigenous people to 'become Canadian' in the multicultural, benevolent state of Canada (para 11-13). This includes, as Simpson points out, the extraction of traditional knowledge used to prop up western environmental campaigns that seek to extract ideas that corroborate their desires. Even in seemingly resonant projects, Indigenous knowledge and labor are subsumed into western narratives that appropriate Indigenous knowledge to enable a settler-futurity. With the extraction of resources, Indigenous knowledges and cultures, permeating, for example, environmental destruction *and* activism against such destruction, how do we begin to untangle the depth of extractive, hungry listening, from the depth of meaningful curiosity and ethico-political obligation? How might questions about the relationship between listening, connectivity, and the land require us to attend to the colonial impulse towards extraction and assimilation?

Additionally, where deep listening seeks to hear below the surface of things, listening for sounds of worlds not readily available to us, has resonances with technologies of surveillance. These resonances are most obvious in the undercover police officers positioned around and embedded at Pekiwewin whose state bestowed power to kill – conditioned by the particularities of white supremacist settler-colonial violence against Indigenous and Black communities – functions as the ultimate act of extraction. However, to once again call on Audra Simpson (2007), early anthropological research functioned as a stalwart strategy to stave off Indigenous moves for sovereignty, a key objective of current day state violence. In fact, the following definition of surveillance, could easily define anthropology: "continuous observation of a place, person, group, or ongoing activity in order to gather information." ("Surveillance", n.d.)

Anthropological research that observed to know about Indigenous 'culture', "accorded with the imperatives of Empire and in this, specific technologies of rule that sought to obtain space and resources, to define and know the difference that it constructed in those spaces and to then govern those within." (Simpson, 2007, p.66) And while a conflation between anthropology of the 19th century and practice of deep listening informed research would surely be a stretch, the echoes of research that surveil to know through the technologies of field-notes, recordings, and historical cultural-depictions reverberate in critical conversations about the ethics of deep listening wherein sovereignty may be at stake. And while listening with curiosity for the sake of learning how to be better in the world is a meaningful project, I believe we must trouble assumptions that listening *deeper* is an ethical imperative that serves a general 'humanity', while ongoing practices of extracting knowledge and information is used to further assert control over Indigenous lands and bodies. Because we can hear deeper, does it mean that we should?

Sovereignty continues to be at stake in questions of deep listening, including Robinson's sound territory, Pekiwewin's police free camp, and, perhaps, sonic worlds sounding on different registers. As such, it is important to ask how listening *deeper* might endanger life-worlds that require inaudibility to continue to live out otherwise lives. If sound emerges as a material-semiotic relation through the intra-action of environment, socio-political structures, discourse, and the listening body (including its technological extensions), how might deep listening bring into being, into audation, particular relationships of power? Conjuring Barad's (2007) notion of the apparatus, the practice of drawing boundaries, inclusions and exclusions, that come to delineate an encounter or object of knowledge, how might the observational and recording function of an apparatus bring into being political subjects so that they might be subsumed into a discipline and/or disciplinary force-relation with the settler-colonial state. What we listen to, whether or not we aim to instrumentalize it, materializes in relationship to and with us and our technologies of listening. This relation is always and forever embedded in the structuring material conditions of life under settler-colonialism.

This critical read of deep listening, however, is not meant to be damning of Pauline Oliveros or practices of critical attunement. It is however, to read towards a relational practice of accountable, interconnected yet subjectively experienced listening as an ethico-political orientation to the sounding world. Herein, perhaps, critical listening positionality might provide the tools for a diffractive reading of deep listening that extends towards the listening relationality

I suggest above. For Robinson (2020), a critical listening positionality recognizes that “listening [is] a relational action that occurs not merely between listener and listened – to, but between the layers of our individual positionalities." (p.58) This critical listening positionality asks that we attend to the different structures and experiences that inform how we listen, including race, colonization, class, gender, and ability, to name a few, and develop practices of self-reflexivity that challenge the colonial mode of perception that seeks to know in order to dominate. These different layers of positionality work together to create the listening body that always listens through the matrix of power relations that structure our settler-colonial life-world, even when they do not serve us. “Moving beyond hungry listening toward anticolonial listening practices requires that the “fevered pace of consumption for knowledge resources be placed aside in favor of new temporalities of wonder disoriented from anti relational and non-situated settler-colonial positions of certainty.” (Robinson, 2020, p.53)

As Dylan Robinson (2020) gestures to in *Hungry listening*, and as was made clear to me during my recording-research, refusal is perhaps an important concept in thinking through and practicing an ethico-political orientation to listening that attends to the perceptive structures of settler-colonialism as they live in the listening body. Pauline Oliveros’ orientation toward the sounding world required adaptation, openness and self-reflexivity — to bring her work into conversation with Dylan Robinson allows a practice of diffraction wherein deep listening is vital to the question of how to listen ethically and attuned to the political resonances of our time.

Chapter Two: Theorizing Sound

Echo Elsewhere: Settler-colonialism and the materialization of sound asks that we sonically attend to the material-social relations of our settler-colonial life-worlds. Sound is a vital site of intervention through which to agitate the settled, elevate the already present, and stoke the imagining of worlds *otherwise*. I understand sound to be a material-semiotic relation of becoming, wherein vibrations intra-act with material phenomena, apparatuses of perceptions, and discourses of power to bring about a sounding situation, audible or not. That is to say, sound materializes as a dynamic relationship between matter (including the listening body), meaning, and structures of power. Sound is, as I will argue, a social and political force-relation that is instrumentalized in service of, and in opposition to, the settler state. Sound is an always present and co-constitutional element of our daily lives and the structures that shape them.

In this thesis, sound is considered through the various intra-active agents and processes that co-constitute it: the in/audible vibrations of matter; a sensuous engagement with vibrations experienced by the body; the perceptive structures that make sense of soundwaves; the affective economy of sonic registers; and the social relations through which sound is produced, experienced and instrumentalized. Sound vibrates, it resonates, and it shapes our life-worlds. And while sound is itself a shaping force, it too is always shaped within the context of dominant social relations and operationalized to further instantiate power through its presence (or absence), tactics of sonic violence, and the policing and surveillance of sound and sounding subjects.

We are, as Pauline Oliveros (2015) says, living in a “sonorous environment.” (p.23) Sound is all around us all of the time: the oscillation of particles propagated within a particular environmental medium to produce what we have come to call soundwaves. These soundwaves are located in nature, our human and machine communications, and even within our own bodies. According to Mickey Vallee (2018) new sound theories embrace “the intertwining between sound, body, place, sensation ...the virtual, the haptic, the affective - in short, that which vibrates beneath or above the surfaces of perception.” (p.50) Sound is not an isolated object or singular event, it is the convergence of forces-relations acting on and with the body and environment, known through its in/audible vibrations and the sense-making mechanics of listening. Included in this category of new sound theories is Garner and Grimshaw’s (2015) proposition that sound can also be understood as an emergent perception: sound waves confer with the auditory cortex and,

in context, facilitate an embodied experience of the sounding environment (p.1). Garner and Grimshaw put forward the idea that “sound emerges from spatio-temporal conjunctions of other phenomena, the sensuous/non-sensuous, material/immaterial complex,” something they call the sonic aggregate (p.4). The sonic aggregate attends to the embodied experience of sound, which necessarily includes the brain, body, and environment as co-creators of the sonic (p.3-4). The important intervention of Garner and Grimshaw’s work is the assertion that sound is not limited to the vibra-sonic, but that sound can be located within the body, not as a response to vibrations but as a creative act emerging from memory, neuro-biology and social imagination. Put simply, sound does not necessarily require sound waves. In fact, Garner and Grimshaw go as far as to suggest that soundwaves are meaningless without perception.

Perception, however, is still very much material, as the mind – the center of sonic perception – includes the brain, the body and the environment. In the language Garner and Grimshaw (2015) use, both the exosonic (the material world, including but not limited to soundwaves, the properties of space, material composition, spatial location etc.) and endosonic (“memory, expectation, belief, and emotion”) are part of the sonic aggregate, or, the expression of sound. Important in this claim, is, perhaps surprisingly, the spatial location of sound. Location is not an innate characteristic of sound (though sound is often understood as having proximal, distal or medial locative properties (p.33), but a function of its relational perception. Sound is always located where the listener places it. In this case, sound is a placemaking mechanism through which we locate ourselves spatially and temporally, relationally and philosophically.

Conversations that locate sound differently in the body and environment are also important in moving away from cochlear notions of sound that focus on the ear’s ability to hear as central to sound itself. In the place where disability, sound studies and post-humanist philosophy meet, many scholars have argued for a recognition of the non-cochlear sense mechanisms that engage with and locate sound. Steph Ceraso (2018) has called this multi-modal listening, opening up sound to be a full-bodied, multi-sensorial experience. As Roshanak Kheshti (2011) says, "sound is experienced (felt) by the whole body intertwining what is heard by the ears with what is felt on the flesh, tasted on the tongue, and imagined in the psyche." (p.714) Taken further, assistive and otherwise technologies that engage in sense perception are key to reconceptualizing sound as experienced by the body and its many extending/able organs. According to Alessandra Pearson (2018) “in deprioritizing the able, un-aided body as key for the

delivery and perception of sensory information – boundaries between the five senses can be broken down so as to guide us further into the sphere of sound." (para.14) A disability sound studies would suggest that we experience sound with our whole bodies as they are differently constituted and reliant on different technologies. As Pearson and others suggest, not only is sound experienced and co-generated with the other senses, something happens in the space between, and at the convergence of, the different senses, that allows us to meaningfully engage sound. The addition of sense-prosthetic technologies expands the production of sound to include the technical, and further challenges any notion of sounds adhesion to dichotomous divisions of the body and the environment.

The claim that sound blurs division between the body, environment and technology, is, in the Baradian sense, an onto-epistemological one. According to Oliveros (2010), we are enveloped in the sonosphere, where soundwaves "begin at the core of the earth and radiat[e] in ever-increasing fractal connections vibrating sonically through and encircling the earth. The sonosphere includes all sounds that can be perceived by humans, animals, birds, plants, trees and machines." (p.22-23) To perceive, however, as suggested above, does not mean to hear, as vibrations operate on the body audibly and otherwise. What we hear moves us, but what we don't hear *moves* us also. Sound is vibrational matter, part of the sensory composition of the environment that is always a participant in a world becoming. As Salomé Voegelin (2014) articulates, while "sound stays not in place, it is also not up in the air, but down below, underneath the visual surface, mobilizing what we see, invisibly and without light, unfolding the complex and fluid fragmentedness of what seems unified and scaped above." (p.11)

If we take sound to be part of the sensory composition of a world materializing, we cannot locate it outside of its relationship to time and space. Sound is of and shaping of the land - it is always emplaced, even when that place is inside the mind. As Kathleen Stewart (2015) articulates in "Place and Sensory Composition," place is "a sensory composition...not an inert landscape made of dead matter but a composting of bodies, affects and forests, of persons, socialites, and existential ecologies of being in the world." (p.202) This orientation to place, championed by theorists such as Doreen Massey and Barad (2007), requires that we recognize sensory composition, as an apparatus, "a specific material reconfiguration of the world that does not merely emerge in time but iteratively re-configures spacetimematter as part of the ongoing dynamisms of becoming." (p.142) These sensory entanglements are instrumental to the material-

semiotic construction of land, including sound as a co-constitutive element in the amorphous, forever in motion, field of energetic relations that constitute our material environment.

To recognize the sonic as always a part of the world becoming is to recognize its indivisibility from the continuum of spacetimematter, to recognize, as Voegelin (2014) says, "we are in the acoustic environment and it is around us all the time, unavoidably and inexhaustibly here it is and here we are, as in a virtual embrace." (p.9) Voegelin suggests that sound is a "volume of interconnecting dimensionalities", better understood in its verticality, than through other predominant narratives that draw connections with the landscape and subsequent horizontal notions of sound in/and space. Voegelin draws on Maurice Merleau Ponty's conception of depth, to suggest that attending to sound allows us to engage that which is hidden from view, where we cannot see ourselves as separate from the space of encounter but recognize our existence within it. Voegelin refers to the fluidity of sound and the impossibility of separating sounding entities into discrete actors operating on in a singular timeline. Sounds occur simultaneously, contributing to the creation of multiple worlds, or "timespace slices." For Voegelin:

> this socio-material volume has a dimensionality made from simultaneous and indivisible timespace slices, which are the activities and durations of encounters and configurations. Intern, this dimensionality has a viscosity within which we move and are still together, as in an unavoidably connecting but plural sphere, suggesting an inter-subjectivity and interactivities that enable the imagination and articulation of a socio-material geography (p.89)

For Voegelin, this simultaneity of timespace slices enables the possibility of infinite, co-existent sonic worlds that open into otherwise worlds that might inform how we are and how we ought to be in this one. By acknowledging the interconnectivity and relationality of sound we must recognize that we, as sounding and listening bodies, are always in configuring relations with the place in which we are located.

Sound is, as I hope the above suggests, always relational and situational. It can thus not be understood outside of its situatedness in, and co-creation of, place. This discussion of place, in a settler-colonial context, turns us toward the geopolitics of place making as both a settler-colonial practice *and* a practice of relation that precedes and exceeds techniques of domination. Tuck and McKenzie (2015) suggest, place is "a meeting place, not only of human histories,

spatial relations, and related social practices, but also of related histories and practices of land and other species." (p.43) Our bodies, like the land, carry our histories and spatial memories. How we sound and how we listen are central to how we are in the world. These embodied practices are contingent on the material and social contours of place, including the settler-colonial re-ordering of the land, that are always already political.

Sound is not discrete; it forces us to contend with the porosity of sonic matter. Sound, then, might also remind us of the precarity of ideologically conditioned enclosures that define our settler-colonial life-words: the body, the home, the nation are thus also not discrete entities, though they are constantly re-articulated as such to maintain the capitalist and colonial alienations that requires a separation from the land, each other, and our labour. This recognition of sound's porosity, multi-dimensionality, and simultaneity, is important to the study of sound in that it asks us to consider how sound materializes as a relational force always shaping and shaped by social relations. Sound is important to the study of our social relations as a mode of attending to the materiality of ongoing settler-colonial occupation and those relationships sounding in its excess.

Sound both exceeds human intervention and is continually shaped by our world-building projects that rely on forces that operate on, and radiate out from, the body. How we experience sound, how we sound and how we operationalize our relationships with sound are fundamental to how we move through the world and cannot be understood outside of the matrix of power-relations and material realities that shape us. That is, sound is one of many force-relations that contributes to maintaining (or challenging) the order of things. As Jennifer Lynn Stoever (2016) argues in her book *The Sonic Color Line: Race and the Cultural Politics of Listening*, sound is "a critical modality through which subjects (re) produce, apprehend, and resist imposed racial identities and structures of racist violence." (p.4) Stoever constructs the concept of the sonic colorline, which "describes the process of racializing sound – how and why certain bodies are expected to produce, desire, and live amongst particular sounds – and its product, the hierarchical division sounded between "whiteness" and "blackness". For Stoever the sonic color line comes to demarcate the urban from the suburban, the criminal from the social, the respectable from the indecent, amplifying the dialectic construction of sonic segregation in a white supremacist society. From a torture technique to the mundane and subliminal consumer messaging of muzak, sound is mobilized by the settler-colonial and capitalist state to assert

dominance over its subjects. While sound is operationalized as a mode of sensory regulation and control by the state, it is also a force of resistance and organizing otherwise in response to the power relations that shape our material world. Spaces of sonic collectivity, of celebration and communion (for example, the Pentecostal Church and Indigenous Ceremony), the quietude of refusal, and animal life lived outside the range of human hearing all resound meaningfully against settler-colonial domination.

While this may read like a literature review, this thick description of my understanding of sound has emerged not only out of my engagement with theorizations of sound, but out of my experience thinking, listening, creating, and being in and of sound. This summer, as I positioned myself to engage sonically in my research, I felt a particular orientation to sound as it revealed itself as I move through my daily life, at camp, at the grocery store, in my backyard. Becoming intimately aware of some of the claims I desired to make: sound is fluid, it doesn't quite travel, but materialize in its movement, it is not contained, yet fills space, formless but structuring, sound is with us all the time, even in obvious silence – sound is always, forever, acting on the individual and collective bodies in ways we cannot even begin to comprehend.

While personal experience is deeply informative and a vital site of feminist knowledge production, I turn to theory because it allows me to critically reflect the ways in which personal experiences are mediated by structures of power and historical conditions of embodiment. In this thesis, feminist, anti-colonial, and Indigenous theories of knowledge production and sound, offer up the conceptual space for thinking about the connections between the granular experience of life at Pekiwewin, and the broader structures of settler colonial governance that both produce the conditions of Pekiwewin emergence and, I argue, were challenged by the sonic presence of Pekiwewin. As the changing course of this thesis demonstrates, individual experience is not an autonomous, self-evident truth, but must be understood in relation to the structures of power and historical conditions through which our incomplete and partial truths manifest.

In what follows I will expand three main observations that have come to fundamentally structure my approach to sound-based research. The first is that sound is always situated and must be understood within the conditions of its emergence. The second is the way in which sound articulates the porosity and interconnectivity of our material and social relations. The third is that sound is politically relevant to a critical analysis of settler-colonial social relations in the so-called state of Canada.

Chapter Three: Sound is Situated, Interconnected, and Political

Sound is Situated

Sound is a relational process contingent on the material-semiotic ordering of the timespace slice within which it exists. In the context of this project, for example, sound emerges at the intersection that is the urban river valley – specifically, a part of the river valley that has been used for millennia as a site of ceremony, trade, residence, and diplomacy. The sounds of the river valley are also shaped by the more general processes of settler-colonial dispossession, white supremacist violence, as well as modes of Indigenous life and sociality that exceed these processes. It is through these, and other, co-constitutional relationships, that I situate sound as the partial and imperfect materialization of timespacematter.

Donna Haraway's (1988) situated knowledges, is useful for addressing the complex and dynamic relationship between sound and listener by calling attention to the material semiotics of sonic worldmaking. In sounding relationships, the distinction between the subject-listener and the object-sound is tenuous: sound materializes in their entangled, intra-agential relationship rather than pre-existing it. Haraway uses the concept of the material semiotic to "portray the object of knowledge as an active, meaning-generating part of the apparatus of bodily production," even when the object is not present, and its social meaning is always in flux (p.595). In resisting the so-called final or unique determination of objective knowledge, Haraway's conception of the material semiotic is useful to remind us that sound becomes, materially, meaningfully, through the relationships and processes it endures and sets in motion. Materialization here, is taken up in the Baradian (2007) sense of the term, to mean that ongoing (re)configuration of the material-discursive, where matter is not a stable substance or even a thing, "but a doing, a congealing of agency" and phenomena (p.210). Barad uses phenomena to mean the foundational materiality of atoms that come to *matter through* their intra-activity (p.151). Importantly, as Karen Barad asserts, the process of materialization necessarily includes the active participation of physical-matter. In this framework nature is not inert, waiting to be composed by culture, nor is it only the outcome of sounding performance (p.183). Matter is an inter-active agent in sound as a co-constitutional process that involves "material phenomena, apparatuses, and discursive practices between human and non-human actors." (p.183)

To speak to the intra-active entanglements of sound's materialization is not to collapse difference as it structures our life-worlds, but to recognize how materialization is itself a boundary-making process wherein, "agencies are only distinct in relation to their mutual entanglement," they are not discrete objects entering into an interaction, but agencies becoming in their intra-actions (Barad, 2007, p.41). As Haraway (1988) suggests, boundaries are not 'natural' but they "materialize in social interaction," including the distinction between subject/object and nature/social (p.595). As such, objects do not pre-exist subjective perception, but instead come to be objects in their distinction from subjectivity, that is, in their exclusion from the agency and meaning-making potential normative philosophies of the human subjects are endowed with. This can be heard, as discussed more below, in the sonic naturalism that saturates much of traditional sound studies. Annie Goh (2017), in conversation with Marie Thompson, points out that R. Murray Schafer's 'aesthetic moralism' contrasts the 'unnatural' and noisy sounds of industrialization, with natural and quiet sounds of an earlier pastoral soundscape, ultimately celebrating the natural as 'authentic' and desirable. As Goh suggests, the move to locate the authentic as natural or unmediated, is also gendered: wherein "Schafer's figure of the 'earwitness' as the attentive, 'authentic' listener is typical of the oft-implied ahistorical masculinist subject, who produces knowledge about 'the soundscape', its feminized object of closer study." (p.5) This dichotomous interpretation of sound comes into being at the intersection of western empiricism, patriarchy and colonization, wherein the sound is another relation turned object to be known and dominated.

As suggested above, western ontologies that rely on the boundary between subject and object are always imbued with, and used to further entrench, structures of inclusion/exclusion along dominant power lines. Boundaries between the subject and objects of history are reinscribed with racial and colonial hierarchies that result in white supremacist possessive logics sounding coherent while, for example, nêhiyaw practices and protocols of governance sound like noise. Understanding sound as a material-discursive process, requires recognizing the role of boundaries in the production of sound. That is, what comes to be considered or experienced as sound, or sounds of a particular order, are determined through material discursive inclusions and exclusions. Yet, as Haraway (1988) goes on to suggest, boundaries shift from within where intra-active agencies continue to push the limits of what is or is not included: "what boundaries provisionally contain remains generative, productive of meanings and bodies." (p.595) Sound

too, is a boundary project, not a discrete object, but a relation generated in and through the different boundaries and forces of power that condition its emergence.

Recognizing sound as a process of materialization that includes the material, apparatuses, and interspecies discursive relations, requires an attention to social power as an always active element of the sounding environment. One important site of the social embeddedness of sound is the body. As Mickey Vallee (2020) says, sound is always working on the body across its fleshy and porous boundaries: "all bodies open, and all openings refer to the oscillatory movement of a body, and all bodies vibrate in response to the vibration of other bodies, whether those bodies are inside another body (like a larynx) or external to it (like a rockslide)." (p.6) *The* body, then, *my* body, then, is an intractable force in the sounding 'situation'. Whether it be through a cochlear recognition of a threat, or an affective response to sub-bass vibrations on the dance floor, the body is one of many agencies in the materialization of sound. This attention to the body is the place where feminism and sound studies intermingle. In "Sounding Situated Knowledges – Echo in Archaeoacoustics," Annie Goh (2017) proposes "sounding situated knowledges" as an important feminist intervention to challenge the subject-object categorical separations of sonic naturalism that pervades much of traditional sound studies. Goh posits that, in traditional sound studies, the sounding subject-object relationship is one in which the masculine listener listens to the feminized sounds of nature/nature of sound, reproducing the misogynistic mode of attention as apprehension, which has come to stand in for a central paradigm in sound studies. Goh suggests that situatedness is an orientation towards the political and ethical considerations of sound because it challenges the masculinist-colonial distanciation and subsequent dominion over "feminized" nature in favor of a more relational approach to sound that accounts for partial, situated truths. By paying attention to claims by foundational sound theorists, Goh draws connections between sound research and the god trick in objective science, wherein an external researcher seeks to know about the object of their research, making value claims that come to be expressed as truth, truths than are then used to justify political action. For Goh, in echoing Haraway, closing the gap between subject and object in sounding relationships is a question of feminist accountability, wherein challenging the traditional dichotomies of gender, human/non-human, and nature/culture requires us to acknowledge generative relationships that exceed the conditions of binaristic power (p.93).

A central argument of this thesis is that sound must always be situated. However, this is

not reducible to the standpoint of the listener or their experiential positionalities. Sound is situated within the material-discursive conditions of its emergence, always materializing through the particularities of relationships to and between place, material histories, and social and political projects. Sound does not reflect these relations, but comes to be in their intra-activity. Said another way, sound is not experienced as a marker of place, but is part of place itself. I take sirens at camp to be a prime example of the situatedness of sound.

Sirens were an ongoing sonic phenomenon at Pekiwewin, which was located near a fire station, in between Whyte Ave and downtown, and on a main thoroughfare connecting the two. Ambulances, fire trucks, and police sirens are a constant presence in this part of the city; they were before Pekiwewin, they were during Pekiwewin, and they continue to be now that Pekiwewin no longer exists in the location. Pekiwewin was also explicitly a police free and yet, criminalized space, where the sovereign act of denying police entry, was taken to be an act of defiance by an already criminalized community. Further, the life sustaining functions of camp, a public place to sleep, meals prepared over an open fire, a safe/r place to use drugs and be intoxicated, were considered illegal alongside the litany of criminal offenses thrusted upon those living-while-houseless. And, while many people living at Pekiwewin had complex medical needs, sirens rarely signaled 'help on the way', as it does for so many of us. Complicated relationships with not only the police, but Alberta Health Services and the other nodes in the city's emergency response infrastructure – often deputized to invoke the law – meant that many living at Pekiwewin did not trust Emergency Medical Services (EMS) any more than they trusted Edmonton Police Services (EPS). Encounters with children services, disrespect for bodily autonomy, and life-endangering stereotyping, has, for many, made distinguishing between the different arms of Edmonton's emergency response infrastructure somewhat trivial. And yet, when emergency demanded it, the sound of ambulances was noticeably absent at Pekiwewin while they continued to echo throughout the river valley, and across the city. Sirens, including their absence, sound like lots of things: medical emergencies, arrest, harassment, fire, and for many, security, safety, help and relief. Sirens signal many different things simultaneously, and thus they sound on different registers, producing many different sonic worlds. Semiotically, sirens are polyvocal.

What I want to talk about, however, is not the multiplicity of meanings signaled by sirens, but rather how sirens co-produced the sonic situation of Pekiwewin. The distinction here,

requires, as I have argued above, the presupposition that sound is a material-semiotic relational process of placemaking. While sound is certainly experienced differently through one's listening positionality, the intra-active materialization of sound *creates* competing sonic worlds, where sound not only signals difference, but is different. Sirens do not just symbolize the police, but are an extension of the disciplinary power of the carceral state that shaped Pekiwewin.

The sounds of sirens at Pekiwewin served to assert dominance over collective life by reinforcing the simultaneous abandonment and containment of subaltern life. As Harsha Walia (2020) has argued, borders function not only to keep people out, but to contain and control deviant bodies. Where the police were unable to enter into Pekiwewin, the sirens reinforced camp's containment within the policed and militarized borders of allowable expressions of sovereignty, that, while not to be transgressed from the ground, are still penetrable by the state. At Pekiwewin this summer, the sirens operated as a sonic force-relation that asserted colonial dominion over the land and bodies attempting to make home on it. This force did not only have ambient, affective consequences, but had physical and emotional impacts on the health and wellbeing of people living at Pekiwewin. Sirens, which operate at 120 db, are loud enough, and known to cause pain, most evident in the number of siren-induced seizures I responded to as a medic at Pekiwewin. And while this is an obvious example of the physical pain sirens cause, it does not account for the damage and loss of hearing, sleeplessness, and anxiety that repeat exposure to sirens cause (Wagner, 2018). While sirens might elicit different responses in different groups of people, they pose a physical threat to collective life that resounds in encampments and protest occupations, where the sound of sirens impact people's health and wellbeing, signals a hostile party, and functions as an extension of the police's disciplinary force.

At a granular level, sirens changed people's behaviours and the affective environment of Pekiwewin. For example, organizers made their way to the camp's entrance to ensure no police entered the camp, people with criminal records retreated into their tents, and as a medic, I listened to calls for help from a friend who had siren-induced seizures. However, if we scale out from camp to a broader history of settler-colonialism in this part of the city, sirens also bear an historical echo. As I have described above, sounding situations are porous, not only spatially and materially, but temporally. As Doreen Massey (2005) argues, place continually emerges out of the "stories so far" that write it. This includes different time scales. In drawing on Massey, Vallee (2020) theorizes the different associations that come to define place, where time is

"measured as a pure relation between social groups" (p.165) including relations that are beyond human. As such, the slow(ish) dissent of the walls of the river valley, and the formation of the flats operate on their own geological time scale, just as, according to Massey (2005), "imperceptible tectonic movements deliver rocks as a passersby witness[ing] a much faster world of human time." (p.140-141) On a geological scale that emphasizes the organic material life of glacier melt and erosion, Pekiwewin is a blip, a 110-day event over the summer and fall of 2020, that is nested in a multiplicity of time scales that extend thousands of years, each having their own sonic order.

Moreover, the site of Pekiwewin has a long history as a place of contestation between different forms of social life. The roads that deliver emergency vehicles to and from emergencies, intersects what was once a continuous section of the river valley flats, which have important significance to many different Indigenous peoples. This section of the river valley, as Dwayne Donald notes, was used for river and land-based traders, as ceremonial grounds, and as a site of diplomacy (personal communication, 2019). Across the road from Pekiwewin, separated by 95th Ave, is the Fort Edmonton burial ground mentioned in the introduction, a long-fought-for resting place for many Indigenous ancestors. Given the historical and spatial context, 95th Ave physically separated a state recognized memorial and ceremonial site from an active site of ceremony and congregation that does not fit as neatly into the city's narrative of reconciliation. While there are many dynamics at play, physical, spatial, legal, discursive, and historical, that shape the particularities of land use in the Rossdale flats, I describe the above to highlight the role of sirens in establishing a sonic boundary that isolated Pekiwewin from the larger social ecosystem of the river valley and its Indigenous histories. The presence of sirens and police vehicles that continued to circle camp functioned to contain Pekiwewin as an island, allowed to continue so long as it remains disconnected from the historical relationships of ceremony, ancestry, and landed legacy that sit immediately across from, and deeply (as in spiritually *and* deeply under the road) connected to each other and the ongoing struggles that require the return of land and the collapse of the settler-state.

As agents of the settler-colonial state, EPS and Royal Canadian Mounted Police (RCMP), have long been tasked with monitoring Indigenous land and movement. From the reserve system and accompanying limitations on travel, to the enforcement of injunctions against Land Defenders, and as protectors of private property that patrol Rossdale in cop cars, the legacies of

containment and exclusion continue to ring out in the river valley, in the Rossdale flats. Foundational to the settler-colonial dynamic of containment and exclusion, are the simultaneous practices of surveillance and abandonment that sirens announce. For example, it was a common practice for police cruisers to drop off individuals in extreme distress at Pekiwewin and then, when approached regarding the situation, to pressure volunteers and residents for information about the inner workings of the camp. Similarly, when three fire trucks rushed to put out a small and contained ceremonial fire lit by Elders at the park across from camp, the fire chief declared publicly, and on video, that they would no longer "bring their services" to Pekiwewin for fire or medical emergency. While Alberta Health Services (AHS) purported to be concerned about the health and wellbeing of people at camp, the community paramedic team was forbidden from entering Pekiwewin. Ambulances sped away at the first site of the people who called them. First responders would only enter Pekiwewin to assist a single young person in distress when escorted by eight police officers.

The above are concrete examples of how Pekiwewin was shaped by the simultaneous surveillance and abandonment of the state, and it is my argument that sirens played an essential role in this tactic of state control. Pekiwewin was not only a traffic island, in the infrastructural sense of the term, but also was made to be a zone of exception and a site of social enclosure. The sounds of sirens held Pekiwewin in place, a forceful sounding that prevented the expansion of Pekiwewin's boundaries, while repeatedly, materially and affectively, asserting the state's ability to sonically penetrate spaces of attempted sovereignty. While the police were not allowed into Pekiwewin, they could in fact assert their presence at four in the morning, waking individuals whose tented-homes representing a particular sonic vulnerability-permeability compounded by the ongoing threat of police incursion into the homes of people sleeping rough. Where the sirens produce a sense of safety for some, their assertion at Pekiwewin, served to remind us of the fragile, limited, and ultimately penetrable boundaries of its temporary existence.

The affective and effective-ness of sirens occurs in the relationship between the state and the embodied listener (the people who lived at Pekiwewin, the Indigenous organizers and other mutual aid volunteers). Through this antagonistic relationship, wherein being unhoused, Indigenous, a substance user or a state agitator, is criminalized, sirens not only sound, but are threatening. The threat sirens pose, in a place that resounds with Indigenous histories of resistance, are neither specific to the modern technologies of sirens, nor the expression of

sovereignty Pekiwewin represented. In this context, sirens were not only a symbolic assertion of the ultimate authority of the state, but also weaponized as a sonic tactic for attenuating a social movement that demands the return of land and the abolition of the police. Framed in this way, both discursively and materially, sirens came to shape sounds of camp as a conjunction of social, material, embodied histories, experiences and expressions of sound.

Disciplinary power, of course, also operates on interconnected scales. Sound is instrumental not only in the shaping of space and place, but the structuring of time. The sirens functioned to enclose camp, as a traffic island, a temporary protest, an allowable moment of dissonance to be resolved and subsumed back into the order of things. In this next section, I will argue that the bells sounding out from the cupola atop the Alberta Legislature function on a temporal scale to reassert the dominance of settler-colonial ordering of time. Sounding out from a panopticon-esque viewpoint in the Beaux-Arts era building – famous for the Greek, Roman and Egyptian influences that suggest "power, permanence and tradition" – with views of the entire river valley, the bells assert their presence, and dominance over Pekiwewin and governmental time in the city ("Beaux-Arts Architecture," 2021).

At Pekiwewin, time was measured in meals and missed meetings with social workers. The stuttering of the generator as it came to life preempting the persistent yet unreliable hum of meal preparation bringing people together near the front. Time, however, was also measured in the long-standing relationships to land and history of the flats. The trees are old and creaky, and the land resounds with the communal life it has enabled. The ancestors of many living at camp rested alongside them in the earth, and as numerous people told me, in their dreams and visions. These relationships pull at time, and exist as a persistent and continuous hum, punctuated though not overcome by settler-colonialism.

> As nêhiyaw legal scholar Sylvia McAdam (2015) writes in *Nationhood Interrupted*:
>
> "A LOW HUM COULD BE HEARD through the universe, rhythmically broken by a consistent lull then the hum would repeat itself over and over again. No human memory could say when the hum began; only in the oral tradition of the nêhiyaw and nakawê people has it been told through the generations that it is foundational in the creation of mother earth." (p.37)

It is this repetitive beat, McAdam tells us, the heartbeat of Mother Earth, that can be heard in the drumming and songs of nêhiyaw ceremony. This intergenerational hum reverberates, as

McAdam and others tell us, in and with the language, law and land of the nêhiyawak, connecting all living things (p.37). As Cree/Saulteaux scholar Gina Starblanket (2017) writes, Indigenous "practices of resurgence emerge from a worldview that acknowledges a living relationship between past, present, and future, and makes possible the imagination of strategies of cultural renewal based on the interplay of pre-colonial pasts and de-colonial futures." (p.25) And yet, in this place that hums with intergenerational Indigenous history and resurgent potential, the bells of the legislature ring out loud from the colonial government center reminding us which time scale determines the order of things. As Sarah Keyes (2009), in "Like a Roaring Lion: The Overland Trail as a Sonic Conquest", reminds us, bells have long been a tool of settlement.

Writing about the Overland Trail and the role of sonic conquest, Keyes (2009) suggests that the tolling of bells structured and maintained the Christian social order: the rhythms of daily life as sounded out in the bells that marked the work day, religious gatherings, significant events such as marriages and funerals, ritual, and that articulated the spatial boundaries (p.33). Sounds both transcribed European cultural structure and asserted territorial dominion, including the "sonic reach of the village bell [that] defined the community's geographic boundaries and therefore the residents' territorial identity." (Keyes, 2009, p.22) The bells were used to demarcate the boundaries and cycles of Christian life through the simple and reliable amplification of sound waves.

The use of bells not only asserted dominion over the land, but was used to acculturate Indigenous children in residential schools. "Bells ordered students' lives, dictating when to sleep, rise, learn, pray, and eat. On their way to the dining hall, students marched in time to the sound of a bell." (Keyes, 2009, p.36) As Dylan Robinson (2020) states, residential schools functioned not only to remove children from their family, culture and land, but to colonize their worldviews and re-order their sensory perception. As quoted in Dylan Robinson, Mark M Smith (2007) says that residential schools "tattooed authority on colonized bodies via the ears " often via "the sound of clock defined time." (Robinson, 2020, p.56) While Pekiwewin had its own cycles and temporal rhythm, the echoes of western clock time, not working for, but *on* people living at the camp, continued to shape the space of Pekiwewin. Noise complaints after 11pm, a barrage of honking and yelling out windows signaling rush hour, the absence of vital life services after "business hours", the monthly cycles of not-a-livable cheque day.

In “Time Seizures and the Self: Institutional Temporalities and Self-preservation Among Homeless Women” Amy Cooper (2015) explains how trying to adhere to institutional time tables, which she calls, “overscheduled time” negatively impacts the wellbeing of unhoused women. Traversing the “institutional circuit” requires people to adhere to strict, often competing schedules, without the resources (for example, a car, a cell phone) to navigate the time-burden of multiple appointments and service schedules just to meet their daily needs of sleeping, eating, and hygiene. Cooper’s research suggests that not only does this keep people in the cycle of spending their time reproducing the conditions of their lives, but it is dehumanizing and demoralizing (p.164). Cooper argues that as with other institutional temporalities, “appropriating people’s time can serve as a means of shaping subjectivity and reproducing power relations and social inequalities" (p.165). Regularly we were asked at the med tent to wake people up for appointments because, in addition to impossible schedules that require choosing between getting your ID (a necessary step in procuring housing) and having access to running water, people sleeping rough often don’t have access to the technology (or power to charge technology) that many of us rely on for alarms. Having to navigate overscheduled time reproduces the conditions of poverty and houselessness by forcing people to choose between what should not be competing needs. Often, at least temporarily, people choose not to engage at all in a system that so clearly sets people up to fail. While the bells announce the turning of the hour, the repetitive chime does not signal a meaningful indication of time, because who knows if it is 9am or 10am, but serves as a reminder of clock-time’s role in disciplining bodies by the colonial state.

The body, as an important site of sounding power relations, experiences sound as a disciplining and regulating force. While the sound of the bells are meant to reverberate with colonial authority and power, they have also been foundational in the exploitation of labor. As Mark M. Smith (2007) points out in *Sensing the Past: Seeing, Hearing, Smelling, Tasting, and Touching in History*, the factory bell has also long been used to assert the temporality of the wage-labor economy and discipline deviant bodies. Wage labor is officially recognized through the wage relation, where people sell their labor power for the means of subsistence. In the context of most people’s working lives, labor is paid by the hour which folds working people into a dialectical conflict with their employers who are always trying to reduce their labor costs either by automating tasks so they can be done more quickly with fewer laborers, or by finding innovative ways to exceed the production of surplus value beyond the eight-hour working day.

The gig economy, mega warehouses, and offshoring are three pertinent examples of capital's voracious appetite for accumulation. While it might not seem like there is an intimate relationship between those who work and those who can't or don't, because capitalism is a totalizing system, this dynamic also impacts the lives of people who are forcibly excluded, or deemed unnecessary, for capitalist production. For example, rather than being an autonomous sphere, the nonprofit industrial complex is shaped overwhelmingly by the goal of re-integrating people into the labor market, or at least keeping them alive until they might be reintegrated. This means that the modes of relation, modes of governing bodies, and ways of determining care and offering services, are stamped by the imperatives of wage labor. Most services, for example, have 9-5 business hours, do not operate on weekends, and have codes of conduct. So while it might seem like people who have been destitute by capital and deemed unnecessary for production might be less disciplined by the temporality of labor, the time scale of the formal economy still shapes the temporal arrangement of their lives. Going to Boyle street on time for a meal, making it within the operating hours of the neighborhood center to have a shower and connecting with a housing worker during their business hours, are all ways in which clock-time (and more specifically, the punch clock) still regulates the lives of people who are otherwise excluded from circuits of production. At camp the dissonance between different ways of living and experiencing time was palpable, and yet, the bells over camp echoed as an ever-present reminder of the dominant euro-western capitalist regime of time.

In a relief camp for unhoused neighbors, many of whom, given the legacy of colonialism, are Indigenous, this auditory time-structure coalesces with different temporalities of camp-life, overscheduled service-time, legacies of colonial violence and resistance, to create place, as the becoming of stories, and timelines, thus far. The bells sound out dissonantly despite their constant and harmonic expression of clock-time, because clock-time doesn't work for people living at Pekiwewin. To return to the hum, and the rhythmic pulsing of place, the bells haunt, but do not define the soundscape of Pekiwewin.

Sound is interconnected

Recognizing sound as situated problematizes the distinction between sounding subjects and objects and the temporal constitutions that construct a linear ontology. A focus on embodiment, as Haraway's situated knowledges requires, honors sound as a co-constitutional process rather

than an event in which an individual listener is an impartial observer of sound as it reverberates through space and time. The listener is always sounding *with* the sonosphere. At a material level, the difficulty of isolating individual sounds from each other as well as the listener's experience of those sounds, parses out the importance of a situated process of sound's materialization.

Recognizing the complex entanglement of sound's intra-active elements, ocular-centric boundaries start to blur. In this blur, we are challenged to contend with our interconnectedness. For example, the hum of the electrical grid connects our houses to one another and to the material generation of electricity whose buzz encompasses the city. On this atomic level, we can grasp the vibrational interconnectivity of our seemingly disparate homes. Similarly, the deep presence of the drone, resounds with the multi-dimensional assertion of power and serves to remind us that we are 'in *this* together', where *this* comes to mean the totality of dialectic power relations and their environmental manifestations.

The porosity of sound was profoundly experienced as I recorded during Covid-19 and while I was at camp. This is from the journal I kept this summer:

Sound is interconnected, weaving together existing and incommensurable worlds, staying not in place, but following you home, or, to be specific, following me home. I live 5 blocks from the former site of Pekiwewin, down in the Rossdale flats. I started recording prior to formation of camp, from the spot in the river valley a few hundred meters from the house. I could hear the sounds of River Valley road; the low level bridge; downtown; across the river; the river down below, and the sky up above. This was a curious encounter in which the encompassing soundscape, experience outside of, and around me, was made intimate through the use of a microphone and earphones. The connectivity between the outer world and my listening body came to represent the plurality of sound as I experienced it through a single timespace slice. The vib-relational qualities of sound were captured by my equipment, transduced through recording, and amplified back out through my headphones all in almost-real time. A kind of double listening occurring, as at once I heard the sound as it met my body, and as it was transduced through the gear.

All of these sounds co-mingled at the site of encounter: not so much travelling to meet me; but picking up, improvising and mingling meaningfully to create a holistic sounding environment. I feel closer to all of it all at once — feeling tingling flesh, my full immersion in the soundscape as it presses against my body. The sound is not just coming at me from around, but

from above and below, it feels thick and viscous, with a constant hum only audible when amplified, but always present and acting on the body. I realize that this is an exercise more of aided hearing and listening than it is recording, or at least that the process of listening while recording, regardless of how the recordings sound, has opened me up to a renewed awareness of the vitality of the sounding world.

I hear movement of the creatures rustling in the grasses, and flitting about just above them, I hear the air being displaced as bikers wiz by, the slamming of doors and a faucet somewhere. I hear all of this simultaneously, amazed at the amount of sonic information I can receive all at once. Because I know the topography and geography of this place, I can locate many of these sounds including ones I have never had access to before, like the sound of my neighbor working in the kitchen. The walls of the buildings around me are muffling, but not containing the sounds and lives they seek to enclose.

As I record elsewhere, within the so-called 'private' space of the home, my backyard, on the stoop, in the living room, I am made aware of the sound-creep, not only of the house emanating outward, but the sounds that I hear from within: both as the structure of this old creaky houses meets the wind and the rain, the flows of electricity and heat, elemental power harnessed to maintain this structure, but also the sounds of traffic, buzzing bees, the river.

One afternoon the power went out, and that hum that I had come to recognize each day during recording dimmed. There was a notable difference of intensity. These networks of electricity that bind our houses together buzz with the frequency of life 'on the grid' and were, for a moment, silenced. I observe this change in ambient electro acoustic vibrations as I note my proximity to the Rossdale Powerplant, which for much of the 20th century, provided over a quarter of Alberta's electricity from coal mined from the North Saskatchewan river valley. All of these flows of energy coalesce herein the Rossdale flats. I wonder about the sonic spectres of this particular extractive and generative enterprise.

All of this as we are negotiating the contagion, being told — sometimes mandated — to stay home; to guard the home from contagion invasion by limiting movement from and into the home. As the last bastion of security against the virus, home is a place of safety, and also of vulnerability. Pretending that people leaving their homes for coffee is the reason for the spread denies how the forced labor of capitalism impedes our daily and intimate routines, while displacing this work of social reproduction to people who work in grocery stores, restaurants,

and care-facilities. As some homes become places of protection from COVID-19, the distinctions between public and private space are always cut by the need to go to work. The home is meant to be a site of containment, you are sick, stay home. You are worried about being sick, stay home. And yet, we all know, this is only possible for those who have a home to retreat to and sick days to call in. (Cowley, personal Journal, 2020)

While the home has become such an important site of intervention during covid, activist-scholar, Nandita Sharma (2020) reminds us of the feminist refrain that the home is not always a safe haven, that the "clearest line [of] transmission [of covid] is from one family member to another." (para. 44) While the state continues to rely on enclosure as the means of containment – the body, the home, the nation — the virus has served as a reminder that we are all connected, even if those connective tissues are toxic, scarred, and strained. It is in the most intimate encounters that we are most vulnerable.

Like "the home," "the voice" is an apparatus that is both deeply intimate and undeniably social. The voice mediates and extends the bodily encounters beyond the supposed closed-circuit of the skin. During the COVID-19 pandemic, voice takes on a particular socio-political intensity as the virus is transmitted through respiratory droplets. Sound, and especially the sound of the voice, has come to be experienced both as a marker of distance and an expression of intimacy. The voice — the culmination of "sounding" organs (Vallee, 2020) — troubles the physical and semiotic boundaries of the body. The blurring of these boundaries are intensified by the relation between communication and touch, in a time when there seems to be an overamplification of the former and an embargo on the latter.

In a time when touch has been limited, the sound of the voice becomes a meaningful expression of intimacy. This is not new, of course. Scientific developments in the 19th century articulated the penetrative nature of sound as it enters the ear canal. According to Stoever, (2016) in the late 19th century "listening became increasingly, thrillingly, and uncomfortably material and erotic, as the notion of being touched by sonic vibrations seemed suddenly more concrete and less metaphorical (p.37)." As Stoever identifies, this exacerbated the sonic color line by further entrenching aural divisions and barriers to "attempt to control the dangerous potential of cross-racial aural traffic" (p.37). The intimate touch of the sound, however, has also been celebrated by Yvon Bonenfant (2010), as a queer practice of listening where the voice "can be understood as a kind of intimate, human generated touch… that can activate reactions in bodies,

literally, by vibrating them" (p.77). In moments when touch has been limited to those in your home, the voice reminds us of the danger *and* desire that saturate the haptic space of the voice and sound more broadly. As our disciplined bodies limit their contact, sound reminds us that we are connected all the same.

In Rossdale during the summer months this sonic connection between the private and the public registers that suture our world unsettled many of the housed neighbors attempting to maintain physical and social distance from Pekiwewin. This, however, was not only about the audible noise coming from camp, but the ideological, social and economic stratification that renders noise intrusive in the first place. Living in a city, you are always exposed to the sounds of urban life that impact the body affectively and physically. For example, sounds of traffic, the Light Rail Transit (LRT), industrial activity, can lead to sustained hearing loss as a result of repeated exposure over time. According to Kate Wagner (2018), the generic sounds of urban life are "loud enough to raise one's blood pressure and heart rate, and cause stress, loss of concentration, and loss of sleep. Sirens are a particularly extreme example of the kind of noise inflicted on people every day: they ring at a sound-pressure level of 120 decibels —a level that corresponds with the human pain threshold, according to the World Health Organization." (para. 5) Quiet, or rather the attenuation of these ennvironmental sounds, has come to be a lucrative commodity for those on the housing market. According to Marie Thompson (2017) in *Beyond Unwanted Sound: Noise, affect and aesthetic moralism*, "personal autonomy and the 'right' to silence often becomes closely aligned with property ownership" where outside sounds are often experienced as a 'invasion' into the private home. (p.106) In addition to the different social and political infrastructure that have aimed to limit sound in particular areas of the city (for example, noise bylaws), modern architecture has responded to make buildings more sound proof rather than interfering with the sounds of modern life, that like all capitalist relations, negatively impact poor and racialized individuals. Sound connects us to and through the capitalist social relations that unevenly distribute bodily pain and constrict social and political agency. Sound is differently materialized through these relations and yet comes into being as an intra-active relationship between the apparatus, material, and the discursive of the settler-colonial world. Sound functions to co-create and maintain social and political boundaries, dialectically formed and dependent on their interconnectivity.

And while sounds from camp were audible from my home, it was also true that the physical and psychological distance between Pekiwewin and my home was transgressed by sounds of camp. As a material-semiotic relationship, sounds that were distinctly "one thing" came to be experienced in the multiplicity of a particular vibrational pattern and its social meaning. For example, during my recording prior to camp I often and easily recognized the sound of a buzzing bee, usually out of view but knowable by its hovering, persistent vibrations. However, after being at Pekiwewin, which was under continual aerial surveillance by the police, the sounds of the bee became indistinguishable from the sounds of the drones overhead. The sounds of bees and the sounds of drones both buzz at a high frequency, usually out of sight, operating as a pre-emptive sound for a potential future threat. Though I was no longer at camp, and back in the environment where the sound of bees were more common, I found it challenging to discern which was what — to unhear the shared frequencies of a natural swarm of bees and the drone. And, this is no accident, drones and other military technology have long been informed by biomimicry – looking to nature for solutions to human problems. Scientists continue to study the complex organization and navigation of bees to make sophisticated drone technology (Cookson, 2020). Cyborg insect drones are not a thing of science fiction, but developed by the United States' military in the 1970s (Leonard, 2007). The sound of the bees and the drone not only come to sound like each other given my experiences at Pekiwewin, but come to sound together in the noise between the supposed 'nature' and 'technology' divide. Neither sound materializes as only the former or the latter, but in the material space between these two reified poles.

Drones further challenge us to think about sounds interconnectivity through their depthful, or vertical sonic presence. Andrea Miller (2019) proposes that drones are part of a larger police and military infrastructure that look to contain and eliminate "perceived threats in an imagined future," (p.86) a process called preemptive policing. Miller proposes a continuum between drone warfare 'elsewhere' and local (in her case, in Atlanta) policing practices that serve as the "racializing infrastructure for settler expansion within the geopolitical borders of the United States." (p.86) The preemption of surveillance is a boundary making project in which racialized and poor people are relegated to "material and imagined zones of environmental carcerality" (p.86): unhoused people's movements are tracked through social services and through their urban cartography; the police monitor "hotspots" of so-called criminal activity, and

unsanctioned encampments are forcibly identified and then destroyed by city workers and police. Miller argues that preemptive policing is a spatial project through which nations look to simultaneously enclose and expand its borders under the guise of threat prevention and counterinsurgency (p.87). These boundary making practices happen on the scale of the nation and their policing of Indigenous sovereignty, and the individual as they move through the city, continually (re) articulating boundaries and borders that enclose, and in enclosing, create inside and the outside of the nation and the nation's subject-body (p.90). According to Miller, "preemption emerges through a dynamic relationship between discourses of scientific precision and a colonial imagination that must perpetually police the threshold whereby racialized future threat may cohere." (92) Drones, in this case, looked to surveil Pekiwewin as a site of resurgence and resurgent potential. Not only do the tactics of preemptive policing scale up, but the perceived threat of assertions of Indigenous sovereignty and police abolition resonate with broader moves against the settler state.

The preemptive policing of the multi-scalar threat of Pekiwewin requires us to think about the dimensions used to contain Pekiwewin's potential. While this includes its horizontal, and territorial containment to a traffic island, the drone introduces the vertical as a dimension of state power: "drones threaten the dominance of linear perspective, maps and landscapes, as a symbol of historical military strategy, and creates vertical lines the transverse the above, underneath and beyond, bringing them into volume and issuing in a different military offensive that employs the timespace dimensionality of place to gain control." (Voegelin, 2019, p.90) The drone lingers above, not so much flying over, as a plane does, but hovering in place. This hovering is experienced as the persistent buzz of the drones that are often heard but not seen. In *Sonic Warfare: Sound, Affect, and the Ecology of Fear*, Steve Goodman (2010) suggests that sound is a fear tactic used by the state to invoke dread through the affective registers of sound. This impacts both the personal and the collective body by creating an "immersive atmosphere or ambience of fear and dread" (p.xi) which produces, as he puts it, a "bad vibe," connecting the material vibration with the affective experience of it, in this case, fear or dread. This is one of the registers on which preemptive policing operates, creating an affective atmosphere, or a bad vibe, an environment of anticipation and dread. In the persistent buzz of the drones that resounds with surveillance, preemptive monitoring and eventual action (that is both once people leave Pekiwewin for the day, and when the city shuts the camp down), the sound of drones contributes

to the creation of a ‘bad vibe’ in which the chronic exposure to psychological and sensory violence leads to the “deterioration of life.” (p.7)

As acoustic ecologist Garth Pine (2019) writes, even the least advanced drone increases “baseline sound pressure levels by at least 20 decibels; when each 6 dB increase means loudness doubles, that means a single drone can make an area eight to twelve times louder.” (para 6) Loudness is compounded by repeat exposure which can lead to hearing damage or loss, anxiety, sleeplessness and a number of other health factors. In essence, sensory weapons “affectively function as noise — they are meant to induce a transformative disruption that… involves a weakening of the targeted body’s capacity to act.” (Thompson, 2017, p.70) Drones are one part of the sonic apparatus that are meant to police social life and make inhospitable social space while impeding an individual or group’s agency to act against the conditions of their exclusion. As Thompson (2017) says “the organization of social space through such tactics — the attraction of certain bodies and the repelling of others according to age and social status – can be thought of as a form of ‘low intensity class warfare.” (p.73) As preemptive policing is meant to do, these tools serve to agitate, unsettle and pre-occupy the population-body that it targets, to prevent participation in collective life and resistance.

Where Thompson’s (2017) argument that sensory weapons are used to attenuate an individual or collective body’s capacity to act, and to “forestall potential futures...by delimiting the possibilities for their emergence,” (p.92) it becomes clear that preemptive policing technologies, sonic or otherwise, are important disciplinary force-relations that protect the status quo. This is true on the level of the city and the nation, both always in relation to colonial claims to land at home and abroad. Preemptive policing not only aims to contain moves for sovereignty, but to open up spaces of colonial expansion.

And while questions of colonial expansion, Indigenous sovereignty, and the return of land to Indigenous nations, are all territorial in their demands, the sonic might help us think through the multidimensionality of such projects. Settler-colonial power is, as articulated by Eve Tuck and K Wayne Yang (2012), always concerned with the “land/water/air/subterranean earth.” (p.5) Land is of primary importance because “the settlers make Indigenous land their new home and source of capital, and also because the disruption of Indigenous relationships to land represents a profound epistemic, ontological, cosmological violence. This violence is not temporally contained in the arrival of the settler but is reasserted each day of occupation.” (p.5)

As Tuck and Yang suggest, Land does not just mean that which you can grab in your hand, but the relations that move both in the air and underground, as well as kinship relationships between the land and Indigenous people. Reading Voegelin (2019) in this context helps us understand the vertical and depthful as a valuable parameter to through which to witness the interconnectivity of sound that exceeds the settler-colonial boundaries of containment (p.94). For Voegelin (2019), sound is a "volume of interconnecting dimensionalities" (p.92), to be understood as viscous and indivisible, abounding with "socio-material simultaneity," of which we are always a part of, not separate from. Attending to depth[3] allows us to move beyond the "surface of the visual" and to understand sound as a co-generative agent in a multi-dimensional place. In other words, sound troubles an ocular-centric, or representational, epistemology which coheres at the edges and through the clear differentiation of objects. An attention to sound, then, is to attend to the interconnectivity between forms of life and forms of social relations.

Nêhiyaw legal scholar Sharon Venne (2007) tells us, in "Treaties Made in Good Faith", included in the Treaty Six-making process was the farming agreement, stating that settlers could farm to the depth of a plough. As Venne states, that was the extent of the agreement, "the resources below the surface, which this concept does not cover, were taken by the colonizers without Indigenous Peoples' consent." (p. 5) The violence of alienating Indigenous people from their land through resource extraction and industry development continues to breach this agreed upon depth, further asserting dominion over the multiple dimensionalities of the land ("Land Back", p.17). While Treaty Six covers land that spans what is known as Alberta and Saskatchewan, it also governs the relationships of depth, including to and beyond the depth of a plough, the air up above and the relationships that bind them all together. Treaty and nêhiyaw worldviews attend to land in its multidimensionality, including sound as an animate and animating aspect of these relationships.

In discussing the sound exhibit, "Uneasy Listening" – a simulation of drone flight over the Federally Administered Tribal Areas of Northwest Pakistan – Voegelin (2019) posits that:

> to grasp this terror of the drone overhead is to grasp the verticality of geography. The incessant circling sound pulls at the sky, the ground and the underground into the

[3] I have complicated the deep in deep listening earlier in this thesis, including its usage by Voegelin. It is important to note, however, that Voegelin's conception of depth includes a critical discussion about the vertical as a power field subject to militarization.

> political domain of a geographical imagination. The above and beneath surface become part of its discourse and challenge its conventional emphasis on horizons and territory as terrain (p.90).

Where the drone looks to assert its affective and visual dominance over the place of its inquiry, the sonic exceeds the state's multi-sensory, multi-pronged approach to policing. The ocular power of drones, that is its ability to see is limited by its inability to hear what is below the surface of the visual. It has been argued that the absence of synchronic sound is one element that contributes to the detachment of the drones live-stream representation of the 'image below' and the liveliness that it surveils (Hussain, 2013). This has led to tremendous violence in Pakistan and elsewhere, with the remote killing of drone targets and the absence of affective accountability. In drones' domestic uses, this detachment functions to further create the divisions that structure our colonial life-worlds. Seeing from above is an ontological claim to know at a distance, disconnected from, to have power over. This is true of military technology, claims to scientific objectivity, and as Annie Goh (2017) argues, traditional sound studies. Donna Haraway (1988) has called this the God trick, where "vision in this technological feast becomes unregulated gluttony; all seems not just mythically about the god trick of seeing everything from nowhere, but to have put the myth into ordinary practice." (p.581) The drones hover, sometimes thousands of feet in the air, seeing but not hearing below, while the targets of the drone can hear and not see the source of its torment. The overhead shot and the absence of sound, does not permit any engagement with the vibrancy of the in-between, nor, as Nasser Hussain (2013) suggests, "does it permit participation in its visual economy [for those being surveilled]. It is the filmic cognate of asymmetric war." (para. 12) Separating the visual from the sonic eliminates the vibratory sinews that connect us and the multi-sensory realities that resonate in the space of our connection.

And yet, sound forces us to think the drone and the below together. It connects these two intentionally detached spaces to each other in its viscous, multi-dimensional presence. In the thickness of sound, that is the depth between the sounding drone and that which it attempts to surveil, we hear connections. These connections are constructive, they constitute the aliveness of all that constitutes the land, the air, subterranean, the relationships between, *and* the desire to dominate such a liveness not only through lateral territory expansion, but the multi-dimensional dominance of interconnected life. As Voegelin (2019) says, "a vertical listening to the in-

between can hear its power lines and give recognition and a voice to those defined in the shadow of its military aim." (p.90) And yet, the inability of the drone to engage sound, allows for expressions of life to resound outside the purview of the drone, life under the multi-dimensional police enforced settler occupation to continue sound out both in opposition to and outside of.

While drones amplifies conditions of preemptive fear, they are part of the larger apparatus that continues to police, monitor and intimidate unhoused and poor people, Indigenous folks, and community organizers. If police cannot enter camp from the road, they can surely from the air, where a vertical assertion of power connects to long held extractive practices of land dispossession, incarceration, and research on and about Indigenous people.

Yet, to better understand our obligations to place, and in particular, place as governed by Treaty Six, requires listening to Indigenous articulations of land based legal traditions. In *Nationhood Interrupted,* Sylvia McAdam (2012) reinforces the importance of land to Treaty: "Indigenous nêhiyaw laws are "written" in the landscapes of the hills, the rocks, the waters, everything in the land tells of our history and our laws...to follow these laws means to follow a sacred life inextricably connected to the earth: one without the other would die." (2012, para 1) According to McAdam (2015), Treaty Six created a relationship between the nêhiyawak and the nation-state of Canada based on nêhiyaw laws indivisible from the land. Thus, to adhere to treaty, means to engage the land as party to the agreement, not a contested property to be allocated to its signatories. To sonically locate oneself on the land and in relation to Treaty means to listen for the interconnectedness of all that vibrates with life and in concert with each other. To hear requires the perceptual body to engage with the sounding environment. To hear not as removed or distanced from the sources of sound, requires a practice of embodiment that shifts perception from one that observes to one that participates.

Sound is political

In hearing the dynamic materialization of sound, it's hard to deny the interconnectedness and indivisibility of sound's composition. By recognizing this material-semiotic production of sound, you begin to hear the way in which power is inflected in the sonic situation. Power works to forcefully impose distinctions between sounds and delineate sounds according to registers of meaning that reflect its ideological and infrastructural demands. Sound is political not only in how it is ascribed meaning, but in its co-creation of political subjects and as a site of collective

power wherein different sounds are possible through the political project of changing social conditions, and the spaces of otherwise sociality. What's at stake in sound is how the world is organized according to boundaries that sound exposes as porous.

Sound is political: it is a force-relation through which the material-semiotic process of settler-colonial worldmaking is shaped, engendering social relations, for example, silence as a form of obedience. Sound structures our material realities: the sounds of industrial development disturb local ecologies and damage the environment. Sound acts on the body: exposure to sound is used as a political weapon and as a tool to condition settler-colonial and capitalist perceptive structures. All of these energies come together in the materialization of sound as a force-relation that shapes and is shaped by the political. Political here, is taken to mean the ongoing organization of collective life, vis a vis the political subject, both as a means of domination by the state, and as a form of collective organizing against that domination. The later part of this definition speaks specifically to the possibility of politics otherwise, or political possibilities wherein politics are about transforming the conditions of the world, and sounding alternative futures. As Karen Barad (2007) echoes Ruth Wilson Gilmore, a politics of possibilities might mean “a way of responsibly imagining and intervening in the configurations of power, that is, intra-actively reconfiguring spacetimematter.” (p.246)

As I have discussed above, the body is a site of discursive, disciplinary power meant to bring into being individuated subjects who can be put to work in service of the nation. This individuation creates and relies on the self-awareness of the individuated being (as separate from others, nature, their labor) to maintain the body as a site of control. As has been argued throughout this thesis, the boundary making project of disciplinary power situates subjectivity as a vital site of political analysis in which we must attend to constant (re)articulation of dichotomies. And, most importantly, we must attend to the work of Indigenous and feminist philosophers who gesture towards the transformative and subversive power of radical relationality that addresses questions of interspecies accountability. As many have argued, and as Donna Haraway (1990) asks, “why should our bodies end at the skin?” (p.220) If sound is considered an extendable organ of the body, vis-a-vis the voice and other sounding bodily processes, it must also be taken into account when considering the body as a site of political contestation. Sound is not a disembodied projection, but is a co-constitutional actor in the body’s production.

The creation and maintenance of the Canadian nation-state relies on the abandonment and incarceration of poor and unhoused people to maintain the stratification of socio-economic organization. This occurs along race and class powerlines, wherein sound is a force-relation that contributes to the formation and maintenance of such categories whereby bodies (individual and social bodies) are ascribed sounding qualities and are permitted or prohibited to sound in particular ways. As Stoever (2015) argues, sound is a critical force through which "subjects (re) produce, apprehend, and resist" the imposition of social hierarchies, racialization and white supremacist settler-colonial violence (p.4).

It is a central claim of this thesis that sound participates in the creation and maintenance of political subjects. This was made clear to me through my research, during which recording came to feel like surveillance. It is important to note here that what felt like and contributes to the apparatus of surveillance and surveillance technology proliferating in the river valley at this time is not the same as surveillance done by the state. It is my belief, though, that the optics and actual practice of doing field recordings in the river valley above and below the common threshold of human hearing is part of a culture of surveillance that renders sounding worlds audible, and thus of interest to the different parties that look to maintain the social order. And while Deep listening aims not to instrumentalize sound, but to engage in a curious encounter with the sonic-un/known, I share the belief, as put forward by Karen Barad (2007) that in measuring, or capturing data, the 'object' of such data (whether intentional or not) is brought into being in a particular way. The act of measuring or recording something, renders certain properties determinate and others necessarily excluded. In this process, things are 'cut' from the recording, so that we might come to know a slice of the interconnected world. All of this happening in the intra-action with the sounding environment, the instrument (recording device), and the person, machine, or institution recording. These boundaries, inclusions and exclusions, are of social and political importance in the production of knowledge, and the use of that knowledge to construct political subjects. This argument is not exclusive to the actual recording of sound, but includes technologically mediated experience of sound, wherein the microphone, or other sense-perception devices, acts as an instrument of engagement, observation, and/or measurement.

The relationship between surveillance and listening through expansive technology materializes in the capture, or recognition, of movement. Herein, the apparatus of settler-colonial

research, intra-actively brings into being the subject of surveillance. This is not solely about the presence of the subject of surveillance, or a recorded sound stamp, but about the modes of sociality made audible and referential. Sounds of shuffles and silences, sound out alongside the open proclamation of leisure, making these sounds come to matter as an extension of one's body when the existence of that body is itself criminalized, as is the case with unhoused people 'loitering' in public space, or camping out in the river valley. These sounds are recorded not only by my microphone, but by noise complaints and by-law tickets, by the police and those deputized by the state to report the 'noise' of abandonment lived out publicly.

What is often deemed unwanted noise is that which is unintelligible to the outside, or in this case, 'inside' world. The concept of noise has long been used to control communities resounding outside their disciplined boundaries. The presence of noise, as Ashon Crawley (2017) states, always requires abatement. The equation of noise with the 'wild', untamed, or uncivilized has long functioned as justification for colonial and white supremacist violence (Crawley; also see Keyes, 2009; Stoever, 2015): "noise, in general, became racialized as the other of Europe, as the other of rationality, as the other of proper." (p.140) As noted by Keyes (2009), colonial expansion involved sonic conquest, where European sounds, for example, through regulating time, the bell mentioned earlier, had the power to transform uncivilized territory into the 'new world' (p.19).

Of course, people learn not only how to hear but how to sound through the perceptive structures of settler-colonialism. Those being tracked adapt to obscure the legibility of their sonic existence, mediating how one sounds happens on the scale of the individual and social body whose vitality is marked as unwanted noise. And yet this noise not only signals different things to different people, but comes to shape the sonic body of life lived outside the registers of respectability. While Pekiwewin was constantly subjected to the sounds of an inhospitable city, it was also policed for the sounds of collectivity that emanated out of it. This is not to romanticize these sounds. Collectivity, in addition to joy and communion, can sound like disagreement, too early in the morning activity, elevated volume in the space of sound's abundance. And yet, Pekiwewin was not permitted this range of sonic collective life afford to people living indoors. At the camp, where sound is itself criminalized, its interpretation used to make the case against sounding bodies, and in a world where obedience equals silence, sound takes an otherwise shape. As has been theorized by many regarding the double-voicedness in African American literature,

Stoever (2015) suggests double-listening as a "sensory framework that enables the encoding and decoding of double address." (p.33) While this might come to mean, as Stoever suggests, learning to detect threat in mundane sounds, it might also mean, the practices of communication, resistance and refusal that sound out against sonic structures of violence (p.35).

In "Otherwise, Ferguson," Ashton Crawley (2014) positions the otherwise as a concept through which to imagine modes of collectivity and black life beyond that which are possible within the parameters of capitalist white supremacy. The otherwise demands freedom from state violence: the police, the carceral system, the colonial state. In *Black Pentecostal Breath*: *The Aesthetics of Possibility,* Crawley (2017) expands on the role of sound, specifically the role of whooping, shouting, noise-making and speaking in tongues in the Black Pentecostal church, in creating other possible worlds and modes of social organization:

> There is a vibration, a sonic event, a sound I want to talk about, but its ongoing movement makes its apprehension both illusory and provisional. Illusory because the thing itself is both given and withheld from view, from earshot. Provisional because it—the vibration, the sonic event, the sound—is not and cannot ever be stilled absolutely. It keeps going, it keeps moving, it is open-ended. It can be felt and detected but remains almost obscure, almost unnoticed. And this for its protection. And this, its gift. of and living into otherwise possibilities...Otherwise, as word—otherwise possibilities, as phrase—announces the fact of infinite alternatives to what is. (p.2)

At camp, this vibration, or, qua McAdam, this continuous and pulsing hum, resonated in the detectable yet obscured practices of communication that would ring out in an echoing chorus across camp at all hours of the day. Words, whistles, sounds communicating a particular sociality that I was not privy to, just as most at camp would not be privy to the sound of Black Pentecostal collectivity. These sounds, what would have been heard as noise to the outside world, resounded with collective and social life at camp, operating as generative noise, communicating on a register audible yet unintelligible to those who have dismissed it as non-sense, racket, unwanted static.

As Gayle Wald (2011) argues in soul vibrations, "bodies resonate together in space through vibrations", in a way taking up, or creating 'room' for bodies otherwise displaced or contained, making that space less alienated and alienable (p.690). By creating a cacophony of voices sounding out across the traffic island, echoing as they join together to create the sonic

field of camp, these sounds served to create Pekiwewin as a ‘room’ or ‘space’ of collectivity. While this was not legible to the outside, and necessarily so, the internal sounds of communion resounded against the attempted foreclosure of meaningful relationship to the land and each other, as expressed in the preemptive policing of camp - an extension of the always present settler-colonial move to distance people from each other and the possibility of a shared future.

In this chapter I have shared multiple examples of how my experience of sound at Pekiwewin informed, and was informed by, feminist, anti-colonial, and Indigenous theories of knowledge production and sound. Through these examples, I have made an attempt to articulate three key points to be considered with attending to the relationship between the materialization of sound and settler colonialism: 1) sound is always situated, becoming in the intra-agential relationships between the material, discursive, and apparatuses of its amplification; 2) sound is porous and indivisible, articulating the interconnectedness between the co-agential relations at play in its materialization; 3) sound is of political importance in critical conversations about settler-colonialism and how to dismantle it. It is my hope that these different claims help articulate the vital connection between sound, power, and settler-colonialism, encouraging an attention to their co-constitutive relationship and the role of sound in imagining and prefiguring otherwise and elsewhere futures.

Chapter Four: Sonic Concepts

In an attempt to imagine a protocol of sonic attunement that attends to the specificities of sound, I reached for sonic concepts through which to engage the complexity of sound and the science of recording. Studying the mechanics of sound and the human manipulation of it through technologies of capture, mixing and mastering – these processes themselves reflective of a colonial and masculinist orientation toward sound – I found the metaphors used to discuss this process of 'capture and manipulation' signalled a desire to attenuate, control, and manifest particular sonic relationships. In attempting to provide a 'clean' recording, many tools of sound engineering seek to manipulate, control, or entirely eliminate sound's wayward tendencies. Thresholds signal the point where allowable deviance is no longer tolerable, dissonance is permitted only so long as it can be incorporated back in the harmonic structure, echoes used for effect, but ultimately eliminated when it signals an elsewhere too far away in the recording, and transduction concerned with how a message is transmitted to communicate a particular message. These processes are both material and social, linked to the way we have come to understand our relationship to sound, and more broadly 'natural' phenomena to be shaped for our use. Intimately connected to the production of knowledge elsewhere, the science of sound permeates our sensory perceptive structures, socio-political discourses, and technologies and practices of world-making.

The study of sound abounds with its own metaphors. These metaphors attempt to make sense of the mathematic complexity of amplification, the diffuseness of sound's expression, and the mechanics of signal processing. These metaphors, as Tara Rodgers and Jonathan Sterne (2011) suggest in the *Poetics of Signal Processing*, provide the dialectical cultural contours that shape how sound is theorized and how sonic technologies are developed in response to the metaphorical understanding of sound. The creation of, and reliance on, these metaphors, as I hope this thesis has demonstrated, is always imbued with power and representative of the conditions of its emergence. The metaphors I have chosen, are, of course, also imbued with power. This is what makes them meaningful tools of critique. Dissonance, for example, is a power-ful foil through which to contend with the national myth of harmonious multi-culturalism, as often heard and experienced through a focus on 'cultural' inclusivity. It also allows us to contend with the fake harmony of reconciliation, by adding a political analysis of the material workings of governmental and procedural reconciliation that contradicts its own claims, hence

the dissonance.

Rodgers and Sterne examine how sonic metaphors about how sound travels emerged at, and are fundamental shaped by, a period of maritime travel and seaward colonial expansion. As they say, “themes of maritime voyage symbolized the promise of scientific exploration to conquer the unknowable, fluid landscapes of sound waves in the furthest reaches of the world and the innermost spaces of the ear.”(p.47) These metaphors are part of a long tradition of sound studies equating sound with a conquerable domain of the ‘natural’ world. As an arm of empiricist science, these metaphors not only contribute to the continuation of colonial expansion in the name of science (even when this expansion is, say, in the name of ‘protected natural areas’), but continues to enforce binaristic divisions between the listener and sound as a lively relation. These maritime metaphors have been foundational in shaping the discourse of sound and the technologies of sound’s recording, where sound and its travel are imagined as waves, currents, and channels to be traversed and mastered by the expert voyager or engineer (p.45). As Rodgers and Sterne conclude, “if we find that audio-technical discourse renders signal processing in terms of masculinist languages of mastery and domination of nature, can we help but wonder after its broader social implications?” (p.49) While metaphors are baked into how we understand sound, and sonic metaphors, such as harmony, noise, and vibe, inform the social lexicon, in a thesis about the material semiotic production of sound, it seems that metaphors have an important function in an investigation of sonic-political discourse. The concepts through which I was thinking sound – dissonance, threshold, echo, and transduction – all resonate as both material and metaphor. Not as two separate utilizations, but coming to be in their co-generative formation. In this chapter, I attempt to play with these concepts to draw out the tensions and the connections between their material manifestation and discursive functions, and to turn the metaphors back on themselves as tool through which to critique the structure that brought them into being and continue to imbue them with power.

Dissonance noun

dis·so·nance | ˈdi-sə-nən(t)s

The absence of consonance, the presence of sonic tension, and instability caused by discordant tones or notes happening at the same time. Dissonance is a relational concept, wherein sounds

are dissonant in their divergence from consonance, or what is heard to be "normal" and "pleasant," and consonance is defined against what is "abnormal" and "unpleasant." In Western music, dissonance is usually used to signal conflict, loss or grief. What is perceived as dissonance changes according to the historical context in which it is heard. Dissonance includes the embodied recognition that something is amiss in the sonic field, often an uncomfortable experience for listeners desiring resolution and restoration of harmony. Dissonance is often considered a necessary part of progression, wherein moments of tension are subsumed into the linear progression of a composition. Dissonance without resolution can agitate and unsettle. Dissonance without resolution is often experienced as noise.

Example Sentences

1.The Canadian state's project of reconciliation aimed to reconcile the dissonance of ongoing settler-colonial violence with the myth of a benevolent nation that has accounted for, and thus transcended, its violent past.

Rather than a rupture, or a crisis of legitimacy, the Truth and Reconciliation Commission both named the violence of residential schools and the process through which a collective 'healing' from such 'historical' atrocities, was to be subsumed back into the project of Canadian nationalism. At "What Comes Next? Political Afterlives of the Truth and Reconciliation Commission," a panel discussion with Glen Coulthard and Rob Nichols, Audra Simpson (2017) suggests that the project of reconciliation is:

> Strategic, cunning, political work...using trauma and pain that has been inflicted upon [Indigenous people], produced by a state as it comes into being, to strategically manage its own life form in the present...reconciliation requires harmonizing, what some theorists call commensurating, reconciling a ledger. I think pain and suffering is not reconcilable with settler sovereignty...the project is simply impossible and yet, irresistible. (9:32).

Part of the strategic mobilization of reconciliation by the Canadian state includes its need to contain Indigenous moves for decolonization and resurgence. The state is interested in performative apologies, not ceding power (Manuel, 2017). As Eve Tuck and K.W. Yang (2012) suggest, reconciliation is part of a structure of settler moves to innocence "that problematically

attempts to reconcile settler guilt and complicity, and rescue settler futurity." (p.1) In "closing the chapter" on residential schools, a supposedly discreet and historical *moment* of colonial violence, the Canadian state has atoned for its past and can look towards a harmonious future while keeping the status quo intact.

The rhetoric of reconciliation employed by the state of Canada has long been heard as dissonant with the ongoing violence of settler-colonialism. In "Reconciliation: The False Promise of Trudeau's Sunny Ways," Martin Lukacs (2019) reminds us that moral pleas to good relations do not equal structural change, as demonstrated in the last decade of Canadian diplomatic relations with Indigenous nations. Lukacs identifies Trudeau's 2018 Recognition and Implementation Indigenous Rights Framework as a document that trades on a discourse of 'equality" to bypass the material question always at hand: land. "What appeared to be a sweeping transformation was, in fact, a skilful technique for managing the status quo: everything would appear to change in order for things to remain the same. It was the changeless change that the Liberals so excelled in."(Lukacs, 2019, para 39) Earlier, in 2015, the Truth and Reconciliation Commission Chair Murray Sinclair pointed out that Stephen Harper's 2008 apology "failed to live up to the promise of the apology", suggesting that the apology was never rooted in a genuine commitment to reconciliation (Barrera, 2015). Daniel Wilson identified a fundamental contradiction in Harper's speech, wherein Harper named the project of assimilation as a harmful wrongdoing with "no place in our country" while continuing to ramp up his assimilation policies in the years that followed. Voting against the Declaration of Rights of Indigenous Peoples, ignoring calls for an inquiry into Missing and Murdered Indigenous Women and Girls, and regularly denying Canada's history of colonialism on an international stage all sound out dissonantly with the claims made in his apology. Wilson, who at the time worked at the Assembly of First Nations, recognized the complexity of this dissonance for the many survivors who had fought hard for a federal apology naming the atrocities of the residential school system. This dissonance, they say, is painful to name, stating that insincere is the kindest word [they] can find." (para 1). As with Harper, Justin Trudeau continues to name his commitment to reconciliation while re-entrenching systemic colonial violence and assimilationist policies. The rhetoric of reconciliation has come to dominate the official discourse around Canada-Indigenous relations, sounding out a dissonant, performative, narrative about a benevolent, apologetic and

reformed nation while refining it's strategies of assimilation and dispossession under the guess of 'equal' rights legislation.

Thus, dissonance might help us think through, for example, the state project of reconciliation that looks to subsume the dissonance of residential schools, through the TRC, in a move to restore harmony in a nation state's attempt to "manage its own life form." (A. Simpson, 2017) However, decolonial, material, calls for land back clash with the performative reconciliation of the Canadian state, resounding with incommenersable dissonance.

2. Decolonization requires land back, a material practice dissonant with settler-futurity.

In Decolonization is not a Metaphor, Eve Tuck and K.W. Yang (2012) propose an ethic of incommensurability wherein solidarity between projects of decolonization and other non-Indigenous social justice projects is always a "strategic and contingent collaboration." They argue that decolonization contains specific and material demands, namely the return of land to the governance and jurisdiction of Indigenous nations, that cannot be conscripted into settler-activism that presupposes a settler future. Decolonization will require the return of land and the collapse of the state things:

> To fully enact an ethic of incommensurability means relinquishing settler futurity, abandoning the hope that settlers may one day be commensurable to Native peoples. It means removing the asterisks, periods, commas, apostrophes, the whereas's, buts, and conditional clauses that punctuate decolonization and underwrite settler innocence. The Native futures, the lives to be lived once the settler nation is gone - these are the unwritten possibilities made possible by an ethic of incommensurability (p.36).

The concept of dissonance might help us sit with the incommensurability of Indigenous and settler futures by unsettling appropriative notions of harmony between civil rights and anti-racist abolition work and Indigenous projects of decolonization. It is in the dissonance between these different world-building projects that we hear the conditional and tedious work of contingent collaboration, wherein the incommensurability of desired futures cannot be reconciled, and yet struggling alongside continues.

Threshold noun

thresh·old | \ ˈthresh-ˌhōld

The point when the loudness, or the gain, of audio becomes too much. Thresholds demarcate a signal's dynamic range, the allowable deviance of an audio signal. Crossing the threshold requires the com/re/pression of the audio signal by a dynamic processing unit. When a signal is too loud, compression looks to contain the signal within certain predetermined values. This can be done manually or through the force of programmed compression that smooths out deviant signals.

Example Sentences

1.The audibility of collective life at Pekiwewin crossed the threshold of allowable deviant sociality.

Under settler-colonialism certain expressions of tension are permissible and even necessary to allow for the dialectical reproduction of the nation-state. However, expressions of Indigenous sovereignty and/or collective life that are antagonistic to the state are tolerable only until they cross the threshold from recoupable to irreconcilable threat. This can be seen in the police repression of Indigenous Land Defenders, for example, at Unist'ot'en and the Tyendinaga blockade, and the tremendous city resources used to shut down Pekiwewin. When life lived otherwise resounds audibly, especially in places like downtown Edmonton, or along the path of a proposed pipeline, its presence sounds out against the ongoing and silencing violence of removal and abandonment that shapes the Canadian nation-state.

The concept of threshold might help us think about what is allowable, even necessary, deviance for a state that supposedly values diversity and democracy, and what must be com/re/pressed to maintain the dynamic range of tolerable and recoupable deviance. This process of subsumption is key to the nationalist project of Canadian democracy and multicultural acceptance that allows the structures of power and discipline to go untouched while honoring the democratic ‘right to dissent’. However, movements that exceed this threshold, that do not further a Canadian multicultural democracy, but threaten to reveal its hypocrisy, are met with violent

repression. That is when movements for decolonization cross over the threshold of allowable deviance, the signal, that cannot be attenuated, is cut from the track all together.

2.Hearing beyond the threshold of average human hearing risks encroaching on sonic worlds sounding otherwise.

With the advanced recording gear that I used for my research, I was able to hear above and below the average threshold of human hearing. This, as I have expressed in my thesis, came to feel like surveillance. Hearing below the threshold of average human hearing raised the ethical question of whether or not listening to that which is otherwise inaudible to me threatens its livelihood, or reifies the settler-colonial imperative to extract information "below the surface of things."

As Dylan Robinson (2020) questions in the conclusion of *Hungry Listening*, might limiting settler's access to the sonic world be an act of refusal that challenges hungry listening? What if, instead of expanding the threshold of settler perception of the sounding world, we limited the "possibilities for perception"? (p.258) In thinking with Robinson, threshold might be useful in recognizing the necessary limitations of our listening positionalities, and the importance of heeding the boundaries of sounding relationships and territories.

Additionally, thresholds might help us think through the ethics of research shaped by colonial ontologies of extraction and penetration. In contending with these questions, thresholds require attending to the ethical limitations of our knowledge production practices. Attending to thresholds in our research aligns with a practice of refusal, not only as a commitment to not making audible for the hungry listener the necessarily inaudible, but in the generative nature of thresholds and what they signify (McGranahan, 2016, p.2).

Transduction verb

trans·duc·tion | \ tran(t)s-ˈdək-shən

From the latin *transducere*, "to lead across, transfer" (Definition of transduce, n.d.); or convert into another form. To alter a signal into corresponding fluctuations in a different form or medium. Transduction includes how a signal changes as it moves across and through different

media/mediums. The modulation of the matter and meaning of a particular signal due to the transmutation of its energetic substance (Helmreich, 2015, p.222). A crossing. The material-semiotic becoming of sound. The materialization of energy into its collective form. The ought into the is.

Example Sentences

1. *The transduction of inaudible vibrations by my recording device made audible sonic worlds vibrating below the average threshold of human hearing.*

For my research I used a digital audio recording device that converts analogue audio signals into digital signals to be stored and manipulated. When the audio signal is played back, through headphones or speakers, it is turned once again into an analogue signal. Meaning, it is transduced from electrical current back into air pressure. Through these multiple different processes, the intra-active relationship between the soundwaves, recording technologies and processes, and the person doing the recording, sound comes into being. The transduction from inaudible air pressure to an electrical current allows for sound to be amplified, distorted, stretched and rearranged. The technologies of transduction always play an active role in the shaping of sound itself, wherein human desires are embedded in the technologies of capture and the conditions of recording, and as many argue, the technologies themselves may exert their own material agencies.

As many who have conceptualized transduction have suggested, technologies of transduction should be broadly understood as the matter, apparatuses, processes and ideologies that connect "between physical and social circuits, flows and fields" and transcend binary distinctions (Henriques, 2003, p.468). From this standpoint, technology includes a microphone and amplifier, the human body, and structures of hungry listening, all of which transduce soundwaves, bringing into being the material-semiotic sounding relation. The importance of this recognition is that sound is understood not as a static object, but as an ongoing process of materialization.

Thinking of transduction in this way asks that we pay attention to the technologies that make sound audible or knowable. This includes the perceptive structures of Robinson's hungry

listening, and the recording technologies, broadly conceived, that are always embedded with the structures of their emergence. Paying attention to the processes and mechanics of crossing attends to the intra-active relationships of materialization that produce knowledge (sonic or otherwise). This approach requires attending to technologies as co-constitution of knowledge, and the power fields in which they emerge, namely, in this thesis, settler-colonialism and capitalism. Transduction also asks us to pay attention to the dissonance that often occurs in the transductive-crossing, wherein different technologies bump up against their own limitations, amplifying the space of contradiction or incommensurability (Helmreich, 2015, p.223)

2.The transduction of the drones' buzz into anticipatory fear is one example of the disciplinary function of surveillance technologies.

In addition to making things audible, transduction can happen across sense perception mechanisms and affective registers. A buzz might be transduced into an ambient environment of dread, or, as Henriques (2003) suggests, the audible beat of a reggae sound system into the kinetic energy of dancing (p.468). Transduction requires attending to that which vibrates below the threshold of human hearing and challenges the audible as the only form of knowing sound. As such, transduction includes non-cochlear body receptivity to vibrations, blurring the divisions between modes of sensory perception, and the division between sound and the listening subject.

Further, Stefan Helmreich (2007), in An Anthropologist Underwater: Immersive soundscapes, submarine cyborgs, and transductive ethnography, proposes a transductive ethnography, arguing that "transduction offers ways of thinking about scales of presence" (p.632). Helmreich suggests that transduction is a useful concept in thinking through the boundaries involved in the creation of knowledge. Transductive ethnography requires us to think about immersion, the sense of presence *within*, not only in sound but in culture. That is, it requires an attention to the "modulating relations that produce insides and outsides, subjects and objects, sensation and sense data… tuning into surroundings and to circumstances that allow resonance, reverberation, echo - sense, in brief, of presence and distance, at scales ranging from individual to collective," (p.622) we must attend to the infrastructure, that is social and cultural infrastructure, especially those that seem self-evident, that produce our sounding environment, to better understand the relational production of social categories of matter and meaning.

Transduction thus helps name the process by which different sounding bodies, or worlds come into contact with each other, transmuting in this co-generative process. It is in these crossings, or transductions, that the ongoing materialization of sound occurs. And yet, while it may be tempting to read the interconnectivity of sound as disappearing the boundaries of subjectivity, Helmreich cautions against the sonic and anthropological impulse towards immersion. Where immersion seeks to embed listener and researcher in the environment of interest, transduction requires that we attend to the boundaries that construct our social relations, a commitment to situated knowledge, and, as follows, critical listening positionality. In attending to the dissonance and thresholds of our transductive technologies we are required to "ask how definitions of subjects, objects, and field emerge in material relations that cannot be modeled in advance," (Helmreich, 2007, p.631)

Transduction might thus help us think through the ways in which the technologies of settler-colonial sense perception mediate the crossings of information and knowledge between mediums and scales of presence. Where interconnectivity of sound, or relational bodies might challenge the colonial distinctions between the material and the social, the object and the subject, transduction requires an attention to the mechanisms through which these boundaries are produced. These boundaries are informative and always relational, requiring us to attend to the production and maintenance of historical categories that form the settler-colonial state.

Echo noun

\ ˈe-(ˌ)kō

The reflection of soundwaves off of a surface. The reverberation and repetition of a sound. A relational encounter between sound and listener, wherein a listener recognizes an echo as repetition of an 'original' sound. An aural marker of spatiality (Blesser & Salter, 2007). A material semiotic relation. The lingering extension of a sonic situation. A haunting.

1.The echoes of sirens in the river valley reverberate with histories of colonial violence and Indigenous resistance.

Echoes are the vibrational afterlives of sounding situations. Where a sounding event might be understood as over, its resonances are continually experienced. Herein, Avery Gordon's (2008) haunting and the ghosts of her *Ghostly Matters*, might help us think about the social implications of such reverberations: "haunting is one way in which abusive systems of power make themselves knowing and their impacts felt in everyday life especially when they are supposedly over and done with (slavery, for instance) or when their oppressive nature is denied (as in free labor or national security)." (p.xvi) Echoes continue to sound out, not separate from, but as a lingering sounding timespace that emanates from and returns to the 'original' sounding situation. The echo makes these reverberations, always already there, audible.

Through its repetitive reverberations, the echo brings forward "repressed or unresolved social violence" (Gordon, 2008, p.xvi) that sound out despite the silencing imperative of "history." While an echo has a spatializing component, that is, it makes known the shape and dynamics of a room, it too can make "home become unfamiliar" through its ghostly vibrations. (Gordon, 2008, p.xvi). As a manifestation of haunting, the sonic spectres of violence made audible in the echo resonate with the not yet over, the slippage of containment. While it might be hard to locate the original source of the echo, its lingering affect is always an extension of a sounding elsewhere making itself heard, however disorienting it is, in the present.

The echo might be a useful concept for theorizing the material-semiotic hauntings of settler-colonialism that resonate affectively, "alter[ing] the experience of being in time, the way we separate the past, the present, and the future." (Gordon, 2008, p.xvi) The echo, a reverberation that asserts an obscured or concealed source is sounding in the present, is in fact, present, making itself known. While settler-colonialism is alive and well in the structures of the settler-state, the echoes of attempted erasure continue to surface. While the burial grounds across from Pekiwewin have been officially marked, the excavation of and disrespect for Indigenous ancestors and ceremony, the archeological and anthropological theft of human remains, and the spectres of colonial violence continue to echo in Rossdale.

2.The echo of Pekiwewin, barely audible but always present, haunted the chambers of city hall.

In the *Political Possibilities of Sound*, Voegelin (2019) thinks alongside Frances Dyson's 'echopraxia', where the 'space of breathing' during the call and response of popular politics (the

echo chamber) offers a moment, or break, from the harmonic monochord of power, to allow for the echo of a different voice to be heard. Where Dyson suggests a 'resistive echoing' that challenges the amplification of the harmonic monochord, Voegelin furthers this assertion and develops an "echography of the inaudible", wherein the echo in the space of the breath is not just responding to, but exceeding, the monochord echo chamber. For Voegelin, this echo sounds with an abundance of political possibilities, not limited to the oppositional of Dyson's echopraxia (p.20-21).

Herein Goh's theorization of a "diffractive methodology of sounding" that takes the echo as a material-semiotic cyborgian figure, suggests that the echo, from a feminist standpoint, requires not only reflection, but diffraction and refraction (p.20). For Goh, the echo is not about "reflecting the same elsewhere," but about the process wherein an echo is a relationship of materialization that includes the listener, their interpretation of the 'original sound', and a diffractive process of hearing the echo elsewhere, or otherwise. In this process, "re-negotiating the subject-object relation in sonic knowledge production" (p.21) is a matter of feminist accountability, both to the agential components of sound, and to the diffractive reading that recognizes that the generation of knowledge is vital to 'worldly configurations' (Barad, 2007, p.91).

This reading of the echo requires attending to the space between breaths as being meaningful and generative of an echoing elsewhere. Where sound is diffracted, not just reflected back in an echo chamber, new, resistive *and* abundant possibilities echo meaningfully, sounding out against the monochord of settler-colonialism. In this way, the echo might help us think about the collective life that refuses to reflect back instantiations of power foisted upon it, and in the diffractive echo, makes space for something otherwise to emerge.

Conclusion

In this thesis I have reflected on how my time at Pekiwewin has shaped my understanding of the relationship between sound, structures of perception, the material-semiotic production of knowledge, and settler-colonialism. What became clear to me — in the collision between my experience of sound at Pekiwewin, and my attempts to record sound elsewhere — was the profound inability to separate the two. Not only did these two seemingly different projects become important to think together, the literal sounds of each 'distinct' space were heard alongside each other, and in their co-constitutional materialization. This coming together of my political commitments and my research intentions, served as a reminder of what it means to be a researcher living in the world, including the always complicated but important ongoing (re)configuration of ethical and social boundaries, and the prioritization of self-determination and sovereignty of those involved in the research. Sound is a deeply social and political force-relation, and must be approached with an attention to all its social, material, ethico-political complexity. Living in a settler-colonial state, this includes grappling with the sonic-sense structures that uphold settler-colonialism and the way in which sound is both instrumental/ized in, and exceeding of settler-colonial violence.

If one thing has become clearer to me over the last year, it is my desire for a politics of critical, deep listening that attends to Dylan Robinson's critical listening positionality *and* Pauline Oliveros' invitation to engage listening a sensuous and meaningful encounter with the sounding world. It is my belief that by attending to, and unsettling, settler-colonial perceptive structures as a part of an engaged listening practice, we might meaningfully include the sonic practices of world-building *otherwise*. This is, to me, an ethico-political project about how we live better together, and how we might work towards dismantling the settler-colonial state.

Coming to understand sound as a situated and interconnected process of materialization not only allows me to wrestle with the question of what sound is, but also why sound matters. Through the concepts of threshold, dissonance, echo and transduction, I have attempted to demonstrate how the sonic, as a material semiotic relation and as a metaphor, requires us to attend to ethico-onto-epistemological questions about how and what comes to matter through the sensory-perceptive structures of settler-colonialism and how these cuts inform settler-colonial violence and resistance to such violence. These questions are paramount in Sound Studies, but

also Digital Humanities, Library and Information Studies, and the Humanities more broadly, where questions about the production and organization of knowledge and the relations of power that structure that production are foundational to our disciplines.

While this thesis was meant to be a sonic research-creation project, it ultimately reflects my attempt to come to terms with a simultaneously devastating and expansive time in my life, and a world on fire. There is so much more that could be done with this project, and it is my hope to continue researching the political possibilities of critical deep listening. In future iterations of this project, I am committed to including sound, or sonic encounters that facilitate an embodied experience of the sonic concepts I have put forward. This might include returning to the recordings of this summer, performance scores, or even protocol, to ask questions about how we might perform a critical, anti-colonial, listening practice. As such, I would love to consider how a recording protocol of refusal, one that tarry's meaningfully with the ethico-political questions of sonic thresholds, might, while restricting access, enable meaningful sonic research.

While recording is one site of refusal's potential intervention into the sounding situation, wherein thresholds, positionality, and presence, might be meaningful concepts to encode into one's recording practice, I would also like to think alongside Karen Recollet about the role that technologies of remix might play in sonic acts of refusal. As Recollet (2016) suggests in her discussion of A I Oh Stomp, Skookum Sound Systems digitally remixed video, "the technologies of the remix—syncopation, layering, duplication—create the slipstream/ between spaces to think through the complications and tensions of what it means to be in radical relationality with multiple scales." (p.101) I am interested in how sound's manipulation might allow us to engage the slipstream of sounding relationships without compromising the sovereignty of sound territories. Engaging an aesthetics of refusal, future iterations of my project might consider remix as a way of troubling (or refusing) the mimetic implications of recording the world as it is, aesthetically intervening to tranduce what the world might be, while also imagining how technologies of remix allow for practices of refusal that obscure and selectively disarticulate sounds as protocol of restricting access to particular sonic encounters. It is my belief that sonic research, including research that records sound, archives sound, and uses sound in performance, is vital to not only witnessing the profound material and social importance of sound, but in challenging colonial epistemological and ontological claims about what and who matters.

And, most meaningfully, going forward, I hope to bring my commitment to a critical, engaged listening to all my sounding relationships, wherein I must continue to resist the settler-colonial impulse to extract, while still being in meaningful, curious, listening relations with this sonic world, and the future sonic worlds I desire to be a part of.

Transduction verb
trans·duc·tion | \ tran(t)s-ˈdək-shən

The ought into the is.

Pekiwewin was shut down by the city and the police. As I write this conclusion, the Edmonton Convention Centre is closing its winter shelter, new variants of Covid -19 have us back in phase one of the lock down, and there are renewed calls to defund EPS. Not much has changed, and yet, Pekiwewin transduced the convergence of need and collective energy into an incredible 110-day space of autonomous, mutual-aid based, communal life that, even if temporary, will continue to echo in the river valley flats and the bodies of anyone who was a part of it.

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